INSTITUTE FOR AGRICULTURE AND TRADE POLICY

Connecting Sustainable Farmers to Hospitals

A Farmer/Producer-Focused Report

By Institute for Agriculture and Trade Policy
and Earth Wise Communications

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Executive Summary

There is ample evidence that hospitals throughout the north central region—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin—are interested in buying food and beverages produced by sustainable farmers/producers (see Key Project-Related Definitions section of this report). Seventy percent of respondents to the Institute for Agriculture and Trade Policy (IATP) 2012 Sustainable Agriculture Research and Education (SARE) project Health Care Collaborator Food Service Survey believe that the purchase and use of sustainable foods is in line with the mission of their hospital.

In 2011, SARE project health care collaborators—Fairview Health Services, Hudson Hospital & Clinics, and Nutrition and Food Services (NFS), and the patient side at the VA Medical Center in St. Cloud, Minnesota spent $6.7 million dollars on food and beverages. The purchases included approximately 800,000 pounds of whole and fresh pre-processed produce, 481,000 pounds of fresh and frozen beef, pork and poultry, 64,000 pounds of cheese, 54,000 pounds of yogurt, 51,000 pounds of cottage cheese, butter, sour cream and cream cheese, 104,000 pounds of liquid eggs, 192,000 shell eggs, and 91,000 gallons of fluid milk. These eight facilities spent similar amounts in 2012.

Veterans Health Administration (VHA) Healthy Diet Guidelines support VA hospital/medical center purchase of sustainable food and beverages, and federal procurement guidelines generally encourage support of small businesses, including farms. The 37 VA hospitals/medical centers in the north central region alone spend an estimated $29.4 million or more each year on food and beverages.

In addition, 136 north central region hospitals have demonstrated their interest in supporting sustainable farmers/producers by signing the Healthy Food in Health Care (HFHC) Pledge and/or taking the Healthier Hospitals Initiative (HHI) Healthier Food Challenge. Combined, these hospitals spent an estimated $74.8 to $220.6 million on food and beverages in 2012, and averaged between $106.3 and $146.5 million, depending on whether staffed beds or average daily census is used.

Together, the 1,493 registered community hospitals, including HFHC Pledge signers and HHI Healthier Food Challenge participants, and VA hospitals/medical centers in the north central U.S. spend an estimated $718 million to 1.3 billion each year on food and beverages.

This long-term potential market is significant. In the near-term however, the potential market is much smaller. How much smaller depends on many of the factors/issues described in Section 2 of this report, but especially the following:

- Whether a hospital has made and strictly adheres to a percentage-based purchasing commitment that limits or discourages non-prime vendor purchases.
- Whether a hospital uses a food service contractor who prohibits direct purchase of products from farms or has onerous requirements for becoming an approved vendor that effectively bar most interested sustainable farmers/producers from selling to a hospital with contractor-managed food service.
- The percentage of a hospital's food and beverage budget that is spent on highly processed and pre-made convenience items and beverages such as coffee, tea, juice, soda, etc.

Despite all this and given the current average annual sales of many of the farmers/producers interested in selling to the hospitals in their community, this information should not prevent interested sustainable farmers/producers from working to access this market. Instead, these farmers/producers are encouraged to take several steps to increase their potential to make sales to hospitals in the near-term, including but not limited to:

- Targeting potential hospital customers based on their size and the farm/operation's size/current production capacity—keeping in mind that about 50 percent of north central region hospitals are in rural areas and most of those hospitals have 25 staffed beds or less and even lower numbers of actual patients throughout the year.
- Being proactive about addressing potential food safety concerns: Knowing the local, state, and federal rules and regulations for sales in-state and across state lines and going beyond regulatory requirements, as feasible, to increase hospital confidence in products, e.g., developing an on-farm food safety plan or, if selling fresh produce, completing a USDA Good Agricultural Practices (GAPs) training program and maintaining a copy of the certificate of completion.

- Being proactive in education and marketing to hospitals: Assuring that the farm/operation website and other marketing resources include information on steps taken to address food safety, such as training, food safety plans, how and where food items are processed, e.g., state-inspected plant, USDA-inspected plant, licensed commercial kitchen; include information on any products the farm/operation is particularly interested in selling to hospitals and who they should contact to set up a meeting and/or farm tour; highlighting low-prep and food-prep neutral items that can be more easily incorporated into hospital food service and keep their need for additional labor, equipment, etc.

Interested sustainable farmers/producers can use the IATP Sustainable Farm to Hospital Toolkit resources created through this project to help them better understand and access this market. These resources are available at www.iatp.org/ farm-to-hospital.

Acronyms

ADC	Average daily census
AHA	American Hospital Association
AHF	Association for Healthcare Foodservice
BA	Bachelor of Arts
BLBW	Buy Local, Buy Wisconsin
BS	Bachelor of Science
F&B	Food and beverage
FDA	Food and Drug Administration
FFA	Future Farmers of America
GEMS	Green Environmental Management Strategies
GGHC	Green Guide for Health Care
GPO	Group purchasing organization
HCWH	Health Care Without Harm
HFHC	Healthy Food in Health Care
HHI	Healthier Hospitals Initiative
IATP	Institute for Agriculture and Trade Policy
LSP	Land Stewardship Project
MEd	Master of Education
MPH	Master of Public Health
MPNA	Master of Public and Nonprofit Administration
NFAC	National Field Advisory Council
NFS	Nutrition and Food Service
rBGH	Recombinant bovine growth hormone
RD	Registered Dietitian
rBST	Recombinant bovine somatotropin
SARE	Sustainable Agriculture Research and Education
SPV	Subsistence Prime Vendor
USDA	United States Department of Agriculture
VAMC	Veterans Affairs Medical Center
VCS	Veterans Canteen Service
VHA	Veterans Health Administration
VISN	Veteran Integrated Service Network

Key Project-Related Definitions

FARMER

A farmer is an individual who materially and substantially participates in the operation of a farm and provides substantial day-to-day labor and management of the farm, consistent with the practices in the country or state where the farm is located.

NOTE: Many farmers own the land on which they grow crops and/or raise food animals, but some do not, so an individual can be a farmer regardless of land ownership. In addition, the farm can be a sole proprietorship, limited liability corporation, or for-profit or non-for-profit corporation.

PRODUCER

The term producer is often used interchangeably with the term farmer. This term is also sometimes used to refer to food manufacturers that take the raw products from farmers and ranchers and make them into food items that they then sell. However, for the purposes of this project, a producer may be a farmer or someone who people may not traditionally consider to be a farmer, such as someone who raises bees for honey (beekeeper), harvests maple syrup from trees or wild rice from rivers and lakes, or cultivates fish or shellfish under controlled conditions for human consumption.

SUSTAINABLE FARMER/ PRODUCER

There is no uniform definition of a sustainable farmer/producer. For this project, Food Service Credit 3 of the Green Guide for Health Care (GGHC) was used as the basis for determining whether a farmer/producer was sustainable. Like all similar definitions, this one is imperfect and was adjusted slightly to meet the needs of this project, so that farmers/producers were considered sustainable if the food they produced and sold was:

- Approved to carry one or more of the following well-known and lesser-known eco-labels—USDA Organic, Fair Trade Certified, Rainforest Alliance Certified, Marine Stewardship Council, Food Alliance Certified, Certified Humane Raised & Handled, Animal Welfare Approved, Protected Harvest, Bird Friendly and Salmon Safe.

  NOTE: Several new eco-labels have been approved since the GGHC was last updated, but since the participating hospitals did not purchase these types of eco-labeled foods, it did not matter whether they were included or not in this definition.

- Approved to carry one or more of the following U.S. Department of Agriculture (USDA) and U.S. Food and Drug Administration (FDA) allowed label claims for applicable product categories: Raised without antibiotics (poultry and meat products), raised without added hormones/no hormones added (beef and lamb), no genetically engineered ingredients (products made from corn, soy, rapeseed or their derivatives), raised without artificial growth hormones, milk used in dairy products comes from cows not treated with recombinant bovine growth hormone (rBGH) or recombinant bovine somatotropin (rBST) (dairy), or (beef, dairy and lamb).

- Grown/raised and processed within a 200-mile radius of the purchasing facility [on local, small and mid-scale farms where farmers are using organic or other sustainable methods to produce food but have not gone to the added expense of obtaining third party certification]. Note: The bracketed portion of this definition was pulled from the supporting text in GGHC FS Credit 3. Without this text hospitals are likely to misapply the mileage portion of the definition either to highly processed food items that are manufactured in their community or to conventionally raised food items, such as turkey, chicken, eggs, beef, cheese, fluid milk, and pork, sold by food companies headquartered in their community. In addition, Health Care Without Harm (HCWH) has since expanded the mileage range to 250 miles.

1. Project Overview

PROJECT DESCRIPTION

There were 5,724 registered hospitals in the U.S. as of 2011,[1] including 1,456 registered community hospitals (non-federal, short-term general and other special hospitals) and 37 VA hospitals/medical centers[2] in the North Central Sustainable Agriculture and Research Education (SARE) region: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.[3,4] These hospitals represent a sizable, yet previously hard to quantify, potential market for sustainable farmers/producers.

In 2001, annual hospital food expenditures were purported to exceed $5 billion, $6 billion when nursing home food purchases are included.[5] The Association for Healthcare Foodservice (AHF) reports the total health care food and beverage market as approximately $12 billion today, but that is the extent of their public reporting on the topic.[6] Thus, one of the goals of this project was a greater understanding of the north central region health care market for sustainable farmers/producers.

In addition, though many hospitals now express an interest in purchasing and serving local and sustainable foods to patients, staff and visitors, and many sustainable farmers and producers are interested in selling to hospitals, this market remains largely untapped. Thus, another goal of this project was to demystify this potential market so that it is straightforward for sustainable farmers and producers to access and to help hospitals become a more significant and growing market for fresh, local, sustainably produced food and beverages.

Toward these ends, the project team with funding from the north central SARE office and the assistance of three health system collaborators and the project advisory committee were able to:

- Conduct a detailed food and beverage procurement analysis for three health systems.
- Use the procurement data collected to extrapolate vital information about the current and potential market for local, sustainable foods in health care settings.
- Survey a subgroup of sustainable farmers and producers in Minnesota and Wisconsin to determine their interest in and experience in selling to hospitals and gather data on products sold and form, processing, distribution, production methods, food safety, insurance carriage and more.
- Convene an advisory committee consisting of hospital collaborator staff, a mix of Minnesota and Wisconsin sustainable farmers and producers with an interest in and/or experience in selling to hospitals, and state agriculture department representatives from Minnesota and Wisconsin.
- Provide the participating health care collaborators with customized roadmaps designed to help them to maximize use of local, sustainably produced food; roadmaps included a detailed local, sustainable purchasing baseline, the ecological health impacts of their purchasing decisions, the health-based rationale for maximizing use of local, sustainably produced food, analysis of their potential for change and detailed recommendations for the ways they can increase their purchases from sustainable farmers and producers and manage costs.
- Develop this report and other associated resources to share the lessons learned, next steps and opportunities with hospitals and sustainable farmers in the North Central SARE region and elsewhere.

PROJECT PARTICIPANTS

Health care collaborators

Three health systems agreed to collaborate on this project: Fairview Health Services (Fairview), Hudson Hospital & Clinics (Hudson Hospital), and VA Medical Center (VAMC) St. Cloud. There are many similarities among hospital food service operations, but each system is also unique in their combination of size, management, supply chain partners, level of commitment to purchasing food from sustainable farmers, experience sourcing sustainable foods and more. Fairview was an early supporter of the project and was the first health system to commit to participating. Hudson

Hospital and VAMC St. Cloud were invited to participate in the project based on the ways in which they complemented the Fairview facilities.

Health care collaborators each appointed two representatives to participate in the project advisory committee, provided detailed food and beverage purchasing data to be shared in aggregated form with the advisory committee and via published project reports, participated in surveys and interviews as needed, and reviewed and commented on other project documents as needed and time permitted. In return, each collaborator received a custom roadmap for maximizing use of local, sustainably produced food and beverages in their food service operations and was paid $3,400 to support data gathering and to provide a written contribution to the final health-care focused report. Each hospital collaborator's roadmap included a detailed local, sustainable purchasing baseline, information on the ecological health impacts of their purchasing decisions, a health-based rationale for maximizing use of local, sustainably produced food, analysis of their potential for change, and detailed recommendations for increasing their purchases from sustainable farmers and producers and managing costs.

NOTE: Most non-collaborator specific information included in the roadmaps has been included in one form or another in this report and/or other published project-related resources.

Fairview

Fairview is the largest system that participated in this project. There are eight hospitals in the Fairview health system including the six whose data was included in this project: Fairview Lakes Medical Center, Fairview Northland Medical Center, Fairview Ridges Hospital, Fairview Southdale Hospital, University of Minnesota Amplatz Children's Hospital and University of Minnesota Medical Center. The smallest hospital of the participating hospitals had 54 licensed (approximately 21 staffed) beds in 2011 and the largest licensed 1105 (487 staffed) beds. Combined Fairview hospitals have 2,530 licensed beds. Fairview has more than 22,000 employees and 3,300 credentialed physicians. Fairview staff manages the patient and retail food service operations at two of the participating hospitals. One of the top three food service companies serving the U.S. health care sector manages the food service operations at the remaining facilities.

Hudson Hospital

Hudson Hospital is an independent, nonprofit, locally-governed, community hospital in Hudson, Wisconsin. They are also part of the HealthPartners Family of Care. In 2011, the hospital had 25 licensed beds (25 staffed) and 277 employees. Hospital staff manages Hudson Hospital's patient and retail food service operations. Hudson Hospital signed the Health Care Without Harm (HCWH) Healthy Food in Health Care (HFHC) Pledge in 2011 and is also participating in the Healthier Hospitals Initiative (HHI) Healthier Food Challenge. In addition, they are committed to an initial goal of spending 15 percent of their annual food budget to source food from local farms.

VAMC St. Cloud

Owned by the U.S. government, VAMC St. Cloud is one of two VA medical centers in Minnesota. It has 388 licensed beds and employs 1,518 people including medical staff. Federal employees manage and operate VAMC St. Cloud's Nutrition and Food Service (NFS) operations (responsible for patient meals), but their retail food service operations (employee café, vending, and catering operations) are managed by Veterans Canteen Service (VCS). In 2011, the average daily patient census was 394, including 209 veterans in long-term care, 140 in mental health, substance abuse, and rehabilitation, and approximately 45 veterans in their adult day care. Each day St. Cloud NFS staff prepared and served approximately 1,100 patient meals. All VA medical centers are encouraged to purchase various local and sustainable food items through the Veterans Health Administration (VHA) Directive 2010-007 Healthy Diet Guidelines adopted in February 2010 and the VHA Going Green Food Service Checklist.

NOTE: Only NFS staff and data from VAMC St. Cloud were included in this project, unless otherwise noted.

Advisory committee

The following members of the Institute for Agriculture and Trade Policy (IATP) SARE project advisory committee participated in a series of roughly bi-monthly, web-based conference calls and two in-person meetings throughout 2012 and 2013:

- Jennifer Conde, Supervisor, Nutrition Care & Café, Hudson Hospital & Clinics
- Teresa Engel, Director, Buy Local, Buy Wisconsin, Wisconsin Department of Agriculture

- Collie Graddick, Consultant, Minnesota Department of Agriculture
- Angela Gross, RD, LD, Director, Nutrition and Food Services, VAMC St. Cloud
- Kristen Huselid, RD, Administrative Dietitian, VAMC St. Cloud
- Jody Lenz, Co-Owner, Threshing Table Farm
- Gary Loew, Co-Owner, LoFam Farm
- Shawn McMartin, Owner, Promise Farm Buffalo
- Wilson Mills, Co-Owner, Circle K Orchard
- John Peterson, Co-Owner, Ferndale Market
- Crystal Saric, MPNA, Sustainability Program Manager, Fairview Health Services
- Brenna Vuong, MPH, Senior Wellness Specialist, Fairview Health Services
- Wesli Waters, Sustainability Coordinator, Fairview Health Services
- Jean Weiler, MEd, RD, Manager, Nutrition Care, Hudson Hospital & Clinics

Core project team roles

Name	Title/Organization	Project Role
Anna Claussen	Director, Rural Strategies, IATP	As the SARE Project Coordinator, Anna helped to recruit non-hospital advisory committee members, facilitated advisory committee calls, and meetings, kept the overall project and budget on track, and much more.
Marie Kulick	Owner, Earth Wise Communications	As the SARE Project Consultant, Marie recruited hospital participants, developed hospital and farmer surveys, collected and analyzed hospital procurement data, wrote three individualized roadmaps for hospital collaborators, developed the agendas for the advisory committee calls, wrote the final project reports and related sustainable farm-to-hospital toolkit resources, and more.
Emily Barker	Program Associate, IATP	Emily helped to create, administer and analyze the farmer/producer surveys, handled logistics for seven advisory committee calls and one in-person meeting, proofed documents and provided other project-based assistance as needed.
Catherine Reagan	Program Assistant, IATP	Catherine handled logistics for two advisory committee calls and one in-person meeting and provided other project-based assistance as needed.

See Appendix A for more information on the advisory committee members, committee meeting topics and project team members.

2. Lessons Learned

KEY LESSONS LEARNED

1. Hospital food service staff are interested in supporting sustainable farmers/producers.

There is ample evidence that hospitals throughout the north central region and their food service staff are interested in buying sustainably produced food and beverages.

SARE project collaborators

The results from the IATP 2012 SARE project Health Care Collaborator Food Service Survey demonstrate that hospital food service employees have a strong interest in their hospital purchasing and serving sustainably produced food and beverages. Specifically, of the food service staff that took the time to complete the survey:

- Seventy percent of respondents believe that the purchase and use of sustainable foods is in line with the mission of their hospital. Only one respondent replied in the negative to this question.
- Most respondents (96.6 percent) were at least somewhat likely to choose food items and meals made with sustainable ingredients over those made with conventional ingredients (see Figure 2.1).
- More than 69 percent were willing to pay at least 10 percent more when asked how much more they might be willing to pay for a typical $5.00 lunch made with sustainable ingredients (see Figure 2.2) and 14 percent were willing to pay at least 25 percent more.
- When asked how frequently their hospital should feature foods made with sustainable ingredients, nearly 43 percent believe that their hospitals should feature foods made with sustainable ingredients daily, and 32.1 percent said one day a week, e.g., farm fresh Fridays.
- Most respondents (82.8 percent) also believe their hospital should prioritize serving sustainable food to patients over staff, if financially necessary. Moreover, while only 6.9 percent of respondents thought that their hospitals should prioritize serving these foods to staff, most (60.0 percent) would like to see more sustainable foods made available via cafeteria meals and vending including "rBGH-free dairy, local fruit/veg, organic dirty dozen at least" also local, sustainable meats and eggs, fair trade coffee and "all organic snacks." They also want more "whole foods" and "more fresh and less processed food."

See Appendix D for more results from this survey.

Figure 2.1—Portion of hospital collaborator respondents who would choose meals made with sustainable food items in the cafeteria over meals made with conventional ingredients

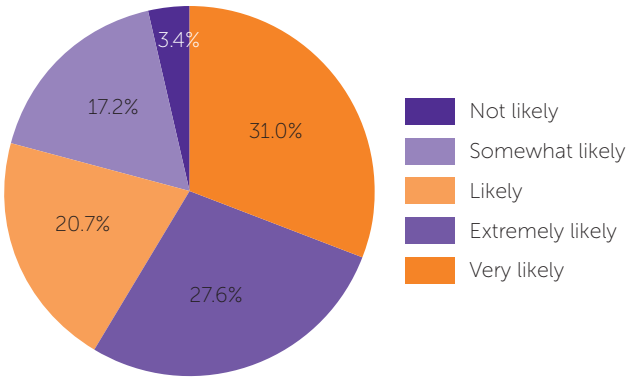
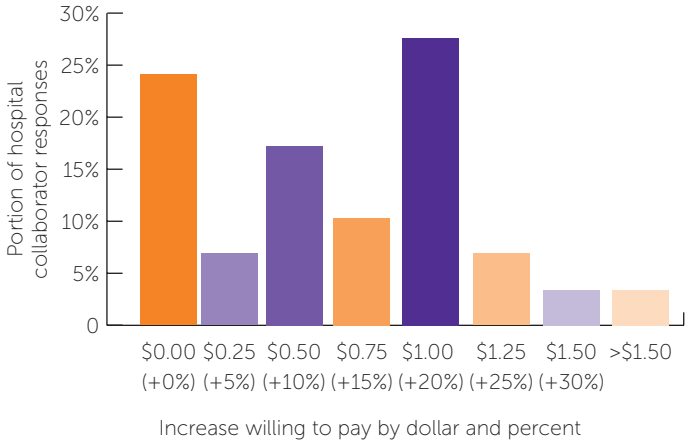


Figure 2.2—Additional cost over $5.00 hospital collaborator respondents would be willing to pay for menu items made with sustainable ingredients



HFHC Pledge Signatories

At least 8 percent of the registered hospitals in the U.S. have signed the HFHC Pledge, a voluntary commitment to work toward several goals including, but not limited to, implementing a stepwise program to identify and adopt sustainable food procurement, and developing a program to promote and source from producers and processors who support sustainable and humane agriculture systems.[7] Of the more than 450 Pledged hospitals and health systems, 28 percent (127) were in North Central SARE Region states as of September 2013. (See Table 2.1 for numbers of north central region Pledge signers by state.) In addition, sustainable farmers/producers can view a list of Pledge signers by region and state at http://www.healthyfoodinhealthcare.org/signers.php?pid=36.

NOTE: Sustainable farmers/producers should view this list as a signal of potential interest on the part of the hospitals listed, not a guarantee.

Table 2.1—Number of HFHC Pledge Signers in North Central SARE Region States (listed alphabetically)

Illinois	20
Indiana	1
Iowa	4
Michigan	37
Minnesota	7
Missouri	3
Ohio	29
Wisconsin	26

Participants in the HHI Healthier Food Challenge

As of September 2013, 29 health systems and 260 hospitals are participating in the HHI Healthier Food Challenge. Fifty-three of these hospitals are located in the North Central SARE region, including Hudson Hospital, one of the three IATP SARE project collaborators. At least a portion of these hospitals are working to achieve percentage-based goals for local and/or sustainable food procurement: 20 percent increase annually over a baseline year or 15 percent of total food dollar purchases within three years.[8] Sustainable farmers/producers can search for hospitals that have signed up for the Healthier Food Challenge at http://healthierhospitals.org/about-hhi/participating-hospitals. Note: Sustainable farmers/producers should view this list as a signal of potential interest on the part of the hospitals listed, not a guarantee.

VHA initiatives

- **HEALTHY DIET GUIDELINES**: Only one VA medical center (VAMC) has signed the HFHC Pledge VAMC Martinsburg in West Virginia, and no VA medical center has signed up for the HHI Healthy Food Challenge. However, VHA adopted its own Healthy Diet Guidelines, VHA Directive 2010-007, in February 2010. The guidelines provide a framework within which VA medical centers are encouraged to increase purchase of local, sustainable food and beverages.

- **GOING GREEN FOOD SERVICE CHECKLIST**: The VHA Going Green Food Service Checklist, developed by the VHA NFS National Field Advisory Council (NFAC) GEMS Subcommittee, provides a complementary framework within which VA medical centers can work to increase their purchase of local, sustainable food and beverages while implementing other strategies to improve the sustainability of its food service operations. The Checklist covers a range of issues including service of sustainable food and beverages. Food and beverage procurement-related checklist items include but are not limited to the related implementation strategies in the VHA Healthy Diet Food Model. The checklist also includes tasks such as identifying short and long-term goals and planning and measuring progress. It also suggests that VA facilities make a "subjective baseline assessment of their operations' present sustainability status."

More on the VHA Healthy Diet Guidelines

The directive includes a healthy food policy statement, a list of actions to be taken by VA staff at both the national and facility level including a statement that "the facility Director is responsible for providing adequate resources to support changes in food service operations for implementation of VHA healthy diet principles at the facility level," and a model with implementation strategies by venue, i.e., patient food service, cafeteria, vending. Note: The model is embedded as a PDF document in Attachment A of the directive.

Purchase of local, sustainable products is specifically included under the eighth listed weekly average nutrient goal "Green Environmental Management Strategies (GEMS)." Guidelines are to "include fresh seasonal fruit and produce in menu cycle. Source local produce and bread vendors[...]As able, source products that reduce exposure to chemicals, hormones and nontherapeutic antibiotics." Suggested patient side implementation strategies include the following:

- Purchase seasonal produce from local farmers.
- Source hormone-free milk, meat and poultry raised without nontherapeutic antibiotics.
- Source fish from sustainable fisheries.
- Source fair trade certified coffee and tea.

2. Hospitals represent a significant potential market for sustainable farmers/producers.

Region overall

Based on the data submitted by this project's health care collaborators and data gleaned from other sources it is estimated that north central region community hospitals spent between $689 million and $1.3 billion on food and beverages in 2012, and that north central region VA hospitals/medical centers spent at least $29.4 million on food and beverage expenses in 2012 and likely more since the VA estimates are based on FY 2010 data.

The potential market will vary considerably between states depending on the number of hospitals in each state and the size of those hospitals. See Table 2.2 for a breakdown of north central region community hospitals and VA hospitals/medical centers by state and size per staffed beds. See Appendices B and C.

HFHC Pledge Signers/Healthier Food Challenge participants

Combined, the 136 north central region HFHC Pledge signers and HHI Healthier Food Challenge participants spent an estimated $74.8 to $220.6 million on food and beverages in 2012, and averaged between $106.3 and $146.5 million. Eighteen of these hospitals completed the 2013 HCWH HFHC survey and provided procurement data for 2012.[12] Combined these 18 hospitals reported spending $33.7 million on food and beverages for their facilities in 2012.

Table 2.2—North Central Region Registered Community Hospitals and VA Hospitals/Medical Centers by State and Size[9,10,11]

	Staffed beds								
State	6–24	25–49	50–99	100–199	200–299	300–399	400–499	500+	State totals
Illinois	11	36	32	52	26	19	9	8	193
Indiana	5	40	30	24	15	5	3	6	128
Iowa	19	48	28	10	7	5	1	2	120
Kansas	20	51	38	14	7	2	0	3	135
Michigan	13	45	30	22	18	15	5	10	158
Minnesota	23	29	34	29	4	8	4	3	134
Missouri	8	40	20	23	12	10	5	6	124
Nebraska	24	25	20	9	6	2	1	1	88
North Dakota	13	14	8	2	3	0	1	1	42
Ohio	2	47	33	40	29	13	9	14	187
South Dakota	19	12	11	7	2	3	2	0	56
Wisconsin	15	36	33	22	11	8	1	2	128
Combined	172	423	317	254	140	190	41	56	1,493

Summary of North Central Region Hospital Data from the 2013 HCWH HFHC Survey

Table 2.3—State-based Breakdown of 2012 Data Reported by North Central Region Hospital Respondents via the 2013 HCWH HFHC Survey[14]

State	Number of hospitals reporting	Total 2012 F&B expenditures	Total beds	Total patient/ resident meals served in 2012	Total cafeteria meals served in 2012
Illinois	4	$6.0 million	1,395	538,375	1,553,075
Michigan	11	$21.8 million	4,280	3,847,100	10,335,340
Minnesota	1	$1.3 million	247	146,000	438,000
Ohio	2	$3.2 million	1,050	492,750	1,204,500
Wisconsin	2	$1.4 million	350	171,915	591,665
Totals	**18**	**$33.7 million**	**7,322**	**5,196,140**	**14,122,580**

Among all North Central region 2013 HFHC survey respondents:

- 70 percent (14 of 20) managed food service in-house; 30 percent (6 of 20) outsourced food service management.
- The portion of total food and beverages purchased in 2012 that was sustainable[15] ranged from 2 to 15 percent, with the average being 10.3 percent; 30 percent of the hospitals purchasing sustainable products bought at least some of the sustainable products directly from farms, ranches, farmer cooperatives or food hubs.
- The portion of total food and beverages purchased in 2012 that were local (per GGHC Food Service Credit 3 and the new HCWH 250-mile radius), ranged from 8 to 38 percent, with the average being 19.2 percent.
- 90 percent of the hospitals that purchased local food and beverage items bought at least some portion of these products directly from farms, ranches, farmer cooperatives or food hubs and among these hospitals:
  - 54.5 percent served at least a portion of these items to patients. However, in many instances, most, if not all of these items were used in non-patient meals.
  - 72.3 percent manage their food service in-house.
  - Produce was the type of food most widely purchased directly from farms, etc., but a few hospitals purchased milk, cheese, and other dairy products, as well as beef, chicken and pork directly from farms.[16]

They have 7,322 staffed beds total–ranging in size from 23 to 1070, and more than 40,000 employees.[13] See Table 2.3 in the sidebar for a breakout by state.

SARE project health care collaborators

Annual food and beverage expenditures

The SARE project health care collaborators spent more than $6.7 million dollars combined on food and beverage items in 2011 (not including VAMC St. Cloud retail operations procurement data, which would likely bring the total to $7 million). See Table 2.4 for further breakdown by major product category. The eight participating hospitals range in size from 25 to 815 staffed beds and serve collectively about 3 million meals per year to patients, staff, and visitors.

NOTE: These facilities spent similar amounts in 2012.

Table 2.4—Combined 2011 Food and Beverage (F&B) Procurement Data by Major Product Category (ranked by dollar value)

Product Category	Dollar Value	Portion of All F&B Purchases
Grocery[17]	$2,279,050	33.85 percent
Meat, Poultry & Seafood[18]	$1,670,234	24.81 percent
Produce[19]	$1,152,697	17.12 percent
Dairy[20]	$988,532	14.29 percent
Beverages (non-dairy)	$642,869	9.55 percent
Total food & beverage purchases	**$6,733,382**	

Volumes purchased

Project collaborator 2011 purchases included approximately 800,000 pounds of whole and fresh pre-processed produce, 481,000 pounds of fresh and frozen beef, pork, and poultry, 64,000 pounds of cheese, 54,000 pounds of yogurt, 51,000 pounds of cottage cheese, butter, sour cream and cream cheese, 104,000 pounds of liquid eggs, 192,000 shell eggs, and 91,000 gallons of fluid milk.

Sources

Most of the food and beverage items (88.8 percent) were purchased from a primary vendor/mainline distributor; 5.6 percent from a regional or specialty distributor; 5.3 percent from a dairy supplier, 0.3 percent from a bread supplier; and less than 0.1 percent directly from farmers/producers.

Sustainable purchases

Of the amount these hospitals spent on food and beverages in 2011, less than 6 percent was grown or raised by a sustainable farmer/producer—99.6 percent ($377,266) on sustainable food and beverage items purchased through a distributor or other supplier and 0.4 percent ($1,658) on items purchased directly from a sustainable farmer/producer. The greatest portion of the collaborators' combined sustainable purchases was in the dairy category, followed by grocery and produce (see Table 2.5).[21]

Table 2.5—Collaborator's Combined 2011 Sustainable F&B purchases (by major category)

Major Category	$ value of sustainable items	$ value of all F&B purchases	Portion of purchases in category
Dairy	$362,461	$988,532	36.7 percent
Produce	$14,189	$1,152,697	1.2 percent
Grocery	$2,246	$2,279,050	0.0 percent
Beverages (non-dairy)	$27	$642,869	0.0 percent
Meat, poultry, seafood	$0	$1,670,234	0.0 percent

See Appendix B for a more complete breakdown of the SARE project collaborator data.

Grocery

As shown in Table 2.4, the largest portion of the project collaborators' combined food and beverage dollars went toward items in the grocery category. The grocery category typically includes dry and canned/shelf stable items and most pre-made or pre-cooked refrigerated and frozen items. Frozen, canned and dried produce are often reported under this category in distributor reports, but for the purposes of this project were counted under Produce. Otherwise, most of the food items in this category are multi-ingredient products sold by food manufacturers, not farmers/producers. Hospitals can still support sustainable farmers/producers by purchasing USDA Organic, Non-GMO Project Verified, and other eco-labeled grocery items from their current supply chain partners, but only a few types of items are likely to be produced and sold by sustainable farmers/producers located within 200-250 miles of their facilities—flour, corn meal, honey, maple syrup, nuts, and dried legumes. Note: Grocery expenditures were consistently the highest among all eight hospitals, but ranking of the other major categories varied.

Beverages (non-dairy)

Approximately 41 percent of the project collaborators 2011 beverage dollars went toward coffee and tea, another 41 percent went toward juice, and juice concentrates. The remainder went toward soda and soda concentrates, cocoa and other dry drink mixes, and bottled water. Other than apple cider, these items are not typically produced and sold by sustainable farmers/producers in the north central region. As with grocery items, hospitals can still support sustainable farmers/producers by purchasing USDA Organic and other eco-labeled beverage items from their current supply chain partners. However, in the near-term, and perhaps even in the longer term, this segment of the health care market is likely to remain untapped by individuals or groups of sustainable farmers/producers in the north central region who are interested in selling to hospitals in their communities.

Meat, poultry, farmed seafood, produce, and dairy

The market for specific products within these categories will vary, but overall and in the near-term, sale of these types of products represent the largest potential market for sustainable farmers/producers interested in selling to hospitals in their communities. See Tables 2.6-2.8 for a comparison of the combined demand represented by the SARE project health care collaborators and current production levels represented by 26 of the 33 farmers/producers interested in selling produce, meat, poultry, seafood, and/or select dairy products to hospitals in Minnesota and western Wisconsin. Note: Volumes do not included those produced by a co-operative that expressed interest.

Table 2.6—Comparison of Hospital Demand to Product Availability Via Interested Farmers/Producers for Select Dairy Items

Product Category	Volume purchased by SARE Project Collaborators in 2011	Volume produced in most recent year by interested farmers/producers
Fluid milk	90,795 gallons	578,000 gallons
Cream	Included w/ fluid milk	3,000 gallons
Butter	9,800 pounds	300 lbs.
Cheese	64,000 pounds	45,000 lbs.
Eggs, shell	16,161 dozen	9,380-10,880 dozen
Eggs, liquid	104,000 pounds	None

Table 2.7—Comparison of Hospital Demand to Product Availability Via Interested Farmers/Producers for Fresh, Produce

Product Category	Volume purchased by SARE Project Collaborators in 2011	Volume produced in most recent year by interested farmers/producers	Largest volume items purchased by these hospitals and sold by these farmers/producers
Fruits (fresh)	193,000 lbs. (whole)	3,200,180 pounds (mostly apples)	■ Apples (27,051lbs.) ■ Melons (10,228+lbs.) ■ Berries (9,735 lbs.)
	53,000 lbs. (pre-processed)	Some pre-processed product is available, but not reported separately	■ Melons (35,810+ lbs.) ■ Strawberries (3,229 lbs.) ■ Apples (120 lbs.)
Vegetables (fresh)	310,000 lbs. (whole)	903,450 pounds	■ Tomatoes (233,226 lbs.) ■ Potatoes (38,335 lbs.) ■ Lettuce (7,317 lbs.) ■ Cucumbers (4,035 lbs.) ■ Summer squash (4,937 lbs.)
	240,000 lbs. (pre-processed)	Some pre-processed vegetables are available via other interested farmers/producers and producer groups but very few interested farmers currently have pre-processing capability	■ Lettuce/salad mix (78,766 lbs.) ■ Onions (28,598 lbs. ■ Potatoes (23,750 lbs.) ■ Carrots (20,045 lbs.) ■ Tomatoes (15,140 lbs.)
Herbs (fresh)	900 lbs. (whole)	10,527 pounds	■ Basil (196 lbs.) ■ Parsley (192 lbs.) ■ Cilantro (104 lbs.)
	<100 lbs.	Some pre-processed herbs are available via other interested farmers/producers and producer groups	■ Parsley (64 lbs.)

Table 2.8 Comparison of Hospital Demand to Product Availability Via Interested Farmers/Producers for Meat, Poultry, and Seafood

Product Category	Volume purchased by SARE Project Collaborators in 2011	Volume produced in most recent year by interested farmers/producers	Largest volume items purchased by these hospitals	Products Farmers/ Producers Most Interested in Selling
Beef	169,965 lbs.	3,040,000 lbs. (processed weight)	■ Patties, most 5.33-ounce (51,000 lbs.) ■ Ground (21,000 lbs.-fresh and 15,000 lbs. frozen) ■ Roasts (43,000 lbs.) ■ Diced (13,000 lbs. frozen & 3,000 lbs. fresh)	Any, ground beef, stew meat, roasts
Bison	48 lbs.	24,000 lbs. (processed weight)	■ Patty 3:1 frozen	Trim, grind, rounds, ground, stew roasts
Chicken	172,080 lbs.	18,900 birds	■ 4,5 and 8-ounce BLSL, raw frozen breasts (55,000 lbs.) ■ Uncooked, breaded tender-loins, frozen (37,000 lbs.) ■ Diced, cooked (13,000 lbs.)	Any, whole birds
Fish	32,270 pounds (all seafood)	60,000 lbs. (processed weight)	■ Tilapia (3,680 lbs.) ■ Trout (220 lbs.)	Farmed tilapia and trout
Pork	80,592 lbs.	16,300 lbs. (processed weight)	■ Loins and pork shoulders ■ Diced (3,100 lbs.) ■ Ground (150 lbs.);	Ground pork, stew meat, whole hog
Turkey	58,418 lbs.	180,025 birds	■ Breast (42,000 lbs.) ■ Ground, raw, frozen (7,000 lbs.)	Any, whole birds

Rural and urban, big and small

Roughly, half of all north central region hospitals are located in urban areas, including most VA hospitals/medical centers and 49.5 percent of registered community hospitals. The remainder, just over half of all registered community hospitals (50.5 percent) are located in rural areas. Rural hospitals tend to have much lower-patient volumes than urban hospitals. Nearly half of all rural hospitals have 25 or fewer beds,22 while urban hospitals tend to have 100 beds or more. Nearly 62 percent of the community hospitals and 27 percent of the VA hospitals/medical centers in the north central region had 99 or fewer staffed beds, as of 2011. Thus, the volume needs of most rural hospitals vary considerably from the needs of larger, urban hospitals. See Table 2.9 for a comparison of the volume needs represented by a rural hospital versus an urban hospital (composites using data from similarly sized facilities among the SARE project health care collaborators).

Table 2.9—Comparison of Demand Represented by a Rural Hospital and an Urban Hospital

Geographic area	Rural	Urban
Number of Staff Beds	25	800
Average Daily Census	15	500
Number of Employees	300	6000
Product Type	**Volume purchased annually**	**Volume purchased annually**
Beef	1,411 pounds	43,683pounds
Chicken	2,922 pounds	51,575 pounds
Pork	717 pounds	22,858 pounds
Turkey	900 pounds	14,423 pounds
Seafood	838 pounds	8,804 pounds
Produce, fresh, whole	7,949 pounds	70,327 pounds
Produce, fresh, pre-processed	8,009 pounds	89,698 pounds
Produce, frozen	1,707 pounds	20,792 pounds
Fluid milk	1,100 pounds	22,150 pounds
Eggs	750 dozen shell; 1,100 pounds processed	4,814 dozen shell; 28,583 pounds liquid
Butter	721 pounds	2,945 pounds
Cheese	2,408 pounds	19,593 pounds

3. Sustainable farmers/producers face two key yet surmountable challenges in selling their products to hospitals

There are several key challenges that sustainable farmers/producers can face in attempting to sell their products to hospitals. They are all surmountable with patience and over time, but in the near-term, they can diminish the health care market for sustainable foods. These challenges can make it both difficult for an individual or group of sustainable farmers/producers to establish procurement relationships with a hospital/health system, and for a hospital/health system to purchase sustainably produced items through their existing supply chain partners.

Business as usual

More often than not, hospitals prefer to purchase their food and beverage items, including any sustainably produced items, through their existing distributor and supplier relationships. When asked what they would need or want in order to incorporate more sustainable ingredients in menus, the largest percentage of SARE project food service survey respondents (75 percent), said "information on availability via distributors." Often this need/desire relates to one or more of the following key issues:

- **PERCENTAGE BASED INCENTIVES/VOLUNTARY AND CONTRACTUAL COMMITMENTS**—Many hospitals commit themselves to purchasing a significant percentage of their annual food service-related items from their mainline distributor, generally 80 to 85 percent. In making these commitments, hospitals limit their ability to purchase from sources other than their mainline distributors. They make these commitments via their relationships with one or more group purchasing organizations (GPO).

  A GPO may contract with one or more distributors on behalf of their members or they may negotiate a contract between a hospital/health system and a mainline distributor. GPO contracts are usually in place for a set period of years with options for extension. Despite the commitments, a hospital's food service staff usually has the ability to purchase items outside these relationships, if they want to do so and/or have C-Suite support for doing so. For instance, 75 percent the 2013 HFHC north central region survey respondents who purchased directly from farmers/producers in 2012 were each members of a GPO.

NOTE: Eighty percent of north central region registered community hospitals are in a GPO.[23] In addition, VHA serves as the GPO for VA medical centers.

- **VOLUME-BASED INCENTIVES**: Hospitals typically receive volume-based discounts or rebates linked to purchase of certain brands of products in key product categories, such as chicken, coffee and yogurt. These rebates are in addition to discounts based on the dollar value of their purchases through their mainline distributor. Thus, a hospital can risk serious increases in their annual food costs, if they do nothing to offset this change when they start buying a significant percentage of their annual food budget directly from sustainable farmers/producers.

- **CONFIDENCE/TRUST**: Hospitals are more likely to prepare and serve meals to people with compromised immune systems, so it is important for hospital purchasers to feel confident that what they serve patients will not lead to further illness. Unfortunately, there is to some degree a perception that it can be risky to purchase food from sources other their previously vetted suppliers.

Out-sourced food service management

- It is hard to come by information on exactly how many and which hospitals outsource management of a portion or all of their food service operations, and to which companies, but it is clear that the percentage will vary from place to place and among different groups of hospitals. AHF, a group that serves self-operating facilities, reports that "self-op facilities represent 80 [percent] of food and beverage purchases in the industry."[24] However, the latest FoodService Director Contractor census indicates that food service contractors are managing at least a portion of food service operations at 3,702 hospitals.[25] This amount represents 64.6 percent of the 5,724 registered hospitals in the U.S. In contrast, FoodService Director's 2103 Healthcare Census, which collected data from 123 U.S. hospitals, found that 78 percent of these hospitals managed food service in-house, 17 percent outsourced management, and 5 percent had split management.[26]

- Among the seven non-VA IATP SARE project health care collaborators, 57.1 percent have their food service operations managed by one of the top three health care contractors—Aramark, Morrison (a division of Compass Group) and Sodexo. Among north central region respondents to the 2013 HFHC survey, 30 percent (6 of 20) outsourced food service management. Half used one of the top three contractors, and the other half used a regional food service contractor—HHA Services. More importantly, of the 2013 HFHC survey respondents who purchased food directly from farmers/producers in 2012, 10 of 12 (83.3 percent) managed their own food service operations and only two used contractors.

- Among north central region VA hospitals/medical centers, 83.8 percent contract with VCS to manage their retail food service operations like cafeterias, catering and vending, while keeping management of patient food operations in-house (run by Federal employees) and 8.1 percent use VCS for patient food as well as retail operations.

- Though some farmer/producers have had success selling to hospitals that have contract food service management, others see food service contractors as a primary impediment to selling to hospitals. Some contractors prohibit the purchase of food directly from farmers, while others have a reputation for facilitating direct purchase of food from sustainable farmers/producers. In either case, it is important to know that food service contractors can affect the ability of farmers/producers to sell to hospitals in their community. Furthermore, sustainable farmers/producers are likely to have greater success in selling to hospitals that operate their own food service operations, or at least a portion, typically patient food operations.

- For instance, Ruth O'Connor, director of nutrition and food services for Cooley Dickinson Hospital in Northampton, Massachusetts, an AHF member, says, "The overall mission of Cooley Dickinson Hospital involves utilizing local and sustainable resources. By being a self operated venue, we can support this mission and the local community by utilizing local beef, local produce, and other resources without being completely locked in to large corporate contracts without flexibility."[27] Another AHF member, Jim Behnke, director of nutrition services for Gwinnett Medical Center in Georgia, is quoted on the AHF website as saying, "I have worked nearly my entire career in Self-OP but have had brief intermittent periods working for a contractor. There are competing goals financially as well as programs. Contractors want you to use their programs and you get in trouble with even slight deviations. In Self-Op, you can truly work with other disciplines in your system/facility to

establish the right processes to serve the patients and other customers."[28]

OTHER LESSONS LEARNED

Farmer-distributor relationships

Among the SARE project farmer/producer survey respondents interested in selling to hospitals, the majority do not currently work with a distributor. When a specific farmer/producer's products were available, it was usually through a regional or specialty distributor and less often through a mainline distributor. Area distributors do carry products from other farmers/producers, but many of them did not complete one of the surveys. Even when products are carried by a distributor, mainline or other, the identity of the farmer/producer can be lost, especially if products from multiple farmers/producers are co-mingled before sale as "local" or "Minnesota Grown."

Sticker shock

It will come as no surprise to many sustainable farmers that hospitals base many of their purchasing decisions on price. Between 69 and 75 percent of SARE project food service survey respondents in charge of menu planning for patient, cafeteria, and/or catering operations, believes that they would need or want an "increased budget" to incorporate more sustainable ingredients into menus. Though there may be times when the price of a sustainable food item is similar to that of the conventionally produced item purchased by a hospital, often the sustainable food item costs more. Like most people, unless an institution sees that there is greater value in purchasing the higher priced item and/or is aware of the various ways to offset the higher prices within an operational context, it may be difficult to make the sale.

Perceptions regarding what is sustainable

Awareness of food systems issues seems to have increased in the health care community. In addition, many hospitals have expressed a desire to procure more sustainable food and beverage items and support farmers in their local communities. Nevertheless, there remains a great deal of confusion around what is "sustainable."

Though survey respondents also selected other attributes when asked how they define sustainable food, 90 percent of collaborator respondents to the food service survey define sustainable food as "locally grown/raised." The next highest ranking attributes included "no added hormones" and "raised without antibiotics" with selection by 70 percent of respondents and "no genetically engineered ingredients" with selection by 60 percent of respondents. Fifty percent or fewer respondents selected one of the third party certifications listed including "USDA Organic." In addition, 90 percent of food service survey respondents define local food as "grown/raised on a farm within a certain distance, e.g., 50, 100 or 200 miles."

This approach meant that, prior to participation in this project, the SARE project collaborators were likely to count as "local" purchases of highly processed food items manufactured within a certain mileage radius and conventionally raised food items, such as turkey, chicken, eggs, etc., processed and sold by large, often multi-national, food companies headquartered within the mileage range. Distributors contribute to this problem by identifying these types of products as "local" in online catalogs and customer purchasing reports.

For instance, one major mainline distributor submitted a report to one of the SARE project health care collaborators that marked 21.7 percent of their 2011 purchases as "local." Among the products the distributor identified as local were:

- Items made from ingredients not even produced in the north central region, such as orange juice and pineapple puree
- Highly processed food items and ingredients, such as maple flavored syrup, margarine, food thickener, nutritional protein supplements, gelatin, pudding mixes, corn chips, potato chips, dough, batter, granola bars and cereal
- Chicken, pork, turkey, egg and dairy products manufactured by national and international corporations
- Water

All of the products marked as "local" were produced by companies with an office or manufacturing facility located within 275 to 300 miles of their distribution center. If a hospital believes these products are sustainable, they may have little incentive to do the work involved in building relationships with sustainable farmers/producers.

In contrast, SARE project farmer/producer survey respondents interested in selling to hospitals think the most important characteristic a hospital should consider when

preferring locally grown foods is "whether certain practices were avoided or used to produce the food/product (e.g., no synthetic pesticides, fertilizers, hormones, antibiotics or genetically engineered ingredients, integrated pest management, etc.). Only 41.7 percent of farmers/producers thought that hospitals should consider "whether the farm or farms are located within a certain number of miles from the hospital" and even less (29.2 percent) thought hospitals should consider the "distance the food/product traveled from the farm(s) to the hospital." See Appendix E for more SARE project farmer/producer survey results.

Farmer/producer marketing and sales

The sustainable farmers/producers that expressed interest, via the SARE project surveys, in selling to hospitals use a variety of methods to market their products. See Table 2.10. Though many use a website to market their products and share basic data such as types of products available, very few include some of the key types of information that would be most useful to a potential institutional customer. See Table 2.11.

Table 2.10—Methods Used to Market Products based on combined results from the two 2013 SARE project farmer/producer surveys

Response Options	Portion of farmer/ producer responses	Number among 23 respondents to the question
Website	60.9 percent	14
Event participation	56.5 percent	13
Social media (Facebook, Twitter, etc.)	56.5 percent	13
Printed materials (brochures, flyers, etc.)	47.8 percent	11
E-newsletter	26.1 percent	6
Print media (newspaper)	26.1 percent	6
Posters	13.0 percent	3
Other (please specify) responses included: ■ Word of mouth/Satisfied customers ■ Farmers markets ■ Donations to local charity events ■ Research ■ Phone calls ■ Networking ■ Email		

Table 2.11—Types of Information Currently on Website based on combined results from the two 2013 SARE project farmer/producer surveys

Response Options	Portion of farmer/ producer responses	Number among 16 respondents to the question
Types of products available	87.5 percent	14
Where/how products can be purchased	81.3 percent	13
Farm or ranch specific info (history, size, etc.)	75 percent	12
Staff or employee specific info (bios, photos, etc.)	43.8 percent	7
Delivery and/or distribution methods	43.8 percent	7
Other growing practices (e.g., Integrated Pest Management)	37.5 percent	6
Names of any current retail, restaurant, institutional customers	37.5 percent	6
Type of processing facility (USDA inspected, state-inspected, etc.)	31.3 percent	5
Distributors that carry product	18.8 percent	3
Certifications held (USDA Organic, Certified Humane, etc.)	18.8 percent	3
Name of facility where foods are processed, if applicable	18.8 percent	3
Specific page/contact info for potential institutional customers	12.5 percent	2
Food safety training and audits completed, if applicable	6.3 percent	1
Types of insurance carried	0 percent	0
Other (please specify) responses included: ■ Program and mission ■ CSA information		

Perceptions regarding product availability

Hospital food service staff members do not seem to be as aware of the potential to purchase products other than produce from sustainable farmers/producers in their area, and see the season for local produce as just a few weeks or months during the summer and early fall.

In addition, the sheer volume of food and beverages purchased by hospitals is significant. Over time, interested sustainable farmers/producers could likely meet the demand if they knew the market was there. However, if tomorrow every hospital in the U.S. decided to buy all of their food from sustainable farmers/producers, it is likely that, for a variety of reasons, there would not be enough. This would be even more likely to be the case if all north central region hospitals decided to purchase the bulk of

their food from sustainable farmers/producers in their nearby communities. However, given that half of the registered community hospitals in the north central region are small, rural hospitals with fewer than 100 staffed beds and most with 25 beds or less, interested sustainable farmers/producers should have an easier time meeting the demand of these hospitals in the short-term.

Perceived lack of resources and lack of experience

Approximately 61 percent of SARE project food service survey respondents responsible for food preparation believe that they would need additional staff to prepare more meals from fresh, whole ingredients from local farms. In reality, hospitals can buy many food-prep neutral items from sustainable farmers/producers but awareness of these items needs to be increased.

In addition, hospital food service employees often have little experience in purchasing food directly from farmers/producers, and may be just as unsure of what steps to take as many farmers/producers are about how to go about selling to hospitals. When relationships are not already in place with sustainable farmers/producers, hospital food service staff may spend considerable time in finding potential farm partners and working out the details of a procurement relationship. Once relationships are in place and purchasing begins, there will likely be kinks to work out and extra communication required to get to the point where everything goes smoothly.

Changes in staff/hospital priorities

Anecdotal evidence suggests that hospitals rarely consider how changes to their food service management and staffing can affect their procurement relationships with sustainable farmers/producers. Because these relationships have tended to be informal and often not on the radar or a priority for upper level management, it is common for direct procurement relationships to end, sometimes without notice, when a hospital hires a major food service company to take over management from hospital staff. Direct procurement relationships with hospitals can also be jeopardized when the one person on the food service staff that has been taking the lead becomes ill for an extended period or leaves.

3. Next Steps and Opportunities

ADJUSTED NORTH CENTRAL REGION HEALTH CARE MARKET

North central region hospitals represent a significant market for all sustainable farmers/producers. However, in the near-term this market is reduced for non-commodity north central region farmers/producers who want to sell to hospitals in their community. How much smaller depends on many of the factors described in Section 2 of this report, but especially the following:

- Whether a hospital has made and strictly adheres to a percentage-based purchasing commitment that limits or discourages non-prime vendor purchases.
- Whether a hospital uses a food service contractor who prohibits direct purchase of products from farms and/or has onerous requirements for becoming an approved vendor that effectively bar most interested sustainable farmers/producers from selling to the hospital with contractor-managed food service.
- The percentage of a hospital's budget that is spent on highly processed and pre-made convenience items and beverages such as coffee, tea, juice, soda, etc.

The first factor has the ability to cap the potential north central region hospital market in the near-term at 20 percent of the dollar values reported previously—$68.9-$130 million instead of $689 million to $1.3 billion for north central region community hospitals and $2.9 million instead of $29.4 million for north central VA hospitals/medical centers. The flexibility that hospitals do have is used typically to purchase fresh produce, bread and bakery items, and fluid milk, but some hospitals have used it to purchase other types of food from farmers/producers. Over time hospitals find ways to work around or reduce these percentage-based commitments to allow for greater procurement of food from sustainable farmers/producers in their communities.

The second factor has the ability to eliminate the market entirely for direct sales or substantially reduce the market depending on the market penetration of the most restrictive contractors in a given geographic area. Some hospitals get around their contractor's limitations by writing the checks to the farmers/producers. Others hire contractors that do not have these types of restrictions, but 95.4 percent of contracted hospital food service accounts are managed by three companies: Compass Group, Sodexo and Aramark.[29]

The third factor caps the overall potential market at approximately 57 percent of that previously reported. This assumes that most hospitals are like the SARE project health care collaborators and spend approximately 43 percent of their budgets on highly processed and pre-made convenience items and beverages such as coffee, tea, juice, soda, etc. (see Table 2.4). In time, hospitals can increase this percentage by preparing more food from scratch.

CONNECTING TO HOSPITALS VIA DISTRIBUTORS AND OTHER SUPPLIERS

Sustainable farmers/producers can take several steps to increase hospital purchase of their products when they are already available via a distributor and that distributor already sells to local hospitals. For instance, farmers/producers should consider doing the following to increase their visibility to potential health care customers:

- Learn as much as they can about how the distributor markets their products and identifies the farmer/producer's products in their on-line ordering systems, e.g., is it by name or a generic identifier such as "local"? If, the latter, the distributor should be encouraged to do more to preserve the identity of the farm throughout the ordering and delivery process. Remember that distributors often try to gain a marketing advantage over their competitors by having at least some products from area farmers/producers available.
- To the extent possible, let hospitals know which of their products are available via which distributors, e.g., include a page on your website just for institutional customers that highlights which distributors carry your products, how to order them, etc.;, add distributor information to flyers and brochures, see if the distributor's hospital sales representatives will hand your flyers to potential health care customers

during times when your products are available, and participate in distributor product expos.

- Work to assure that your products make it to the customer in optimal condition.

For more on the types of challenges hospitals face when trying to identity and procure sustainable foods from their distributors see the IATP Sustainable Farm to Hospital Toolkit resource *Sustainable Food Procurement: Working with Current Supply Chain Partners* at www.iatp.org/ farm-to-hospital.

CONNECTING TO INDIVIDUAL HOSPITALS

Near-term

Sustainable farmers/producers can take several steps to increase their potential to make sales to hospitals:

- Target potential hospital customers based on their size and the farm/operation's production capacity. Keep in mind that about 50 percent of north central region hospitals are in rural areas and most of those hospitals have 25 staffed beds or less and even lower numbers of actual patients throughout the year. There is no hard evidence to point to, but rural hospitals may also be less likely to have contract food service operations.

- Be proactive about addressing potential food safety concerns. Know the local, state and federal rules and regulations for sales in-state and across state lines. A farmer who sells fresh produce should be sure to complete a GAPs training program and maintain a copy of the certificate of completion. Also review the IATP Sustainable Farm to Hospital Toolkit resource *Using Written Protocols to Guide Direct Procurement of Food from Sustainable Farmers to Producers* at www.iatp.org/ farm-to-hospital.

- Be proactive in education and marketing to hospitals. Assure that the farm/operation website and other marketing resources include information on steps taken to address food safety, such as training, food safety plans, how and where food items are processed, e.g., state-inspected plant, USDA-inspected plant, licensed commercial kitchen. Include information on any products the farm/operation is particularly interested in selling to hospitals and who they should contact to set up a meeting and/ or farm tour. Also, consider highlighting low-prep and food-prep neutral items that can be more easily incorporated into hospital food service and keep their need for additional labor, equipment, etc. low.

- Try to work with hospitals on pricing, but do not sell product below cost even for a short period. Instead, help the hospital to understand production costs and look for ways to increase efficiencies that can decrease delivery or other hard costs, such as return of packing materials for reuse.

  Keep in mind that hospital food service employees are under considerable pressure to keep food costs as low as they can, but there are many strategies they can use to manage higher prices on some food items, if a priority. See the IATP Sustainable Farm to Hospital Toolkit resource *Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget* at www.iatp.org/ farm-to-hospital.

- Remember the power of word-of-mouth. Hospital food service employees talk to their counterparts at other hospitals, especially those within their system but also at hospitals that share the same GPO. Lead hospital food and nutrition employees also tend to be registered dieticians (RD) and may share their experiences via local and national professional networks. Thus, positive relationships can lead to referrals and increased business with other hospitals. For this and other reasons, such as capacity building, it may also be most helpful to focus on creating productive relationships with one or two hospitals at first, and expand once these relationships are sound. For more information on hospital food service see the IATP Sustainable Farm to Hospitals Toolkit resource *Hospital Food Purchasing: A Primer for Sustainable Farmers/Producers* at www.iatp.org/ farm-to-hospital.

Longer-term

Engage interested hospitals, especially urban hospitals, when developing food hubs and other aggregation and distribution models.

Endnotes

1. American Hospital Association. Fast Facts on US Hospitals, http://www.aha.org/research/rc/stat-studies/fast-facts.shtml (accessed September 6, 2013).

2. In addition to serving meals to patients, visitors, and personnel, VA medical centers may serve meals to residents in nursing, psychiatric, and drug and alcohol treatment facilities, as well as veterans in adult day care.

3. AHA Hospital Statistics 2013 Edition, Table 5 U.S. Census Division 4: East North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pgs. 38-39.

4. AHA Hospital Statistics 2013 Edition, Table 6 Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011.

5. Marie Kulick. Healthy Food, Healthy Hospitals, Healthy Communities-Stories of Health Care Leaders Bringing Fresher, Healthier Food Choices to Their Patients, Staff and Communities, May 2005, p.3, http://www.healthobservatory.org/library.cfm?refid=72927 (accessed September 15, 2013).

6. Building a Bright Future for Healthcare Foodservice. Association for Healthcare Foodservice, http://healthcarefoodservice.org/about-us (accessed September 26, 2013).

7. Health Care Without Harm, "Take the Pledge for Healthy Food in Health Care," http://org2.democracyinaction.org/o/5140/p/salsa/web/common/public/signup?signup_page_KEY=6554 (accessed February 8, 2013).

8. Healthy Hospitals Initiative, "Healthy Foods," http://healthierhospitals.org/hhi-challenges/healthier-food (accessed February 6, 2013).

9. AHA Hospital Statistics 2013 Edition, Table 5 U.S. Census Division 4: East North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pgs. 38-39.

10. AHA Hospital Statistics 2013 Edition, Table 5 U.S. Census Division 4: West North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pgs. 42-43.

11. SPV-4Attachment A: VA Facility Data frm FY10, Solicitation #VA-797-11-RP-0176 issued October 19, 2011, https://www.fbo.gov/index?s=opportunity&mode=form&id=f905268c5976e9da8b154dce156a677c&tab=core&tabmode=list&= (accessed 10/30/2013).

12. As a founding Health Care Without Harm Healthy Food in Health Care partner and a lead organization in working with north central region hospitals, IATP has access to and is able to report the north central region specific survey data in aggregate.

13. *AHA Guide to the Health Care Field*, 2013 Edition.

14. As a founding Health Care Without Harm Healthy Food in Health Care partner and a lead organization in working with north central region hospitals, IATP has access to and is able to report the north central region specific survey data in aggregate.

15. The percentage of purchases that met two of the GGHC Food Service Credit 3 criteria (third-party certification or approval to use certain USDA/FDA approved label claims).

16. As a founding Health Care Without Harm Healthy Food in Health Care partner and a lead organization in working with north central region hospitals, IATP has access to and is able to report the north central region specific survey data in aggregate.

17. Dry goods, oils and shortening, refrigerated, and frozen items not included in other categories and premade salads.

18. Beef, pork, turkey, chicken, processed meats, specialty meats, meat substitutes and seafood.

19. Fresh whole, fresh pre-processed, dried, canned and frozen.

20. Fluid milk, cheese, cultured items (such as cream cheese, yogurt, sour cream), other dairy (such as butter, ice cream, whipped toppings) and eggs.

21. Food and beverage categories are largely based on those used by US Foods and Sysco Minnesota, the collaborators' prime vendors, but in some instances, purchases were counted under another category to aide in data evaluation for the project overall, e.g., all produce items—fresh, frozen, canned and dried—were counted under "produce" even though they are found under a variety of categories in US Foods and Sysco Minnesota reports.

22. American Hospital Association . "The Opportunities and Challenges for Rural Hospitals in an Era of Health Reform," Trendwatch (April 2011), p.3. http://www.aha.org/research/reports/reports/tw/11apr-tw-rural.pdf (accessed October 13, 2013).

23. AHA Hospital Statistics 2013 Edition, Table 6 Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011.

24. Building a Bright Future for Healthcare Foodservice. Association for Healthcare Foodservice, http://healthcarefoodservice.org/about-us (accessed September 26,2013).

25. Contractor Census 2012. FoodService Director, www.foodservicedirector.com/sites/default/files/2012_Contract_Census_Report_0.pdf (accessed 10/13/2013).

26. 2013 Healthcare Census: Hospitals Uncertain on Impact of Obamacare. FoodService Director, http://www.foodservicedirector.com/trends/research/articles/2013-healthcare-census-hospitals-uncertain-impact-obamacare (accessed September 11, 2013).

27. Testimonials for Self-op. Association for Healthcare Foodservice, http://www.healthcarefoodservice.org/testimonials (accessed October 18, 2013).

28. Testimonials for Self-op. Association for Healthcare Foodservice, http://www.healthcarefoodservice.org/testimonials (accessed October 18, 2013).

29. Contractor Census 2012. FoodService Director, www.foodservicedirector.com/sites/default/files/2012_Contract_Census_Report_0.pdf (accessed 10/13/2013).

Appendix A-Advisory Committee and Project Team Information

(Listed alphabetically)

ADVISORY COMMITTEE MEMBERS

Jennifer Conde, Hudson Hospital & Clinics, Wisconsin

Jennifer Conde is the supervisor for nutrition care and café at Hudson Hospital & Clinics. Prior to working at Hudson Hospital, she worked in college food service for 23 years. Jennifer is involved with the Hudson Hospital community garden, composting food waste from the hospital kitchen, and helping with the nutrition care plot, which is used to produce food for patient and café meals. Jennifer has a master's degree in management and a Bachelor of Science (BS) degree in dietetics and food service administration. Jennifer lives in River Falls, Wisconsin, and has recently become a Master Gardener.

Teresa Engel, Department of Agriculture, Wisconsin

Teresa Engel is the Buy Local, Buy Wisconsin (BLBW) director at the Wisconsin Department of Agriculture, Trade and Consumer Protection. BLBW is an economic development program aimed at increasing the sale of locally grown foods into local markets. The program focuses on infrastructure development, producer development, and statewide networking. Teresa has been with the department for five years. Prior to her current position, she worked at the Minnesota Food Association as a food broker, and on the family vegetable farm—Driftless Organics.

Collie Graddick, Department of Agriculture, Minnesota

Collie Graddick has spent the last 20 years as a consultant for the Minnesota Department of Agriculture in the Pesticide and Fertilizer Management Division. Collie is also a volunteer board member on several community and environmental organizations. As a volunteer partner in the Community Table Association of Cooperatives, he helps to create small-business opportunities and to build local community food systems by connecting producers and consumers using the cooperative model of transparency, equity and trust. Collie has a master of science in plant and soil science from Tuskegee University in Alabama and a BS in plant science from Fort Valley State College in Georgia.

Angela Gross, VA Health Services-St. Cloud, Minnesota

Angela Gross is the director of nutrition and food services at the St. Cloud VA Health Care System. She oversees all facets of inpatient and resident food service for the 388-bed medical center, and clinical nutrition services for the medical center and community based outpatient clinics in Brainerd, Montevideo, and Alexandria. Angela began her VA service in 2010 as the administrative dietitian for the St. Cloud VA. Previously, Angela has over ten years of managing nutrition services in a variety of food service and clinical environments; ranging from managing the food service in a jail setting serving over 1,700 meals daily to managing the nutrition and clinical staff at St. Cloud Hospital and Mille Lacs Health System. Angela graduated from University of Wisconsin-Green Bay with a degree in nutritional science in 1999 and completed her dietetic internship through the University of Wisconsin – Green Bay in 2006. She is also a Veteran, with 5 years of service in the U. S. Army Reserve.

Kristen Huselid, VA Health Services-St. Cloud, Minnesota

Kristen Huselid is the administrative dietitian for the St. Cloud VA Health Care System in Minnesota. As a registered dietitian, she is involved with menu planning, food purchasing, and the Nutrition & Food Service quality management program. Kristen grew up on a farm in west-central Minnesota. At a young age, Kristen was involved with planting, harvesting, and preserving food. Kristen graduated from Concordia College, Moorhead, Minnesota, with a double major in dietetics and exercise science.

Jody Lenz, Threshing Table Farm, Wisconsin

Jody and her husband Mike own Threshing Table Farm and operate a Community Supported Agriculture (CSA) program that has 75 members. Among other sites, they work with four hospitals to bring CSA shares in for employees and community members, and they also sell wholesale to three area hospitals for use in their kitchens. Jody and Mike are graduates of the Land Stewardship Project's (LSP) Farm Beginnings program. Jody serves on a steering committee for LSP, helping to give vision to programs that educate and support farmers in years 3-5 of farming. She is also an LSP Executive Board member. Jody grew up on a 46 cow dairy farm in northeast Wisconsin, is a beginning bee keeper and a master food preserver. Jody has a bachelor's degree in education and taught in elementary schools for 9 years before choosing to stay home with her children and pursue her passion for farming.

Gary Loew, LoFam Farm, Wisconsin

Gary and his wife Cindy have owned LoFam Farm, a Century farm, for almost 40 years. As a dairy farmer for Organic Valley, Gary has served on both their Dairy Executive Committee and the Standards and Rules Committee. He has also served on numerous other boards including the Farm Bureau and St. Peter School Board, and is active in Future Farmers of America (FFA). Throughout his life, Gary has been involved in farming. As a kid he was active in 4-H, and he continued to volunteer with the organization when his own children were young. Gary believes not just in sustainable but regenerative agriculture, which leaves the land and people in better condition than before. Gary served for two years in the U.S. Marine Corps, and over the years has traveled to 27 countries around the world. He has a two-year associate's degree in production agriculture, and worked part-time for 26 years for the U.S. Department of Agriculture (USDA).

Shawn McMartin, Promise Farm Buffalo, Wisconsin

Shawn McMartin is the owner/operator of Promise Farm Buffalo. Shawn also serves as the regional director/treasurer of the Minnesota Buffalo Association. Shawn grew up on a large family corporate dairy and cash crop farm. She transitioned to raising natural grass-fed bison in 1986. Shawn was part of a group of eight that established the Wisconsin-based Producers' & Buyers' Co-op in 2008 and served as para-director/treasurer for four years before the Co-op was dissolved in the summer of 2011. Shawn values the opportunity to use this knowledge to help see farm to health care system infrastructure advanced. Shawn has a degree in business management/accounting and is an Accredited Business Accountant (ABA). She also has experience in property management, banking and finance and emergency communications. Shawn is also interested in community health and serves as an emergency medical technician– Dunn County First Responder.

Wilson Mills, Circle K Orchard, Wisconsin

Together with his wife Kathy, Wilson has owned and operated Circle K Apple Orchard in Beldenville, Wisconsin, for the past 23 years. Additionally, he currently maintains County Tourism websites for Pierce and St Croix Counties. While operating Circle K Orchard, Wilson has served two terms as a director on the Wisconsin Apple Growers Board and is currently an advisor for several farm markets in western Wisconsin. Wilson is a member of the Pierce County Juvenile Justice Board and a member of the Knights of Columbus in Ellsworth, Wisconsin. In the past, he has also served as president of the Pierce County Partners in Tourism and as District Governor for the Lions Club of Wisconsin. Prior to acquiring the apple orchard, Wilson served as president of Hahnel USA, an Irish-based photographic/video accessory importing company following a three-year term as senior vice president of marketing for Bell and Howell Osawa. Wilson is originally from Oak Ridge, Tennessee, and was educated at the University of Tennessee.

John Peterson, Ferndale Market, Minnesota

John Peterson is the third generation of his family to grow turkeys on their family farm in Cannon Falls, Minnesota. Founded by John's grandparents, Fern and Dale, in 1939, the Peterson family has continued to grow their turkeys free-range and without the use of any antibiotics. After some years away, John returned to the family farm in 2008 to begin direct-selling their turkey in their own label, Ferndale Market, both to further sustainability efforts and to add value back to the family farm through operating more independently. Today Ferndale Market turkey products are carried in over 50 natural food stores and served in a number of college, school, corporate and other food service settings. Additionally, the Peterson family operates an on-farm store retailing local foods from area producers, offering them a connection with sustainability-minded food producers from across the area. John is a graduate of Augustana College, Sioux Falls, South Dakota with a degree in business/communication.

Crystal Saric, Fairview Health Services, Minnesota

As sustainability program manager at Fairview Health Services, Crystal Saric lead initiatives to reduce solid waste, toxic and hazardous substances, and energy use, and to increase environmentally preferable purchasing, green building design, and healthy food. Crystal has a master's of public and nonprofit administration (MPNA) with an emphasis in environmental conservation and serves on the board of directors for Minnesota Waste Wise.

Christina Traeger, Rolling Hills Traeger Ranch, Minnesota

Christina Traeger and her three daughters own and operate Rolling Hills Traeger Ranch in West Central Minnesota. Raised on a dairy farm and involved at an early age in FFA and 4-H, Christina has leaned on her early farm experience coupled with sixteen years of involvement in the British White Cattle Association to become a successful beef producer and breeder of British White Cattle. Christina has operated Rolling Hills Traeger Ranch for 17 years where she continues to live by the 4-H motto of striving to make the best better.

Brenna Vuong, Fairview Health Services, Minnesota

Brenna is a senior wellness specialist and has been with Fairview Health services for 6 years. With a background in public health, Brenna is interested in improving population health outcomes through policy, systems, and environmental changes in the workplace. Brenna has many years of experience with setting up hospital-based farmers' markets and community supported agriculture drop sites and enjoys inspiring others about the benefits and rewards of supporting local producers. Brenna received her master's in public health (MPH) in Community Health Education from the University of Minnesota School of Public Health and has a Bachelor of Arts (BA) degree in psychology from the College of St. Benedict

Wesli Waters, Fairview Health Services, Minnesota

Wesli Waters is the sustainability coordinator at Fairview Health Services. She leads efforts to reduce Fairview's environmental footprint by reducing waste, energy, and toxic chemicals, while strengthening initiatives in healthy and local food systems, environmentally preferable purchasing, and green building design. Wesli served as a Minnesota GreenCorps - AmeriCorps member with Fairview Health Services and has a BA in environmental studies and Hispanic studies.

Jean Weiler, Hudson Hospital and Clinics, Wisconsin

Jean has served as the manager of nutrition care and café at Hudson Hospital & Clinics from August 1995 to present. Jean's professional interest is to improve the health of patients, employees, and guests through providing an exceptional nutrition experience at Hudson Hospital. Prior to working at Hudson, Jean was a consultant for long term care for Beverly Enterprises, and held clinical, administrative, and education dietitian positions at Kettering Medical Center, Kettering, Ohio. Jean has a bachelor of arts in English and education from Oakland University in Rochester, Michigan, and a master of nutrition from the College of Education, University of Cincinnati in Cincinnati, Ohio.

IATP SARE project advisory committee meeting topics and highlights

The advisory committee meetings served as a primary means of sharing the data gathered during the project, exploring past and current approaches to connecting sustainable farmers to hospitals and other institutional markets, and soliciting input into recommendations for next steps and opportunities. See Table A.1 for a brief overview on meeting content.

Table A.1—IATP SARE Project Advisory Committee Meeting Topics and Highlights

Tuesday, June 19, 2012 (10-11:30 AM) **Introductory call** ■ Marie Kulick provided a brief overview of national progress--models being used to increase health care procurement of sustainable food and regional highlights. She also described the role of the hospital collaborators in the project, the types of data already collected and remaining data collection and provided quick stats on the collaborators. ■ Advisory committee members were introduced. ■ Anna Claussen provided an overview of farmer/producer involvement via surveys and recruitment for the advisory committee. She also reviewed the role of the advisory committee and discussed ideas and plans for future calls.
August 16, 2012 (10 to 11:30 AM) **The Demand – Health Care Market for Sustainable Foods** ■ Marie Kulick presented key data from the 2011 food and beverage procurement data provided by the hospital collaborators, the hospital collaborator food service survey results data, the 2010 IATP Specialty Crop Grant survey data, and other pertinent sources.
October 22, 2012 (10 to 11:30 AM) **Matching Supply with Demand** ■ Emily Barker presented key data collected via the 2012 SARE project farmer/ producer survey. ■ Advisory committee members, Jody Lenz, co-owner of Threshing Table Farm, and Jean Weiler and Jennifer Conde from Hudson Hospital presented on their procurement relationship.
December 3, 2012 (10 to 11:30 AM) **Direct Procurement Models** ■ Barbara Hartman, Chief of Nutrition and Food Service at the Veterans Affairs Medical Center in Martinsburg, West Virginia; and Karen Arnold, Chief of Nutrition and Food Service Veterans Affairs Medical Center in San Francisco, California shared their stories of local food purchasing within their medical centers and how they have lead the movement to get 'good food' on patient trays. ■ Advisory committee member, Collie Graddick, spoke about the efforts of the Community Table Association of Cooperatives to help local food businesses grow process, distribute, and sell food in the Twin Cities. He also shared how the association connects growers, processors, distributors, and markets to one another and to the information and resources they need to thrive in a local food economy.
January 29, 2013 (10 to 11:30 AM) **Delivery Methods and Models-Getting Sustainable Foods in the Door** ■ Advisory committee member, Teresa Engel, Director, Buy Local, Buy Wisconsin, Wisconsin Department of Agriculture, provided an overview of some of the distribution models used in Wisconsin. ■ Margaret Bau, Cooperative Development Specialist, USDA Rural Development Wisconsin, provided her perspective on the lessons learned from the closure of the Producer and Buyers Co-op in northwestern Wisconsin
March 14, 2013 **Delivery Methods and Models-Getting Sustainable Foods in the Door (Continued)** ■ Diane Chapeta, operations manager for Fifth Season, shared her insights on the success and challenges that Fifth Season has faced since its incorporation in 2010 ■ Mark Hutson, administrative director for Nutrition Services at Gundersen Lutheran and Vice President of the Board of Directors for Fifth Season Coop shared his experience in working with the Fifth Season Co-op as he works toward the hospital's goal of purchasing at least 20 percent of their foods locally
May 20, 2013 (9 AM to 3:30 PM) **In-person Meeting** ■ Tour of Ferndale Market & Peterson Farm in Cannon Falls ■ Group Discussions/Exercises: ■ Addressing hospital food safety concerns ■ Conventional versus local, sustainable pricing ■ Tour of Lorenz Meats processing facility in Cannon Falls

Table A.1—IATP SARE Project Advisory Committee Meeting Topics and Highlights

July 26, 2013 (10 to 11:30 AM) **Remaining Models and Lingering Concerns – A Wrap-up Discussion** ■ Erin McKee, IATP, presented on Minnesota Farm2School and Minnesota Farm to Daycare efforts ■ Using Poll Everywhere software, feedback was solicited from advisory committee members on the following topics: ■ Definition of "local, sustainable" ■ Hospital use of purchasing protocols to guide procurement from sustainable farmers/producers and other potential tools/resources that can further address food safety concerns and other potential barriers to hospital purchase of local, sustainable foods from sources other than distributors. ■ Important factors to be addressed when working to connect local, sustainable farmers to health care markets.
September 24, 2013 (10 to 11:30 AM) **Health Care Collaborators—A Wrap-up Discussion** ■ Using Poll Everywhere software, hospital advisory committee members were asked to provide input on next steps and opportunities and the following draft sustainable farm-to-hospital toolkit resources: ■ Building connections with local, sustainable farmers—"Creating Mutually Beneficial Relationships with Local Farmers/Producers" ■ Local, sustainable food pricing/approaches to managing costs—"Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget ■ Getting the most from current suppliers—"Getting the Most from Current Suppliers" ■ Farm-to-hospital sustainable food purchasing protocol—"Using a Farm-to-Hospital Sustainable Food Purchasing Protocol"
September 27, 2013 (10 to 11:30 AM) **Farmers/Producers—A Wrap-up Discussion** ■ Farmer/producer advisory committee members briefly discussed information presented by Marie Kulick on current supply versus demand and working with food service contractors. In addition, Poll Everywhere software was used to gather input on next steps and opportunities and the following draft sustainable farm-to-hospital toolkit resources: ■ Building connections with local, sustainable farmers—"Creating Mutually Beneficial Relationships with Local Farmers/Producers" ■ Local, sustainable food pricing/approaches to managing costs—"Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget ■ Farm-to-hospital sustainable food purchasing protocol—"Using a Farm-to-Hospital Sustainable Food Purchasing Protocol"
December 10, 2013 (8:30 AM to 1:00 PM) **Final in-person convening**

IATP SARE project team bios

Anna Claussen

SARE Project Coordinator

Anna joined IATP in April 2011 to support the Rural Communities program. In June 2013, she became the Director of Rural Strategies. A landscape architect by training, Anna bridges years of practice in urban design and planning with a life deeply rooted on a Minnesota family farm. Over the last decade, Anna has focused on creating resilient communities through the creation of alternative land-use plans, regional greenway studies, city comprehensive plans, and park and trail system plans for communities across the state and the Upper Midwest. Her work at IATP focuses on biomass and the bioenergy economy; as well as the creation and retention of natural and social wealth within rural communities in order to improve the quality of life for all residents. Anna has a bachelor's degree in geography and studio arts from Gustavus Adolphus College in St. Peter, Minnesota and a master's degree in landscape architecture from the College of Design at the University of Minnesota.

Marie Kulick

SARE Project Consultant

As the owner of Earth Wise Communications, Marie works to improve the overall health and sustainability of Earth's natural resources and its inhabitants by providing high quality, ecologically-focused, communications and sustainable procurement expertise. Prior to starting Earth Wise Communications, Marie was a senior policy analyst in the food and health program at IATP where she helped to found the Healthy Food in Health Care initiative and emerged as a national expert on institutional procurement of sustainable food and food ware and food-system related ecological health issues. Marie has a master of studies in environmental law from Vermont Law School, a bachelor of arts in communications from McDaniel College (formerly Western Maryland College) and certificates in project management and nonprofit management from the University of Saint Thomas.

Emily Barker

SARE Project Assistant

Emily worked for the Institute for Agriculture and Trade Policy (IATP) from September 2008 through August 2013. Just prior to leaving IATP, Emily served as a Program Associate for IATP's Rural Communities program and ably assisted the SARE project team by creating and administering surveys, handling logistics for calls and in-person meetings, proofing documents and more. In 2012, Emily became a Master Recycler/Composter through Hennepin County in Minnesota. Her passion for addressing food waste issues led her to accept a position with the Minnesota Pollution Control Agency in 2013. Emily has a BS in biology, with minors in environmental studies, chemistry, and religion from Pacific Lutheran University in Tacoma, Washington.

Catherine Reagan

Catherine Reagan is a program assistant with IATP and helps with reporting, research, and administrative duties throughout the organization. She provided assistance to the SARE project team as needed. Prior to joining IATP, she worked as the assistant director of development at the Cedar Cultural Center, a nonprofit performing arts organization on Minneapolis' West Bank. Catherine holds a B.A. in humanities, media and cultural studies and a minor in Hispanic studies from Macalester College. Catherine's passions center on food, music and people.

Appendix B-IATP SARE Project Health Care Collaborator Combined Food and Beverage Expenses

Except as noted, these tables contain the combined 2012 and 2011 food and beverage purchases of the hospitals and health systems listed below. Together they represent approximately 1,851 staffed beds and more than 27,418 employees and non-employee medical personnel. They serve approximately 3 million meals annually. The ratio of patient meals to non-patient meals varied considerably among the reporting hospitals—four reported a significantly higher percentage of non-patient meals to patient meals (3:1) and two reported the reverse, a significantly higher percentage of patient meals to non-patient meals (2 and 3:1), but when combined the difference was imperceptible.

HEALTH CARE COLLABORATORS REPRESENTED

- Fairview Health Services
  - Fairview Lakes Medical Center—a rural hospital located in Wyoming, Minnesota
  - Fairview Northland Medical Center—a rural hospital located in Princeton, Minnesota
  - Fairview Ridges Hospital—suburban hospital located in Burnsville, Minnesota
  - Fairview Southdale Hospital—an urban hospital located in Minneapolis, Minnesota
  - University of Minnesota Amplatz Children's Hospital— an urban hospital located in Minneapolis, Minnesota
  - University of Minnesota Medical Center Fairview— an urban hospital located in Minneapolis, Minnesota
- Hudson Hospital & Clinics—a suburban/rural hospital located in Hudson, Wisconsin
- VA Medical Center St. Cloud, Nutrition and Food Services[1]—an urban hospital located in St. Cloud, Minnesota

2012 SUMMARY DATA ALL PRODUCT CATEGORIES

Table B.1—Combined 2012 Food and Beverage Procurement Data by Major Product Category (ranked by dollar value)

Product category	Dollar value	Portion of all food & beverage purchases
Grocery	$2,396,715	36.33 %
Meat, Poultry & Seafood	$1,623,603	24.61 %
Produce	$1,172,816	17.78 %
Dairy	$945,657	14.34 %
Beverages (non-dairy)	$645,732	9.79 %
Total food & beverage purchases	**$6,596,449**	

2011 SUMMARY DATA ALL PRODUCT CATEGORIES

Table B.2—Combined 2011 Food and Beverage Procurement Data by Major Product Category (ranked by dollar value)

Product category	Dollar value	Portion of all food & beverage purchases
Grocery	$2,279,050	33.85 %
Meat, Poultry & Seafood	$1,670,234	24.81 %
Produce	$1,152,697	17.12 %
Dairy	$988,532	14.29 %
Beverages (non-dairy)	$642,869	9.55 %
Total food & beverage purchases	**$6,733,382**	

- Percent of all food and beverages purchased via a prime vendor/mainline distributor—88.8 percent
- Percent of all food and beverages purchased via a regional or specialty distributor—5.6 percent
- Percent of all food and beverages purchased via a dairy supplier—5.3 percent
- Percent of all food and beverages purchased via a bread supplier—0.3 percent
- Percent of dairy items purchased from a dairy company versus a distributor—36.1 percent
- Percent of produce (canned, dried, fresh, and frozen) purchased from a produce/specialty distributor versus a prime vendor/mainline distributor—32.5 percent

2011 DETAIL BY PRODUCT CATEGORY

Grocery

Table B.3.1—Combined 2011 Grocery Procurement Data by Product Type (ranked by dollar value)

Product type	Dollar value	Portion of all food & beverage purchases	Volume
Dry, oils and shortening, related items marked unknown	$1,287,366	19.12 %	Not calculated
Refrigerated and frozen (not including frozen produce)& salads (wet, refrigerated & frozen)	$560,295	8.32 %	Not calculated
Appetizers, entrees & potatoes (refrigerated & frozen)	$431,389	6.41 %	Not calculated

Meat, Poultry & Seafood

Table B.4.1—Combined 2011 Meat, Poultry & Seafood Procurement Data by Product Type (ranked by dollar value)

Product type	Dollar value	Portion of all food & beverage purchases	Volume
Beef	$516,924	7.68 %	169,965 lbs.
Chicken	$487,981	7.25 %	172,080 lbs.
Pork	$222,469	3.30 %	80,592 lbs.
Turkey	$192,535	2.86 %	58,418 lbs.
Seafood	$137,462	2.04 %	32,270 lbs.
Processed meats	$90,328	1.34 %	Not calculated
Specialty meat products & meat substitutes	$22,535	0.33 %	Not calculated

Produce

Table B.5.1—Combined 2011 Produce Procurement Data by Product Type (ranked by dollar value)

Product type	Dollar value	Portion of all food & beverage purchases
Vegetables (canned, fresh-pre-processed, fresh-whole and frozen)	$704,625	10.5 %
Fruits (canned, dried, fresh-pre-processed, fresh-whole and frozen)	$422,092	6.3 %
Legumes (canned, dried and frozen)	$23,252	0.3 %
Herbs (dried, fresh-pre-processed, fresh-whole and frozen)	$7,011	0.1 %

Table B.5.2—Combined 2011 Produce Procurement Data by Product Form (ranked by dollar value)

Product form	Dollar value	Portion of all food & beverage purchases	Volume
Fresh, pre-processed	$568,127	8.44 %	240,423 lbs.
Fresh whole	$286,041	4.25 %	192,780 lbs.[2]
Frozen	$144,303	2.14 %	161,003 lbs.
Canned	$140,782	2.09 %	194,605 lbs.[3]
Dried	$11,067	0.16 %	6038 lbs.

Table B.5.3—Top 40 Types of Fresh, Whole Produce Purchases Based on Combined 2011 Procurement Data (ranked by dollar value)

Product	Dollar value	Volume (in pounds unless otherwise noted)
Bananas	$49,718	80,240.0
Tomatoes	$37,599	233,226.0
Grapes	$34,325	23,523.0
Apples	$21,768	27,051.0
Strawberries	$20,725	8,400.0
Potatoes (red, russet, Yukon gold, Idaho, purple, fingerling)	$16,510	38,335.0
Oranges	$15,300	29,002.0
Lettuce	$11,455	7,317.0
Cucumbers	$6,599	4,035.0
Squash, summer (patty pan, yellow, zucchini)	$5,641	4,937.0
Pineapple	$4,823	7,150.0
Peppers, bell	$4,666	4,167.0
Blueberries	$3,328	640.0

Table B.5.3—Top 40 Types of Fresh, Whole Produce Purchases Based on Combined 2011 Procurement Data (ranked by dollar value)

Product	Dollar value	Volume (in pounds unless otherwise noted)
Lemons	$3,164	4,327.0
Mushrooms	$3,020	987.0
Cantaloupe	$2,867	6,416.0
Honeydew	$2,820	3,812.0
Asparagus	$2,729	1,080.0
Raspberries	$2,449	379.0
Avocado	$2,443	1,049.0
Pea pods, sugar snap	$2,318	910.0
Broccoli	$2,223	1,164.0
Onions (red, yellow)	$2,107	3,992.0
Basil	$2,085	196.0
Blackberries	$1,763	316.0
Cilantro	$1,760	104.0
Watermelon	$1,323	155 melons
Cabbage (green, napa, red, savoy)	$1,258	1,389.0
Eggplant	$1,211	1,199.0
Squash, winter (acorn, butternut, orange kabocha, spaghetti)	$1,043	1,382.0
Pears	$1,029	625.0
Spinach	$986	375.0
Garlic	$860	382.0
Peppers, hot (anaheim, habanero, jalepeno, poblano, serrano)	$858	385.0
Potatoes (sweet)	$787	1,165.0
Parsley	$720	192.0
Celery	$604	474.0
Mint	$485	18.0
Leeks	$414	Not calculated
Plums	$413	200.0

Table B.5.4— Top 40 Types of Fresh, Pre-Processed Produce Purchases Based on Combined 2011 Procurement Data (ranked by dollar value)

Product	Typical cuts/processing	Typical pack size	Dollar value	Volume (in pounds unless otherwise noted)
Lettuce and salad mixes	1/4 to 1/8-inch shred	4/5 lb. package	$97,514	78,766.0
Cantaloupe	1/2 to 1-inch chunk	1/5, 20 or 25 lb. packages	$73,717	25,785.0
Tomatoes	Diced, sliced, wedge	1/5 or 5 lb. packages	$44,614	15,140.0
Peppers, bell (green, red)	Diced, julienne, ring	1/5 or 5 lb. packages	$44,218	12,390.0
Onions (red, yellow)	1/4, 1/2, 3/8-inch dice; 3/16-inch ring; 1/8, 3/16, 1/4-inch slice	1/5, 2/5 or 4/5 lb. packages	$39,968	28,598.0
Pineapple	Chunks, slices	1/5 lb. package	$37,856	11,415.0
Honeydew	Chunks, smiles	1/5, 5, or 20 lb. packages	$27,300	9,940.0
Celery	1/4, 3/8, 3/4-inch dice; sticks	1/5 lb. package	$26,462	12,422.0
Potatoes (red, yellow, white)	Peeled, halved, quartered, diced, sliced	1/5, 1/10 or 1/20 lb. packages	$24,511	23,750.0
Mushrooms	Sliced	1/5 or 2/5 lb. packages	$23,276	11,852.0
Carrots	Coins, diced, sticks, whole, shredded	1/5, 2/5, or 4/5 lb. packages	$23,079	20,045.0
Vegetables mixes, blends, stir fry	N/A	1/5, 1/10, or 5 lb. packages	$14,452	3,960.0
Broccoli	Florets, buds, spears	4/3 lb. package	$13,293	7,914.0
Strawberries	Whole, sliced	8/1 or 1/5 lb. packages	$8,844	3,229.0
Squash (summer)	Sliced, half-moons, chunks, diced	1/5 lb. package	$8,207	2,310.0
Spinach	Flat-leaf, stemless	4/2 lb. package	$7,937	4,500.0+
Cucumbers	Chunks, diced, sliced	1/5 lb. package	$7,686	4,190.0
Cabbage/coleslaw mix	Diced, shredded	1,2 or 4/5 lb. packages	$7,328	7,823.0
Cauliflower	Buds, florets	2/3 or 1/5 lb. packages	$6,874	2,877.0
Potatoes (sweet)	Chunks, sliced, diced, wedges	1/10 or 2/10-lb. packages	$5,834	2,480.0
Onions (green)	Sliced, diced, trimmed	1/5-lb. package	$5,375	1,564.0
Squash (winter)	Chunks, diced, quartered	1/5 or 1/10-lb. packages	$4,534	1,340.0
Pea pods, sugar snap	Cleaned, trimmed	1/5 or 2/5 lb. packages	$3,987	670.0
Fruit mixes	Chunks, in juice	1/5, 5, or 8 lb. packages	$3,858	1,935.0
Beets	Chunks, diced, peeled	1/5-lb. package	$1,163	390.0
Beans (green)	Clipped, trimmed, snipped	2/5-lb. package	$1,096	494.0
Radishes	Cleaned and sliced, trimmed	1/5 or 5 lb. packages	$1,004	325.0
Parsnips	Diced, peeled	1/5 or 1/10 lb. packages	$772	230.0
Shallots	Peeled	1/5 lb. tub	$759	270.0
Mango	Diced, wedge	1/5 lb. package	$501	135.0
Eggplant	Chunks, diced	1/5-lb. package	$475	125.0
Apples (green, red)	Chunks, diced; skin-on and off	1/5-lb. package	$455	120.0
Daikon	Peeled, shredded	1/5 or 1/10-lb. packages	$247	105.0
Watermelon	Chunks, wedges	1/5 or 4/5-lb. packages	$242	85.0+
Parsley	Washed, trimmed	1 or 4/1-lb. packages	$237	64.0
Bok choy	Bias cut, shredded	1/5-lb. package	$218	85.0
Garlic	Peeled	1/5-lb. tub	$125	50.0

Table B.5.4— Top 40 Types of Fresh, Pre-Processed Produce Purchases Based on Combined 2011 Procurement Data (ranked by dollar value)

Product	Typical cuts/processing	Typical pack size	Dollar value	Volume (in pounds unless otherwise noted)
Turnips	3/8 or 1/2 diced	1/5-lb. package	$102	30.0
Rutabagas	3/8, 1/2, and ¾-inch chunk/ diced, or peeled	1/5-lb. or 1/10-lb. packages	$90	30.0
Kale	Cleaned and trimmed, torn	2 or 4/2.5-lb. packages	$82	90.0

Dairy

Table B.6.1—Combined 2011 Dairy Procurement Data by Product Type (ranked by dollar value)

Product type	Dollar value	Portion of all food & beverage purchases	Volume
Fluid milk	$369,699	5.49 %	90,975 gallons
Cheese	$165,381	2.46 %	64,211 lbs.
Eggs (shell and further processed)	$128,502	1.91 %	16,161 dozen raw and hard-cooked shell eggs and 104,170 lbs. of mostly liquid eggs, plus some hard-cooked shell eggs
Ice cream and frozen novelties	$113,731	1.69 %	Not calculated
Yogurt	$68,222	1.01 %	53,962 lbs.
Other (whipped toppings, non-dairy creamers, milk substitute, margarine)	$42,521	0.63 %	Not calculated
Cottage cheese	$35,728	0.53 %	26,450 lbs.
Butter	$27,174	0.40 %	9,811 lbs.
Sour cream	$14,628	0.22 %	8,652 lbs.
Cream cheese	$13,978	0.21 %	6,441 lbs.
Miscellaneous cultured (dips)	$8,970	0.13 %	Not calculated

Beverages (non-dairy)

Table B.7.1—Combined 2011 Beverage (non-dairy) Procurement Data by Product Type (ranked by dollar value)

Product type	Dollar value	Portion of all food & beverage purchases	Volume
Juice	$265,434	3.9 percent	Not calculated
Coffee	$247,163	3.7 percent	21,788 pounds ground; 4,126 liters liquid; 720 pounds instant
Soda	$71,097	1.1 percent	Not calculated
Miscellaneous (cocoa, drink mixes, water, smoothie base, etc.)	$43,326	0.6 percent	Not calculated
Tea	$15,898	0.2 percent	Not calculated

2011 SUSTAINABLE PROCUREMENT SUMMARY

Table B.8.1—Combined 2011 Local, Sustainable F&B Purchases (by GGHC FS Credit 3 criteria)

Criteria	Dollar value local and sustainable	Portion of all F&B Purchases
USDA/FDA approved label claims	$362,249	5.4 percent
Local	$14,338	0.2 percent
Third-party certified	$2,337	0.0 percent
Total local, sustainable purchases	$378,924	5.6 percent

Table B.8.2—Combined 2011 Local, Sustainable F&B Purchases (by major category)

Major category	Dollar value of local and sustainable	Dollar value of all F&B purchases	Portion of purchases in category
Dairy	$362,461	$988,532	36.7 percent
Produce	$14,189	$1,152,697	1.2 percent
Grocery	$2,246	$2,279,050	0.0 percent
Beverages (non-dairy)	$27	$642,869	0.0 percent
Meat, poultry, seafood	$0	$1,670,234	0.0 percent

Further Details

- 81.6 percent of local, sustainable purchases ($309,391) was fluid milk produced without rBGH/rBST—mostly Kemps Select (Dairy Farmers of America) and Land O'Lakes Original[4] (Dean Foods) line of fluid milk products purchased via Kemps and other distributors
- 13.9 percent of local, sustainable purchases ($52,857) was yogurt produced without rBGH/rBST—Yoplait[5,6] (General Mills) products purchased via mainline distributors
- 3.7 percent of local, sustainable purchases ($14,161) was fresh, whole and fresh, pre-processed produce; 88.3 percent ($12,503) of which was purchased via mainline and specialty distributors and 11.7 percent ($1,658) of which was purchased directly from a local, sustainable farmer/producer
- The total percent of local, sustainable purchases varied between the eight hospitals represented in the data. The lowest percentage was 2.6 percent, the highest 10.6 percent and the median 4.25 percent.

ENDNOTES

1. Information reported is for patient food service operations only.
2. This is a conservative number. Some package weights could not be determined.
3. Based on weight shipped as most products were in #10 cans.
4. Land O Lakes Milk, "Land O Lakes Original Milk," http://www.enjoydeans.com/1/products/org_milk.php (accessed March 2, 2013).
5. General Mills, "Press releases: General Mills Announces Commitment to Make Yoplait® Yogurt Products 100 Percent Free of Milk from Cows Treated with rBST by August 2009," (February 9, 2009) http://www.generalmills.com/en/Media/NewsReleases/Library/2009/February/Yoplait_Yogurt_Products_100_Percent_Free_of_Milk_with_rBST.aspx (accessed March 2, 2013).
6. Jennifer Garrett, General Mills consumer services representative, email message to Marie Kulick, Earth Wise Communications, May 14, 2012.

Appendix C-Procurement Data Extrapolations

NORTH CENTRAL REGION

There were 5,724 registered hospitals in the U.S. as of 2011,[1] including 1,456 registered community hospitals (non-federal, short-term general and other special hospitals) and 37 VA hospitals/medical centers[2] in the North Central Sustainable Agriculture and Education (SARE) region—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.[3,4,5] See Table C.1 for a breakdown by state. Note: The total number of registered U.S. hospitals includes 421 non-federal psychiatric, 112 non-federal long-term care, and 10 other institutions, such as prison hospitals and college infirmaries, but region specific data is harder to find for these hospitals so they have not been included in the north central region-specific data.

Table C.1—Registered North Central Region Community Hospitals and VA Hospitals/Medical Centers by State (in alphabetical order)

State	Number of community hospitals	Number of VA medical facilities	Combined
Illinois	188	5	193
Indiana	125	3	128
Iowa	118	2	120
Kansas	132	3	137
Michigan	153	5	155
Minnesota	132	2	136
Missouri	120	4	124
Nebraska	86	2	90
North Dakota	41	1	43
Ohio	183	4	184
South Dakota	53	3	56
Wisconsin	125	3	128

POTENTIAL MARKET ESTIMATES

Hospital food procurement data are not readily available. The American Hospital Association (AHA) does not track this information. The Association for Healthcare Foodservice (AHF) reports the total health care food and beverage market as approximately $12 billion today, but that is the extent of their public reporting on the topic.[6] It is possible to use the Market Basket Data devised by the Centers for Medicare & Medicaid Services to estimate hospital food expenditures, but this approach defies application by a layperson and did not seem likely to produce a result any more accurate than the data presented here. Note: The data presented here is designed to give readers a sense of the potential market for sustainable food represented by various groups of north central region hospitals, and should not be used for any other purpose outside this Report.

Community hospitals

The following data sources were used to estimate the potential health care market for sustainable food and beverages represented by community hospitals in the north central region:

- 2012 food and beverage procurement data collected from eight of the nine Institute for Agriculture and Trade Policy (IATP) SARE project hospital collaborator facilities [data from the St. Cloud VA Medical Center (VAMC) was not included here]
- 2012 food and beverage procurement data collected from 20 north central region hospitals via the Health Care Without Harm (HCWH) 2013 Healthy Food in Health Care (HFHC) Survey[7] (no north central region VA hospitals/medical centers completed the survey)
- 2011 utilization data reported in Table 5 U.S. Census Division 4: East North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pages 38-39 of AHA Hospital Statistics, 2013 Edition

- 2011 utilization data reported in Table 5 U.S. Census Division 6: West North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pages 42-43 of AHA Hospital Statistics, 2013 Edition

- 2011 utilization data reported in the state-specific sections of Table 6 Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011 of AHA Hospital Statistics, 2013 Edition

- 2011 information on staffed beds and average daily patient census from the AHA Guide to the Health Care Field, 2013 Edition for the following groups of north central region health care facilities: VA hospitals/medical centers, HFHC Pledge signers, Healthier Hospitals Initiative (HHI) Healthier Food Challenge participants, IATP SARE project collaborating facilities, and the 20 respondents to the 2013 HFHC survey.

Table C.2 contains key 2012 food and beverage expense data reported by 27 north central region hospitals8 by staffed beds. This expenses data serves as the basis for all non-VA hospital/medical center extrapolations. Note: Using each hospitals average daily census (ADC) for patients would have provided the most realistic estimates, but this data could not be extracted in a timely fashion for all applicable north central region hospitals, so number of staffed beds was used.

Table C.2—2012 F&B Expense Data Reported by 27 North Central Region Hospitals(by staffed beds)[9]

Staffed beds	Lowest F&B expenses reported by a facility	Highest F&B expenses reported by a facility	Average of all F&B expenses reported by facilities
4 to 24	$139,665	$139,665	$139,665
25 to 49	$186,816	$400,000	$314,272
50 to 99	$380,000	$380,000	$380,000
100 to 199	$636,095	$750,000	$688,969
200 to 299	$784,283	$1,500,000	$1,212,432
300 to 399	$918,780	$3,211,795	$1,876,858
400 to 499	$1,337,791	$2,013,929	$1,675,860
500+	$1,451,035	$5,063,074	$2,936,285

The procurement data in these additional resources were used to test the validity of the ranges reported in Table C.2:

Food Service Director, "2013 Healthcare Census: Hospitals Uncertain on Impact of Obamacare," www.foodservicedirector.com/trends/research/articles/2013-healthcare-census-hospitals-uncertain-impact-obamacare (accessed October 11, 2013)

Food Service Director "2012 Hospital Census Report," www.foodservicedirector.com/sites/default/files/2012_Hospital_Census.pdf (accessed October 11, 2013)

Food Service Director, "2012 Performance Report for 50 Hospitals," www.foodservicedirector.com/sites/default/files/2012_Hospital_Census.pdf (accessed October 11, 2013) (contains 2011 food and beverages expenditures reported by 50 hospitals/health systems)

Food Service Director, "2011 Hospital Census," www.foodservicedirector.com/trends/research/articles/2011-hospital-census (accessed October 11, 2013)

Note: These resources contained hospital food and beverage expense data that was useful to review for comparison purposes, but the data was not for 2012.

See Table C.3 for a breakdown by bed size of the estimated market for sustainable foods represented by north central region community hospitals and Table C.4 for a breakdown by state.

Table C.3—Estimated Market for Sustainable Food and Beverages (F&B)[10]
Represented by North Central Region Community Hospitals (by staffed beds)

Staffed beds	2012 F&B expenditures (low end of range)	2012 F&B expenditures (high end of range)	2012 F&B expenditures (average)
4 to 24	$23,882,715	$23,882,715	$23,882,715
25 to 49	$78,836,352	$168,800,000	$132,622,925
50 to 99	$117,420,000	$117,420,000	$117,420,000
100 to 199	$156,479,370	$184,500,000	$169,486,456
200 to 299	$102,741,073	$196,500,000	$158,828,644
300 to 399	$74,421,180	$260,155,395	$152,025,525
400 to 499	$54,849,431	$82,571,089	$68,710,260
500+	$79,806,925	$278,469,070	$161,495,675
Combined	$688,437,046	$1,312,298,269	$984,472,200

Table C.4—Estimated North Central Region Community Hospital Market for Sustainable Food and Beverages (F&B)[11] (by state)

States	2012 F&B expenditures (low end of range)	2012 F&B expenditures (high end of range)	2012 F&B expenditures (average)
Illinois	$109,955,452	$218,408,578	$161,222,403
Indiana	$61,011,987	$117,327,531	$88,306,716
Iowa	$39,127,577	$76,812,687	$59,095,716
Kansas	$42,798,210	$76,846,112	$61,217,221
Michigan	$80,071,844	$177,991,495	$126,150,602
Minnesota	$55,138,500	$97,998,003	$76,849,478
Missouri	$61,126,216	$127,441,564	$92,814,493
Nebraska	$26,311,244	$49,072,553	$39,580,979
North Dakota	$11,689,289	$23,152,648	$18,502,839
Ohio	$109,868,727	$224,606,193	$163,661,323
South Dakota	$15,657,385	$26,743,288	$22,701,131
Wisconsin	$51,797,900	$95,897,617	$74,369,299

HFHC Pledge signers/Healthier Food Challenge participants

See Table C.5 for a breakdown by staffed beds of the estimated market for sustainable foods represented by north central region HFHC Pledge signers and HHI Healthier Food Challenge participants. In addition, 2011 average daily census information was available for most of these hospitals. See Table C.6 for a breakdown by average daily census (and staffed beds, if average daily census unknown). It would have been preferable to have average daily census data for 2012, the same year as the purchasing data. Note: While it is possible that these hospitals could have reported much higher average daily census data in 2012 than that reported in 2011, Table C.6 demonstrates how much lower actual annual hospital F&B expenditures might be than what is reported in Tables C.3 and C.5.

Table C.5—Estimated Market for Sustainable Food and Beverages (F&B)[12]
Represented by North Central Region HFHC Pledge Signers and HHI Healthier Hood Challenge Participants (by average daily census)

Staffed beds	HFHC Pledge signers/HHI Healthier Food Challenge Participants	2012 F&B expenditures (low end of range)	2012 F&B expenditures (high end of range)	2012 F&B expenditures (average)
4 to 24	6	$837,990	$837,990	$837,990
25 to 49	15	$2,802,240	$6,000,000	$4,714,085
50 to 99	26	$9,880,000	$9,880,000	$9,880,000
100 to 199	26	$16,538,470	$19,500,000	$17,913,203
200 to 299	25	$19,607,075	$37,500,000	$30,310,810
300 to 399	18	$15,289,380	$57,812,310	$29,159,933
400 to 499	4	$5,351,164	$8,055,716	$6,703,440
500+	16	$23,216,560	$81,009,184	$46,980,560
Combined		**$93,522,879**	**$220,595,200**	**$146,500,020**

Table C.6—Estimated Market for Sustainable Food and Beverages (F&B)[13]
Represented by North Central Region HFHC Pledge Signers and HHI Healthier Hood Challenge Participants (by average daily census)[14]

Average daily census	HFHC Pledge signers/HHI Healthier Food Challenge Participants	2012 F&B expenditures (low end of range)	2012 F&B expenditures (high end of range)	2012 F&B expenditures (average)
4 to 24	20	$2,793,300	$2,793,300	$2,793,300
25 to 49	22	$4,109,952	$8,800,000	$6,913,991
50 to 99	21	$7,980,000	$7,980,000	$7,980,000
100 to 199	36	$22,899,420	$27,000,000	$24,802,896
200 to 299	20	$15,685,660	$30,000,000	$24,248,648
300 to 399	5	$4,247,050	$16,058,975	$8,099,981
400 to 499	3	$4,013,373	$6,041,787	$5,027,580
500+	9	$13,059,315	$45,567,666	$26,426,565
Combined		**$74,788,070**	**$144,241,728**	**$106,292,962**

VA hospitals and medical centers

The following data sources were used to estimate he potential market for sustainable food and beverages represented by VA hospitals/medical centers in the north central region:

- FY2010 food and beverage procurement data reported in Attachment A: VA Facility Data frm FY10, Solicitation #VA-797-11-RP-0176 issued October 19, 2011 (Subsistence Prime Vendor Program for all VA Medical Centers and other participating government agencies)[15]
- 2011 and 2012 food and beverage procurement data collected from one IATP SARE project health care collaborator—VAMC St. Cloud

See Table C.7 for a breakdown by bed size of the fiscal year (FY) 2010 food and beverage expense data reported for the 37 north central region VA hospitals and medical centers and estimated market for sustainable foods as of FY 2010. See Table C.8 for a breakdown by state.

NOTE: The estimated market for sustainable food represented by north central region VA hospitals/medical centers was configured at first using the data in Table C.2. However, in comparing this data to the VA-specific data reported in VA-797-11-RP-0176, and even taking into consideration average food budget increases of at least five percent since 2010,[16,17] it was determined that use of Table C.2 data would yield results well above the real market represented by VA facilities in the north central region.

Table C.7—Estimated Market for Sustainable Food and Beverages (F&B) Represented by North Central Region VA Hospitals/Medical Centers[18] (by staffed beds)

Staffed beds	Lowest FY10 F&B expenses reported by a facility	Highest FY10 F&B expenses reported by a facility	Total FY10 F&B expenses	Average of all FY10 F&B expenses reported by facilities
4 to 24	$243,595	$243,595	$243,595	$243,595
25 to 49	$370,058	$370,568	$370,568	$370,568
50 to 99	$221,166	$647,274	$3,195,169	$399,396
100 to 199	$154,446	$1,384,590	$5,601,086	$700,136
200 to 299	$640,460	$1,281,028	$7,956,450	$884,050
300 to 399	$341,557	$2,090,156	$9,991,645	$1,110,183
400 to 499	$0	$0	$0	$0
500+	$1,996,398	$1,996,398	$1,996,398	$1,996,398
Combined			**$29,354,911**	

Table C.8—Estimated North Central Region VA Hospital/Medical Center Market for Sustainable Food and Beverages (F&B (by state)

Staffed beds	Lowest FY10 F&B expenses reported by a facility	Highest FY10 F&B expenses reported by a facility	Total FY10 F&B expenses	Average of all FY10 F&B expenses reported by facilities
Illinois	$418,089	$1,633,823	$5,166,649	$1,033,330
Indiana	$154,446	$1,281,028	$2,642,889	$880,963
Iowa	$425,939	$756,423	$1,182,362	$591,181
Kansas	$370,568	$649,158	$1,660,186	$553,395
Michigan	$243,595	$1,110,910	$3,583,787	$716,757
Minnesota	$891,665	$1,374,622	$2,266,287	$1,133,144
Missouri	$334,459	$1,074,020	$2,624,283	$656,071
Nebraska	$221,166	$546,115	$767,281	$383,641
North Dakota	$295,411	$295,411	$295,411	$295,411
Ohio	$819,587	$1,996,398	$4,837,578	$1,209,395
South Dakota	$341,557	$396,380	$1,092,935	$364,312
Wisconsin	$497,833	$2,090,156	$3,235,263	$1,078,421

ENDNOTES

1. American Hospital Association. Fast Facts on US Hospitals, http://www.aha.org/research/rc/stat-studies/fast-facts.shtml (accessed September 6, 2013).

2. In addition to serving meals to patients, visitors, and personnel, VA medical centers may serve meals to residents in nursing, psychiatric, and drug and alcohol treatment facilities, as well as veterans in adult day care.

3. AHA Hospital Statistics 2013 Edition, Table 5 U.S. Census Division 4: East North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pgs. 38-39.

4. AHA Hospital Statistics 2013 Edition, Table 5 U.S. Census Division 4: West North Central-Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011, pgs. 42-43.

5. AHA Hospital Statistics 2013 Edition, Table 6 Overview 2007-2011 and-Utilization, Personnel, Revenue and Expenses, Community Health Indicators 2007-2011.

6. Building a Bright Future for Healthcare Foodservice. Association for Healthcare Foodservice, http://healthcarefoodservice.org/about-us (accessed September 26, 2013).

7. As a founding partner and 2012 participant in the Healthy Food in Health Care work, IATP was given access the north central region specific survey data.

8. Represents data from seven SARE project collaborator facilities and 20 north central region respondents to 2013 HCWH HFHC Survey.

9. Using each hospitals average daily census (ADC) for patients, instead of staffed beds, would have provided the most realistic estimates, but ADC numbers were not reported consistently or as readily available as the number of staffed beds so they could not be used.

10. Extrapolated using data reported in Table C.2. and the total number of north central region registered community hospitals per staffed bed range as reported in AHA Hospital Statistics, 2013 Edition (Table 5): pgs.38-39, 42-43.

11. Extrapolated using reported in Table C.2. and the total number of north central region registered community hospitals per staffed bed range by state as reported in AHA Hospital Statistics, 2013 Edition (Table 6).

12. Extrapolated using data reported in Table C.2. and the total number of HFHC Pledge signers and/or HHI Healthier Food Challenge participants per staffed bed range using staffed bed data reported for each hospitals in the AHA Guide to the Health Care Field, 2013 Edition.

13. Extrapolated using data reported in Table C.2. and the total number of HFHC Pledge signers and/or HHI Healthier Food Challenge participants per average daily census data reported for each hospital in the AHA Guide to the Health Care Field, 2013 Edition. Used staffed bed ranges to report, since it is standard to have one patient per bed.

14. Number of staffed beds was used in 10 instances where average daily census information was not available.

15 For more on the VA Subsistence Prime Vendor Contract see http://www.va.gov/oal/business/nc/spv.asp. Due to the Federal Government shutdown a link to Attachment cannot be provided.

16. 2012 Hospital Census Report. Food Service Director, http://www.foodservicedirector.com/trends/research/articles/2012-hospital-census-report (accessed August 27, 2013).

17. Non-Patient Service Drives Hospitals. Foodservice Director (April 15, 2011), http://www.foodservicedirector.com/sites/default/files/FSD%20Hospital%20Census%202011.pdf (accessed October 16, 2013).

18. Per page 12 of VA-797-11-RP-0176, Attachment A lists the "estimated dollar amount for annual purchases from [the] contract for each [VA Medical Center] VAMC and [Veterans Canteen Service] VCS facility, and the "figures are based on actual dollars spent in FY 2010 for all food items, which includes the distribution price, except fresh bread, fresh milk and some produce plus approximately 50 [percent] of their non-food (flatware, china, serving utensils, disposable products, etc.) purchases." Though these figures do not include fresh bread, fresh milk and some produce purchases made via other sources and includes some non-food purchases, based on the 2011 and 2012 food and beverage expense data collected by VAMC St. Cloud for this project, the amounts reported in Appendix A can be considered a good proxy for total food and beverage expenditures.

Appendix D-Collaborator Food Service Survey Results

In April 2012, the Institute for Agriculture and Trade Policy (IATP) provided each hospital collaborator with a web link to an online survey. All interested food service staff could take the survey, but the hospital collaborators were encouraged to assure that at a minimum all managers, dietitians, cooks and other personnel responsible for planning menus, placing food orders, food preparation or operations management at their facilities were invited and encouraged to complete the survey during their normal working hours.

Thirty-one food service employees at five of the eight facilities participating in the project completed the survey. By job title, food service employee respondents included four directors, seven supervisors/managers, five dietitians, seven cooks, four nutrition/dietary aides, two dietary clerk/cooks, and two non-specific nutrition services employee. Their aggregated responses are reported below.

QUESTIONS ASKED OF ALL RESPONDENTS

1. I define "sustainable" food as (check any that apply):

Response Options (from highest to lowest response rate)	Portion of hospital collaborator responses	Number among 30 respondents to the question
Locally grown/raised	90.0 %	27
No added hormones	70.0 %	21
Raised without antibiotics	70.0 %	21
No genetically engineered ingredients	60.0 %	18
USDA Organic	50.0 %	15
Certified Humane Raised & Handled	43.3 %	13
USDA Grassfed	40.0 %	12
Fair Trade Certified	36.7 %	11
Food Alliance Certified	36.7 %	11
Animal Welfare Approved	30.0 %	9
Other (please specify)		
Responses included: "rotating crops, getting the most out of the land per acre with least amount of added chemicals"		

2. I define local food as (check any that apply):

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 30 respondents to the question
Grown/raised on a farm within a certain distance, e.g., 50, 100 or 200 miles	90.0 %	27
Grown/raised on a farm in my state	46.7 %	14
Grown/raised on a farm in a neighboring state	26.7 %	8
Manufactured by a company in my state	20.0 %	6
Most ingredients grown/raised in my state	20.0 %	6
Processed in my state regardless of ingredient source	3.3 %	1

3. I purchase sustainably produced food items:

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 30 respondents to the question
Summer/fall	23.3 %	7
Occasionally throughout the year	23.3 %	7
Every time I shop	20.0 %	6
Most of the time	16.7 %	5
Never	6.7 %	2
Other (please specify)		

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 30 respondents to the question
Responses included: ■ "Raise my own organic beef, pork, chicken and grow organic vegetables." ■ "Not sure." ■ "Have my own sustainable farm."		

4. Which, if any of the following statements best describes your experience growing food for yourself or others (check any that apply)?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 30 respondents to the question
I grow or have grown fruits and/or vegetables for my family	80.0 %	24
I grew up on a farm or ranch	33.3 %	10
I have no farming, ranching or gardening experience	20.0 %	6
I raise or have raised animals for meat, eggs or dairy products for my family	16.7 %	5
I live on a farm or ranch	10.0 %	3
I raise or have raised animals for meat, eggs or dairy products for sale to others	6.7 %	2
I grow or have grown fruits and/ or vegetables for sale to others	6.7 %	2
Other (please specify)		
Responses included: ■ "Our garden is a family bonding opportunity." ■ "Grandpa has a farm."		

5. Do you believe that the purchase and use of sustainable foods would be in line with the mission of your hospital?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 30 respondents to the question
Yes	70.0 %	21
Maybe	26.1 %	8
No	3.3 %	1

6. On a scale of 1 (extremely important) to 5 (not at all important), how important do you think it is for a hospital to consider the following issues when deciding what types of food to buy and serve to patients, staff and visitors? (Only the largest percentages are being reported for this question.)

Response Options (from highest to lowest response rate	Extremely important	Very important
Freshness/food quality	71.4 % (20/28)	25.0 % (7/28)
Use of synthetic pesticides in fruit, vegetable and other crop production	46.4 % (13/28)	17.9 % (5/28)
Soil conservation and health	32.1 % (9/28)	42.9 % (12/28)
Food production labor and occupational health issues	28.6 % (8/28)	42.9 % (12/28)
Water conservation and quality	32.1 % (9/28)	39.3 % (11/28)
Use of synthetic hormones in beef and dairy cattle	32.1 % (9/28)	35.7 % (10/28)
Use of antibiotic feed additives in beef, pork and poultry production	32.1 % (9/28)	32.1 % (9/28)
Use of food additives, dyes, preservatives	28.6 % (8/28)	35.7 % (10/28)
Genetic modification of crops and livestock	25.0 % (7/28)	28.6 % (8/28)
Animal welfare issues	17.9 % (5/28)	28.6 % (8/28)
Protection of wildlife	10.7 % (3/28)	32.1 % (9/28)
Climate change	3.6 % (1/28)	21.4 % (6/28)

7. If your current employer started serving more meals made with sustainable food items in the cafeteria, how likely are you to choose these items over meals made with conventional ingredients?

Response Options (from highest to lowest response rate)	Portion of hospital collaborator responses	Number among 29 respondents to the question
Very likely	31.0 %	9
Extremely likely	27.6 %	8
Likely	20.7 %	6
Somewhat likely	17.2 %	5
Not at all likely	3.4 %	1

8. If an average lunch today costs around $5.00, what is the highest additional cost you might be willing to pay for menu items made with sustainable ingredients?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 29 respondents to the question
$1.00 (20 percent increase)	27.6 %	8
$0.00 (no increase)	24.1 %	7
$0.50 (10 percent increase)	17.2 %	5
$0.75 (15 percent increase)	10.3 %	3
$0.25 (5 percent increase)	6.9 %	2
$1.25 (25 percent increase)	6.9 %	2
$1.50 (30 percent increase)	3.4 %	1
More than $1.50	3.4 %	1

9. How frequently do you think your hospital should feature foods made with sustainable ingredients (check any that apply)?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 28 respondents to the question
Daily	42.9 %	12
One day a week, e.g., Farm Fresh Fridays	32.1 %	9
One or more months each year, e.g., National Nutrition Month, Fall Harvest	10.7 %	3
One day a quarter focusing on what is available	7.1 %	2
Holidays meals, e.g., Earth Day, Arbor Day, Thanksgiving	3.6 %	1
Other (please specify)		
Responses included: ■ "Never" ■ "Not important, so never" ■ "As seasons permit" ■ "Weekly at a minimum; daily would be nice" ■ "Daily during summer months when local produce is available".		

10. If your hospital was unable to purchase sustainable ingredients for all meals and needed to prioritize serving these items, which of the following groups of people do you think should be given priority (check any that apply)?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 29 respondents to the question
All patients	82.8 %	24
Cancer patients	24.1 %	7
Pediatric patients	17.2 %	5
Maternity patients	13.8 %	4
Heart patients	13.8 %	4
Bariatric patients	13.8 %	4
Staff only	6.9 %	2
Other (please specify)		
Responses included: ■ "Depends on financial versus health impact" ■ "Patient first then employees"		

11. Are there specific types of sustainable food that you would like to be sold in your hospital's cafeteria or vending machines, e.g., Fair Trade/Organic coffee and tea, Organic or rBGH-free milk and yogurt, local fruits and vegetables, etc.? If yes, please describe.

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 25 respondents to the question
Yes	60.0 %	15
No	40.0 %	10

If yes, please describe.

- Whole foods
- rBGH-free dairy, local fruit/veg, organic dirty dozen at least
- Local veggies / BGH milk lunch meat!! The breaded quick & easy stuff is full of bad stuff
- Local fruits, vegetables, and possibly eggs (if allowed). It helps local farmers and venders to show the public where the food we are eating actually comes from. A lot of young people just think it comes from the "store" not understanding the hard work that is put into what you are eating, I speak from experience as we raise our own "food"—eggs, meat, and fruit and vegetables. It would be good education for the younger generation to see and eat locally raised food and it leaves you feeling better knowing you can be a part of that!!
- Coffee, fruit, vegetables, and dairy
- All organic snacks
- The vending hardly ever works anyways!!!
- Local fruits and vegetables - a viable option we may have during the summer/fall months. Local cattle, turkey, pig farms
- Fair Trade Coffee, rBGH-free milk, local fruits & veg
- Local produce, hormone-free milk/yogurt, local meats
- Local Dairy, Fruits & Vegetables
- Local and organic fruits and vegetables. All others we already provide
- Local fruits and vegetables as able
- More fresh and less processed food

12. Have you ever worked for a business or institution that purchased food directly from farmers for use in food service operations?

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 29 respondents to the question
No	58.6 %	17
Yes	34.5 %	10
Do not know	6.9 %	2

13. What, if anything, did you really like about these farm direct purchases (please describe)?

Answers from the 15 respondents included:

- Not applicable
- Not applicable
- Fresh, better tasting
- Fresh, less handlers, healthy
- Fresher food, tastes better
- Better flavor
- Freshness
- I like that you know exactly where your food came from
- Flavor was exceptional, due to being served so close to the time of harvest of the item.
- Seasonal produce. Cost
- The greatest benefit to purchasing food directly from a farmer is having someone to answer questions about how it was grown and raised. What goes into that loaf of bread? By developing strong relationships with the local farmers, our business had an "in" with our local food system. Also, the farmers were thrilled to share their knowledge and experience with our business which created a sense of community.
- I like how fresh the produce is. I like the variety that is available at the local farm.
- Being able to have a specific cut of meat from the pork
- Quality and the relationship with the farm
- The feeling of community and helping out small farmers

14. What, if anything, did you really dislike about these farm direct purchases (please describe)?

Answers from 11 respondents included:

- Not applicable
- Not applicable
- Sometimes not enough supply
- It takes longer to prep for patients or the cafe because the products are not trimmed or cut up.
- Much more labor intense
- Having to clean the vegetables...wash them, also storage can be a problem
- Nothing
- Once a relationship was built, it was difficult to turn down their business if their product didn't meet our current needs.
- It is only available for a few months during the summer/fall months.
- Nothing
- Making sure all the State and Federal regulations and facility policies were met to stay in compliance with this type of purchase.

QUESTIONS ASKED OF RESPONDENTS BY FOOD SERVICE JOB RESPONSIBILITY

Food preparation

15. Which, if any, of the following would you or your co-workers need to prepare more meals from fresh, whole ingredients from local farms (check any that apply)?

Response Options (from highest to lowest response rate)	Portion of hospital collaborator responses	Number among 18 respondents to the question
Additional staff	61.1 %	11
Additional food prep surfaces	44.4 %	8
Additional cold storage	33.3 %	6
Additional equipment (knives, food processors, etc.)	33.3 %	6
Knife skills and safety training	16.7 %	3
Other (please specify)		

Responses included:

- "Depends if these are incremental sales or not"
- "Not applicable"
- "Training on how to clean/cut fresh vegetables. Many people have never used fresh produce."

Patient, cafeteria and catering menu planning

16. Does the current menu planning process support use of seasonally available produce? If yes, please describe how. If no, please describe the changes you think would be needed to incorporate use of seasonally available produce into patient menus. There were 16 respondents to the question.

Menu Development	Patient Menu	Cafeteria Menu	Catering Menu
Response Options (from highest to lowest response rate)	Portion of 16 hospital collaborator responses	Portion of 9 hospital collaborator responses	Portion of 2 hospital collaborator responses
Yes[1]	81.3 %	88.9 %	50.0 %
No[2]	18.8 %	11.1 %	50.0 %

17. How often is the patient menu changed?

Answers from 14 respondents include:
This is something new that is in the process
As needed
As needed
As needed and seasonally
As able
Three weeks
Three-week menu cycle with the exception of special meals
Three-week cycle with monthly meetings to suggest changes
Restaurant style menu with many selections and options from ever changing cafe menu
Yearly
Yearly
At least annually
Possibly every 2 years
Every 2 years

18. How often is the cafeteria menu changed?

Answers from seven respondents include:
Weekly
Weekly
Weekly
Three-week menu cycle with the exception of special meals
Monthly menu item changes discussed
A monthly menu to incorporate new items
At least annually

19. Please indicate which, if any, of the following items you would need or want in order to incorporate more sustainable ingredients into menus (check any that apply). There were 16 respondents to the question.

Needs	Patient	Cafeteria	Catering
Response Options (from highest to lowest response rate)	Portion of 16 hospital collaborator responses	Portion of 8 hospital collaborator responses	Portion of 4 hospital collaborator responses
Information on availability via distributors	75.0 %	75.0 %	100.0 %

1. Responses included "we use what is in season", "when fruits and vegetables are in season for cost and quality", "available fresh fruits are used", "fresh fruit options", "Yes and No. We could definitely improve our menu planning process. The degree to which our menu varies seasonally is very minimal. For example, our cafeteria's soup/salad line - We try to expand the amount and variety of fresh produce items for our side salad during the summer and fall months to support the use of seasonally available produce. However, our cycle menu changes are very minimal; we certainly could incorporate more seasonally available produce", "fresh fruits and donated local fruits", "vegetables that are offered are from the local CSA. Menu is written using what produce is available from the CSA," "but it is difficult to make many changes," and "prepare any vegetable or fruit available in kitchen when patient orders a meal. Let the patient know when they call for a meal what is local," and "use seasonal fresh vegetables and fruits."

2. Responses included "more labor for production."

Needs	Patient	Cafeteria	Catering
Response Options (from highest to lowest response rate)	**Portion of 16 hospital collaborator responses**	**Portion of 8 hospital collaborator responses**	**Portion of 4 hospital collaborator responses**
Increased budget	68.8 %	75.0 %	75.0 %
Information on what is locally grown	62.5 %	62.5 %	75.0 %
Information on seasonal product availability	62.5 %	75.0 %	100.0 %
Management support	37.5 %	37.5 %	25.0 %
More food prep space	31.3 %	25.0 %	50.0 %
Additional food prep tools and equipment	31.3 %	37.5 %	50.0 %
Recipe ideas	37.5 %	37.5 %	50.0 %
More storage space	18.8 %	25.0 %	50.0 %
Portion availability	12.5 %	12.5 %	25.0 %

20. Do your patient menu planning guidelines require use of only certain cuts of meat or poultry? If yes, please provide information on portion sizes and indicate whether there is any flexibility available to amend/adapt requirements on an occasional or routine basis.

Response Options (from highest to lowest response rate	Portion of hospital collaborator responses	Number among 17 respondents to the question
No	52.9 %	9
Yes	47.1 %	8

If yes, please provide information on portion sizes and indicate whether there is any flexibility available to amend/adapt requirements on an occasional or routine basis.

- Our standard serving is 3 oz. We give a bigger portion if they request it and their diet allows for it. We also give a smaller portion if they request it or their diet is more strict.
- We only use the breast of chickens...the portions of all the meats should be 3 ounces.
- Our menus must follow the VHA Healthy Diet Guidelines:
- Purchase entree options with leaner cuts of beef and pork; increase baked fish and poultry options on menu.
- Adopt appropriate standardized portion sizes.
- Lean
- Nutrition Information is printed on the patient menu, current portion sizes would need to be followed for that info to be correct. Meat portion size is 4 oz.
- Portion sizes for patients are 3 oz of protein.

NOTE—the following sources were consulted when developing questions for the initial IATP SARE project health care collaborator food service conducted in 2012:

- *Farm to School in Minnesota Fourth Annual Survey of School Food Service Leaders*, Institute for Agriculture and Trade Policy and Minnesota School Nutrition Association, March 2012, http://www.iatp.org/files/2012_03_19_FoodServiceLeadersSurvey_0.pdf
- *2011 Healthy Food in Health Care Survey & Award Application,* Earth Wise Communications and Health Care Without Harm (unpublished)
- *Southern Wisconsin Food Hub Feasibility Study*, Buyer Survey, Dane County Planning and Development Department, September 2011, http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097196
- *Minnesota Health Care Food Service Survey*, Institute for Agriculture and Trade Policy, 2010 (unpublished)

Appendix E-IATP SARE Project Farmer/Producer Survey Results

In 2012 and 2013, the Institute for Agriculture and Trade Policy (IATP) conducted three separate farmer/producer surveys as part of its Sustainable Agriculture Research and Education (SARE) project "Connecting Sustainable Farmers to Emerging Health Care Markets." A brief description of each survey is included here. Summary reports of each survey can be viewed online or downloaded using the links provided. Any data that could be used to identify individual survey respondents has been omitted from the reports.

2012 IATP SARE PROJECT SURVEY FOR FARMERS AND PRODUCERS

Purpose

This survey was used to determine how many farmer/producers located within a 200-mile radius of the health care collaborators were interested in selling to hospitals in the near term, what types of products they were interested in selling, growing practices used, food safety protocols, insurance carried, and more. Respondents also included farmers/producers who may or may not have interest in selling again in the future, but who had past experience selling to health care facilities and could provide valuable insight into this market. This data was used to inform the development of the three individualized roadmaps that were prepared for each of the three health care collaborators. In addition, survey responses helped the project team to identify and recruit farmers and producers to participate in the project advisory committee.

Methodology

To help assure that the budget for survey compensation was not exceeded and other project needs were met, only specific farmers/producers were invited to participate in the survey. The following characteristics were used to build the list of invitees:

- Proximity to the participating SARE project health care collaborator facilities (within a 200-mile radius that included most of Minnesota and a significant portion of Wisconsin)
- Past experience or likely interest in and ability to sell wholesale to health care markets
- Grow/produce types of food items commonly purchased by the participating SARE project health care collaborators
- Use or likely use of sustainable production methods and/or avoided use of specific-production practices, such as use of recombinant bovine growth hormones (rBGH)/recombinant bovine somatotropin (rBST) in milk production.

These types of farmers/producers were identified using several internal and external resources including:

- IATP Farm to School surveys
- *IATP's Buying Better Chicken: A Resource to Buying Chicken Raised without Antibiotics and Arsenic for Schools, Hospitals and Other Purchasers*, http://www.iatp.org/files/Buying%20Better%20Chicken042011.pdf
- Minnesota Grown Wholesale Database, http://www3.mda.state.mn.us/whlsale/
- Land Stewardship Project CSA Directory, http://landstewardshipproject.org/stewardshipfood/csa
- Wisconsin's Farm Fresh Atlas, http://www.farmfreshatlas.org/
- Farmers/producers who could be identified as already selling to area distributors
- Members of the former Producers & Buyers Co-op in Wisconsin

SurveyMonkey® software was used to create the survey, as well as all subsequent surveys, and a link to the survey was sent to invited farmers/producers via email. After a period

of time, producers who had not responded, or those without email, were contacted via phone, if available, and encouraged to participate. One survey respondent with limited computer access completed the survey by phone, with responses entered into the survey by IATP staff. Farmers who completed the survey were compensated $15.00 each.

Results

In total, 31 farmers/producers and one grower cooperative completed the survey. Of these, 13 had sold to, attempted to sell to or were currently selling product to at least one health care facility. Eighteen had no prior experience, but were interested in selling to health care facilities in the next three years. One respondent had neither experience nor future interest in selling to hospitals, therefore no further data was collected from this participant.

Twenty three survey participants stated they were from Minnesota and eight were from Wisconsin. Just under half (48.3 percent) were family owned businesses, while 20.7 percent identified as corporations. Respondents were of all ages, from 22 to over 70, with the largest group identifying as 51-60 years old.

NOTE: Results from the cooperative respondent are included in the data here as one producer, even though the cooperative represents multiple producers.

A PDF containing all questions and aggregated responses for the 2012 farmer/producer survey can be viewed or downloaded at www.iatp.org/farm-to-hospital

Sources Consulted

The following sources were consulted when developing questions for the initial IATP SARE project farmer/producer survey conducted in 2012:

- *Grower Perspectives on Farm to School: A Survey of Interested Farmers, Ranchers and Other Producers*, Institute for Agriculture and Trade Policy, March 2012, www.iatp.org/files/2012_03_16_F2S_ProducerSurvey.pdf
- *Grower Survey, Southern Wisconsin Food Hub Feasibility Study*, Dane County Planning and Development Department, September 2011, www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097196
- Ohio Distributor Survey, *Scaling-up Connections between Regional Ohio Specialty Crop Producers and Local Markets: Distribution as the Missing Link*, The Ohio State University Department of Agricultural, Environmental and Development Economics, August 2011, www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097255

2013 FOLLOW-UP SURVEY OF FARMERS/PRODUCERS WHO COMPLETED THE 2012 SURVEY

Purpose

This survey was used to capture any significant changes in responses to the 2012 survey, including experiences and interest in selling to hospitals, as well as, to gather additional information on marketing approaches, production volumes, experience with sales to hospitals with contract food service, experience selling their products via distributors, and more.

Methodology

Producers who completed the 2012 survey were contacted in late August 2013 with an invitation to complete this follow up survey. The survey was not sent to the respondents who had specifically stated in 2012 that they had no interest in future sales to hospitals, except for one who also served on the project advisory committee. Additionally, the respondent from the producer cooperative who participated in 2012 was sent the new 2013 survey with a request to share with individual farmer members to complete, versus providing aggregated data for the cooperative. Therefore, a total of 27 producers received the follow up survey. Farmers who responded were compensated $15.00 each.

Results

Participation in the follow up survey was relatively high, with 18 of the 27 invited producers responding. Of those, four indicated that they had had no sales (or attempted sales) to health care facilities and were no longer interested in selling to hospitals. While those four participants were asked to answer some questions about product distribution, marketing and recall procedures, those responses have not been included in the charts in this Appendix, given they were no longer interested in health care sales. The data used in the aggregated charts below therefore represents the remaining 14 producers, depending on how many answered each question.

A PDF containing all questions and aggregated responses for the 2013 follow-up survey of the farmers/producers who completed the 2012 survey can be viewed or downloaded at www.iatp.org/farm-to-hospital.

2013 IATP SARE PROJECT SURVEY FOR FARMERS AND PRODUCERS (NEW)

Purpose

An updated version of the 2012 IATP SARE project survey for farmers and producers was used to gather information from farmers and producers that did not complete the 2012 survey.

Methodology

In late summer/early fall 2013; a revised version of the 2012 survey was opened to producers who had not participated in the 2012 data collection. The invitation was sent via email directly to producers who had been identified in 2012 as potential participants, but who had not completed the survey. Additionally, it was sent out via the SUSTAG listserv inviting producers in the region, specifically Minnesota and Wisconsin, to participate. The project advisory committee was also encouraged to share the survey with producers they knew who might be interested in selling to health care markets. Farmers who completed the survey were compensated $20.00 each.

Results

In total, 15 farmers/producers completed the survey. Of these, four had sold to, attempted to sell to or were currently selling product to a health care facility. Nine had no prior experience, but were interested in selling to health care facilities in the next five years. Two respondents had either experience or future interest in selling to hospitals, therefore no further data was collected from either participant. The 13 remaining respondents all expressed interest in future sales to health care facilities.

Nine survey participants stated they were from Minnesota, three were from Wisconsin and one was from Iowa. Just over half (54.5 percent) were run as a Limited Liability Company (LLC), and 18.2 percent stated they were family owned. Respondents were between the ages of 22 and 70, with 27.3 percent identifying as 51-60 and the same percentage identifying as 61-70.

A PDF containing all questions and aggregated responses for the 2013 survey for farmers/producers (new) can be viewed or downloaded at www.iatp.org/farm-to-hospital.

HIGHLIGHTS FROM ALL SARE PROJECT FARMER/ PRODUCER SURVEY RESULTS

Thirty four respondents to the IATP SARE project farmer/producer surveys are interested in selling to hospitals, including one respondent who represented multiple farmers/producers via a cooperative. Among these respondents, four were already selling to one or more hospitals. The following tables include some of the key data collected from these farmers/producers. If a similar or identical question was not asked in all three surveys, the survey(s) used is/are indicated.

Key demographics

Table E.1.1—Gross Annual Revenue from Agricultural Activities *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 28 respondents to the question
Noncommercial (<$1,000)	4.5 %	1
Noncommercial ($1,000–$9,999)	13.6 %	4
Small commercial ($10,000–$99,000)	50.0 %	14
Small commercial ($100,000–$249,999)	0.0 %	0
Large commercial ($250,000–$499,999)	18.2 %	5
Large commercial ($500,000–$999,999)	4.5 %	1
Very large commercial (>$1,000,000)	9.1 %	3

Table E.1.2—Ownership Subcategory based on combined results from 2012 survey and 2013 survey (new)

Percentages do not add up to 100 percent, as respondents were asked to select all applicable answers.

Response Options	Portion of farmer/ producer responses	Number among 29 respondents to the question
Woman-owned	44.8 %	13
Veteran-owned	13.8 %	4
Minority-owned	3.4 %	1
None of the above	44.8 %	13

Volume produced by interested farmers/producers

Table E.2.1—Produce, Grains, Maple Syrup, Honey based on combined results from the two 2013 surveys

Product Category	Volume Produced in Most Recent Year	Smallest Volume-Largest Volume Per Farm/Operation	Products Farmers/ Producers Most Interested in Selling
Fruits	3,200,180 lbs.	5–3,200,000 lbs.	Apples
Vegetables	903,450 lbs.	250–750,000 lbs.	Tomatoes, lettuce, cucumbers, peppers, eggplant, squash, zucchini, any
Herbs	10,527 lbs.	2–10,000 lbs.	Rosemary, chives, basil, oregano, mint, any
Grains	11,000 lbs.	2,000–5,000 lbs.	Whole wheat flour, white flour
Legumes	100 lbs.	100 lbs.	None listed
Maple syrup	75 gallons	15–50 gallons	None listed
Honey	24 gallons	24 gallons	None listed

Table E.2.2—Meat, Poultry, and Seafood based on combined results from the two 2013 surveys

Product Category	Volume Produced in Most Recent Year	Smallest Volume-Largest Volume Per Farm/ Operation	Products Farmers/ Producers Most Interested in Selling
Beef	3,040,000 lbs. (processed weight)	15,000–3,000,000 lbs. (processed weight	Any, ground beef, stew meat, roasts
Bison	24,000 lbs. (processed weight)	10,000 lbs.	Trim, grind, rounds, ground, stew roasts
Pork	16,300 lbs. (processed weight)	800–7,500 lbs.	Ground pork, stew meat, whole hog
Chickens	18,900 birds	100 to 16,000 birds	Any, whole birds
Turkey	180,025 birds	25 to 180,000 birds	Any, whole birds
Specialty poultry	1,510 birds	10 to 1,510 birds	Whole birds

Table E.2.2—Meat, Poultry, and Seafood based on combined results from the two 2013 surveys

Product Category	Volume Produced in Most Recent Year	Smallest Volume-Largest Volume Per Farm/ Operation	Products Farmers/ Producers Most Interested in Selling
Fish	60,000 lbs. (processed weight)	Same	Any

Table E.2.3—Dairy and Eggs *based on combined results from the two 2013 surveys*

Product Category	Volume Produced in Most Recent Year	Smallest Volume-Largest Volume Per Farm/Operation
Fluid milk	578,000 gallons	78,000–500,000 gallons
Cream	3,000 gallons	Same
Butter	300 pounds	Same
Cheese	45,000 pounds	Same
Eggs, shell	9,380–10,880 dozen	1,000–5,500 dozen

Growing practices

Table E.3.1–Third-Party Certified (based on combined results from the 2012 and 2013 surveys)

Product Category (number of producers)	Percent certified
Beef and bison (5)	■ 40.0 percent are USDA Process Verified, Never Ever 3 ■ 20.0 percent are USDA Organic ■ 20.0 percent are USDA Process Verified, Grassfed
Dairy (2)	■ 100.0 percent are USDA Organic
Eggs (3)	■ None of the producers had 3rd party certifications
Fish (1)	■ None of the producers had 3rd party certifications
Pork (5)	■ 20.0 percent are Non-GMO Project Verified ■ 20.0 percent are USDA Organic
Poultry (6)	■ 16.7 percent are USDA Process Verified, Never Ever 3
Produce (22)	■ 22.7 percent are USDA Organic ■ 13.6 percent are Food Alliance Certified ■ 4.5 percent are Non-GMO Project Verified ■ 4.5 percent are Protected Harvest Certified

Table E.3.2 – Other, non-certified based on combined results from the 2012 and 2013 surveys

Product Category (number of producers)	Percent
Beef and bison (5)	■ 100.0 percent are raised without antibiotics ■ 100.0 percent are raised without hormones ■ 80.0 percent are Grassfed (not Process Verified)
Dairy (2)	■ 50.0 percent are Grassfed (not Process Verified) ■ 50.0 percent are rBGH/rBST free
Eggs (3)	■ 100.0 percent are cage free ■ 100.0 percent are free range ■ 66.7 percent use non-GMO feed
Fish (1)	■ 100.0 percent are raised without antibiotics
Pork (5)	■ 80.0 percent are raised without antibiotics ■ 80.0 percent are raised without hormones ■ 40.0 percent are pasture raised
Poultry (6)	■ 83.3 percent are pasture raised ■ 66.7 percent are raised without antibiotics ■ 50.0 percent are free range ■ 50.0 percent use no animal byproducts (in feed)
Produce (22)	■ 59.1 percent use Integrated Pest Management (IPM) ■ 50.0 percent are non-GMO, GM/GE free ■ 45.5 percent use no pesticides (e.g. insecticides, herbicides) ■ 45.5 percent use crop rotation ■ 36.4 percent use no chemical fertilizer ■ 18.2 percent use low/reduced chemical fertilizer ■ 18.2 percent use low/reduced pesticide (e.g. insecticides, herbicides)

Table E.3.3—Season Extension Methods in Use based on combined results from 2012 and 2013 survey (new)

Response options	Portion of produce grower responses	Number among 22 respondents to the question
Black plastic ground cover	22.7 %	5
High tunnels/hoop houses	18.2 %	4
Low cover low tunnels	9.1 %	2
Regular low tunnel	4.5 %	1
Row covers	18.2 %	4
Raised beds	13.6 %	3

Table E.3.3—Season Extension Methods in Use based on combined results from 2012 and 2013 survey (new)

Response options	Portion of produce grower responses	Number among 22 respondents to the question
Greenhouses (heated with renewable source solar panels, geothermal, etc.)	9.1 %	2
Greenhouses (heated with fossil fuel))	18.2 %	4
Succession planting	22.7 %	5
Mulching	22.7 %	5
Not applicable	22.7 %	5
Other responses: Hydroponics		

Table E.3.4—Good Agricultural Practices Training and Audit Completion *based on combined results from 2012 and 2013 survey (new)*

Response options	Portion of produce grower responses	Number among 22 respondents to the question
USDA Good Agricultural Practices (GAP) Training Program	40.9 %	9
USDA GAP self-audit	18.2 %	4
Third-party USDA GAP certification	18.2 %	4

Food handling and processing

Table E.4.1—Food Safety Plans *based on combined results from 2012 and 2013 survey (new)*

Response Options	Portion of farmer/producer responses	Number among 32 respondents to the question
Has written food safety plan in place	50.0 %	16
Does not have written food safety plan in place	50.0 %	16

Table E.4.2—Food Handling and Processing *based on combined results from 2012 and 2013 survey (new)*

Product category	Location of Processing
Beef and bison	■ 80.0 percent processed in federally inspected plant ■ 20.0 percent processed in state inspected plant

Table E.4.2—Food Handling and Processing *based on combined results from 2012 and 2013 survey (new)*

Product category	Location of Processing
Dairy	■ 50.0 percent processed in federally inspected plant ■ 50.0 percent processed in state inspected plant
Eggs	■ 33.3 percent processed in state inspected plant ■ 33.3 percent processed on-farm ■ 33.3 percent did not provide this information
Fish	■ 100.0 percent processed on-site
Pork	■ 40.0 percent processed in federally inspected plant ■ 40.0 percent did not provide this information ■ 20.0 percent processed at unin-spected processor (local butcher)
Poultry	■ 66.7 percent processed in federally inspected plant ■ 16.7 percent processed in state inspected plant ■ 16.7 percent processed on-farm
Produce	■ 31.8 percent processed in inspected kitchen or processing facility ■ 27.3 percent processed in unin-spected kitchen or processing facility ■ 22.7 percent did not process beyond limited processing (sorting, washing, etc) ■ 18.2 percent did not answer question or provide enough information to determine

Table E.4.3—Recall Policies and Practices *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 24 respondents to the question
Has recall policies or practices in place	58.3 %	14
Does not have recall policies or practices in place	41.7 %	10

Ordering and delivery

Table E.5.1—Advance Notice Needed to Assure Adequate Supply *based on combined results from 2012 and 2013 survey (new)*

Product category	Months' notice
Beef and Bison	0 to 6 months; 1 to 9 months for custom slaughter of whole animals
Dairy	0 to 6 months
Eggs	0 to 9 months

Table E.5.1—Advance Notice Needed to Assure Adequate Supply *based on combined results from 2012 and 2013 survey (new)*

Product category	Months' notice
Fish	0 to 12 months
Grains and legumes	0 to 9 months
Honey and maple syrup	0 to 9 months
Pork	3 months
Poultry	0 to 9 months
Produce	Most need 0 to 3 months, but several would need 6 to 9 months or more

Table E.5.2—Use of Refrigerated Vehicles for Delivery *based on combined results from the 2012 and 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 31 respondents to the question
Vehicle used to deliver products to customers (individual buyers or distributors) is not refrigerated	64.5 %	20
Vehicle used to deliver products to customers (individual buyers or distributors) is refrigerated	35.5 %	11
If not refrigerated, please describe means used to cool and hold product at ideal temperatures for preserving nutritional value:		
Responses included: ■ Coolers, gel ice packs ■ Insulated cooler that plugs into vehicle power plug ■ Travel short distances only (10–20 miles) ■ We hydro cool and then refrigerate; cold items are then transferred in car for less than 25 minutes ■ Produce is transported in enclosed cube truck ■ Walk in cooler and a commercial cooler for storage while produce transitions to customers ■ Meat is taken to a freezer locker and then it is distributed from there ■ Air conditioning ■ Cold towels and ice (vegetables are harvested within 6 hours of delivery) ■ Produce is stored in walk in cooler until delivery; then kept in boxes shaded, with AC up all the way ■ None needed, products do not need to be cooled for delivery		

Table E.5.3—Relationships with Distributors *based on combined results from the 2012 and 2013 surveys*

Response Options	Portion of farmer/ producer responses	Number among 25 respondents to the question
Does not currently sell product through any distributors	64.0 %	16
Bix Produce	16.0 %	4
US Foods	8.0 %	2
Sysco Minnesota	8.0 %	2
Upper Lakes	8.0 %	2
Reinhart FoodService	4.0 %	1
Appert's	4.0 %	1
Sysco Wisconsin	0.0 %	0
Other (please specify)		

Responses included:
- Bon Appetit
- Capital
- Coop Partners
- H Brooks
- J & B
- J & J
- Neesvig's
- Royal

Table E.5.4—Delivery Radius *based on combined results from 2012 and 2013 survey (new)*

Radius ranges	Portion of farmer/producer responses	Number among 30 respondents
Under 25 miles	26.7 %	8
25-50 miles	30.0 %	9
51-100 miles	20.0 %	6
Over 100 miles	13.3 %	4
Depends on order size	10.0 %	3

Comments:
- Also contract freight for high-volume orders through Coop Partners Warehouse
- For large orders willing to travel further
- It's not as simple as delivery radius – would not drive far distance for small order, but if had a large order or multiple orders in same area, it might make sense to go further.

Product marketing

Table E.6.1—Methods Used to Market Products *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 23 respondents to the question
Website	60.9 %	14
Event participation	56.5 %	13
Social media (Facebook, Twitter, etc.)	56.5 %	13
Printed materials (brochures, flyers, etc.)	47.8 %	11
E-newsletter	26.1 %	6
Print media (newspaper)	26.1 %	6
Posters	13.0 %	3
Other (please specify)		

Responses included:
- Word of mouth/Satisfied customers
- Farmers markets
- Donations to local charity events
- Research
- Phone calls
- Networking
- Email

Table E.6.2—Types of Information Currently on Website *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 16 respondents to the question
Types of products available	87.5 %	14
Where/how products can be purchased	81.3 %	13
Farm or ranch specific info (history, size, etc)	75 %	12
Staff or employee specific info (bios, photos, etc)	43.8 %	7
Delivery and/or distribution methods	43.8 %	7
Other growing practices (e.g. Integrated Pest Management)	37.5 %	6
Names of any current retail, restaurant, institutional customers	37.5 %	6
Type of processing facility (USDA inspected, state-inspected, etc.)	31.3 %	5
Distributors that carry product	18.8 %	3
Certifications held (USDA Organic, Certified Humane, etc)	18.8 %	3

Table E.6.2—Types of Information Currently on Website *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 16 respondents to the question
Name of facility where foods are processed, if applicable	18.8 %	3
Specific page/contact info for potential institutional customers	12.5 %	2
Food safety training and audits completed, if applicable	6.3 %	1
Types of insurance carried	0 %	0
Other (please specify)		
Responses included: ■ Program and mission ■ CSA information		

Insurance

Table E.7.1—Types of Insurance Coverage *based on combined results from the two 2013 surveys*

Response Options	Portion of farmer/producer responses	Number among 23 respondents to the question
Carries $1,000,000 in product liability insurance	34.8 %	8
Carries $2,000,000 in product liability insurance	26.1 %	6
Carries $3,000,000 in product liability insurance	4.3 %	1
Carries $5,000,000 or more in product liability insurance	21.7 %	5
Does not have product liability insurance	13.0 %	3
Carries product recall insurance	13.0 %	3
Does not have product recall insurance	78.3 %	18

Farmer/producer perspective on sales to hospitals

Table E.8.1—Reasons interested in selling to health care facilities *based on combined results from 2012 survey and 2013 survey (new)*

Response Options (from highest to lowest response rate)	Portion of farmer/producer responses	Number among 23 respondents to the question
Increase access to healthy, locally grown food	91.3 %	21
Educate others about the food system and where food comes from	82.6 %	19
Build relationships within my community	78.3 %	18
Helps diversify my markets	78.3 %	18
New revenue source for my farm	69.6 %	16
Fair, steady prices	56.5 %	13
Reduce my farm's ecological footprint by selling to buyers close by	56.5 %	13
Large volume orders	47.8 %	11
Reliable customer	47.8 %	11
Provides a market for surplus for variable quantities	47.8 %	11
Provides a market for seconds	26.1 %	6
Other (please specify)		
Responses included: ■ "Educational & Heath Care Institutions expectations for better foods & education leaders for such." ■ "All our meat travels less than 25 miles from birth to plate." ■ "It is intuitive. Health care should have fresh local vegetables." ■ "Strengthen our cooperative."		

Table E.8.2—Challenges faced in selling to health care facilities *based on combined results from 2012 survey and 2013 survey (new)*

Response Options (from highest to lowest response rate)	Portion of farmer/producer responses	Number among 17 respondents to the question
Facilities not willing to pay our prices	58.8 %	10
Lack relationships with health care purchasers	47.1 %	8
Difficulty guaranteeing a specific quantity on a specific date	23.5 %	4
Volume needs are too large for my operation	17.6 %	3
Delivery logistics	11.8 %	2
Facilities approached were not interested	11.8 %	2

Table E.8.2—Challenges faced in selling to health care facilities *based on combined results from 2012 survey and 2013 survey (new)*

Response Options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 17 respondents to the question
Product specifications are hard for us to meet	11.8 %	2
Cannot meet liability insurance requirements	5.9 %	1
Food safety requirements	5.9 %	1
Too much paperwork (such as invoices)	5.9 %	1
Volume needs are too small to be of interest	5.9 %	1
Difficulty cleaning product adequately	0.0 %	0
Do not accept credit cards	0.0 %	0
Payment turnaround time too long	0.0 %	0
Other (please specify)		
Responses included: ■ "Most hospitals have contracted food service providers such as Chartwells, Sodexo, etc., Those contracts place undue requirements on "optional" outside food purchases. Many farmers could not compete with the requirements. It became a way for the large "box truck" suppliers to squeeze out the competition from local producers" ■ "None are applicable. They knew from the beginning if they wanted a new product. I need 6 month lead time" ■ "They are hesitant because they are unsure, and they have a system that works now." ■ "Would be nice to get several farmers to go together on product" ■ "Basic understanding farms are not impersonal wholesaling facilities" ■ "Never got to logistics, stuck on price."		

Table E.8.3—Most important characteristics a hospital should consider when preferring locally grown foods *based on combined results from the two 2013 surveys*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 24 respondents to the question
Whether certain practices were avoided or used to produce the food/product (e.g. no synthetic pesticides, fertilizers, hormones, antibiotics or genetically engineered ingredients, integrated pest management, grass fed, pasture-raised, etc.)	75.0 %	18

Table E.8.3—Most important characteristics a hospital should consider when preferring locally grown foods *based on combined results from the two 2013 surveys*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 24 respondents to the question
Whether the food or product is in minimally processed form and does not contain any artificial flavor or flavoring coloring ingredient, chemical preservative or any other artificial or synthetic ingredient	58.3 %	14
Whether the product vendor is a farm, farm cooperative or other farm-based marketing collaborative whose owners grew/raised the product	54.2 %	13
Whether the farm or farms (e.g. farmer co-operative or collaborative) are located within a certain number of miles from the hospital (in air miles)	41.7 %	10
Whether the food/product was grown/raised on a small or mid-scale farm based on annual income (noncommercial, small commercial and some large commercial)	37.5 %	9
Whether the food/product was grown/raised on a farm whose sustainability practices are subject to independent audits/third party certification (USDA Organic, etc.)	33.3 %	8
Distance the food/product traveled from the farm(s) to the hospital (total road miles to processing facilities and/or distribution centers) is within a certain number of miles	29.2 %	7
Presence of farm name or farm co-operative name on product, product packaging, order forms and/or invoices	25.0 %	6
Support preservation of heirloom varieties	8.3 %	2
Other (please specific)		1
Responses included: ■ "Workable price over long term"		

Table E.8.4—Importance of addressing certain factors when working to connect local, sustainable farmers to health care markets *based on combined results from the two 2013 surveys*

Response options (from highest to lowest response rate)	Very Important (portion/ number of respondents)	Important (portion/ number of respondents)
Preservation of freshness	83.3 % (20 of 24)	4.2 % (1 of 24)
Assuring farmers get a fair price	82.6 % (19 of 23)	17.4 % (4 of 23)
Open communication	66.7 % (16 of 24)	29.2 % (7 of 24)
Creation of local jobs (farm, processing, etc.)	62.5 % (15 of 24)	29.2 % (7 of 24)
Create direct relationships between purchasers and farmers	58.3 % (14 of 24)	33.3 % (8 of 24)
Institutional (buyer) commitment	52.2 % (12 of 23)	39.1 % (9 of 23)
Support of farmers who use sustainable practices (no certification)	52.2 % (12 of 23)	30.4 % (7 of 23)
Opportunity for product quality feedback	47.8 % (11 of 23)	43.5 % (10 of 23)
Maintaining the identity of the farmer from farm to plate	36.4 % (8 of 22)	45.5 % (10 of 22)
Support of farmers whose practices are third-party certified	30.4 % (7 of 23)	30.4 % (7 of 23)

Table E.8.5—Kinds of information/learning opportunities farmers/producers would like to have in order to sell to health care facilities *based on combined results from 2012 survey and 2013 survey (new)*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 36 respon-dents to the question
Information about specific product needs and desires	91.7 %	33
Opportunities to meet face-to-face with food service staff	83.3 %	30
Information about delivery and packaging needs	80.6 %	29
Contact information for food service staff in our area	75.0 %	27
Information about grading and other quality needs/preferences	63.9 %	23
Written agreements	33.3 %	12
Ways to adjust production to meet demand	25.0 %	9
Advance payment for products	25.0 %	9

Table E.8.5—Kinds of information/learning opportunities farmers/producers would like to have in order to sell to health care facilities *based on combined results from 2012 survey and 2013 survey (new)*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 36 respon-dents to the question
Having a third party provide potential buyers with information on our products	22.2 %	8
Help with product marketing	19.4 %	7
Other (please specify)		

Responses included:

- "Quantities needed"
- "Volume estimates and frequency of purchase"
- "Mutual willingness to adapt & for institutions to evolve back into food handling & preparing skills... & facilities to do so..."
- "Definitely YES on delivery and packaging; same with marketing, farmers don't have time. Written agreements were one of the stumbling blocks, we need contracts to make it binding, to take it serious. Advance payment sounds nice, not sure if it is realistic."
- "Contracts are something the co-op did not require and, in the end, it was one of the things that ended the co-op. Administration would make verbal agreements and order product. Producers would take on the task to grow the product to hospital specs. Sometimes the process, such as is the case for pork, chickens, etc. would span substantial time periods. Sometimes the Administration/staff would have turnover and the new people would know nothing about the agreements. When the product was ready sometimes it was turned down by new administration. This nearly bankrupted some of our producers who had to foot all of the upfront costs themselves. Trust broke down. Relationships were broken."
- "Meet in the middle with what small scale can do and not set requirements that only large producers can meet as that is what they are used to purchasing"
- "They need to be on board with the concept."

Table E.8.6—Sales Preferences for Volume Versus Number of Hospitals *based on combined results from the two 2013 surveys.*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 22 respondents to the question
Selling larger volumes to one or two hospitals	63.6 %	14
Selling smaller volumes to many hospitals	36.4 %	8

Table E.8.6—Sales Preferences for Volume Versus Number of Hospitals *based on combined results from the two 2013 surveys.*

Response options (from highest to lowest response rate)	Portion of farmer/ producer responses	Number among 22 respondents to the question
Responses included: ■ "If it limited to a mile radius you may only have a few to service." ■ "Indifferent at this point." ■ "We grow many, many types of vegetables. We like working with places that like a variety. If we were working with an institution that wanted vast amounts of one thing, like broccoli, that wouldn't be a good fit for us. I'm sure that another farm that grows just a few items would feel the opposite." ■ "Would do both." ■ "Assuming the hospitals take delivery on different days, this helps us in harvest/production scheduling." ■ "Either way large or small volumes we would make cuts that supply their needs."		