Connecting Sustainable Farmers to Hospitals:

Hospital-Focused Report and Toolkits

INSTITUTE FOR AGRICULTURE AND TRADE POLICY

Connecting Sustainable Farmers to Hospitals—A Hospital-Focused Report

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Institute for Agriculture and Trade Policy (IATP)

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The 1,493 community hospitals and VA hospitals/medical centers in the north central U.S.—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio and Wisconsin—spend an estimated $718 million to 1.3 billion each year on food and beverages.

There is ample evidence that hospitals throughout the north central region 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 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.

The VHA Healthy Diet Guidelines also 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 spend an estimated $29.4 million or more each year on food and beverages.

Like the SARE project health care collaborators, many hospitals are just getting started and likely only use 10 percent or less of their current budgets to support sustainable farmers/producers, but numerous hospitals have reported larger percentages following a period of concerted effort. For instance, the results from the latest HFHC survey show that among the hospitals that reported this data an average of 21 percent of their total food budgets went to sustainably-produced foods in 2012; up from 16.6 percent in 2010.

In addition, HFHC 2013 Sustainable Food Procurement Award winners reported even higher results. For instance, first place winner Fletcher Allen Health Care, a 500-bed facility in Burlington, Vt., has been working to procure more sustainably-produced food for more than a decade and, as of 2012, 30 percent of their purchases were sustainable, 37 percent were locally grown or raised, and 48 percent of meat and poultry purchases were produced with "reduced antibiotic use."

Though geographically limited in scope, the 2012 and 2013 IATP SARE project farmer surveys demonstrate that sustainable farmers/producers, including producer groups, are interested in selling to hospitals. In addition, of the 34 respondents to the IATP SARE project farmer surveys, including a representative from at least one producer group, who expressed interest in selling to hospitals, four were already selling to one or more hospitals. Not including the producer cooperative, nearly 86 percent of these farms/operations are small to medium-sized and average gross annual revenue less than $500,000. They sell a variety of products including apple cider, beef, bison, butter, cheese, eggs, honey, farmed fish, maple syrup, pork, poultry, produce and more.

Whether trying to buy food produced by sustainable farmers/producers through their existing supply chain partners or directly from individual or groups of sustainable farmers/producers, hospitals face several key challenges such as pressure to purchase most hospital food through a prime vendor, limited availability of local, sustainable products via current suppliers, sustainable food pricing and time demands on staff.

In time and with persistence, all of these challenges are surmountable to some degree and can certainly make a significant difference in the livelihoods of north central region sustainable farmers/producers.

In addition, hospitals have the potential to yield many benefits for themselves, their patients and staff, and rural communities both near and far including but not limited to:

- Increased patient and employee satisfaction
- Improved public image

- Reduced farm worker exposure to health-threatening chemicals
- Improved rural water quality
- Improved soil health
- Reduced use of antibiotics for routine, nontherapeutic agricultural purposes
- Improved economic health for rural communities.

OTHER LESSONS LEARNED

- **FURTHER CLARITY IS NEEDED AROUND THE TERM SUSTAINABLE:** Use of third-party certifications and USDA and U.S. Food and Drug Administration (FDA)-approved label claims to identify sustainably-produced food is simple, and leaves little room for misapplication. However, solely applying a mileage-based criterion can, and will often, have unintended consequences—purchasers giving an preference to highly processed food items that are manufactured within the mileage radius or conventionally raised food items, such as turkey, chicken, eggs, beef , cheese, fluid milk, and pork, processed and sold by large, often multi-national, food companies head-quartered within the mileage range.
- **HOSPITALS NEED MORE INFORMATION ON PRODUCT AVAILABILITY VIA FARMERS/ PRODUCERS:** Many hospitals focus on buying produce from area farms, and either forget or do not seem to know that many other types of products are available. Knowledge is also very limited in regards to the types of produce items that can be available long past harvest, such as crops that store well for long periods. There is also a bit of a misperception about volume availability and the amount of time it takes to scale-up production in response to buyer interest.

NEXT STEPS AND OPPORTUNITIES

Leading hospitals have shown that it is possible over time, and with a conscious effort, to have 50 percent or more of their annual food and beverage purchases produced by sustainable farmers. Ideally, most of these purchases would be made from sustainable farmers/producers located in the hospital's community.

In the near-term, to maximize procurement of food produced by sustainable farmers, hospitals are encouraged to:

- **SET A GOAL OF 15 PERCENT SUSTAINABLE, AND ONCE REACHED, SET A NEW GOAL.** This is the base-line percentage outlined in Green Guide for Health Care (GGHC) Food Service Credit 3 and IATP SARE project health care collaborators see this as doable within three years. Subsequent GGHC goals include 25 and 50 percent.
- **SUPPORT SUSTAINABLE FARMERS/PRODUCERS VIA CURRENT SUPPLY CHAIN PARTNERS** by purchasing food and beverage items that are most easily identifi-able as produced by sustainable farmers/producers from existing supply chain partners, e.g., USDA Organic products and fluid milk and yogurt produced without use of rBGH/rBST.
- **ESTABLISH A PURCHASING RELATIONSHIP WITH AT LEAST ONE SUSTAINABLE FARMER/PRODUCER, PRODUCER GROUP OR FOOD HUB IN YOUR COMMUNITY BY:**
    - Making a formal commitment that includes direct procurement from sustainable farmers/ producers
    - Focusing on food-prep neutral options commonly available from one or more north central region farms.
    - Starting with purchase of one type of product
    - Rethinking use of current procurement flexibility
- **USE THE RESOURCES IN THE IATP SUSTAINABLE FARM TO HOSPITAL TOOLKIT AT WWW.IATP.ORG/ FARM-TO-HOSPITAL:**
    - Financial Strategies for Incorporating Sustain-able Food into a Hospital's Budget

- Food and Beverage-Related Eco-labels/Label Claims
- The Health-Based Rationale for Hospital Purchase of Sustainable Food
- Hospital Food Purchasing: A Primer for Sustainable Farmers/Producers
- Iowa, Minnesota and Western Wisconsin Sustainable Farmers, Producers Interested in Selling to Hospitals
- Local, Sustainable Product Availability through Distributors Serving Minnesota and Western Wisconsin
- Online Resources for Hospitals Interested in Connecting to Sustainable Farmers, Producers
- Online Resources for Sustainable Farmers, Producers Interested in Selling to Hospitals
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- Sustainable Food Procurement: Working with Current Supply Chain Partners
- Ten Steps to Creating Mutually Beneficial Relationships with Local, Sustainable Farmers, Producers
- Using Written Protocols to Guide Direct Procurement of Food from Sustainable Farmers, Producers

Over the long-term, all north central region hospitals are encouraged to:

- Increase the types and amounts of products purchased directly from sustainable farmers/producers.
- Increase procurement flexibility by reducing percentage based commitments to purchase from mainline distributors.
- As opportunities arise, participate in the development/expansion of alternative food distribution models, such as regional food hubs.
- Avoid contractual food service management arrangements that prevent purchase of food directly from sustainable farmers.

In addition, north central region VA hospitals/medical centers are encouraged to implement the VA-specific recommendations outlined in the Next Steps and Opportunities section of this report.

Acronyms

AHF	Association for Healthcare Foodservice
FDA	Food and Drug Administration
GAP	Good Agricultural Practices
GEMS	Green Environmental Management Strategies
GHP	Good Handling Practices
GMO	Genetically modified organism
GGHC	Green Guide for Health Care
HACCP	Hazard Analysis Critical Control Point
HCWH	Health Care Without Harm
HHI	Healthier Hospitals Initiative
HFHC	Healthy Food in Health Care
IATP	Institute for Agriculture and Trade Policy
LD	Licensed dietitian
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 Services
rBGH	Recombinant Bovine Growth Hormone
rBST	Recombinant Bovine Somatotropin
SARE	Sustainable Agriculture Research and Education
RD	Registered dietitian
USDA	United States Department of Agriculture
VAMC	Veterans Affairs Medical Center
VCS	Veterans Canteen Service
VHA	Veterans Health Administration
VISN	Veterans 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 terms farmer or rancher. 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 rancher or someone who people may not traditionally consider farmers or ranchers, 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—United States Department of Agriculture) (U SDA) 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 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), our farmer pledge not to use artificial growth hormones or milk used in dairy products comes from cows not treated with recombinant bovine growth hormone (rBGH) or recombinant bovine somatotropin (rBST) (dairy), or USDA Grassfed (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 Green Guide for Health Care (GGHC) Food Service Credit 3, as 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.

I. 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 those participating had 54 licensed (approximately 21 staffed) beds in 2011 and the largest licensed 1,105 (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, keep 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. Hospitals represent a significant potential market for sustainable farmers/producers.

There were 1,456 registered community hospitals[7] (non-federal, short-term general and other special hospitals) and 37 VA hospitals/medical centers[8] in the North Central SARE region— Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin,[9,10] as of 2011. 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 these estimates are based on FY 2010 data. See Appendices B and C.

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 2.1 for a breakdown of north central region community hospitals and VA hospitals/medical centers by state and size per staffed beds.

Table 2.1—North Central Region Registered Community Hospitals and VA Hospitals/Medical Centers by State and Size[11,12,13]

State	Staffed beds								
	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

Rural and urban hospitals

Most VA hospitals/medical centers and 49.5 percent of registered community hospitals in the north central region are located in urban areas. In contrast, very few north central region VA hospitals/medical center are located in rural areas, but just over half of all registered community hospitals in the region (50.5 percent) are located in rural areas. In addition, 37 percent of all U.S. registered rural community hospitals (1,984) are located in the north central region.

Big and small

Rural hospitals tend to have much lower patient volumes than urban hospitals. Nearly half of all rural hospitals have 25 or fewer beds,[14] 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.

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

There is ample evidence that hospitals throughout the north central region 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 foodservice 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 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

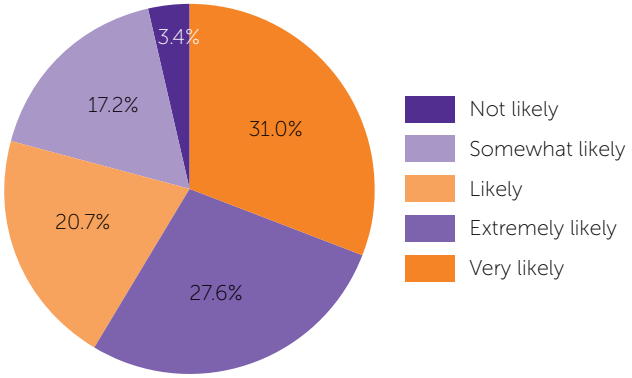
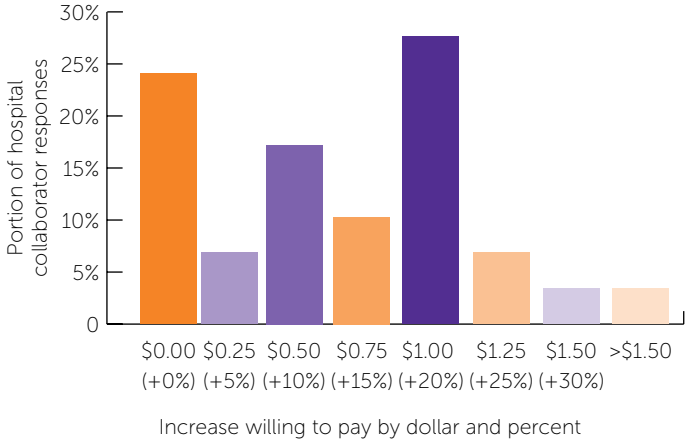


Figure 2.2—Additional cost over $5.00 hospital collaborator respondents would be willing to pay for menu items made with sustainable ingredients



HFHC Pledge Signatories

At least eight 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.[15] 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 2.2 for numbers of north central region Pledge signers by state.)

Table 2.2—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 and a HFHC Pledge signer. 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.[16]

Combined, 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.

VHA initiatives

- **HEALTHY DIET GUIDELINES:** Only one VA medical center 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.

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

- **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."

3. Hospitals can and do purchase sustainable food and beverages.

Many hospitals are just getting started and likely only use a small percentage of their current budgets to support sustainable farmers/producers, but numerous hospitals have reported larger percentages following a period of concerted effort. For instance, the results from the latest HFHC survey show that among the hospitals that reported this data an average of 21 percent of their total food budgets went to sustainably produced foods in 2012;[17] up from 16.6 percent in 2010.[18] The average percentage reported by survey respondents in the north central region was closer to 10 percent, and ranged from 2 to 15 percent.

NOTE: These percentages are likely on the low-side given the way respondents were asked to breakout the data and that respondents reported a higher average for purchase of local food and beverages (approximately 19 percent) and a range of 8 to 38 percent.

In addition, HFHC 2013 Sustainable Food Procurement Award winners reported even higher results. For instance, first place winner Fletcher Allen Health Care, a 500-bed facility in Burlington, Vt., has been working to procure more sustainably-produced food for more than a decade and, as of 2012, 30 percent of their purchases were sustainable, 37 percent were locally grown or raised, and 48 percent of meat and poultry purchases were produced with "reduced antibiotic use." The second and third place winners reported similar achievements.

NOTE: For the purposes of this survey, respondents were asked to report the percentage of their purchases that met two of the GGHS Food Service Credit 3 criteria (third-party certification or approval to use certain USDA/FDA approved label claims) separately from the percentage of their purchases that met the mileage-based criterion. Nevertheless, these hospitals have demonstrated the potential for hospitals to procure a significant portion of their food and beverages from sustainable farmers/producers.

4. Sustainable farmers/producers are interested in selling to hospitals.

By size

Out of the 2.2 million farms in the U.S., 125,000 farms produce most of the food consumed in the U.S.[19] These very large farms/operations raise animals and crops for sale to commodity markets. Most of the food purchased by hospitals originates on one of these mega-farms, but this does not have to be the case.

NOTE: This may also include many certified organic products available via mainline distributors.

Most north central region farms are smaller—either medium to large farms/operations that are too large to sell in direct markets, but too small to compete in the commodity markets[20], or small and very small farms that typically direct-market their products to consumers via farms shares, farmers markets, etc.[21]

NOTE: Iowa, Kansas, Minnesota and Nebraska have higher concentrations of large and very large farms than other north central region states. See Table 2.3 for details on north central region farms by state.

Table 2.3—Number of Farms in Each North Central Region State (based on the 2007 Census of Agriculture[22])

State	Number of farms	Portion of all U.S. farms
Illinois	76,860	3.49 percent
Indiana	60,938	2.76 percent
Iowa	92,856	4.21 percent
Kansas	65,531	2.97 percent
Michigan	56,014	2.54 percent
Minnesota	80,992	3.67 percent
Missouri	107,825	4.89 percent
Nebraska	47,712	2.16 percent
North Dakota	31,970	1.45 percent
Ohio	75,861	3.44 percent
South Dakota	31,169	1.41 percent
Wisconsin	78,763	3.56 percent
Combined	806,191	36.57 percent

Sustainable farmers/producers in both categories have an interest in selling to the hospitals in their communities. For instance, 34 respondents to the IATP SARE project farmer/producer surveys expressed interest in selling to hospitals. Moreover, four were already selling to one or more hospitals.

Among these farms/operations, 71.4 percent are small farms based on gross annual revenue and 21.4 percent are mid-to-large scale farms. See Table 2.4 for a breakdown by category.

NOTE: USDA does not have a category label for medium-sized farms, which based on the information contained in Table 2.4 would include farms categorized as small commercial ($100,000–$249,999) and large commercial ($250,000–$499,999), but could also include small commercial farms with gross annual revenue between $50,000 and $99,000 and some large commercial farms with revenue higher than $500,000. USDA is considering changes to the farm-size classifications.

Table 2.4—Gross Annual Revenue from Agricultural Activities (based on combined results from the 2012 and 2013 surveys)

Response Options	Portion of farmer/producer responses	Number among 28 respondents to the question
Noncommercial (<$1,000)	3.6 percent	1
Noncommercial ($1,000–$9,999)	14.3 percent	4
Small commercial ($10,000–$99,000)	50.0 percent	14
Small commercial ($100,000–$249,999)	0 percent	0
Large commercial ($250,000–$499,999)	17.9 percent	5
Large commercial ($500,000–$999,999)	4.5 percent	1
Very large commercial (>$1,000,000)	10.7 percent	3

The mid-to-large scale farms/operations typically market their food products through "wholesale supply chains, operate with high environmental standards," and "mainly supply markets that are larger than most farm-direct markets and more differentiated than commodity markets," e.g., restaurants, retail food stores, institutions, etc.[23] Smaller-farmers may find it difficult to meet the supply needs of larger hospitals without combining their products with those from other farms, but may be a perfect match for smaller hospitals found in most rural communities.

Why local farmers/producers want to sell to hospitals

- Increase access to healthy, locally grown food (91.3 percent)
- Educate others about the food system and where food comes from (82.6 percent)
- Build relationships within my community (78.3 percent)
- Helps diversify my markets (78.3 percent)
- New revenue source for my farm (69.6 percent)
- Fair, steady prices (56.5 percent)
- Reduce my farm's ecological footprint by selling to buyers close by (56.5 percent)
- Large volume orders (47.8 percent)
- Reliable customer (47.8 percent)
- Provides a market for surplus for variable quantities (47.8 percent)
- Provides a market for seconds (26.1 percent)

Based on results of IATP 2012 and 2013 SARE project surveys of local farmers and producers

Based on sustainability criterion

As of January 2, 2013, there were 4,212 north central region farmers/producers growing certified organic crops for human or animal consumption and/or raising organic livestock and/or harvesting wild crops such as, honey and maple syrup and representing nearly 34 percent of all U.S. farmers/producers growing, raising or harvesting certified organic foods.[24] In addition, among the other certifications that are most applicable to farms/producers in the mid and upper Midwest, 140 farmers/producers in the north central region are Certified Naturally Grown,[25] 65 are Animal Welfare Approved,[26] 35 are American Grassfed[27] certified, and 20 are Food Alliance Certified.[28] See Table 2.5 for a breakdown by state. Note: It is possible that some farmers/producers will have multiple certifications, but since third-party certification can be cost prohibitive, the number is likely to be small.

Table 2.5—Eco-label Approved Farms/Operation in the North Central Region (ranked by total of certified farms/operations)

Eco-label	IL	IN	IA	KS	MI	MN	MO	NE	ND	OH	SD	WI	Subtotal
USDA Organic	178	180	613	104	339	551	179	164	143	488	91	1182	4212
Certified Naturally Grown	16	23	6	3	36	3	14	4	0	19	1	15	140
Animal Welfare Approved	9	4	3	7	5	2	21	1	1	1	2	9	65
American Grassfed	5	4	0	3	3	1	8	2	0	4	1	4	35
Food Alliance Certified	2	0	0	0	3	8	0	0	1	0	0	6	20

Many of the farmers/producers who expressed interest in selling to hospitals via the IATP SARE project surveys sell one or more types of products that are third-party certified. See Table 2.6. Most use the allowable USDA and FDA label claims to differentiate their meat, poultry, and dairy products or grow produce using integrated pest-management practices and/or using organic practices without the certification. See Appendix E for more information on growing practices used by IATP SARE project farmer/producer survey respondents.

Table 2.6–Third-party Certified (based on combined results from the 2012 and 2013 IATP SARE project farmer/producer surveys)

Product Category (number of producers)	Percent certified
Beef and bison (5)	■ 20.0 percent are USDA Organic ■ 20.0 percent are USDA Process Verified, Grassfed ■ 40.0 percent are USDA Process Verified, Never Ever 3
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 (NE3)
Produce (22)	■ 13.6 percent are Food Alliance Certified ■ 4.5 percent are Non-GMO Project Verified ■ 4.5 percent are Protected Harvest Certified ■ 22.7 percent are USDA Organic

5. Hospitals face several key yet surmountable challenges in procuring food from sustainable farmers/producers.

There are two primary ways that hospitals can purchase food and beverages produced by sustainable farmers/producers, 1.) through a distributor or other major supplier or 2.) directly from one or more sustainable farmers/producers. Both options present challenges and opportunities as well as advantages and disadvantages.

Buying sustainable food via distributors or other suppliers

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 majority of SARE project food service survey respondents (75 percent), said "information on availability via distributors."

Key challenges

When trying to buy food produced by sustainable farmers/producers through their existing supply chain partners, hospitals face some key challenges:

- **PRODUCT IDENTIFICATION IN CATALOGS AND ORDERING SYSTEMS**
  - Other than USDA Organic items, major distributors sell and/or identify in catalogs and ordering systems very few, if any, products that carry other third party certified eco-labels. So unless hospitals purchase these certified items directly from farmers/producers or companies that sell these products, most hospitals will find it extremely

difficult to purchase foods that are American Grassfed certified, Animal Welfare Approved, Certified Humane Raised & Handled, Fair Trade certified, Food Alliance Certified, Non-GMO Project Verified, etc.

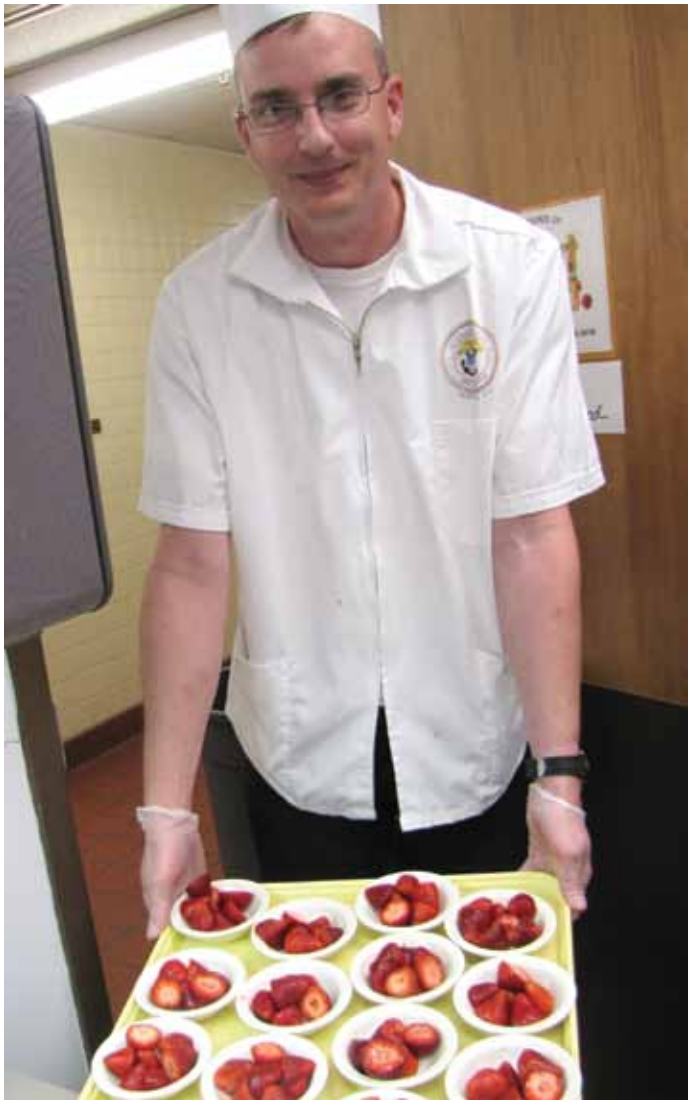
- It can be even more challenging for hospitals to identify and purchase items appropriately identified as "raised without antibiotics," "raised without added hormones," "no genetically engineered ingredients," or "USDA Grassfed." Though many of these products have made it into mainstream markets, distributors do not always carry them or carry them only in certain markets. Even if distributors are carrying these products, hospitals still have to go out of their way to find them in catalogs.

  This is less true for dairy products produced without use of recombinant bovine growth hormone (rBGH)/recombinant bovine somatotropin (rBST), as some of the largest distributors serving hospitals have begun identifying these products in online ordering systems, but products seem to be inconsistently marked. For instance, produced without rBGH/rBST since August 2009, Yoplait yogurt products should be consistently marked as such in distributor catalogs, but they are not—some of these products are marked as "rBST-free" in ordering catalogs and some, though produced the same way, are not. This inconsistency makes it harder for hospitals to choose these products when ordering, to know which of their purchases are sustainable, and to have trust in the information provided by these distributors.

- While many distributors use the term "local" to describe products that they sell, distributor definitions of "local" often differ considerably from what most consumers think of as "local." Thus, use of this term, though intended to help customers identify and purchase "local" items, leads to further confusion.

  If a hospital does not pay attention to the difference in definitions, it will lead to misunderstanding about what they are actually buying. They can result in their erroneously giving a purchasing preference to a corporation, instead of the sustainable farmers/producers they intend to support. In addition, when distributors do actually carry products produced by local, sustainable farmers/producers and label them so they are easy for hospitals to order, these products may not be available in the form most readily used by hospitals, such as three- or four-ounce boneless, skinless chicken breasts and pre-processed fruits and vegetables.

- **LIMITED AVAILABILITY OF LOCAL, SUSTAINABLE PRODUCTS**—Many distributors, especially the larger mainline distributors such as US Foods, Sysco, and Reinhart Food Service, have product liability, Good Agricultural Practices (GAP)/Good Handling Practices (GHP) and Hazard Analysis Critical Control Point (HACCP) food safety audit, and volume requirements that only the larger sustainable farmers/producers can meet. Thus, in relying only on distributors to obtain sustainable foods, a hospital may unknowingly bar most of the sustainable farmers/producers in their community from selling to them.



Alternative Distribution Models: Fifth Season Cooperative and Gunderson Lutheran Health System

Increasingly regional food hubs—"a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products"—are being created to help local and regional producers satisfy wholesale, retail, and institutional demand for local food.[29] According to the USDA Working List of Food Hubs last updated on July 31, 2013, there are 49 food hubs in the north central region states. Wisconsin and Ohio lead the list with nine and eight food hubs respectively.

At least one of these food hubs, Wisconsin's Fifth Season Cooperative, and likely others, was developed with strong participation from one or more hospitals. For instance, in order to help Gunderson Lutheran Health System meet its goal of purchasing at least 20 percent of their foods locally, Mark Hutson, the system's administrative director for nutrition services, helped to found Fifth Season Cooperative, and is the current vice president of the board of directors for the Cooperative.

Fifth Season helps its institutional purchasers to be confident in the safety of Fifth Season members' products by assuring that basic food safety standards and practices are in place. In addition, they have streamlined the aggregation, product packaging, and delivery process to make all products available for order and delivery via one distributor and one distribution center—Reinhart FoodService in La Crosse, Wisconsin.

This distributor relationship is especially helpful for hospitals like Gunderson Lutheran who use Reinhart as their prime vendor, because buying Fifth Season products does not require additional deliveries, and do not reduce the percent of food purchased via their prime vendor.

Per Mark Hutson, "The biggest [consideration] would be the food safety aspect of it from a hospital. We just can't cut any corners there with buying from a local producer and not being able to go out and look at their HACCP plans, what kind of pack houses they have, if they are following good agricultural practices or not. Then the other piece of it is the logistics of the supply chain. With a larger organization, it would be very difficult to source individual products from individual farms. From having the trucks come in to the paperwork side of it to do individual purchase orders for a couple different line items, and farther down the line stuff like accounts payable and making sure that the farmers or growers are paid on time. So, we're very happy with the co-op model and working with Reinhart."

"We're the glue between everyone," says Diane Chapeta, operations manager for Fifth Season. "We connect the dots from food service all the way to the field to make sure everyone can manage to find local food and bring local food into their facilities. With hospitals, I understand that they want one truck on that dock, they don't want six. It's really hard for some hospitals to deal with individual vendors. Most hospitals are on a prime vendor contract, so if we can get that local food on that prime vendor truck, all the better. Then it falls under their contract with that distributor."

Fifth Season Cooperative gives small to mid-sized producers and processors the opportunity to access the food service market and grow their business. Fifth Season producers provide a wide variety of products including beef, cream cheese, cottage cheese, eggs, honey, maple syrup, pork, produce, sour cream, sunflower oil, and yogurt.[30] All the producers must comply with the Co-op's sustainability policy. The Cooperative's growers do not use chemical fertilizers; instead, they utilize organic-based alternatives, and in some cases, are certified organic. For more information on Fifth Season Cooperative see http://fifthseason.coop/.

Buying food and beverages directly from sustainable farmers/producers

Only one of the eight hospitals represented by this project's health care collaborators is currently buying food directly from local, sustainable farms and is also interested in purchasing directly from farmers/producers in the next three years: Hudson Hospital. As noted above, four respondents to the IATP SARE project farmer/producer surveys are currently selling to seven hospitals in Minnesota and western Wisconsin. In addition, many leading hospitals nationwide are now purchasing at least some produce or other food items directly from sustainable farmers in their communities. For instance, in 2012, 31 of the 77 respondents to the 2013 HFHC survey purchased directly from farms, ranches, or farmer cooperatives/local food hubs. Among north central region respondents to the HFHC survey, 60 percent (12 of 20) purchased at least some food directly from farms, etc. Per the 2013 HFHC report, the respondents did this in order to ensure

Direct Procurement Profile: Hudson Hospital & Clinics

Hudson Hospital & Clinics, a 2011 HFHC Pledge signer, had an initial goal to spend 15 percent of its annual food budget on local foods. As a first step, Jean Weiler, manager of nutrition care, contacted Jody Lenz, co-owner of Threshing Table Farm. Jean knew about Threshing Table Farm because they use a community supported agriculture model (CSA) to sell their produce and were already dropping produce shares for hospital staff members on a weekly basis in season.

It was in Threshing Table's second year of delivering CSA shares at the hospital for staff members that Jean contacted them about delivery to the kitchen. Since Jean and Jennifer had never purchased food directly from a farm before, she reached out to several county and state contacts to find out what she should do. This resulted in Jean and Jennifer, supervisor for nutrition care and the café at the Hospital, conducting a farm visit.

Next, they reviewed the list of what was available for purchase—a variety of whole and lightly processed vegetables, melons, herbs. Together, they made a conscious decision to make menu changes as appropriate to make better use of what was available during the various parts of the growing season. For instance, they created vegetable blends that reflected what was available and gave them menu names such as, "Garden Blend", "Wisconsin Blend," and "Country Blend." Early in the season they bought things like lettuce and beets, moving into cucumbers and some melons, and then, later in year, potatoes, onions and some of the fall crops.

The ordering process is simple. Each week in season, Threshing Table sends a list of what is available along with the pricing. The hospital places their order, and the produce is delivered the following Monday. The hospital can also receive an additional delivery on Thursday, the day CSA shares are delivered for Threshing Tables' members at Hudson Hospital, if needed. The pricing is based on those charged by other farmers in their area that sell to institutions.

Threshing Table's produce is used in preparing meals for patients, the Hospital's café and catering operations. When asked what has worked really well with this relationship, Jennifer Conde said, "We have a lot of enthusiasm from my staff to go through the produce boxes and see what is coming in. There is extra work involved when you get produce that isn't already cut into florets for our broccoli, but for them it has worked out really well. Our customers appreciate the produce. We have put signs up to let people know our produce is from Threshing Table and what we are featuring from the Threshing Table [each week]. So that has generated some good feedback from our customers. They are appreciative that we are buying locally... Overall the product we are getting is fresh and we haven't had a problem at all with quality."

Jean added, "Our patients also comment when they know that the food is locally grown when we do surveys. They are very appreciative of that. And also amazed, 'gosh the hospital is serving us locally-grown food.'"

In 2012, Hudson added to their local purchases by buying a whole hog via auction at their county's 4-H Fair and having it processed for them at a local meat locker. They also started purchasing a small amount of produce items from another farm in the summer of 2012.

As a Health Partners affiliate, Hudson Hospital has introduced Threshing Table to some of the other Health Partner-affiliate hospitals in western Wisconsin, and a few of them are now also buying from the Farm. In addition, Hudson Hospital has been participating in a regional group of institutions—a local school district and two University of Wisconsin campuses—to discuss how they might work collaboratively to increase their purchase of local foods via a food hub model.

Both the farm and the hospital have expressed mutual appreciation for the other. The Hospital appreciates the fresh, highly food and the excitement and satisfaction that is brings to staff and patients. The Farm appreciates the hospital's business and being able to tell their neighbors, other farmers, that they are selling to Hudson Hospital. Jody says, "It really opens their eyes to the possibility of growing something besides corn and soybeans."

NOTE: Threshing Table is not just a local farm they are a sustainable farm. Their sustainable growing practices include soil friendly practices such as crop rotation, cover cropping, mulching and composting; use of organic fertilizers; weeding instead of herbicides, and in the rare instance that a pesticide is used, it is an organic product.

the food they are buying is produced responsibly, to support their local farms and to cut costs. For these reasons and more, it is hoped that after reviewing this report more hospitals will choose to spend at least a portion of their annual food and beverage budget on buying food directly from sustainable farmers/producers in their communities.

Key challenges

When trying to buy food and beverage items directly from individual or groups of sustainable farmers/producers, hospitals may also face key challenges:

- **BUSINESS AS USUAL**
  - For a variety of reasons, 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. Whether the commitments are contractual or voluntary, in so doing a hospital limits its ability to purchase from sources other than their mainline distributors.

Hospitals typically receive rebates linked to volume purchase of certain brands of products, such as chicken, coffee, and yogurt and, in addition, receive 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.

Challenges regardless of source

Key challenges

- **SUSTAINABLE FOOD PRICING**
  - Between 69 and 75 percent of SARE project food service survey respondents in charge of menu planning for patient, cafeteria and/or catering operations believe that they would need or want an "increased budget" to incorporate more sustainable ingredients into menus. Food produced by sustainable farmers/producers is not always more expensive than conventionally produced items, but for a variety of reasons, it often is. When this is the case, there are several ways that hospitals can manage these costs so that they can still buy and use these products. See the IATP Sustainable Farm-to-Hospital Toolkit resource *Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget* for more information.
  - When buying certified organic and other products produced by sustainable farmers/producers via distributors or other intermediaries, hospitals may end up paying more for these products than they would if purchased directly from the sustainable farmers/producers. How much more will depend on the mark-up added by distributors, cost of delivery via the farmer/producer, current supply and demand, and type of product, production methods, and other factors. However, if hospitals are not communicating with sustainable farmers/producers in their community, they will never know.

- **CONTRACT 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. AHF, a group that serves self-op facilities, reports that "self-op facilities represent 80 [percent] of food and beverage purchases in the industry."[31] 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.[32] 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.[33]

  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. Most (31 of 37) north central region VA hospitals/medical centers contract with VCS to manage their retail food service operations including—cafeterias, catering, and vending—while keeping management of patient food operations in-house (run by Federal employees) and 3 of 37 use VCS for patient food and 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 keep this issue in mind when deciding who will manage a hospital's food service operations in the future.

- **TIME COMMITMENT:** Regardless of the method used to identify and purchase food produced by sustainable farmers/producers, there will be extra work involved. Extra time will be needed to determine what products to purchase via distributors and how to order them. Extra time is also needed to find farmers/producers that want to sell to a hospital and to work out the details. In time, this commitment should lessen as processes and procedures are in place.

VHA-Specific Sustainable Procurement Challenges

- **POOR ALIGNMENT OF CONTRACTING WITH GOALS:** VHA Directive 2010-007 encourages NFS staff to purchase seasonal produce from local farmers, hormone-free milk, meat and poultry raised without nontherapeutic antibiotics, fish from sustainable fisheries, and fair trade certified coffee and tea. VA subsistence bid solicitations and contracts have included some language related to these goals, but not the kind of guidance and specifications needed to assure that: 1.) local, sustainable food options are available for NFS staff to purchase under these contracts; 2.) NFS staff knows what local, sustainable products are available via contracted suppliers and how to order them; and 3.) NFS staff can easily track their local, sustainable food purchases with or without the assistance of the contracted supplier. For example, VAMC St. Cloud NFS staff was unable to tell whether the fluid milk products they purchased in 2011 were produced without use of rBGH; many products did meet this criterion, but were not identified as such in the fresh milk contract or supplier reports.

- **BARRIERS TO OFF-CONTRACT PURCHASES FROM LOCAL FARMERS AND PRODUCERS:** VHA Directive 2010-007 and its related documents clearly encourage the purchase of seasonal produce from local farms and producers, but it is less clear how a facility can purchase these and other sustainable food items when their availability via contracted suppliers is limited or non-existent.

OTHER LESSONS LEARNED

Further clarity is needed around the term sustainable.

As mentioned previously, there is no uniform definition of a sustainable farmer/producer nor is there a uniform definition of sustainable food. For this project, GGHC Food Service Credit 3 was used as the basis for determining whether a farmer/producer or a product purchased by a hospital was sustainable. Like all similar definitions, this one is imperfect. The problem lies in use of the term "local" and in trying to use a mileage-based definition. The stated intent of Food Service Credit 3 is to "Improve human and ecological health through purchase of local and sustainably produced food products."[34]

The portions of the credit that rely on use of third party-certified eco-labels and USDA and FDA-approved label claims to help hospital purchasers identify sustainable products work as intended, and leave little room for misinterpretation. However, in the latter case it is important for hospitals to understand the types of products for which certain claims are "meaningful." For instance, hormones are not allowed to be used for growth promotion in poultry or pork production, so a chicken item that is labeled as "produced without added hormones" may be true, but this label cannot be used to identify a more sustainably produced chicken or turkey product. However, hormones are commonly used in beef cattle, so the USDA approved "no hormones added" label is meaningful for beef products. See Key Project-Related Definitions section of this report and the IATP Sustainable Farm-to-Hospital Toolkit resource *Food and Beverage-Related Eco-labels/Label Claims* for more information.

The third portion of the credit is meant to encourage hospital procurement of food and beverages from 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. Unfortunately, it can harder to identify these farms/operations, and so the criteria focused on use of a mileage range as follows:

> Farms, ranches, and production/processing facilities located within a 200-mile radius of the facility. Note: All food items that are processed must be sourced from within a 200-mile radius to meet the intent of this Credit Goal. For processed foods with multiple ingredients, including breads and other bakery items,

only products with the majority of ingredients (>50% by weight) produced within the 200-mile radius may be included in the calculation.[35]

As currently written, the term "local" and the mileage radius facilitate the misapplication of this criterion and are seen to encourage purchase of highly processed food items that are manufactured within the mileage radius and conventionally raised food items, such as turkey, chicken, eggs, beef, cheese, fluid milk, and pork, processed and sold by large, often multi-national, food companies headquartered with in the mileage range. Thus, for this project, the criterion was adapted to better reflect the original intent, "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]. This is still the least straightforward measure for determining whether a product or farmer/producer is sustainable, but in the short term it helped to create a brighter line between what distributors and suppliers were reporting as local/produced within the mileage range and being counted as such by hospitals, and the actual intent of GGHC Food Service Credit 3 and this project.

NOTE: In 2014, HCWH is also expected to release a new Healthy Food in Health Care Guide, which among other things is planned to include purchasing-specific guidance for hospitals.[36] HCWH, one of the primary organizations behind development of the GGHC as a voluntary benchmarking system, has since expanded the range to 250 miles.

Hospitals need more information on product availability via farmers/producers.

Types of products

North central region sustainable farmers/producers sell a broad range of products. For instance, the Minnesota and Wisconsin survey respondents expressed interest in selling one or more of the following types of sustainably produced foods to hospitals: beef, bison, chicken, cheese and other dairy products, dried legumes, eggs (shell), farmed fish (tilapia and trout), honey, maple syrup, milled and whole grains, pork, produce (mainly vegetables, but some tree fruits, berries, and melons), and turkeys. In addition, a few apple producers are interested in selling cider to hospitals.

Yet, hospitals tend to focus on buying produce from sustainable farmers/producers in their area and often mention the shorter northern growing season as a reason for not buying more. However, several types of produce grown by north central region farmer/producers can be available long after the harvest is over; season extension methods are helping to extend the growing season for many cooler season crops; and most non-produce items are available all year, even in states like Minnesota and Wisconsin. See the IATP Sustainable Farm-to-Hospital Toolkit resource *Seasonal Availability of Produce and Other Foods Produced in Minnesota and Wisconsin.*

Volumes

The sheer volume of food and beverages purchased by hospitals is significant, and though there are many sustainable farmers/producers throughout the U.S., 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, this should not deter hospitals from buying what is available via distributors or directly from sustainable farmers/producers. See Tables 2.7–2.9 for a comparison of the 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 the co-operative that has expressed interest.

In addition, with advance notice of interest many farmers/producers can increase their production. See Table 2.10.

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 (27,051 lbs.) ■ 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 lbs.	■ Tomatoes (233,226 lbs.) ■ Potatoes (38,335 lbs.) ■ Lettuce (7,317 lbs.) ■ Cucumbers (4,035 lbs.) ■ Summer squash (4,937 lbs.) ■ Bell peppers (4,167 lbs.) ■ Onions (3,992 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.) ■ Bell peppers (12,390 lbs.) ■ Mushrooms (11,852 lbs.)
Herbs (fresh)	900 lbs. (whole)	10,527 lbs.	■ 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 ounces (51,000 lbs.) ■ Ground (21,000 lbs. fresh and 15,000 lbs. frozen) ■ Roasts (43,000 lbs.) ■ Diced (13,000 lbs. frozen and 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 tenderloins, 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

Table 2.9—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 lbs.	300 lbs.
Cheese	64,000 lbs.	45,000 lbs.
Eggs, shell	16,161 dozen	9,380-10,880 dozen
Eggs, liquid	104,000 lbs.	None

Table 2.10—Advance Notice Needed to Assure Adequate Supply (based on combined results from SARE project farmer/producer surveys)

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
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

See Appendices B and E for information on the volumes purchased by SARE project health care collaborators and currently produced by the sustainable farmers/producers who are known to be interested in selling to hospitals in Minnesota and western Wisconsin.

3. Next Steps and Opportunities

Leading hospitals have shown that it is possible over time, and with a conscious effort, to have 50 percent or more of their annual food and beverage purchases grown by sustainable farmers, but most hospitals are likely just getting started, and spending ten percent or less of their annual food budgets on sustainable food and beverage items.[37] Thus, north central region hospitals remain a significant potential market for sustainable farmers/producers, and especially those in the north central region.

NEAR-TERM

To maximize procurement of food produced by sustainable farmers in the near-term hospitals are encouraged to:

- **SET A GOAL OF 15 PERCENT SUSTAINABLE, AND ONCE REACHED, SET A NEW GOAL.** This is the baseline percentage outlined in GGHC Food Service Credit 3 and IATP SARE project health care collaborators see this as doable within 3 years. Subsequent GGHC goals include 25 and 50 percent.

- **SUPPORT SUSTAINABLE FARMERS/PRODUCERS VIA CURRENT SUPPLY CHAIN PARTNERS** by purchasing food and beverage items that are most easily identifiable as produced by sustainable farmers/producers from existing supply chain partners, e.g., USDA Organic products and fluid milk and yogurt produced without use of rBGH/rBST.

  USDA Organic products are readily available and easily identifiable in distributor catalogs and ordering systems. Hospitals may also be able to purchase one or more lines of sustainable coffee and tea (USDA Organic, Rainforest Alliance Certified, Fair Trade Certified). In addition, purchase of dairy items produced without rBGH/rBST is now so easy to do and with so little budgetary impact, that many hospitals likely do not even know they are doing it. Since many hospitals are not aware that they are purchasing these sustainable products, they are missing at least one important opportunity to support sustainable farmers/producers.

- **ESTABLISH A PURCHASING RELATIONSHIP WITH AT LEAST ONE SUSTAINABLE FARMER/PRODUCER, PRODUCER GROUP OR FOOD HUB IN YOUR COMMUNITY BY:**

  - *Making a formal commitment that includes direct procurement from sustainable farmers/producers*

    This can easily be done by becoming one of the more than 400 hospitals, health systems and long-term care facilities across 37 states and the District of Columbia that have already committed to purchasing more local, sustainable food by signing the Health Care Without Harm (HCWH) Healthy Food in Health Care (HFHC) Pledge, and by adopting a sustainable food purchasing protocol, See the Toolkit resources listed below.

  - *Focusing on food-prep neutral options commonly available from one or more north central region farms.*

    The following types of local, sustainable foods and beverages would require little, if any, additional work from hospital food prep staff, no additional food storage and little, if any, extra food preparation space or equipment:

    - Vegetables (that require minimal processing or are available in pre-processed form)
    - Fruit, fresh or frozen (fresh apples, berries and melons)
    - Chicken (diced, shredded, nuggets, tenderloins, cutlets, other cuts depending on portion sizes), local, raised without antibiotics
    - Beef (hot dogs, patties, ground)
    - Pork (bacon, sausage, loins)
    - Turkey (patties and ground)
    - Farmed fish (depends on portion sizes)
    - Honey
    - Maple syrup
    - Whole, milled grains

- *Starting with purchase on one type of product*

  It is sometimes recommended that hospitals start by purchasing food from farmers/producers for special events, but this approach requires hospitals to try to work with many potential suppliers to buy a variety of products. Instead hospitals, should begin with a focus on one or two types of products, such as turkey raised without antibiotics or produce, narrowing the focus even further, if needed, to use of sustainably produced ground turkey purchased from farmer/producer for all taco meat and/or just apples from a sustainable orchard, as long as they are available. Also, keep in mind that per the SARE project farmer/producers surveys, nearly 64 percent would prefer to sell larger volumes to one or two hospitals, than smaller volumes to many hospitals.

- *Rethinking use of current procurement flexibility*

  Often hospitals can purchase the same types of conventionally raised fresh produce from their prime vendor that they are getting via a regional or specialty produce vendor. In addition, some hospitals are purchasing bread products via bread vendors, and milk products via milk suppliers that they can also get via their prime vendor. These purchases can unnecessarily use up a hospital's designated percentage for off-contract purchases, and leave little room for purchasing from sustainable farmers/producers.

- **USE THE FOLLOWING TOOLS PROVIDED IN IATP'S ONLINE SUSTAINABLE FARM-TO-HOSPITAL TOOLKIT:**

  - Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget
  - Food and Beverage-Related Eco-labels/Label Claims
  - The Health-Based Rationale for Hospital Purchase of Sustainable Food
  - Hospital Food Purchasing: A Primer for Sustainable Farmers/Producers
  - Iowa, Minnesota and Western Wisconsin Sustainable Farmers, Producers Interested in Selling to Hospitals
  - Local, Sustainable Product Availability through Distributors Serving Minnesota and Western Wisconsin
  - Online Resources for Hospitals Interested in Connecting to Sustainable Farmers, Producers
  - Online Resources for Sustainable Farmers, Producers Interested in Selling to Hospitals
  - Seasonal Availability of Produce and Other Foods Produced in Minnesota and Wisconsin
  - Sustainable Food Procurement: Working with Current Supply Chain Partners
  - Ten Steps to Creating Mutually Beneficial Relationships with Local, Sustainable Farmers, Producers
  - Using Written Protocols to Guide Direct Procurement of Food from Sustainable Farmers, Producers

LONG-TERM

- Increase the types and amounts of products purchased directly from sustainable farmers/producers.
- Increase procurement flexibility by reducing percentage based commitments to purchase from mainline distributors.
- As opportunities arise, participate in the development/expansion of alternative food distribution models like the Fifth Season Cooperative model highlighted above.
- Avoid contractual food service management arrangements that prevent purchase of food directly from sustainable farmers.

Unique Opportunities for VA Hospitals and Medical Centers

The 37 VA hospitals and medical centers in the north central region represent a significant potential market for sustainable farmers/producers. Based on FY 2010 data, these hospitals spend at least $29.4 million on food and beverages each year, with the greater portion of this amount (69.8 percent) being NFS purchases.

Many factors support increased purchase and use of sustainably produced food at VA hospitals, especially for patient food service.

These factors include:

- **IN-HOUSE FOOD SERVICE MANAGEMENT** Though most VA hospitals/medical centers contract with VCS to manage food service for retail areas, such as employee cafeterias, most VA hospitals/medical centers manage patient food service operations in-house. This allows federal employees to control menu development and ordering. Hospitals that maintain control over these key functions, have been far more successful in establishing relationships with sustainable farmers and producers than hospitals who outsource these services. This control also makes it easier for hospitals to track progress.

- **PROCUREMENT FLEXIBILITY** NFS employees have considerable procurement flexibility and, with minor changes, the VA contracting process can make it easier to purchase food from sustainable farmers/producers. For example, fresh bread, milk and produce items are excluded explicitly from the VA Subsistence Prime Vendor (SPV) contract. However, VA hospitals/medical centers have the option to purchase fresh bread, milk and produce from the prime vendor, these contracts can be negotiated independently, and separate contracts for each can be, and generally are, created at the regional level. In addition, most contracts are one year in length with four option years, making it easier for changes to be made.

- **VHA HEALTHY DIET GUIDELINES** The VHA Directive 2010-007 Healthy Diet Guidelines provide a framework that VA hospitals/medical centers can use to increase purchase of food from sustainable farmers/producers. The directive contains three key sections that relate to the procurement of local, sustainably produced food:

  - A policy statement which states that "[i]t is VHA policy to promote healthy foods and lifestyles by ensuring healthy food choices are available at VA treatment facilities for Veterans, families, staff and guests through incorporating a Healthy Diet Food Model across VHA food service operations."

  - VHA Healthy Diet Food Model guidelines say to "include fresh seasonal fruit and produce in [the patient] menu cycle[...]source local produce and bread vendors[...][and] as able, source products that reduce exposure to chemicals, hormones and nontherapeutic antibiotics."

  - Suggested NFS implementation strategies:

    - 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.

  NOTE: The Directive also applies to VCS-managed venues.

- **VHA GOING GREEN FOOD SERVICE CHECKLIST** The VHA Going Green Food Service Checklist provides a framework within which VA hospitals/medical centers can work to increase purchase of food from sustainable farmers/producers while implementing other strategies to improve the sustainability of its food service operations.

- **VHA SUSTAINABILITY MODELS** Leaders from VAMC Martinsburg, VAMC San Francisco, and other VA hospitals/medical centers have helped to create the VA-specific resources mentioned above, have been working to align their purchasing and practices with these models, and can serve as examples and mentors to staff at other facilities. For more information, see the YouTube video "Food as Medicine" at the VA Medical Center, http://www.youtube.com/watch?v=4_PEA3fFhMo.

Product-specific opportunities

Dairy

- **IN THE NEAR-TERM** determine whether the milk for fluid milk and/or yogurt products comes from cows not treated with rBGH/rBST. If yes, keep track of these purchases. If no, ask current suppliers whether they carry these products and buy them, if feasible.

- **OVER THE LONGER TERM** assure that the SPV and/or regional milk contracts require that (a) milk and yogurt products are produced without use of rBGH/rBST, and (b) other dairy products produced without rBGH-rBST are made available for purchase and clearly identified in ordering systems. In addition, if the SPV carries these products, consider elimination of the separate fresh milk contract, if doing so will increase the ability to buy other sustainable dairy items, or other food items in general, directly from farmers/producers, outside the SPV contract. However, do not construe this as encouragement to stop buying milk produced without rBGH/rBST from a local dairy farm or group of dairies (all located within 200 miles of the VA facility), when it is meant to discourage use of the VA fluid milk contracts to buy from major regional and national milk suppliers, instead of allowing VA hospitals to buy from farmers and small businesses at their discretion.

Produce

- **IN THE NEAR-TERM** start buying directly from sustainable producers/farmers VA hospitals/medical centers have ample basis on which to start buying products directly from farmers/producers. Start by buying products for which you can obtain sufficient quantity to stock a salad bar and/or make all patient salads or vegetable portions for a day, week, month, etc.

- **OVER THE LONG-TERM** work with the local VISN to contract with regional produce vendors that are known to carry a wide selection of produce grown by sustainable farmers/producers.

Bread

- If the same products can be gotten from the SPV that are currently purchased via a separate bread supplier, consider eliminating use of these contracts, so that there is more room to purchase off-contract.

Endnotes

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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 uninspected 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 uninspected 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 distribu-tion methods	43.8 %	7
Other growing practices (e.g. Integrated Pest Management)	37.5 %	6
Names of any current retail, restaurant, institu-tional 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."		

Using Written Protocols to Guide Direct Procurement of Food From Sustainable Farmers, Producers

WHY ADOPT A FARM-TO-HOSPITAL SUSTAINABLE FOOD PURCHASING PROTOCOL?

Hospitals are encouraged to adopt one or more farm-to-hospital sustainable food sourcing protocols for the following reasons:

- To assure hospital administrators and other interested parties that the foods purchased directly from one or more sustainable farmers/producers came from "approved sources" in compliance with voluntary food service implementation of Hazard Analysis and Critical Control Points (HAACP) principles, designed to reduce food safety risks[1,2,3]
- To provide sustainable farmers/producers with the same information on hospital requirements and preferences and increase transparency
- To provide a simple, less onerous way to assure that foods purchased directly from one or more sustainable farmers/producers are as safe, if not safer, than similar foods purchased via a distributor
- To formalize goals, procedures and requirements related to purchase of foods directly from one or more sustainable farmers/producers
- To mainstream hospital procurement of food directly from sustainable farmers/producers
- To address the general food safety concerns that arise when serving both healthy and immune-compromised people
- To engender consumer confidence

FIVE STEPS TO DEVELOPING A PURCHASING PROTOCOL

Step 1

Review the next section containing information on the important components of a purchasing protocol and the sample protocols provided. Then, use the information provided to develop one or more draft protocols for the hospital.

Step 2

Share the draft protocol with key food service staff, including but not limited to those involved in menu planning, placing orders and supervising kitchen staff. Be sure to engage any staff member who has past experience in wholesale purchase of products from farmers/producers.

INSTITUTE FOR AGRICULTURE AND TRADE POLICY
2105 First Avenue South Minneapolis, Minnesota 55404 USA iatp.org
December 2013

Step 3

Use the draft protocol(s) as a guide for identifying, conducting outreach and interviewing potential sustainable farmer/producer partners. Learn what is currently achievable and what may have to change in the short term.

Step 4

Tweak as necessary to create balance between what the hospital requires and what farmers/producers can achieve in the short-term, while communicating longer-term preferences. If necessary, gain approval of the revised draft protocol, before making purchases. If no higher approval is necessary, it is still a good idea to share the steps that food service is taking to buy food directly from sustainable farmers/producers.

Step 5

Use the hospitals new purchasing protocol to establish and maintain relationships with sustainable farmers/producers as needed and on an on going basis.

NOTE: This document is primarily for hospitals that manage food service operations in-house. If a hospital has hired a food service contractor to manage one or more portions of their food service operations, and the food service contractor prohibits purchase of food items directly from sustainable farmers/producers, and/or has prohibitive requirements in place, hospitals should consider adopting their own protocol and regaining the flexibility needed to purchase food from farmers/producers that meet the hospitals' protocol.

IMPORTANT COMPONENTS OF A PURCHASING PROTOCOL

Hospital name and purpose of protocol

List the name of hospital and location or other identifying information if more than one hospital in the area shares the same name. In addition, describe briefly the purpose of the protocol, i.e., the type(s) of products sought.

Distance preferences/ requirements

Indicate whether the hospital prefers or requires that sustainable farmers/producers be located within a specific geographic area, such as the city, county or state where the hospital is located or within a specified mileage range. Ideally, this section and the sustainability/preferences section of a hospital's protocol would be informed by a hospital's overall food policy or vision and sustainable procurement goals. However, a hospital can always start with a draft or test version of a protocol and use lessons learned to inform policy and goal development.

NOTE: Be sure to consider whether there are sufficient sustainable farmers/producers located within the preferred or required range.

Payment method and timing preferences/requirements

Indicate whether the hospital prefers or requires that sustainable farmers/producers accept certain types of payment, such as, credit card, check or electronic transfer.

NOTE: Not all farmers and producers are set up to accept credit card payments. Hospitals should also indicate the timeframe in which the sustainable farmer/producer can expect to be paid, such as within 30 days of invoice receipt.

Contact for additional information

List contact information for a hospital staff person who can answer farmer/producer questions and questions from other hospital staff. Though more than one hospital staff person can and should probably be involved in the development and review of the protocol, at least one person should be responsible for using it to interview and screen potential sustainable farmer/producer partners.

Sustainability preferences/ requirements

Indicate whether the hospital prefers or requires that farmers avoid or use certain practices, and if certification/audits of claims related to these practices are required. For instance, a hospital can require that farmers/producers interested in selling them produce use integrated pest management practices and prefer that they not use of synthetic pesticides, herbicides or fungicides and be able to demonstrate compliance, or that farmers/producers interested in selling them beef avoid use of antibiotics or added hormones and prefer that the beef cattle are also USDA Grassfed.

NOTE: It can be challenging to ascertain whether a farmer/producer is using practices that would be considered sustainable for the products they produce without a certifier to back up their claims. However, in some cases it just does not make sense for a farmer/producer to go to put the time and money into third party audits, even when, for instance, the practices they follow meet and exceed USDA organic standards. In these cases, the hospital will need to rely on the word of the farmers/producers and what can be seen when conducting site visits. See below.

Pricing preferences/requirements

Indicate the type of pricing the hospital prefers or requires (wholesale, by the pound, etc.), and whether delivery cost should be included in the product price or separate.

USDA Grade or other preferences/requirements

Indicate whether the hospital prefers or requires certain USDA product grades, such as Grade 1 or Grade 2 produce, Prime, Choice or Select for beef, etc., and whether pasteurization or other processing practices are required.

Pack size preferences/requirements

Indicate whether the hospital prefers or requires products to be packed in a certain way, e.g., standard box, loose pack, bulk, etc.

Product labeling preferences/requirements

Indicate whether the hospital prefers or requires the name of the farm or farmer/producer cooperative/collaborative on the product, product packaging and/or purchasing documents.

Safe food handling preferences/requirements

Training

Indicate whether the hospital has any preferences or requirements as to whether a sustainable farmer/producer and their workers have had training in on-farm food safety practices, such as USDA Good Agricultural Practices (GAPs) for produce. Though participation may vary throughout the North Central SARE region, of the 22 farmers/producers and farmer cooperatives who completed IATP's 2012 and 2013 SARE project farmer/producer surveys and are interested in selling whole and/or pre-processed produce to hospitals 40.9 percent (9/22) stated that they had completed a USDA GAPs training program.

NOTE: This percentage is likely to increase considerably once the new produce regulations associated with the December 2012 passage of the Food Safety and Modernization Act are official. In addition, USDA GAPs training is inexpensive and increasingly available via on-line webinars. In the meantime, hospitals that do not wish to limit their purchases from sustainable farmers/producers in this way, could just ask sustainable farmers/producers to disclose whether they have completed a USDA GAPs training program, and provide a copy of the certificate for the hospital to keep on file.

Written plan

Indicate whether the hospital prefers or requires farmers/producers to have a written food safety plan for their farm. Currently, a hospital may find that many sustainable farmers/producers who operate smaller-scale farms or operations do not have written food safety plans, in part because they may not have been asked to provide them previously. Of the 32 farmers/producers who completed IATP's 2012 and 2013 SARE project farmer/producer surveys and are interested in selling products to hospitals, 50.0 percent (16/32) stated that they have a written food safety plan. Since it is important for your hospital to feel confident in the produce it is purchasing, it is recommended that sustainable farmers/producers be asked to provide the hospital with at least a short written description of how they ensure food safety on their farm/operation.

Certification

Indicate whether the hospital prefers or requires sustainable farmers/producers to self-certify compliance with USDA Good Agricultural Practices (GAPs) or be audited/certified to be in compliance through the USDA audit program or to a comparable standard by another third party. These certifications apply to fresh produce.

NOTE: Of the farmers/producers and farmer co-operatives who completed IATP's 2012 and 2013 SARE project farmer/producer surveys and are interested in selling fresh produce to hospitals 18.2 percent (4/22) had completed a USDA GAPs self-audit and 18.2 percent (4/22) of these had obtained third party GAPs certification).

Produce pre-processing

Indicate whether the hospital prefers or requires produce to be pre-processed or arrive with limited processing. Note: Of the farmers/producers who completed the IATP 2012 and 2013 SARE project surveys and are interested in selling their produce to hospitals, most engage in only limited processing including sorting or trimming (e.g., topping carrots or husking corn) as part of the harvesting process, or washing (e.g., to start the cooling process or to remove extraneous soil and debris). Those who were interested in selling processed produce items such as cider, said their products were processed in an inspected and approved retail kitchen or processing facility.

Meat and poultry processing

Indicate whether the hospital prefers or requires that meat and poultry products be processed in a state-inspected or federally-inspected facility. If your hospital will be buying from a sustainable farmer/producer or group of farmers/producers in another state, the products will need to be processed in a USDA-inspected facility. Meat and poultry products purchased from farmers/producers located within your state will typically only need to be processed in a state-inspected facility, but you should always consult with your state department of health to determine what is required for your state.

Farm visits preferences/requirements

Indicate whether and how frequently someone from the hospital will conduct a site visit of the farm. If the hospital plans to buy fresh produce from a sustainable farmer/producer who does not have GAPs or equivalent third party certification, it is recommended that a hospital food service representative visit the farm at least once during the growing season to assure that at least some basic practices are in place, such as hand washing stations for farm workers. Consider contacting the department of agriculture or department of health to see if they have any recommendations for conducting site visits.

Farm visits can also be used to have the farmer/producer provide additional details on pesticide use and storage, use of fertilizers and storage, manure management, antibiotics and hormone use, etc. This can be helpful when a farmer uses organic practices, but lacks third party certification. However, when a sustainable farmer/producer does comply with one or more eco-label standards, farm visits can help hospital food service staff to learn first-hand about the different production methods used by these farmers.

Delivery preferences/requirements

Indicate whether the hospital has specific delivery-related preferences or requirements to maintain product quality and enhance shelf life. For instance, a hospital may want to prefer that cooled produce register above 41 degrees upon delivery or that cartons and carriers used to transport products be clean and sanitary at all times.

NOTE: Many smaller farms cannot afford a refrigerated truck for deliveries. Only 35 percent (11/31) farmers/producers not selling shelf-stable products, such as milled grains, deliver their products in a refrigerated truck. Among the remaining farmers/producers, those who sell meat use coolers and ice or cold packs, and those who sell produce use a mix of pre-cooling of product before delivery and using air conditioned vehicles or coolers to transport over short distances.

Insurance preferences/requirements

Indicate whether your hospital prefers or requires that sustainable farmers/producers have certain types and amounts of insurance coverage. For instance, whether your hospital prefers or requires that sustainable farmers/producers carry product liability insurance.

NOTE: Some sustainable farmers/producers do not carry this type of insurance, but based on farmer/producer surveys conducted for the IATP SARE project "*Connecting Sustainable Farmers to Emerging Health Care Markets*," most of the farmers/producers interested in selling to hospitals carried at least a $1 million dollar policy and many carried $2 million or more. Only three farmer/producers interested in selling to hospitals did not carry product liability insurance. Thus, hospitals could likely require that sustainable farmers/producers provide proof that they carry at least a $1 million policy without barring too many farmers/producers from selling to them. Hospitals that do not wish to limit their purchases from sustainable farmers/producers in this way, could just ask sustainable farmers/producers to disclose whether they typically carry product liability insurance and the amount of coverage, and be clear that it is for informational purposes only. Hospitals should also consider asking for a copy of the certificate of coverage to keep on file.

Product recall, reporting and return preferences/requirements

Indicate preferences or requirements related to product recall, reporting of issues or returns.

NOTE: Though many large-scale farms may carry recall insurance, nearly 80 percent of the sustainable farmers/producers who expressed interest in selling to hospitals via the IATP SARE project surveys do not carry recall insurance.

Communication preferences/requirements

Indicate the hospital's preference for providing and receiving feedback on how the relationship is working, both what is working well and what could be improved. Per the IATP SARE project 2013 survey results, 67 percent of farmers/producers consider open communication between themselves and their hospital customers to be "very important."

NOTE: This is not typically included in a purchasing protocol, but should be. Hospitals should also discuss the ways in which they intend to maintain the identity of the farmer/producer as the product source via patient, cafeteria and catering menus or other labeling mechanisms as well as interest in having the farmer/producer attend an occasional event to market products, provide pictures of the farm, etc.

SAMPLE PROTOCOLS

The attached sample protocols can be used alone as part of broader process, such as through a request for information (RFI) or request for proposal (RFP), to determine the interest of one or more sustainable farmers/producers in selling the specified types of food directly to a hospital or health system. For examples of how this has been done, see the school-related resources listed below. The protocols can also serve as the basis for a written purchasing agreement.

ADDITIONAL RESOURCES

The document was informed by a review of the following resources:

- Chartwells Request for Information (chicken raised without antibiotics) www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsChikRFI-jan14.pdf
- Chartwells Request for Information (local produce) www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsProdRFI-Jan9c.pdf
- Greenway Insurance Group and Clinics Local Sourcing Protocol http://danedocs.countyofdane.com/webdocs/pdf/plandev/ifm/sample_template.pdf
- Institutional Buyers 101 Fact Sheet www.ifmwi.org/documents/pdf/Institutional_Buyers_101_0.pdf
- Local Produce Procurement Guide for VA NFS 10-09 (unpublished)
- Minneapolis Public Schools Culinary and Nutrition Services Request for Information (local produce) http://nutritionservices.mpls.k12.mn.us/uploads/mps_f2s_request_for_information-application.pdf
- On-Farm Food Safety Information for Food Service Personnel, Minnesota Department of Health and University of Minnesota www1.extension.umn.edu/food/farm-to-school/docs/farm-food-safety-questions.pdf
- Wisconsin Farm to School: Toolkit for School Nutrition Directors (section on produce bid process) www.cias.wisc.edu/wp-content/uploads/2011/09/4-locate-and-purchase-local-foods.pdf

ENDNOTES

1. Managing Food Safety: A Manual for the Voluntary Use of HACCP Principles for Operators of Food Service and Retail Establishments. US FDA (2008) http://www.fda.gov/Food/GuidanceRegulation/HACCP/ucm2006811.htm (accessed July 22,2013).
2. HACCP-Based Standard Operating Procedures (SOPs). National Food Service Management Institute and United States Department of Agriculture (2005), http://sop.nfsmi.org/HACCPBasedSOPs.php (accessed July 22, 2013).
3. HAACP-based SOPs: Receiving deliveries (Sample SOP), http://sop.nfsmi.org/HACCPBasedSOPs/ReceivingDeliveries.pdf (accessed July 22, 2013).

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

Written by Marie Kulick, Earth Wise Communications, with significant input from the IATP SARE project advisory committee
December 2013

Sample

[NAME OF HOSPITAL]'S PROTOCOL FOR PURCHASING PRODUCE DIRECTLY FROM SUSTAINABLE FARMERS, PRODUCERS

Whenever possible, [name of hospital] is committed to purchasing fruits, vegetables and herbs directly from one or more sustainable farmers/producers or groups of sustainable farmers/producers. Farms should be located within a 250-mile radius, and the closer to our hospital the better. In addition to the mile preference, our produce-specific sustainability preferences are listed in the table below.

[Name of hospital] food service staff should determine the ability of farmers/producers to meet the needs, preferences, and requirements outlined in the table below, before initial purchase. In addition, farmers/producers must be willing to accept payment by check or credit card. When paid by check farmers/producers can expect payment within 30 days of receipt of their invoice. Credit card payments are made upon receipt of their invoice. A bill of lading or detailed invoice should be provided upon delivery to the hospital.

Questions about this protocol or exceptions should be directed to: [insert contact name, title, phone and email address]

Needs, Preferences and Requirements	
Sustainability	Produce must be grown using integrated pest management practices and without use of genetically engineered seed, chemical/synthetic fertilizers, sewage sludge, or raw manure. May prefer produce that is Certified Naturally Grown, Food Alliance Certified, Food Justice Certified, Non-GMO Project Verified, Protected Harvest, Salmon Safe, or Certified Organic, if available.
Pricing	Will pay wholesale market prices at a minimum. Prefer cost of delivery be included in price. Also prefer pricing by the pound.
USDA Grade	US #1 preferred, US#2 may be acceptable with prior notice
Packaging	All produce must be packed and prepared under sanitary conditions and in accordance with good commercial practice. No pack size requirements. Preference for pack sizes will vary by type of produce.
Product labeling	Name of farmer/producer or group of farmers/producers must be listed on purchasing documents (order forms, invoices, etc.). Prefer clear identification on product and/or product packaging as well.
Food safety training	Require proof of training in USDA good agricultural practices (GAPs) or state-based equivalent and keep a copy on file
Written food safety plan	Farmers/producers required to provide a written description of how they ensure food safety on their farm. Prefer at least a two-page written plan that outlines their worker hygiene standards, food handling guidelines, washing/packing/cooling procedures, pest control measures, trace back procedure, etc. and keep a copy on file.
GAPs Certification	No GAPs certification required. Prefer USDA GAPs/GHP certification or third party equivalent.
Farm visits	A hospital food service representative must conduct an on-site visit to the farm at least once during the growing season, if the farm does not have GAPs or equivalent third party certification.
Processing	Produce must be processed in a state-approved kitchen or processing facility.
Delivery	Produce must be properly cooled upon harvest and cold chain maintained from farm to hospital door, as recommended per type of produce to maximize retention of nutrient value and enhance shelf life. Prefer that cooled produce register above 41 degrees upon delivery. Cartons and carriers used to transport products must be clean and sanitary at all times.
Product liability insurance	None required. Prefer $1 million policy coverage.
Product recall, reporting and return	Farmers/producers must provide a written copy of their product recall and return procedures. Also, hospital reserves the right to refuse deliveries of produce if produce is not cooled to proper temperature, see above, is encrusted with field dirt and/or plant materials, insects or rodents are found within packaging or packaging is torn, dirty or suspect to tampering.
Communication	Hospital will make time to provide farmer/producer with feedback, both positive and negative, on both product and service.

Sample

[NAME OF HOSPITAL]'S PROTOCOL FOR PURCHASING MEAT AND POULTRY DIRECTLY FROM SUSTAINABLE FARMERS, PRODUCERS

Whenever possible [name of hospital] is committed to purchasing beef, bison, chicken, turkey and/or pork products directly from one or more sustainable farmers/producers or groups of sustainable farmers/producers. Farms should be located within a 250-mile radius, and the closer to our hospital the better. In addition to the mile preference, our produce-specific sustainability preferences are listed in the table below.

[Name of hospital] food service staff should determine the ability of farmers/producers to meet the needs, preferences, and requirements outlined in the table below, before initial purchase. . In addition, farmers/producers must be willing to accept payment by check or credit card. When paid by check farmers/producers can expect payment within 30 days of receipt of their invoice. Credit card payments are made upon receipt of their invoice. A bill of lading or detailed invoice should be provided upon delivery to the hospital.

Questions about this protocol or exceptions should be directed to: [insert contact name, title, phone and email address]

Needs, Preferences and Requirements	
Sustainability	Beef, bison and lamb must raised without antibiotics or added hormones. Poultry must be raised without antibiotics. May prefer meat and poultry that is American Grassfed Certified, Animal Welfare Approved, Certified Humane Raised & Handled, Certified Naturally Grown, Certified Organic, Food Alliance Certified, Food Justice Certified, Salmon Safe, USDA Grassfed, USDA Process Verified Grassfed, or USDA Process Verified Never Ever 3, if available.
Pricing	Will pay wholesale market prices at a minimum. Prefer cost of delivery be included in price. Also prefer pricing by the pound.
USDA Grade	USDA Prime, Choice or Select
Packaging	No pack size requirements. Preference for pack sizes will vary by type of produce.
Product labeling	Name of farmer/producer or group of farmers/producers must be listed on purchasing documents (order forms, invoices, etc.). Prefer clear identification on product and/or product packaging as well.
Processing	Meat/poultry must be processed in a state-inspected or USDA inspected facility depending on whether the products cross state lines to be sold.
Delivery	A temperatures must be maintained during transport of products.
Product liability insurance	Require $1 million policy coverage.
Product recall, reporting and return	Farmers/producers must provide a written copy of their product recall and return procedures, a description of who is responsible for the animals/product at each step of the process, and information on any food borne illness issues they have dealt with in the last year including the present.
Farm visits	A hospital food service representative must conduct an on-site visit to the farm at least once during the growing season.
Communication	Hospital will make time to provide farmer/producer with feedback, both positive and negative, on both product and service.

Food- and Beverage-Related Eco-labels/Label Claims

THIRD-PARTY CERTIFIED ECOLABELS

Certification	Logo	Brief description	Availability of certified items by food service categories
American Grassfed		■ Developed by the American Grassfed Association. ■ Verified by an independent, third-party, on-farm audit by Auditors from Animal Welfare Approved. ■ Standards incorporate the attributes of open pasture, animal welfare, no antibiotics, no hormones and the production of nutritious and healthy meats; recognize that the U.S. is geographically and climatically diverse and that grassfed production without any supplementation may not be feasible in some regions of the country; did not exist when Green Guide for Health Care (GGHC) Food Service (FS) Credit 3 was published, but places meaningful limits on antibiotic and hormone use so is included here. ■ More information and a list of certified producers can be found at www.american-grassfed.org.	■ Beef ■ Dairy (fluid milk, cheese) ■ Specialty meats (bison, goat, lamb)

INSTITUTE FOR **AGRICULTURE** AND **TRADE POLICY**
2105 First Avenue South Minneapolis, Minnesota 55404 USA **iatp.org**

December 2013

Certification	Logo	Brief description	Availability of certified items by food service categories
Animal Welfare Approved		■ Developed by the Animal Welfare Institute. ■ Verified by Animal Welfare Institute auditors. ■ Standards prohibit the sub-therapeutic and/or nontherapeutic use of antibiotics, or any other medicines, to control or prevent disease or promote growth (including sulfa drugs or ionophores); require animals to be raised on range or pasture; prohibit dual production (i.e., raising animals under both an industrialized, factory-farm system as well as an alternative, higher-welfare system); include high standards for animal welfare. ■ More information and a list of certified producers can be found at www.animal-welfareapproved.org.	■ Beef ■ Dairy (fluid milk, cheese) ■ Eggs (shell) ■ Pork ■ Poultry (chicken, duck, goose, turkey) ■ Specialty meats (bison, goat, lamb, rabbit)
Aquaculture Stewardship Council Certified		■ Developed by the Aquaculture Stewardship Council (ASC). The ASC was founded in 2010 by the World Wildlife Fund (WWF) and IDH (Dutch Sustainable Trade Initiative) to manage the global standards for responsible aquaculture. The standards are developed by the Aquaculture Dialogues, a program of roundtables initiated and coordinated by WWF. ■ Verified by Accreditation Services International (ASI). ■ The ASC standards are based on seven principles and require: ● Comprehensive legal compliance ● Conservation of natural habitat and biodiversity ● Conservation of water resources ● Conservation of species diversity and wild population through prevention of escapes, e.g., the tilapia standard prohibits the use of transgenic manipulation ● Use of feed and other inputs that are sourced responsibly ● Good animal health, e.g., tilapia standard prohibits prophylactic use of antibiotics ● Social responsibility for workers and communities impacted by farming (e.g. no child labor, health and safety of workers, freedom of association, community relations) ■ Standards have been developed and continue to be developed for a wide variety of fish species; eight standards, covering twelve species have been formulated. Standards for abalone, bivalves, pangasius, tilapia and salmon have been finalized; to date only pangasius and tilapia farms have been certified; did not exist when GGHC FS Credit 3 was published. ■ More information and a list of certified fish farms can be found at www.asc-aqua.org.	■ Seafood (farmed fish-pangasius and tilapia)

Certification	Logo	Brief description	Availability of certified items by food service categories
Bird Friendly		■ Developed by the Smithsonian Migratory Bird Center (SMBC). ■ Verified by USDA Organic inspectors who are approved by the SMBC. ■ Standard requires use of shade management practices in organic coffee production; only available for products that are also USDA Organic. ■ More information and product availability can be found at http://nationalzoo.si.edu/scbi/migratorybirds/coffee/.	Beverages (coffee)
Certified Humane Raised & Handled	* Meets the Humane Farm Animal Care Program standards, which include nutritious diet without antibiotics, or hormones, animals raised with shelter, resting areas, sufficient space and the ability to engage in natural behaviors.	■ Developed by a committee of animal scientists and veterinarians with expertise in farm animal and animal welfare issues. ■ Verified by inspectors contracted through Humane Farm Animal Care; specifically inspectors are university professors in animal sciences or veterinarians who are species specific. Three types of inspectors: on-farm, slaughter and traceability. ■ Standards assure that animals have ample fresh water and a healthy diet without added antibiotics, hormones or animal by-products; require that animals be allowed to engage in their natural behaviors, have sufficient space and shelter, and be handled gently to limit stress; assure producer compliance with local, state and federal environmental standards; assure processor compliance with the American Meat Institute Standards for slaughtering farm animals, a higher standard than the Federal Humane Slaughter Act. ■ More information and a list of certified producers can be found at www.certified-humane.com.	■ Beef ■ Dairy (fluid milk, cheese) ■ Eggs (processed, shell) ■ Pork ■ Poultry (chicken, turkey) ■ Specialty meats (lamb, goat, young dairy beef)

Certification	Logo	Brief description	Availability of certified items by food service categories
Certified Naturally Grown		■ Developed by Certified Naturally Grown (CNG), based on the USDA National Organic Program rules. ■ Verified by volunteer peer inspectors, preferably other CNG farmers. ■ Standards are highest ideals of organic farming, and prohibit use of synthetic fertilizers and pesticides and GE seeds; did not exist when GGHC FS Credit 3 was published but a significant number of farms use this eco-label so it has been included here. ■ This is not a 3rd Party certified eco-label. CNG's approach is called a Participatory Guarantee System. These programs are designed to minimize paperwork and certification fees and employ a peer-inspection process built on local networks. They're typically a better fit for small-scale producers who sell locally. ■ More information and can be found at www.naturallygrown.org.	■ Beef ■ Dairy ■ Eggs ■ Grocery (grains, honey, maple syrup) ■ Pork ■ Poultry ■ Produce (fruits, vegetables) ■ Specialty meats (lamb)
Fair for Life/For Life		■ Developed by Institute for Marketecology (IMO). ■ Verified by third-party certification. ■ Standards are for social accountability and fair trade in agricultural, manufacturing and trading operations; are designed to complement existing fair trade certification systems; did not exist when GGHC FS Credit 3 was published. ■ More information can be found at www.fairforlife.net.	■ Beverages (cocoa, coffee, tea, wine) ■ Grocery (chocolate, grains, honey, nuts, oils, spices, sugar) ■ Produce (fruits, herbs, vegetables) ■ Seafood (shellfish)
Fairtrade International		■ Developed by Fairtrade International (FLO). ■ Verified by FLO-CERT, which is a separate company owned by Fairtrade International. FLO-CERT is certified by International Standardization Organization (ISO) 65, the leading, internationally recognized quality norm for bodies operating a product certification system. ■ Standards ensure that farmers in developing nations receive a fair price for their product, and have direct trade relations with buyers and access to credit; encourage sustainable farming practices such as limiting use of pesticides; discourage the use of child labor; require products to be grown by small-scale, democratically organized producers. ■ More information can be found at www.fairtrade.net.	■ Beverages (cocoa, coffee, juices, tea) ■ Grocery (imported chocolate, beans, cane sugar , grains, honey) ■ Produce (imported fruit, herbs)

Certification	Logo	Brief description	Availability of certified items by food service categories
Fair Trade USA		■ Developed by Fair Trade USA (formerly TransFair USA, no longer affiliated with Fairtrade International). ■ Verified by third-party certification; Fair Trade USA audits and certifies transactions between U.S. companies and their international suppliers. ■ Standards require democratic and transparent decision making; prohibit child labor; ensure health and safety measures are established in order to avoid work-related injuries; require pre-determined community development premiums for every sale. ■ More information can be found at www.fairtradeusa.org.	■ Beverages (cocoa, coffee, tea) ■ Grocery (imported chocolate, beans, cane sugar , grains, nuts) ■ Produce (imported fruit)
Food Alliance Certified		■ Developed by Food Alliance. ■ Verified by a third-party site inspection. ■ Standards prohibit use of hormones or nontherapeutic antibiotics; prohibit use of genetically modified crops or livestock; encourage continuous reductions in pesticide use; seek to ensure safe and fair working conditions, healthy and humane care for livestock, conservation of soil and water resources, and protection and enhancement of wildlife habitat. ■ More information can be found at www.foodalliance.org.	■ Beef ■ Dairy (fluid milk, cheese) ■ Eggs (shell) ■ Grocery (grains, legumes, nuts, oil) ■ Produce (fruits, herbs, vegetables) ■ Pork ■ Poultry ■ Specialty meats (lamb)
Food Justice Certified		■ Developed by the Agricultural Justice Project (AJP). ■ Verified by AJP approved third-party certifiers. For operations with hired labor, inspections are in collaboration with worker organizations. ■ Standards ensure fair treatment of workers, fair pricing for farmers and fair business practices; set a high-bar social justice standard for farms, processors and retailers; are designed for all agricultural production systems, fiber and cosmetics as well as food; did not exist when GGHC FS Credit 3 was published. ■ More resources can be found at www.agriculturaljusticeproject.org.	■ Beef ■ Grocery (beans, grains) ■ Produce ■ Specialty meats (bison)

Certification	Logo	Brief description	Availability of certified items by food service categories
Marine Stewardship Council Certified		■ Developed by Marine Stewardship Council (MSC). ■ Verified by third-party certifiers. ASI manages the accreditation of certifiers. ■ Standards assure buyers that products come from a well-managed fishery and have not contributed to overfishing; include three principles: ● The condition of the fish stocks (examines if there are enough fish to ensure that the fishery is sustainable). ● The impact of the fishery on the marine environment (examines the effect that fishing has on the immediate marine environment including other nontarget fish species, marine mammals and seabirds). ● The fishery management systems (evaluates the rules and procedures that are in place, as well as how they are implemented, to maintain a sustainable fishery and to ensure that the impact on the marine environment is minimized). ■ More information can be found at www.msc.org.	■ Seafood (wild caught fish and shellfish)
Non-GMO Project Verified		■ Developed by Non-GMO Project (formed by The Natural Grocery Company and the Big Carrot Natural Food Market), working with the Global ID Group for scientific foundation. ■ Verified by third-party certifier through on-site inspection; can be combined with a USDA Organic inspection. ■ Standards developed to test product ingredients for presence of genetically modified organisms (GMOs); do not allow more than 0.9 percent GMO; require traceability, segregation and testing at critical control points; not included in GGHC FS Credit 3, but supported by Health Care Without Harm's (HCWH) Healthy Food in Health Care (HFHC) team. ■ More information and a list of verified products can be found at www.nongmoproject.org.	■ Beef ■ Beverages (juices, tea, wine) ■ Dairy ■ Eggs ■ Grocery (dry, refrigerated and frozen, grains, honey, snacks) ■ Pork ■ Poultry (chicken, turkey) ■ Processed meats ■ Produce (fruits, vegetables, herbs) ■ Seafood (wild-caught fin fish)

Certification	Logo	Brief description	Availability of certified items by food service categories
Protected Harvest		■ Developed by a collaborative process which starts with possible standards being proposed by farmers, processors and those who work on the ground, which are then peer-reviewed by the scientific community and finally approved by the environmentalists on the Protected Harvest board. ■ Verified by an audit and on-site inspection through a third-party certifier. ■ Standards are unique to the specific crop (grapes for wine, citrus fruit, stonefruit, potatoes, etc.) and region by generally encouraging ecologically-based practices in nine different management categories (field scouting, information sources, pest management decisions, field management decisions, weed management, insect management, disease management, soil and water quality and storage management); to qualify for certification, growers must stay below an established total number of "Toxicity Units" per acre and avoid use of certain high-risk pesticides. ■ Other types of vegetable and field crops may be certified by Protected Harvest in the future. ■ More information can be found at www.protectedharvest.org.	■ Beverages (wine) ■ Produce (fruits, vegetables)
Protected Harvest		■ Developed by Wisconsin Eco-Potato (established by the Wisconsin Potato and Vegetable Growers Association, University of Wisconsin-Madison, the International Crane Foundation, WWF and the Defenders of Wildlife). ■ Verified by third-party certifiers through Protected Harvest. ■ Standards seek to reduce pesticide use; restore natural ecosystems; support native plants and animals. ■ More information can be found at: http://wisconsinpotatoes.com/sustainable-potatoes and www.healthygrown.com.	■ Produce (potatoes)
Rainforest Alliance Certified		■ Developed by Sustainable Agriculture Network. ■ Verified by third-party certification. All personnel responsible for audit design, evaluation and certification/verification/validation decisions are under the purview of the RA-Cert Division. ■ Standards ensure that on certified farms, rainforest is conserved, workers are treated fairly, soil and water quality are not compromised, waste is managed efficiently, chemical use is dramatically reduced and relations with surrounding communities are strong. ■ More information can be found at www.rainforest-alliance.org.	■ Beverages (cocoa, coffee, tea) ■ Grocery (chocolate, nuts) ■ Produce (imported fruit)

Certification	Logo	Brief description	Availability of certified items by food service categories
Salmon-Safe		■ Developed by Salmon-Safe. ■ Verified by independent experts. ■ Standards aim to recognize farm and other land use operations that contribute to restoring stream eco-system health in important native salmon fisheries of the Pacific Northwest; certify the use of agricultural practices that promote healthy streams and wetlands, including chemical management, erosion control, water use and proper animal farming. ■ More information can be found at www.salmonsafe.org.	■ Beef ■ Beverages (wine) ■ Dairy (fluid milk) ■ Eggs (shell) ■ Grocery (dry, refrigerated and frozen, including nutritional supplements and enteral feeding products) ■ Produce (fruits, vegetables) ■ Specialty meats (lamb)
USDA Organic		■ Developed by USDA National Organic Program. ■ Verified by third-party certifiers. ■ Standards prohibit the use of synthetic fertilizers, chemicals or sewage sludge; do not allow organic foods to be genetically modified or irradiated; ensure organic meat and poultry are fed only organically grown feed (without any animal byproducts) and cannot be treated with hormones or antibiotics. ■ Label specifics: ● Certified Organic—a product must contain 95 to 100 percent organic ingredients. ● Made with Organic Ingredients—products which contain more than 70 percent, but less than 94 percent organic ingredients. ● Organic ingredients can be listed on the packaging of products that are not entirely organic. ■ More information can be found at www.ams.usda.gov/NOP/indexNet.htm.	■ Beef ■ Beverages (coffee, juice, tea, wine) ■ Dairy (fluid milk, cheese, cultured, ice cream, etc.) ■ Eggs (shell) ■ Grocery (dry, refrigerated and frozen, including nutritional supplements and enteral feeding products) ■ Meat substitutes ■ Produce (fruits, herbs, vegetables) ■ Pork ■ Poultry (chicken, turkey) ■ Processed meats ■ Specialty meats (bison. lamb)

Certification	Logo	Brief description	Availability of certified items by food service categories
USDA Process Verified		Verification program ■ Developed by USDA, using the International Organization for Standardization's ISO 9000 series standards. ■ Verified by USDA. ■ Standards assure customers of a company's ability to provide consistent quality products or services; some specific examples include "Grassfed" and "Never Ever 3" listed below. ■ Official Listing of Approved USDA Process Verified Programs: ● Livestock and Seed ● Poultry ■ More information can be found at www.ams.usda.gov/AMSv1.0/processverified.	
		Grassfed ■ Verified by USDA; USDA Process Verified logo must be on label. ■ Standards are for meat products derived from ruminant animals, e.g. beef cattle, dairy cattle and lamb; verify that animals were fed a diet of grass and/or forage throughout its lifetime, with the exception of milk consumed prior to weaning; prohibits feeding of grain or grain by-products; requires animals to have continuous access to pasture during the growing season (last frost in spring to first frost in fall); does not address use of hormones or antibiotics.	■ Beef ■ Dairy ■ Specialty meats (lamb)
		Never Ever 3 (NE3) ■ Verified by USDA; USDA Process Verified logo must be on label. ■ Standards require no antibiotics be administered (whether through feed, water or by injection) from birth to slaughter; prohibit growth hormones (including natural hormones, synthetic hormones, estrus suppressants, beta agonists or other synthetic growth promotants) from birth to slaughter; do not allow mammalian and avian byproducts in feed; did not exist when GGHC FS Credit 3 was published. ■ More information can be found at www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5066028.	■ Beef ■ Dairy ■ Pork ■ Poultry* ■ Specialty meats (bison, lamb) *At this time no poultry producers were found to have gone through verification for Never Ever 3.

USDA/FDA Approved Label Claims

Label claim	Sample label	Description	Availability of labeled items by food service categories
Raised without antibiotics		■ Regulated by USDA's Food Safety and Inspection Service (FSIS). ■ No antibiotics are allowed to be administered to the animal at any point during its life, including vaccinations and pre-hatch injections. If an animal becomes sick and requires treatment, it is supposed to be segregated from other animals and sold as a conventional meat product. ■ Similar claims may include: ● No antibiotics added ● No antibiotics administered ■ More information can be found at www.fsis.usda.gov/Fact_Sheets/Meat_&_Poultry_Labeling_Terms/index.asp#17.	■ Beef, veal ■ Pork ■ Poultry ■ Specialty meats (lamb)
Raised without added hormones		■ Regulated by USDA's FSIS. ■ No added hormones were given to the animal at any point during its life. Most meaningful when used on beef or lamb products since the use of added hormones is prohibited in poultry and pork production. ■ Similar claims may include: ● No hormones added ■ More information can be found at www.fsis.usda.gov/Fact_Sheets/Meat_&_Poultry_Labeling_Terms/index.asp#15.	■ Beef, veal ■ Specialty meats (lamb)
rBGH/rBST-free		■ Regulated by the Food and Drug Administration (FDA). ■ The product was produced without use of the artificial growth hormones recombinant bovine growth hormone (rGBH) or recombinant bovine somatotropin (rBST). ■ Similar claims may include: ● Our farmers pledge not to use rBGH or rBST. ● Our farmers pledge not to use artificial growth hormones. ● Milk used in dairy products comes from cows not treated with rBGH/rBST. ■ More information can be found at www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodLabelingNutrition/ucm059036.htm.	■ Dairy (fluid milk, cheese, cultured, other-ice cream)

Label claim	Sample label	Description	Availability of labeled items by food service categories
No genetically engineered ingredients		■ Regulated by FDA. ■ The product was made with ingredients that were not derived from genetically engineered/modified (GE/GM) organisms. The types of commercially grown GE foods will change over time. ■ Similar claims may include: ● GM- or GE-free ● We do not use ingredients that were produced using biotechnology ■ More information can be found at www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodLabelingNutrition/ucm059098.htm.	■ Beverages (juice, soda or other beverages that contain corn, soy, canola or their derivatives) ■ Grocery (processed foods that contain sugar beets, corn, soy, canola or their derivatives) ■ Produce (papaya, yellow summer squash, zucchini)
USDA Grass (forage) fed		■ Regulated by USDA's Agricultural Marketing Service (AMS). ■ Meat products derived from ruminant animals, e.g. beef cattle, dairy cattle and lamb, may be approved to carry the USDA "grassfed" label claim if the animal was fed a diet of grass and/or forage throughout its lifetime, with the exception of milk consumed prior to weaning. Animals cannot be fed grain or grain by-products and must have continuous access to pasture during the growing season (last frost in spring to first frost in fall). Use of hormones or antibiotics is not addressed. Verification for this label claim is voluntary, thus the stand alone claim is only for marketing and is less meaningful than if it is accompanied by the "Process Verified" label (see "USDA Process Verified - Grassfed" on Eco-label chart). ■ Similar claims may include: ● 100 percent Grassfed ■ More information can be found at: http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateN-&navID=GrassFedMarketingClaimStandards&rightNav1=GrassFedMarketingClaimStandards&topNav=&leftNav=GradingCertificationandVerfication&page=GrassFedMarketingClaims&resultType=.	■ Beef, veal ■ Dairy (butter, cheese, fluid milk, yogurt) ■ Specialty meats (lamb)

Eco-label Applicability By Food Service Category

Category	Products	American Grassfed	Animal Welfare Approved	Bird Friendly	Certified Humane Raised & Handled	Certified Naturally Grown	Fair Trade Certified	Food Alliance Certified	Marine Stewardship Council	Non-GMO Project Verified	Protected Harvest	Rainforest Alliance Certified	Salmon Safe	USDA Organic	USDA Process Verified Never Ever[3]	USDA Process Verified Grassfed
Beef	Beef	X	X		X	X		X		X		X	X	X	X	X
	Veal/young dairy beef	X			X											
Beverage	Cocoa						X			X		X		X		
	Coffee			X			X					X		X		
	Tea						X			X		X		X		
	Fruit juices									X		X	X	X		
	Wine						X			X	X		X	X		
Dairy & Eggs	Cheese	X	X		X	X		X		X				X		
	Cultured	X				X				X				X		
	Eggs				X	X		X		X			X	X		
	Fluid milk	X	X		X	X		X		X			X	X		

Eco-label Applicability By Food Service Category

Category	Products	American Grassfed	Animal Welfare Approved	Bird Friendly	Certified Humane Raised & Handled	Certified Naturally Grown	Fair Trade Certified	Food Alliance Certified	Marine Stewardship Council	Non-GMO Project Verified	Protected Harvest	Rainforest Alliance Certified	Salmon Safe	USDA Organic	USDA Process Verified Never Ever[3]	USDA Process Verified Grassfed
Grocery	Breads									X				X		
	Canned fruit									X				X		
	Canned vegetables									X				X		
	Canned legumes									X				X		
	Cereals									X				X		
	Chocolate						X			X		X		X		
	Flours									X				X		
	Frozen entrees									X				X		
	Frozen fruit									X				X		
	Frozen vegetables									X				X		
	Grains					X	X	X		X				X		
	Honey					X	X			X				X		
	Legumes						X			X				X		
	Maple syrup					X				X						
	Nuts						X	X		X				X		
	Oils						X	X		X		X		X		
	Pasta									X				X		
Grocery	Snacks									X				X		
	Sugar (cane)						X			X				X		
Pork	Pork		X		X			X		X				X		
Poultry	Chicken		X		X	X				X				X		
	Duck		X			X								X		
	Goose		X			X								X		
	Turkey		X		X	X		X		X				X		

Eco-label Applicability By Food Service Category

Category	Products	American Grassfed	Animal Welfare Approved	Bird Friendly	Certified Humane Raised & Handled	Certified Naturally Grown	Fair Trade Certified	Food Alliance Certified	Marine Stewardship Council	Non-GMO Project Verified	Protected Harvest	Rainforest Alliance Certified	Salmon Safe	USDA Organic	USDA Process Verified Never Ever[3]	USDA Process Verified Grassfed
Processed meats	Bacon				X					X				X		
	Hot dogs	X			X					X				X		
	Luncheon meats													X		
Produce	Fruit (domestic)					X	X	X		X	X	X	X	X		
	Fruit (imported)									X				X		
	Herbs					X				X				X		
	Vegetables (domestic)					X		X		X	X		X	X		
	Vegetables (imported)									X				X		
Seafood	Wild-caught fin fish								X	X						
	Wild-caught shellfish								X							
	Farm-raised fin fish															
	Farm-raised shellfish							X								
Specialty meats	Bison	X	X		X	X										
	Goat	X	X		X	X										
	Lamb	X	X		X	X		X					X	X		
	Rabbit															

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

The document is based in part on the Green Guide for Health Care (GGHC) *Food Service Credit Toolkit Credit 3 Tracking Sheet*—"Terms Sheet: Food Certifications and Label Claims," but has been updated by Marie Kulick, Earth Wise Communications with assistance from Emily Barker, IATP, and expanded to include additional eco-labels.

Financial Strategies for Incorporating Sustainable Food into a Hospital's Budget

1. DO NOT ASSUME THAT SUSTAINABLE FOOD IS ALWAYS MORE EXPENSIVE

Buying local, sustainably produced food and beverages may cause an increase in a hospital's food and beverage expenditures, but according to two recent Health Care Without Harm (HCWH) surveys, this is not a forgone conclusion. The 2013 HCWH Healthy Food in Health Care (HFHC) survey found that among surveyed hospitals who are working to increase their use of local and sustainably produced foods, 57.9 percent (33 of 57 respondents) found that costs increased, but 36.8 percent (21 of 57 respondents) saw no change in their budget.[1] Interestingly these numbers have improved since HCWH's 2011 HFHC survey when 65.8 percent reported increased costs and only 26 percent reported no change, and some even reported decreases in overall food and beverage expenditures (8.2 percent).[2]

The same is true when comparing pricing of local, sustainable items to conventional items on a product-to-product basis. Local, sustainable food and beverage items are often priced higher than conventional counterparts, but this is not always the case. For instance, during a 2010 project conducted by the Institute for Agriculture and Trade Policy (IATP), at least one hospital found that most of the time the prices charged for local produce, including apples, purchased via their distributor, in this case Bix Produce, were less than non-local options (exceptions were tomatoes and Honey crisp apples). At the time, Duane Pfleiger, vice president at Bix Produce, confirmed that this was usually the case, especially at the height of the season. Also, while many hospitals have found that the price per pound for local, sustainable meats can be two to five times higher than conventional meats, others have paid only slightly higher prices per pound or even less per pound, and in some cases significantly less.[3,4]

2. WHEN PRICES ARE HIGHER OFFSET OR MINIMIZE THEM

- **REDUCE SPENDING ON OTHER ITEMS:** Thirty-one percent (18 of 58) respondents to the 2013 HFHC survey and 29.7 percent (22 of 74) respondents to the 2011 HFHC survey reduced spending on other items as a way to offset costs of local and sustainable food and beverages. Two specific ways to achieve this include:
    - Reducing or eliminating use of frying oil- Many hospitals have eliminated use of deep fat fryers and frying oils in order to promote a more heart healthy diet. In addition, since 90 percent of the U.S. commercial rapeseed (canola) crop is produced from genetically engineered (GE) seeds or plants, hospitals can

significantly reduce use of GE-food stuffs by eliminating the use of these oils.

- Reducing or eliminating use of paper tray liners-St. Luke's Hospital in Duluth, Minn. has saved $16,600 a year since eliminating the use of tray liners.5 Instead of using tray liners, they started using non-skid trays. Though the cost of the non-skid trays is about double the cost of the other trays, the non-skid trays easily last twice as long per Mark Branovan, St. Luke's director of hospitality services.[6]

- **FOCUS ON FOOD WASTE REDUCTION:** Seventy-six percent (44 of 58) respondents to the 2013 HFHC survey and 67.6 percent (50 of 74) respondents to the 2011 HFHC survey used food waste reduction as a cost containing strategy.

- **COMMIT TO PURCHASE OF SPECIFIC VOLUMES:** Twenty one percent (12 of 58) of respondents to the 2013 HFHC survey and 16.2 percent (12 of 74) respondents to the 2011 HFHC survey used this strategy to contain costs associated with procuring local and sustainable food and beverages.

- **STREAMLINE INVENTORY:** Forty percent (23 of 58) of respondents to the 2013 HFHC survey and 39.2 percent (29 of 74) respondents to the 2011 HFHC survey decreased use of convenience items, eliminated less popular items, and used other methods of streamlining their inventory to contain costs.

- **BUY DIRECTLY FROM SUSTAINABLE FARMERS/ PRODUCERS:** By dealing directly with the farmer/ producer, hospitals can sometimes obtain better pricing than they would for the same or similar products purchased via a mainline distributor, but this will depend on a variety of factors including but not limited to the mark-up charged by distributors, the farmer or producer's delivery costs, volumes purchased, and growing methods used. Thirty-one percent (18 of 58) respondents to the 2013 HFHC survey and 41.9 percent (31 of 74) respondents to the 2011 HFHC survey purchased products directly from farmers as a cost containing strategy.

  - Additional savings may be achieved if a hospital commits to purchasing a specific volume, especially of products for which production success and availability is more predictable and less weather dependent, e.g., beef, chicken, dairy, farmed fish, pork and turkey.

  - Have farmers tell you when they have surplus you can buy and/or when they have seconds that can be used in soups, stews, salads and other food items where the look of a product does not matter as much.

- **REDUCE SPENDING ON MEAT:** Many hospitals have found that by reducing the amount of conventional meat and poultry purchased annually, they can use the savings to purchase and serve potentially higher-priced products made from animals raised using more sustainable methods, such as chicken raised without antibiotics or grassfed beef. These changes can also help to reduce a hospital's food system related climate impacts. To reduce meat expenditures, hospitals have reduced portion sizes, increased use of vegetarian options, and implemented other strategies outlined in the HCWH Balanced Menus Initiative. Through the Balanced Menus Initiative hospitals commit to achieving a 20 percent reduction in meat and poultry purchases from their baseline, and then to invest the cost savings in sustainable meat options. Hospitals may also be able to manage local, sustainable meat and poultry product pricing by choosing less expensive cuts and parts, buying beef and pork by the whole, half or quarter, and having whole animals from local, sustainable producers custom-processed.

- **STAY UP-TO-DATE ON PRICE CHANGES:** As in retail markets there are always going to be times when local, sustainable items are sold at reduced prices. Usually this happens when some player in the food chain—farmer, manufacturer, etc.— ends up with excess inventory that it needs or wants to move quickly. Most food and beverage items have a limited shelf life, very limited in the case of fresh foods that will spoil. These are good times to buy extra if you know you can use it, freeze it or otherwise preserve it for a time when you cannot get these products at such a good price, or at all, such as local, sustainable strawberries in January. For an example of how this latter strategy has been working in school kitchens see the IATP report *Frozen Local: Strategies for Freezing Locally Grown Produce for the K-12 Marketplace*. Non-local, USDA Organic and other third-party certified produce will be most affordable during peak season in the state or country of origin. In most cases, the state of origin will be California. Organic foods also reportedly go on-sale around Earth Day in April.[7] This, if

true, might make it easier to feature organic food for a day or a week around Earth Day.

How farmers determine pricing for health care markets

Taken from responses to the IATP 2012 SARE project survey of local farmers and producers:

- Same pricing as restaurants, hotels, etc. and include shipping costs
- Same pricing as other high-volume institutional accounts (K-12, colleges, corporate)
- Based on profit point, regional prices for similar product and what the market will bear
- Average of prices charged by other farmers who sell wholesale; sometimes influenced by need to move product
- Negotiation with buyer
- Negotiate the best price possible while selling the product we need to sell
- Institution/restaurant price is "discounted" since no middleman/distributor
- Prices determined by the board of the buyer-grower group
- Pricing generally determined by wholesale buyers, and similar to prices for produce coming out of California or Florida
- USDA vegetable pricing terminal
- Sells through Organic Valley, so they determine price.
- Health care facilities are NOT wholesale customers. They are direct retail customers that are buying foodservice products from a farmer that only sells to distributors

- **ADJUST PRICES IN RETAIL SETTINGS:** Some hospitals, including 69 percent (40 of 58 respondents) respondents to the 2013 HFHC survey and 67.6 percent (50 of 74 respondents) to the 2011 HFHC survey, adjusted pricing as needed on food and beverage items and meal offerings in cafeterias and vending areas to accommodate use of higher priced local, sustainable items.
    - Numerous studies have now demonstrated that consumers, regardless of the setting—farmers' market, supermarket, restaurant or hospital cafeteria—and, regardless of age, income or family status, will pay more for local, sustainable food.[8,9,10,11,12]
    - Though consumers will pay more for USDA Organic food and meats raised without antibiotics and added hormones (in the case of beef, bison and lamb), they will pay the greatest increases for food identified as local, in part because they also attribute locally produced food with certain sustainability related attributes such as improving the carbon footprint, increasing natural and organic production, and supporting the local economy. Similarly, 77.5 percent of IATP SARE project food service survey respondents are willing to pay more for meals made with local, sustainable ingredients; some up to 30 percent more.
    - Consumers need to know that a product is local or sustainable to exercise this preference, thus local and sustainable items need to be clearly identified at point-of-sale. Whenever possible, signage, menus, etc., should include the name of the farm/producer, the city and state where located and third party certifications such as USDA Organic. Ongoing education and marketing is also helpful to building support. Though time consuming, try to keep track of how cafeteria and vending patrons respond to pricing changes per product. Collection of even the most basic information—dates, types of changes, observations, and patrons comments—could be helpful when the time comes to justify a particular expense. Thirty-eight percent (22 of 58) of respondents to the 2013 HFHC survey and 47.3 percent (35 of 74) of respondents to the 2011 HFHC survey were sure to explain their reasons for increased pricing on local or sustainable items to cafeteria patrons.
    - Allow cafeteria and vending customers to choose whether to pay more by selling local, sustainable food and beverage items and meals side by side with conventionally produced options. This approach could also be used to determine how easy it would be to switch an entire product line to local, sustainable and increase prices. For instance, all other things being equal, if most customers were willing to pay extra for Fair Trade Certified coffee when offered side by side with the conventional coffee option, it would likely be easier to eliminate the conventional item without much fuss. Hospitals can also engage patrons via surveys, new product selection, tastings, and meet-the-farmer events.

We believe the shorter the food chain, the better the food....It's important that the things we provide we can feel are wholesome, and devoid of anything that might cause harm to the body. So we take no shortcuts. For example, we make all our salads from scratch; no additives, no preservatives, no transfats, no hydrogenated oils...It's an investment, if patients eat better, they'll feel better and leave the hospital quicker.[13]

Zach Erickson
Director of Nutrition Services
Fauquier Hospital
May 2012

3. ADJUST THE HOSPITAL'S BUDGET TO BETTER REFLECT PRIORITIES

At their most basic, budgets reflect an institution's priorities. A hospital's food and beverage expenditures, not including labor costs, often make up a tiny percentage of their overall expenses for non-medical supplies. Ideally, hospital and health system administrators would consider the full benefits of providing truly healthy meal options to patients, staff and visitors, and base their food budgets on what it takes to accomplish this. Under this scenario, quality, nutrition and the potential human and ecological health impacts of certain agricultural and food production practices will be prioritized over price and budgets will be

Price versus full cost

While keeping food costs low may appear to be a money saving strategy in the short run for hospitals, the price of a food or beverage item is only one among many factors that determines the full cost, both internal and external, of a hospital's purchase.

Full cost=internal cost + external costs

COMPONENTS OF INTERNAL COSTS

- Price of food item including delivery charges and rebates
- Labor (placing orders, preparation, delivery)
- Time (meetings with distributors, distributor reps)
- Use of energy and water
- Equipment (coolers, freezers)
- Waste (expired foods, prep and plate waste)
- Waste disposal (food and packaging)
- Maintenance/service cost
- Occupational health cost (sick days, protective equipment)
- Patient health (malnutrition, hospital derived food borne illness and/or antibiotic resistant infections)
- Potential liability cost (foodborne illness from purchase of contaminated product and/or improper cooking and handling)

Externalized costs

- Human health
  - Obesity, diabetes, etc.
  - Exposure to pesticides and chemicals
  - Micro-organism
    - Bacterial and viral outbreaks in food
    - Antibiotic resistance
- Environmental health
  - Damage to water quality
    - Pesticides, nitrates and phosphates in drinking water
    - Eutrophication, loss of aquatic species
  - Damage to air quality
    - Emissions of methane, ammonia, nitrous oxide and carbon dioxide
  - Damage to soil quality
    - Erosion of fertile soils
    - Loss of organic matter and carbon dioxide
  - Damage to biodiversity and landscape
    - Loss of wildlife habitat and biodiversity
    - Bee colony and pollination losses
    - Increased risk of flooding and loss of water storage
  - Climate impacts
- Socioeconomic
  - De-population of rural communities
  - Loss of mid-sized farms and consolidation of farmland
  - Poor labor conditions and wages for farm and processing plant workers
  - Easier access to unhealthy foods than healthier options because of federal subsidies for corn, soy and other sweetener, oil and animal feed crops instead of fruits, vegetables, nuts, etc.
- Animal health and welfare

increased as necessary. Some hospital administrators have increased the food service budgets for their hospitals once they have seen the positive benefits that can accrue from making these changes, such as increased patient satisfaction and improved community profile, but hospital food service staff can make changes faster and more strategically when they know in advance that they can spend more for local, sustainable food. For instance, 26 percent (15/58) of 2013 HFHC survey respondents and 23.0 percent (17/74) of 2011 HFHC survey respondents increased their budget to accommodate higher prices.

> Staff, patients and lots of students who come by just to eat—eating healthy and local is just important to everyone now. Everyone wants to know where their food is coming from. Last week we had a salad with spinach and salmon we had smoked in-house. Three separate people came up to tell me how good it was. And there was a patient who told us that our food is better than any restaurant in Burlington. When we started this, we had just hospital food. But now we've really got something to be proud of.[14]
>
> Richard Jarmusz
> Executive chef
> Fletcher Allen Health Care
> January 2012

SUMMARY

Local, sustainable food and beverage products may be priced higher than conventional counterparts, but, in some instances, may also be lower. While it is important for hospitals to consider the full cost of a food or beverage item and not just the price, there are enough ways to accommodate, minimize and offset the purchase of higher priced local, sustainable items that over time and with good planning, price alone should not limit a hospital's ability to meet and exceed any local, sustainable food and beverage procurement goals. It is also important to acknowledge that there is no parity between a conventionally produced apple and a local, sustainably produced apple and it may be beneficial in the long run for hospitals to increase food service budgets and enable staff to prioritize quality, nutrition and the potential human and ecological health impacts of certain agricultural and food production practices over price when warranted.

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The Health-Based Rationale for Hospital Purchase of Sustainable Food

HEALTH-BASED MISSION

Increasingly clinicians who work in hospitals and leading health systems and institutions have been encouraging the leaders and staff at U.S. hospitals to broaden their health-based missions to become role models focused on prevention and community health in addition to providing medical care.

Clinician engagement

Many medical professionals believe that supporting sustainable food systems through hospital purchase of local and sustainably produced foods is a key strategy for promoting and achieving overall improvements in individual and community health. Since 2007, the following professional groups have adopted resolutions that recognize the unique role that hospitals and health practitioners can play in support of sustainable food systems:

- California Medical Association (CMA) (2007)[1]
- American Public Health Association (APHA) (2007)[2]
- American Nurses Association (ANA) (2008)[3]
- Minnesota Academy of Family Practitioners (MAFP) (2008)[4]
- American Medical Association (AMA) (2009)[5]

For instance, the ANA resolution "encourages health care institutions to institute food preference policies to purchase and serve nutritional foods grown according to organic or other methods that support and emphasize sustainable food purchasing, local food systems, renewable resources, ecological diversity, and fair labor practices,"[6] and the stated objective of the AMA Sustainable Food resolution is "to address how medical schools, hospitals, and other health care facilities can model and encourage healthy eating in a manner that supports environmentally sustainable agricultural and food system practices."[7]

In 2007, the Academy for Nutrition and Dietetics (AND) [formerly the American Dietetic Association (ADA)] adopted a position statement "to encourage environmentally responsible practices that conserve natural resources, minimize the quantity of waste generated, and support the ecological sustainability of the food system."[8] This position statement includes information, resources, and specific action-oriented strategies to guide dietitians and technicians in food decision making and professional practice.[9]

Action-oriented strategies for dietitians in food management include the purchase of foods produced with fewer agricultural inputs (e.g., certified organic, grass-fed, or range-fed meats, pastured poultry), purchase of foods direct from local growers (i.e., farm-to-institution) and reduced reliance on imported foods.[10] Since most dietitians work in hospitals, nursing homes and other health care institutions

and many of these sustainably raised foods are more expensive than conventionally produced food, support from hospital management will likely be needed for dietitians to implement these procurement focused strategies.

In August 2012, staff at the Division of Nutrition, Physical Activity and Obesity (DNPAO) at the Centers for Disease Control and Prevention (CDC) convened a meeting of healthy hospital researchers and practitioners to discuss the ways in which hospitals can be role models in work site wellness with respect to healthy food and beverage access and promotion among other things.[11] The panel's full recommendations are presented in a report entitled "Healthy Hospital Choices." The food specific recommendations are as follows:

- Hospitals and public health practitioners can collaborate to establish healthy food/beverage standards and measures addressing employee, community and environmental health for hospital venues.
- Hospitals can support food and beverage environmental change strategies (e.g., access, pricing, product placement and menu labeling strategies).
- Public health practitioners can help develop a publicly available healthy food and beverage environment scan toolkit.

Also in 2010, the AND, ANA, American Planning Association (APA) and APHA developed and endorsed a set of shared food system principles to "support socially, economically, and ecologically sustainable food systems that promote health—the current and future health of individuals, communities, and the natural environment."[12] In the *Principles of a Healthy, Sustainable Food System,* the authors agree on a shared definition of a healthy, sustainable food system around the key themes of health, sustainability, resilience, fairness, economics, and transparency (see below). The coalition partners plan to coordinate with other health, nutrition, and planning-related organizations to advocate for improved food systems.[13]

Principles of a Healthy, Sustainable Food System

Definition of a healthy, sustainable food system:

Health promoting

- Supports the physical and mental health of all farmers, workers, and eaters
- Accounts for the public health impacts across the entire lifecycle of how food is produced, processed, packaged, labeled, distributed, marketed, consumed and disposed

Sustainable

- Conserves, protects, and regenerates natural resources, landscapes, and biodiversity
- Meets our current food and nutrition needs without compromising the ability of the system to meet the needs of future generations

Resilient

- Thrives in the face of challenges, such as unpredictable climate, increased pest resistance, and declining, increasingly expensive water and energy supplies

Diverse in

- Size and scale: includes a diverse range of food production, transformation, distribution, marketing, consumption, and disposal practices, occurring at diverse scales, from local and regional to national and global
- Geography: considers geographic differences in natural resources, climate, customs, and heritage
- Culture: appreciates and supports a diversity of cultures, socio-demographics, and lifestyles
- Choice: provides a variety of health-promoting food choices for all

Fair

- Supports fair and just communities and conditions for all farmers, workers, and eaters
- Provides equitable physical access to affordable food that is health promoting and culturally appropriate

Economically balanced

- Provides economic opportunities that are balanced across geographic regions of the country and at different scales of activity, from local to global, for a diverse range of food system stakeholders
- Affords farmers and workers in all sectors of the system a living wage

Transparent

- Provides opportunities for farmers, workers, and eaters to gain the knowledge necessary to understand how food is produced, transformed, distributed, marketed, consumed and disposed
- Empowers farmers, workers and eaters to actively participate in decision making in all sectors of the system.

Hospital models for healthy food

More than 450 hospitals, health systems and long-term care facilities (at least 8 percent of U.S. registered hospitals) across 37 states and the District of Columbia have already committed to purchasing more local, sustainable food by signing the Health Care Without Harm (HCWH) Healthy Food in Health Care (HFHC) Pledge and/or are participating in the Healthy Hospital Initiative (HHI) Healthy Food Challenge.

Pledge signatories have committed to taking the following steps:

- Work with local farmers, community-based organizations and food suppliers to increase the availability of locally sourced food.
- Encourage our vendors and/or food management companies to supply us with food that is, among other attributes, produced without synthetic pesticides and hormones or antibiotics given to animals in the absence of diagnosed disease and which supports farmer health and welfare, and ecologically protective and restorative agriculture.
- Increase our offering of fruit and vegetables, nutritionally dense and minimally processed, unrefined foods and reduce unhealthy (trans and saturated) fats and sweetened foods.
- Implement a stepwise program to identify and adopt sustainable food procurement. Begin where fewer barriers exist and immediate steps can be taken.
- Communicate to our group purchasing organizations (GPO) our interest in foods that are identified as local and/or third-party certified.
- Educate and communicate within our system and to our patients and community about our nutritious, socially just and ecological sustainable food healthy food practices and procedures.
- Minimize or beneficially reuse food waste and support the use of food packaging and products which are ecologically protective.
- Develop a program to promote and source from producers and processors which uphold the dignity of family, farmers, workers and their communities and support sustainable and humane agriculture systems.[14]

Participants in the HHI Healthy Food Challenge must have signed the HFHC Pledge or formally adopted a sustainable food policy and commit to achieving one or more of the following:

- Decrease amount of meat purchased by 20 percent within three years from baseline.
- Increase the percentage of healthy beverage purchases by 20 percent of total beverage purchases annually over baseline year OR achieve healthy beverage purchases of 80 percent of total beverage purchases for use throughout the hospital (patient, retail, vending and catering) within three years.
- Increase the percentage of local and/or sustainable food purchases by 20 percent annually over baseline year OR achieve local and/or sustainable food purchases of 15 percent of total food dollar purchases, within three years.[15]

PATIENT SATISFACTION

A patient's hospital food experience can influence a hospital's Press Ganey and other patient satisfaction scores, including the new Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). While the HCAHPS survey does not include food specific questions, according to FoodService Director's 2012 Hospital Census Report "a patient's experience with food greatly affects certain categories, such as the overall hospital experience."[16] As of October 2012, patient satisfaction scores have become even more important, because they will be factored into how much Medicare and Medicaid reimbursement hospitals receive.[17,18]

Serving more local, sustainable foods to patients can have a positive impact on patient satisfaction. In 2006, prior to creating their Plow to Plate® initiative and making changes such as using fresh, local ingredients whenever possible, New Milford (Conn.) Hospital had low Press Ganey scores for their inpatient food service—in the 30th percentile nationally.[19] As of 2012, New Milford Hospital's Press Ganey scores for dining services ranked in the high nineties.[20]

FOOD SERVICE EMPLOYEE SATISFACTION

Hospitals have also reported improvement in satisfaction among food service employees after starting to serve more fresh, local, sustainable foods. For instance Pam Oldham, co-director of food and nutrition services for Mercy Medical in Cedar Rapids, Iowa, reported that, despite some initial challenges due to additional food prep instead of opening packages, cafeteria patrons noticed employee efforts and "employees felt proud of what they were producing."[21]

POSITIVE IMAGE

There are now many examples of hospitals getting positive local, national and sometimes even international press attention for providing fresh, local, sustainable food to patients and staff as well as attracting more business from their local communities due to these improvements. Some recent examples include:

- 9 Hospitals With Food That's Worth Eating, The Daily Meal (December 2012)[22]
- The Ins and Outs of Hospital Food, Gloucester Times (September 2012)[23]
- Watertown Regional hospital chef is starting from scratch, JSOnline Milwaukee-Wisconsin Journal Sentinel (August 2012)[24]
- Sustainable nutrition services offered at Hudson Hospital, Hudson Star-Observer (June 2012)[25]
- Hospital Food So Fresh, Even The Healthy Come To Dine, The Salt (May 2012)[26]

Hospitals and hospital food service staff, especially chefs, are also receiving recognition and awards for this work. For example:

- New Milford Hospital (Conn.) received a 2009 Spirit of Planetree Award in the "Nutritional and Nurturing Aspects of Food" category, the Glynwood Center Harvest Award for "Good Food for Health" in 2010 and a 2012 Gold Level Connecticut Quality Innovation Award (CQIA) Innovation Prize for its success at building and sustaining a healthy dining experience for its patients, employees and the community.
- Holly Emmons, food service manager at Union Hospital (Md.) won a Smart, Green and Growing Buy Local Agricultural Challenge Award from Maryland's governor in 2011.
- Fletcher Allen Health Care (Vt.) won a HFHC Sustainable Food Procurement Award in 2011 and 2013.
- John Muir Medical Center (Concord, Calif.) won two HFHC awards in 2011, a Sustainable Food Procurement Award and a Food Climate Health Connection Award.

"New Milford Hospital's award recognizes its healthful culinary achievements following a six-year journey that has helped the community hospital achieve patient satisfaction scores among the nation's best for overall meals and quality of food.

Specifically among its inpatient population, the hospital reached the 98th percentile nationally for overall meal satisfaction (up from 51 percent) and currently ranks in the 99th percentile for quality of food throughout the United States (compared to the previous 38 percent).

Additionally, the hospital has continually increased satisfaction among staff, physicians and local community members who visit its café, generating a 25 percent increase in sales between 2009 and 2011.

"Food is central to our community's health and well-being. When our patients and employees had concerns years ago, we decided to make food service a top priority," stated Deborah Weymouth, senior vice president and executive director, in a news release. "We committed to develop a culture rooted in the belief that a healthful, sustainable food system and exceptional customer service are integral to the patient experience."[27]

MARKET SHIFTING POTENTIAL

Hospitals spend a significant amount of money each year to produce food and beverage items for their food service operations—patient food, retail (cafeterias, cafes, etc.) and catering. Since most hospitals currently spend very little, if any, of this money on sustainably produced food, local or otherwise, dedicating even a small portion of every hospital's annual food purchases to sourcing local, sustainable food, can positively affect human and environmental health and contribute to the economic health of the communities in which the food is produced, especially when hospital dollars are used to purchase directly from small and mid-scale farmers in their community.[28,29,30] See the IATP report *Connecting Sustainable Farmers to Hospitals—A Hospital-Focused Report* for more on the health care market for sustainable foods.

FOOD- AND FOOD SYSTEM-RELATED HEALTH IMPACTS

Overview

Food-related health effects can be immediate or longer term. Food allergies can be life-threatening and ingestion of food-borne or waterborne pathogens sickens millions of people and results in thousands of deaths each year in the U.S.[31] The way food is produced, processed, packaged, delivered and purchased can also negatively impact the health and well-being of individual farmers and farm workers, meat handlers, and communities downwind and downstream. Illnesses also may result from long-term dietary exposure to one, some or many of a wide variety of heavy metals and synthetic chemicals commonly used in food production, processing and packaging. Chronic diseases, such as heart disease, cancer and diabetes, also often food-related, account for 75 percent of U.S. health spending.[32] Like Type-2 diabetes and many forms of cancer and heart disease, most food- and food system-related illnesses are preventable.

Low prices, convenience, and product uniformity have been the primary benefits of the portion of the U.S. food system, commonly referred to as "conventional" agricultural. Menu planning and food budgets of all U.S. hospitals reflect these benefits.

But industrial scale food production is based on a range of often unhealthy and unsustainable practices that result in costs not reflected in these low prices—contaminated crops, meat and animal waste; degraded air, water and soil quality; increased greenhouse gas emissions; declining health and inferior nutrition; and increased and unnecessary on and off-farm exposure to chemical toxicants, antibiotic-resistant bacteria, and exogenous hormones, all of which may contribute to otherwise preventable illness and disease.

These costs are primarily borne by farmers, their families and employees, processing plant workers, natural resources and rural communities downwind and downstream, and secondarily by consumers and the global community.

The industrialization of agricultural methods also has contributed to crop and food animal production being highly concentrated in various parts of the country, with less and less agricultural diversity found regionally and locally. This geographical concentration in production leads to regional concentration of agriculturally-related waste products, air and water pollutants.[35,36,37] It has also made long-distance transportation of food items routine, whether by ship, tractor-trailer or plane, contributing to air quality issues and greenhouse gas concentrations that further threaten human and ecological health.

Going from a diverse agricultural landscape with lots of small and mid-scale farms producing a heterogeneous mix of crops and food animals to a small number of very large farms growing significant amounts of one or two types of crops or food animals has also made food animals and crops more vulnerable to disease, led to significant loss of soil, and resulted in thousands of mid-scale farms going out of business in Minnesota, Wisconsin, and rural communities throughout the U.S. According to the Census of Agriculture, there were 2.2 million farms in the U.S. in 2007, and of these farms, 125,000 produced 75 percent of the value of U.S. agricultural production; most earned a million or more in sales.[38] As farms have gone out of business so have processing facilities, with many of the remaining facilities dedicated to serving the very large-scale producers or being owned outright by multi-national conglomerates.

The demise of these farms has been a boon for land speculators who have begun to buy up U.S. farm land as a hedge against the predicted effects of climate change. Thus, industrial-scale food production, which is highly fossil-fuel dependent, has contributed to climate change overall and the transfer of U.S. agricultural lands from farmers to investors who then rent the land to new farmers.

Climate change is predicted to have varying effects on the agricultural landscape, some areas of the world may benefit while other previously thriving agricultural communities may suffer. By the end of the century, it is predicted that

Four strains of antibiotic-resistant salmonella sicken meat eaters in 2011

April 2011. Twelve people were sickened in 10 states and three hospitalized by Jennie-O Turkey Store turkey burgers contaminated with Salmonella Hadar; 54,960 pounds of turkey burgers were recalled.

August 2011. Salmonella Heidelberg sickened 136 people in 34 states and one death was reported; 36 million pounds of ground turkey were recalled by Cargill Meat Solutions.

November 2011. Chicken livers tainted with Salmonella Heidelberg sickened 179 people in six states; Schreiber Processing Corp. recalls chicken livers.

December 2011. Twenty people from seven states were infected with Salmonella Typhimurium, including seven who were hospitalized; Hannaford, a Scarborough, Maine-based grocery chain, recalled an undetermined amount of fresh ground beef products.[33,34]

summers in the Upper Midwest may be comparable to those in present-day Texas and Oklahoma.[39] Heavy rainfall events are expected to be two to three times more frequent than in the past, causing increased flooding.[40] More water shortages and periods of drought are also predicted as a consequence of increased evaporation from warmer summers. While effects will vary across the U.S., it is clear that industrial-scale food production has made U.S. food production increasingly vulnerable to both flooding and drought, while decreasing the resilience of the overall food system and inhibiting our capacity to adapt.

Fortunately, use of sustainable agricultural methods, such as those used in organic farming, can lead to beneficial improvements in soil and water quality and rural community economics;[41] reduced energy consumption, atmospheric greenhouse gas concentrations and build resilience to extreme weather events associated with climate change,[42] as well as reduce unnecessary exposure to potentially harmful substances; and in some instances, has been shown to enhance the nutritional quality of certain foods, such as milk and beef.[43] Buying products from small and mid-scale producers can help to re-diversify U.S. agricultural production, especially in the Upper Midwest, and to keep more of hospital's food dollars in the local economy and circulating longer than they do when they go to larger-scale farms here or elsewhere.[44,45,46]

Antibiotics

Status quo

Antibiotics are administered for nontherapeutic purposes in large-scale farming operations where beef cattle, chickens, hogs, turkeys and farmed fish and shellfish[47] are raised in crowded, stressful and often unsanitary conditions. The U.S. Food and Drug Administration (FDA) has established withdrawal periods to help ensure that no residues are left in the meat prior to slaughter, but residues are not the most concerning public health issue. More concerning is that the enormous, routine, and largely unnecessary addition of antibiotics to animal feed spurs the formation and spread of bacterial resistance from the farm to human populations.

"According to the [FDA], 80% of all antimicrobials sold in this country—nearly 30 million pounds per year—are used in food animals. Ninety percent of those are added to animal feed or their drinking water at nontherapeutic dosages for what are nontherapeutic purposes, such as promoting growth. The overuse of antibiotics is a primary driver in the formation and spread of antibiotic resistance. The extensive use of antibiotics in animal feed, therefore, promotes resistance, resulting in the spread of more drug-resistant bacteria on meat, in waterways and among farmers and veterinarians.

There is both a human and financial toll to antibiotic overuse. In the [U.S.] alone, an estimated 900,000 cases of antibiotic-resistant infection occur annually; methicillin-resistant Staphylococcus aureus [MRSA] alone is responsible for 18,650 deaths and 94,000 cases of infection. Antibiotic-resistant infection also results in longer hospitalizations, which cost the U.S. health care system $20 billion a year. Lost productivity and other societal costs add another $35 billion to the annual cost."[48]

"More resistant infections mean more patients now receive antibiotics previously held in reserve that may be less potent or convenient, or inherently more toxic—like vancomycin."[49]

Company policies on antibiotics use, when they exist, can be vague and difficult for the lay person to decipher. A few examples are included below. Most indicate that they comply with legally mandated withdraw periods before slaughter and otherwise follow the law, but little else. Others indicate that antibiotics likely are being used routinely to compensate for poor husbandry conditions—prevent disease or transmission of disease (and possibly given to promote growth even though that is not their stated purpose)—and not just to treat sick animals.

- **PILGRIM'S PRIDE**—"We use antibiotics only as instructed by our federally accredited and licensed poultry veterinarians. The antibiotics are used in strict accordance with FDA and USDA guidelines, leaving our products free of harmful residues—a fact verified by on-site USDA sampling."[50]

- **HORMEL FOOD CORPORATION**—"Licensed veterinarians prescribe only approved medications and dosage levels to properly treat, control and prevent illness in animals. All medications are regulated by the FDA, which evaluates any potential negative effects on human health and the environment and any impact on resistance."[51]

- **TYSON**—"FDA-approved antibiotics and antimicrobials may sometimes be used by Tyson Foods for the well-being of our chickens"[52]

Methicillin-resistant Staphylococcus aureus (MRSA) cases at two large-scale poultry operations

July 2008

"At least 8 employees from the Pilgrim's Pride Hatchery are on a leave of absence right now. Several of them confirmed to Today's THV they have a form of community acquired or CA-MRSA....employee[s] have been sick on and off for about a year....'Everyone in the hatchery has had it, but none of their family members has had this and that tells you right there it's at the hatchery....,' Vickie Smith says. Smith is speaking on behalf of friends who are currently employed at the Batesville Pilgrim's Pride hatchery. Together she says all three of them have had CA-MRSA 23-times. Smith adds, 'They complain about the pain. If they bump it they almost cry because it's so painful and they say it feels like their heart is beating with the mosquito like sore.' 'There are 32 people in the building and thirty have had it multiple times.' This employee wants to remain anonymous. He says he had CA-MRSA in February and April. He continues, 'You go in everyday and you don't know if you're going to get to work the next day. There have been people take off five weeks at a time and that's five weeks without any income.' Pilgrim's Pride spokesperson Ray Atkinson says, 'We discovered the first cases a year ago. Since then we've added hand washing stations and sterilized suits for employees. Unfortunately, we're continuing to see a number of cases and we've hired experts in MRSA research and we're cleaning the facility weekly.'"[53]

August 2009

"About two years ago, dozens of workers at a large chicken hatchery in Arkansas began experiencing mysterious skin rashes, with painful lumps scattered over their hands, arms and legs. 'They hurt real bad,' says Joyce Long, 47, a 30-year veteran of the hatchery, where until recently, workers handled eggs and chicks with bare hands. 'When we went to the doctor and got cultured, he told us we had the worst kind of sickness—a superbug.' Its name, she learned, was MRSA, or methicillin-resistant Staphylococcus aureus....

Soon, co-workers at the nearby processing plant, where each day hundreds of thousands of chicken carcasses are prepped for sale, began finding the lumps. Dean Reeves, an 11-year plant employee, went to emergency room with an excruciating bump on her thigh that she thought was a spider bite. It wasn't: She, too, had contracted MRSA. Since November 2007, Reeves, 50, and her husband, Bill, 46, who also works at the processing facility, have experienced relapses every single month. Even the safety glasses, gloves, and smocks workers wear—along with additional cleaning of the plant's equipment instituted by its owner—aren't enough to protect them from the pathogen, says Bill. 'We work so fast we often stick ourselves with scissors or knives, and get blood slung on us from head to foot,' he explains. When a large swelling appeared over one of his eyes, he was told he might go blind; if the MRSA infection progressed to his brain, he'd die."[54]

The alternative

Farmers who use organic or other sustainable production methods generally eschew the routine use of antibiotics. Instead, animals are given more space, are allowed to express their natural behaviors; waste is less concentrated, less contaminated, and removed more frequently from housing; and sick animals are sequestered, treated and often sold separately. Some farmers are audited annually by an independent, third-party organization to assure consumers that they have engaged in these and other similar practices. Farms that pass audits are allowed to use the applicable certification program's logo/eco-label when marketing their products. The following eco-labels demonstrate that meaningful limits have been placed on the use of antibiotics in meat and poultry: American Grassfed Certified, Animal Welfare Approved, Certified Humane Raised & Handled, Food Alliance Certified, USDA Organic, and USDA Process Verified Never Ever 3. The new Aquaculture Stewardship Council (ASC) Certified label can be used to verify that antibiotics were not used for prophylactic purposes in farmed fish.

In the absence of one of these third-party eco-labels, hospitals can use the following USDA-allowed label claims to identify meat and poultry products that were produced without use of antibiotics—"Raised Without Antibiotics" and "No Antibiotics Added." Since producers making these claims are not subject to an independent audit, they are not as reliable as the eco-labels listed above, but companies tend to watch closely what their competitors say, and report what they believe to be false claims.

When purchasing directly from a farm that has not sought approval to carry one of the above-listed eco-labels, hospitals should ask the farmer or rancher if they give their animals antibiotics, if yes, what for and how often. Many farmers now have websites where they will list this type of information. Someone from the hospital can also visit the farm, if deemed necessary; ask to see records of any antibiotics given to treat illness in the current flock or herd and/or to be shown any bags or containers the feed is delivered in to assure that they do not contain antibiotics.

Further Reading

Antibiotics, Animal Agriculture and MRSA: A New Threat, www.iatp.org/files/421_2_107139.pdf.

Buying Better Chicken: A Resource to buying chicken Raised without Antibiotics and Arsenic for Schools, Hospitals and Other Purchasers, www.iatp.org/files/Buying%20Better%20Chicken042011.pdf.

No Time to Lose: Science Supporting Public Health Action to Reduce Antibiotic Overuse in Food Animal, www.iatp.org/documents/no-time-to-lose.

Our Unhealthy Food System: Why physicians' voices are critically needed, www.minnesotamedicine.com/PastIssues/December2012/ourunhealthyfoodsystem.aspx.

Chemical toxicants

Status quo

Many types of chemicals factor into conventional agricultural production. Some are used intentionally to speed growth in food animals, kill pests and weeds, and boost crop yields, while others are used to manufacture synthetic fertilizer. These chemicals are also found in human and animal waste-based fertilizers, including both sewage sludge and manure from cattle, hog, and poultry concentrated animal feeding operations (CAFOs), which can be laden with antibiotics and arsenic.

Pesticides

As of 2007, the latest year for which there is data, it was estimated that 684 million pounds of conventional pesticide active ingredients were used in U.S. agriculture.[55] This represented 80 percent of the 857 million pounds of pesticides used for all purposes in that year. Agricultural pesticides have been linked to a range of chronic health effects including cancer, neurologic and endocrine (hormone) system disorders, birth defects and other chronic diseases.

FARM WORKERS AND RURAL FAMILIES

Though more attention is often paid to the health impacts of eating foods containing pesticides residues, farmers and farm workers have the greatest exposure to pesticides and face greater pesticide-related health threats, including both acute poisonings and long-term health effects such as cancer and Parkinson's Disease.[56,57] They are often the ones to mix or apply pesticides. They plant, weed, prune, harvest and process crops, and they often live in or near treated fields. They may also expose their family members by inadvertently carrying pesticides home from the field on their clothing and skin.[58]

FETUSES AND CHILDREN

Fetuses and children are especially vulnerable to the acute and chronic health effects of pesticides. Fetal exposure can lead to birth defects, developmental delays and autism. The children of farmers and farm workers can be exposed to agricultural pesticides brought home on the clothes and shoes of their parents, in household dust and in drinking contaminated water and food. Also, as many as 500,000 children work as hired labor in fields and orchards.[60]

For children not living in rural communities, food is a significant source of exposure to high toxicity organochlorines, such as dichlorodiphenyltrichloroethane (DDT), a banned insecticide that still persists in the environment, and organophosphate insecticides including chlorpyrifos and methyl parathion.[61] The average American child between the ages of six and eleven carries unacceptable levels of both chlorpyrifos and methyl parathion.[62] Both are neurotoxins and suspected endocrine disruptors.[63,64]

Between seven and nine million pounds of chlorpyrifos were used to treat crops in 2007, making it the most commonly used conventional insecticide active ingredient in U.S. agriculture.[65] In California, where the greatest data on agricultural use of pesticides has been collected, chlorpyrifos is used on almost every type of produce including: nuts, vegetables such as broccoli, cabbage and cauliflower, fruits such as citrus, grapes for wine, table and raisins and strawberries, beans and wheat.[66] In 2009, the highest volumes were applied to almonds, walnuts, oranges, grapes and broccoli.[67] The highest volumes of methyl parathion were applied to walnuts, potatoes, onions, leaf lettuce and dried beans.[68]

Concerns about the role of pesticides in causing both acute and chronic health effects in children led the American Academy of Pediatrics (AAP) to adopt a position statement in 2012 on pesticide exposure in children. In it they encouraged pediatricians to advocate for increased use of integrated pest management (IPM) practices and for government to adopt policies to encourage farmers to use IPM.[69] Through IPM pest damage is managed by the most economical means, and with the least possible hazard to people, property and the environment.[70]

ALL AMERICANS

Most Americans are exposed to multiple agricultural pesticides through consumption of contaminated food. The USDA conducts routine nationwide testing of washed ready-to-eat produce, beef, grains, milk, pork, poultry and water.[71] Funding level usually determines the number of commodities tested each year. As of 2005, funding only allowed for testing of 20 agricultural commodities.[72] The

Food workers among the most affected

Of the 20 million workers employed throughout the U.S. food chain, nearly 3 million are involved in producing the raw products (growing, raising and harvesting) and another 1.3 million are engaged in processing. The remainder is involved in distribution, retail and service. Most of the 20 million are front-line workers. These and the other illuminating statistics that follow are based largely on the results of a survey of more than 600 food chain workers, nearly half of whom worked on farms and in processing plants, and are reported in *The Hands that Feed Us*, published in 2012.[59]

Key survey results for farm workers:

- 54 percent reported being exposed to toxic chemicals and another 10 percent did not know if they had been exposed.
- 16 percent reported being asked by their employers to do something that would put themselves at risk, including working in the rain, working in the dark, working in sub-freezing temperatures, jumping over ditches, spraying without proper training and picking during or right after spraying.
- 23 percent reported that there were 10 to 20 minors in their workplace, ages 12-17.

Key survey results for processing plant workers:

- 65 percent reported experiencing injuries or illnesses on the job, and among those workers, the most frequently reported injuries were: cuts (37.8 percent of injured processing workers), repetitive motion injuries (34.6 percent), slips and falls (26.8 percent), and back injuries (25.2 percent).
- Processing plant workers are often exposed to extreme cold temperatures intended to preserve food safety, but which result in regular illness.

Key survey results all food workers:

- More than 86 percent of workers surveyed reported earning low or poverty wages.
- Food system workers use food stamps at double the rate of the rest of the U.S. workforce.
- Due to a lack of sick days provided by employers, more than half (53 percent) of the workers surveyed reported picking, processing, selling, cooking and serving food while sick, an average of at least three days per year.
- Due to a lack of employer-provided health benefits, more than one third of all workers surveyed (34.8 percent) report using the emergency room for primary health care. In addition, 80 percent of these workers are unable to pay for such care.

Environmental Working Group (EWG) reviews this data to develop its list of the foods most commonly contaminated with pesticides. In their latest review, conducted in 2012 EWG found that 68 percent of tested food samples had detectable pesticide residues after they had been washed or peeled.[73] Though DDT has not been used since 1972, 99 percent of Americans have tested positive for DDT degradants; 93 percent for metabolites of chlorpyrifos.[74] These are just two of the many active pesticide ingredients found by USDA and FDA scientists in produce.

Nearly half of fresh fruit, two-thirds of canned fruit and approximately one-third of fruit juice consumed in the U.S. are imported.[75] According to The Organic Center, on average, pesticide risks are over three times higher for imported produce than produce grown in the U.S.[76] More information on the types of pesticide residues found on food and their documented health effects can be found on the Pesticide Action Network website, www.panna.org.

NATURAL RESOURCES

The environmental impacts of agricultural pesticide use include:

- Soil contamination
- Water and air pollution
- Loss of biodiversity and elimination of key species (e.g., bees)
- Pest resistance, resulting in the need for increased application of pesticides or formulation of alternate pesticides

No scrubbing to safety

Though washing and peeling produce before eating may help to reduce pesticide exposure, they do not remove all residues or other contaminants such as those found in sewage sludge. Residues from many pesticides could still be found on produce samples that government scientists washed and peeled prior to testing. Also, some pesticides, as well as some contaminants in sewage sludge (see below) are taken up by a plant's roots and distributed throughout the plant, so no amount of washing will remove them. According to Pesticide Action Network, at least one analysis has shown that "systemic insecticides account for about 60 percent of dietary risk in domestic crops. Included in this class of pesticides are genetically engineered crops like Bt corn, which express an endotoxin that is likewise impossible to wash off. The average ear of U.S.-grown corn likely has three different systemic insecticides coursing through its tissue."[77]

Arsenic-based feed additives and pesticides

Until very recently arsenic compounds were widely used in poultry and approved for use in hog feed. While initially approved to help control parasites, for decades arsenicals have been added to feed to speed weight gain and to create the appearance of a healthier color. In her blog "Food for Thought," Carole Morrison, veteran contract chicken farmer for an international corporation writes, "Mostly unknown to the outside world, arsenic is a routine feed additive for industrially produced chickens no matter if cocci [bacteria] is present or not or diagnosed by a veterinarian…"[78]

In December 2009, IATP and the Center for Food Safety (CFS) requested via a formal Citizen Petition (FDA-2009-P-0594) that FDA among other steps "immediately suspend the approval of all new animal drug applications (NADAs) for arsenic-containing compounds used as feed additives for food animals." FDA responded in June 2010 by saying that it needed more time to study the issue.

In 2011, following the completion of an FDA study that detected inorganic arsenic at higher levels in the livers of chickens treated with 3-Nitro than untreated chickens, Alpharma, the maker of 3-Nitro (also known roxarsone) agreed to suspend sale of its product.[79] Prior to this suspension roxarsone was the most commonly used arsenic feed additive in the U.S.[80]

In 2012, Maryland became the first state to ban the sale or use of any chicken feed containing roxarsone. The law went into effect in January 2013, but it only affects the sale or use of one type of arsenical used in one type of animal—chicken (ranking 33rd in the nation, Maryland does not have a lot of commercial hog production)[81]. The Maryland law also contains a provision that would lift the ban if, after studying the issue, the FDA finds the product is safe to use in poultry.[82,83] According to the Baltimore Sun, no timeline for review has been established.

Then, in May 2013, attorneys at CFS filed a lawsuit on behalf of CFS, IATP and seven other U.S. food safety, agriculture, public health, and environmental groups to compel FDA to respond to the groups' three year-old petition. See more at http://www.iatp.org/documents/fda-ignores-toxic-arsenic-in-animal-feed. In September 2013, after receiving letters from the FDA requesting additional information about the presence of arsenic in animal tissue, two other major feed manufacturers announced they would withdraw their arsenical products from the market. Zoetis requested that the FDA withdraw approval of roxarsone and carbarsone on September 19, and Fleming Laboratories, Inc. requested that FDA withdrawal approval of arsanilic acid on September 26. See more at http://www.iatp.org/blog/201310/big-win-to-eliminate-toxic-arsenic-in-meat.

Unfortunately, FDA recently denied the CFS and IATP request to withdrawal approval of nitarsone—the last major arsenic-containing compound still used as a feed additive for food animals, pending consideration of additional information that FDA expects to be available at the end of the first quarter of 2014.

Arsenic use in food animals is a concern because it results in arsenic residues in meat, as well as arsenic contamination of manure, agricultural lands and water supplies.

> Inorganic arsenic causes cancer. Adult cancers may form decades after in-womb exposure to arsenic because it re-programs some genes responsible for proper hormone function. Recent research shows arsenic affects at least 187 different genes, about a quarter of which impact how estrogen or other steroid hormones work in the body. Arsenic now appears to also interfere with thyroid function, essential for normal brain development as well as adult function. Researchers see arsenic-related hormone effects even at exposures below 1parts per billion (ppb), or more than 10 times lower than the legal limit for arsenic in drinking water…[84]

Not long after the first arsenic-based additive was approved for use in poultry and swine feed, the extensive use of lead-arsenate insecticides on fruit trees, especially on apple orchards, was winding down and eventually banned in the U.S. in the 1980s.[85] However, since heavy metals persist in the environment, residues still contaminate soils wherever apples were grown between the 1890's and the 1950's, including Wisconsin and Minnesota. According to the Wisconsin Department of Health Services the longer a property was an orchard, the higher the soil pesticide concentration.[86] Crops produced from soils contaminated from previous treatment with lead-arsenate or naturally occurring arsenate may contain these contaminants. Many other countries also used lead-arsenate insecticides including China, which was still allowing use until at least the year 2000.[87] According to the Consumer Reports, China is now the world's major exporter of apple juice concentrate and provided two-thirds of the U.S. apple juice supply as recently as 2011.[88]

Sewage sludge, also known as biosolids

Since the early 1990's, when ocean dumping of sewage was banned, sewage sludge, the semi-solid to solid matter left over following municipal wastewater treatment, has been rebranded as "biosolids" and used as fertilizer by farmers, ranchers and landscape contractors. Sewage sludge is also used for home use under a variety of brand names, e.g., Milorganite® made from Milwaukee's treated sewage. Sewage sludge commonly contains nutrient-rich fecal matter along with bacteria, viruses, parasites, heavy metals, pharmaceuticals and other chemical contaminants—many known to cause health effects.

Though legal, the benefits touted by municipalities and states across the U.S., the use of sewage sludge as fertilizer for food production increases the risk of exposure to sludge contaminants and their associated health effects for consumers and people in the vicinity of application sites. For more than two decades, this latter claim has been hotly debated in rural communities where sewage sludge is spread, but a new study published in Environmental Health Perspectives on March 12, 2013, found that sewage sludge may be causing illness in people up to a mile from where the sludge is spread on land.[89]

The study involved residents from North Carolina, South Carolina and Virginia who live near fields where sludge is applied as a soil amendment. Epidemiology researchers from the Gillings School of Global Public Health at The University of North Carolina in Chapel Hill conducted the study in which more than half of the participants reported acute symptoms such as burning eyes, diarrhea, nausea and vomiting after sludge had been applied to nearby fields. According to the press release, people who live near fields sprayed with waste from industrial swine operations have reported similar symptoms.

Because some of these contaminants are highly persistent, repeated applications of sewage sludge to the same piece of land can increase soil contaminant levels and possibly food contaminant levels for centuries to come. When used for agricultural purposes the sludge can be applied to land used to raise crops for both human and animal consumption or it may be applied to pastureland used to graze cattle, sheep, goats, etc. Use of sewage sludge-based fertilizer is prohibited in production of organic food.

Off-farm toxicants

Also, though not discussed here, between the farm and final purchase of food and beverage items, other chemicals such as food dyes and preservatives are often added, some of which have been shown to have deleterious effects. Chemicals can also leach from food packaging. For more information on the incidence and health effects of these chemicals, see the "Further Reading" list in this section.

The alternative

Farmers who use organic or other sustainable production methods, such as integrated pest management (IPM), generally avoid use of arsenic-based and synthetic pesticides and sewage sludge. While IPM takes a least toxic approach, pesticides may still be used as a last resort. In contrast, certified organic food production applies many of the same concepts as IPM but limits the use of pesticides to those that are produced from natural sources, as opposed to synthetic chemicals.

In addition to the USDA Organic standards, the standards for several other third-party certified eco-labels place meaningful limits on the use of pesticides in crop production and/or on and around food animals, in feed and to grow feed crops including: American Grassfed Certified, Animal Welfare Approved, Certified Humane Raised & Handled, Certified Naturally Grown, Fair Trade USA, Fairtrade International, Food Alliance Certified, Protected Harvest, Rainforest Alliance Certified, Salmon Safe and Wisconsin Healthy Grown Potatoes.

There is currently no meaningful USDA or FDA allowed label claim related to agricultural use of pesticides. Many small-and mid-scale farms essentially follow organic standards without seeking certification, but farmers should be asked to describe their approach to insect, rodent, mold and weed management as applicable to their operations. Also, though not a third-party certification, a growing number of farmers are becoming peer-certified to meet a new standard called "Certified Naturally Grown."

Further Reading

Bridging the GAPs: Strategies to Improve Produce Safety, Preserve Farm Diversity and Strengthen Local Food Systems, www.iatp.org/files/258_2_106746.pdf

Driving Down Pesticide Risks, www.organic-center.org/reportfiles/DRIfinal11-1[1].pdf

Fields of Poison 2002 California Farmworkers and Pesticides, www.panna.org/sites/default/files/FieldsOfPoison.pdf

Feeding Arsenic to Poultry: Is this Good Medicine? www.noharm.org/lib/downloads/food/Feeding_Arsenic_to_Poultry.pdf

The Hands that Feed Us: Challenges and Opportunities for Workers along the Food Chain, www.foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf

Not So Sweet: Missing Mercury and High Fructose Corn Syrup, www.iatp.org/files/421_2_105026.pdf

Organic Essentials: A comprehensive guide for identifying safe and nutritious food, www.organic-center.org/reportfiles/TOC_PocketGuide_2011.pdf

Potential Health Impacts of Certain Persistent and Other Chemicals Detected in Sludge, www.iatp.org/files/421_2_104204.pdf

Purchaser's Guide to Sourcing Sustainable Coffee and Tea, www.noharm.org/lib/downloads/food/Sourcing_Sustainable_Coffee_Tea.pdf

Smart Guide to Food Dyes: Buying Foods That Can Help Learning, www.iatp.org/files/421_2_105204.pdf

Smart Guide on Sludge Use in Food Production, www.iatp.org/files/421_2_104203.pdf

Smart Plastics Guide: Healthier Food Uses of Plastics, www.iatp.org/files/421_2_102202.pdf

2012 Shopper's Guide to Pesticides in Produce, www.ewg.org/foodnews

Still Poisoning the Well: Atrazine Continues to Contaminate Surface Water and Drinking Water in the United States, www.nrdc.org/health/atrazine/files/atrazine10.pdf

What's on my food? www.whatsonmyfood.org/index.jsp

Hormones

Exogenous hormones–those originating outside the body—are approved for use in cattle and sheep raised for meat production to speed up growth, in dairy cattle to boost milk production[90] and in fish-farming to spur reproduction.[91] It is illegal to use hormones in poultry and hog production.

Status quo

Beef

Hormones routinely given to U.S. beef cattle to spur faster growth end up in the meat, and ultimately, our bodies. The Food and Drug Administration (FDA) banned one synthetic estrogen, DES, as an animal growth promoter in 1979. But at least three natural steroids and three synthetic surrogates remain in widespread use as growth hormones by U.S. and Canadian beef cattle producers. One of them, trenbolone acetate, is thought to have 8–10 times greater anabolic activity than testosterone. A 2004 congressional investigation also revealed that the U.S. veal industry had been giving trenbolone implants to more than 90 percent of veal calves; an illegal practice the industry admitted had been commonplace for decades.

Though illegal in Europe since 1988, the U.S. government's position is that hormone residues in beef from adult cattle pose no threat to human health. This safety presumption, however, rests mostly on outdated research concerning the ability of estrogen (estradiol) to mutate genes. The latest research suggests instead that harm from early life exposure to hormones and hormone-disrupting chemicals could stem not from their ability to change the genes, but rather their ability to change the crucial protein environment surrounding the genes called the epigenome. It is this protein environment that determines, in part, at which points in one's life particular genes will be turned on and off. By changing this environment, hormone exposure early in life may basically re-program the body's resilience, reproduction and metabolism later in life...[92]

Dairy cattle

rBGH (recombinant bovine growth hormone, also known as rBST) is a genetically engineered growth hormone injected into dairy cows to increase milk production. rBGH is unnecessary to produce milk. Though declared "safe" by the FDA, food safety officials in many other countries—including Canada, Japan, Australia, New Zealand and all 25 nations of the European Union—have refused to approve its use. Concerns with use of rBGH revolve around its known adverse impacts on dairy cows (including increased mastitis infections needing antibiotic use) and the potential harm to humans. Increased antibiotic use in food animals contributes to antibiotic resistance transmitted to humans. rBGH use also increases levels of a hormonal growth factor called IGF-1 in cows and

in cow's milk. Increased IGF-1 levels in humans have been implicated in higher rates of colon, breast and prostate cancer. As yet, the science is insufficient to assure the safety of drinking milk from cows given rBGH because it is unknown whether doing so will also increase IGF-1 levels in the human bloodstream.[93]

Aquaculture

In captivity, most fish do not reproduce successfully. Fish hatchery operators inject hormones into male and female fish so that they breed. Chorionic gonadotropin, a human hormone, can be injected into fish destined for human consumption. Luteinizing hormone releasing hormone (LHRH) can also be used to induce spawning, but while the offspring can go to market, the parent fish cannot. When humans use chorionic gonadotropin as a fertility drug (or for other uses), it can increase the risk of multiple pregnancy, premature puberty, and ovarian enlargement and cysts. The highest legal cumulative dose of chorionic gonadotropin in fish destined for human consumption is 25 ml. However, FDA does not test fish for residues of the hormone, nor does it take any other regulatory action to enforce this limit.[94]

The alternative

Farmers who use organic or other sustainable production methods generally eschew the routine use of added hormones.

Verification of claims via an audit by an independent third party is currently the best way to know if a beef, bison, or dairy product supplier is placing meaningful restrictions on hormone use. The standards for the following eco-labels prohibit use of synthetic hormones, including rBGH/rBST in dairy cattle, in addition to placing meaningful restrictions on antibiotic use as noted above: American Grassfed Certified, Animal Welfare Approved, Certified Humane Raised & Handled, Food Alliance Certified, USDA Organic and USDA Process Verified Never Ever 3. The applicable eco-label should be present on product packaging.

In the absence of one of these third-party eco-labels, hospitals should look for beef, veal and sheep (lamb) products labeled "No hormones added" and dairy products labeled as produced without rBGH/rBST.

When purchasing directly from a farm, ask the farmer or rancher if they administer hormones when raising their beef, bison, or dairy cattle. Many farmers now have websites where they will list this type of information.

Further Reading

IATP Smart Guide: Hormones in the Food System, www.iatp.org/files/421_2_106678.pdf%20

IATP Smart Guide to Minnesota Dairy Without rBGH, www.iatp.org/files/421_2_105184.pdf

HCWH Purchasing Guide to Sourcing Dairy Products Produced Without rBGH, www.noharm.org/lib/downloads/food/Purchasing_Non-rBGH_Dairy.pdf

HCWH Position Statement on rBGH, www.noharm.org/lib/downloads/food/HCWH_Position_on_rBGH.pdf

Genetic engineering

Status quo

As of December 2011, it is estimated that 95 percent of the U.S. commercial sugar beet crop, 94 percent of the U.S. commercial soybean crop, 90 percent of the U.S. commercial rapeseed (canola) crop, 88 percent of the U.S. commercial corn crop, most of the papaya grown in Hawaii and 25,000 acres of zucchini and yellow summer squash (~45,000 acres were planted in squash, all varieties, in 201295) were produced from genetically engineered (GE) seeds or plants.[96]

Common food ingredients that may also have been derived from these or other GE crops include: amino acids, aspartame, ascorbic acid, sodium ascorbate, vitamin C, citric acid, sodium citrate, ethanol, flavorings ("natural" and "artificial"), high-fructose corn syrup, hydrolyzed vegetable protein, lactic acid, maltodextrins, molasses, monosodium glutamate, sucrose, textured vegetable protein (TVP), xanthan gum, vitamins and yeast products.[97] These ingredients are commonly found in multi-ingredient processed food items, most of which fall into the Grocery category, but also in juice, drink mixes, sodas, processed eggs, flavored milk and most other dairy products including many ice cream products. In addition, most conventionally raised beef and dairy cattle, chickens (laying hens and broilers), turkeys and hogs are fed a diet containing GE corn and/or GE soy beans.

No GE food animals are in commercial production, though FDA is currently deciding whether to approve a genetically engineered variety of salmon (AquAdvantage® Salmon) developed by AquaBounty Technologies.[98] This biotechnology company is also working to develop similar varieties of tilapia and trout.[99] The corporate office of AquaBounty Technologies is in Massachusetts. Aqua Bounty Farms is on Prince Edward Island in Canada.

According to HCWH, GE-related health concerns include allergies, antibiotic resistance and toxins, especially for hospital patients who may be more vulnerable to possible problems from GE crops than the general public.[100] Also, studies have shown that weeds have developed resistance to herbicides used with GE corn and soybeans and have led farmers to use higher application rates of and/or more toxic herbicides.[101] For instance, widespread use of genetically engineered Roundup Ready soybeans and corn and the herbicide glyphosate (brand name Roundup) has led to increased use of atrazine, 2,4-D and other leading herbicides on glyphosate-resistant weeds.[102]

The alternative

Farmers who use organic or other sustainable production methods generally avoid use of GE crops and animals.[103] In addition to USDA Organic standards, which prohibit the use of GE crops and livestock, the following eco-labels can be used to identify foods produced without GE ingredients: ASC Certified, Certified Naturally Grown, Food Alliance Certified and Non-GMO Project Verified. In the absence of one of these eco-labels, hospitals should look for foods, mainly processed foods or beverages, carrying the following statement: "No genetically engineered ingredients." Before purchasing yellow squash and zucchini from a local farm consider asking whether they use GE seeds. Some mid to larger-scale diversified farms grow crops for a variety of markets including wholesale, so it is possible that they may be using GE seeds.

Further Reading

Cereal Crimes: How "Natural" Claims Deceive Consumers and Undermine the Organic Label—A Look Down the Cereal and Granola Aisle, www.cornucopia.org/cereal-scorecard/docs/Cornucopia_Cereal_Report.pdf

HCWH Position Statement on Genetically Engineered Food, www.noharm.org/lib/downloads/food/Genetic_Engineered_Food_Stmnt.pdf

HCWH Purchaser's Guide to Sourcing Food Without Genetically Engineered Ingredients, www.noharm.org/lib/downloads/food/Purchasing_Non-GMO_Food.pdf

Scrambled Eggs Separating Factory Farm Egg Production from Authentic Organic Agriculture, www.cornucopia.org/egg-report/scrambledeggs.pdf

Concentration of production and market share

Industrialization of agricultural methods has also contributed to crop and food animal production being highly concentrated in certain parts of the country. This geographical concentration in production leads to regional concentration of agriculturally related air and water pollutants, such that some communities are disproportionately affected. Tables 1.1 and 1.2 contain information on the top producing states for food animals and crops.

Table 1.1—Regional Concentration of Eggs, Milk and Food Animal Production

Food animal	Top producing states in 2007
Cattle and calves	>50 percent of total sales from five states—Tex., Kan., Neb., Iowa and Colo.[104]
Milk and other dairy products	>50 percent of total sales from five states—Calif., Wis., N.Y., Pa. and Idaho[105]
Pork	>50 percent of total sales from three states—Iowa, N.C. and Minn.[106]
Poultry and egg production (combined)	>50 percent of total sales from six states—Ga., N.C., Ark., Ala., Miss. and Tex.[107]
Broilers (chickens for meat)	The top five broiler-producing states are Ga., Ark., Ala., Miss., and N.C.[108]
Chicken eggs	The top five egg-producing states are Iowa, Ohio, Pa., Ind., and Tex.[109]
Turkeys	The top five turkey-producing states are Minn., N.C., Missouri, Ark., and Virginia[110]

Table 1.2—Regional Concentration of Crop Production

Crop	Top producing states in 2007
Fruits, nuts and berries	89 percent of total sales from six states—Calif. (59.4 percent), Fla., Wash., Ore., Mich. and N.Y.[111]
Grains, oilseeds and pulse crops	49 percent of total sales from five states—Ill., Iowa, Neb., Minn. and Ind.[112]
Vegetables, potatoes and melons	Top five states in acres harvested for fresh market—Calif., Fl., Idaho, Ariz. and Ga. (Calif. alone accounted for 30 percent)[113] Top five states in acres harvested for processing—Calif., Wash., Wis., Minn. and Idaho[114]

Further Reading

Identifying Our Climate Foodprint: Assessing and Reducing the Global Warming Impacts of Food and Agriculture in the U.S., www.iatp.org/files/258_2_105667.pdf

The Changing Climate for Food and Agriculture: A Literature Review, www.iatp.org/files/451_2_104516.pdf

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Sustainable Farm-to-Hospital Toolkit

Local, Sustainable Products Carried by Distributors Serving Minnesota and Western Wisconsin

A=Raised without antibiotics
F= Food Alliance Certified[1]
G=100 percent grass fed
H=No hormones added

O=USDA Organic[2,3]
N=Certified Naturally Grown[4]
R=Produced without use of recombinant bovine growth hormone (rBGH)

MAINLINE DISTRIBUTORS

Company	Sysco Minnesota	US Foods
Warehouse location	Mounds View, Minn.	Plymouth, Minn.
Distribution range	Minnesota, western Wisconsin	Minnesota, eastern North Dakota, eastern South Dakota
Definition of local	No specific definition, but generally Minnesota and boarding states	Within 500 miles
Types of products purchased (when available) from local, sustainable farmers/producers and distributed **Note: See names of specific Minnesota and western Wisconsin farmers/ producers below**	■ Cheese ■ Cider ■ Maple syrup ■ Pork ■ Produce, including but not limited to: ■ Apples ■ Beans ■ Eggplant ■ Peppers ■ Potatoes ■ Squash	■ Produce, including but not limited to: ■ Green beans ■ Lettuce ■ Mushrooms ■ Peppers ■ Potatoes ■ Sweet corn ■ Tomatoes ■ Zucchini
For more information	syscomn.com/farmers.htm	usfoods.com
Anderson Maple Syrup[5] Cumberland, Wis. Maple syrup	X	X

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2105 First Avenue South Minneapolis, Minnesota 55404 USA **iatp.org**

December 2013

Company	Sysco Minnesota	US Foods
Axdahl Farms (F) Stillwater, Minn. Produce		X
Bushel Boy Owatonna, Minn. Tomatoes	X	
Costa Farm & Greenhouse Mahtomedi, Minn. Produce		X
Ed Field & Sons Andover, Minn. Vegetables		X
Forest Mushrooms St. Joseph, Minn. Mushrooms		X
Jack and the Green Sprouts (O) River Falls, Wis. Sprouts		X
Nuto Farms (F) Rice Lake, Wis. Russet potatoes	X	
Pahl Farms (P) Apple Valley, Minn. Strawberries, vegetables	X	
Pepin Heights Orchard[6] Lake City, Minn. Apples, cider	X	X
Riverside Farms Elk River, Minn. Vegetables		X
Russet Potato Farm Bancroft, Wis. Potatoes, onions		X
Svihel Farms, Inc. (F) Foley, Minn. Vegetables	X	
Vine Valley Farms Stewart, Minn. Vegetables		X
Waterworks/Rob's Gourmet Greens Hollandale, Minn. Lettuce, herbs		X

REGIONAL/SPECIALTY DISTRIBUTORS

Company	Appert's Foodservice	Bix Produce Company	Co-op Partners Warehouse7	Upper Lakes Food Inc.
Warehouse location	St. Cloud, Minn.	St. Paul, Minn.	St. Paul, Minn.	Cloquet, Minn., Northfield, Minn.
Distribution range	Upper Midwest	Minnesota, western Wisconsin, northern Iowa, eastern North Dakota	Upper Midwest	Upper Midwest
Definition of local	Grown in Minnesota or within a 150-mile radius of St. Cloud.	No specific definition, but primarily Minnesota or Wisconsin grown or produced	Minnesota and boarding states; price list indicates state in which product is grown	Undetermined
Types of products purchased (when available) from local, sustainable farmers/producers and distributed **Note: See names of specific Minnesota and western Wisconsin farmers/ producers below**	■ Fresh produce (some pre-cut) ■ Cabbage ■ Cucumbers ■ Green beans ■ Peppers ■ Potatoes ■ Tomatoes ■ Winter squash ■ Zucchini	■ Cheese ■ Fresh produce (pre-cuts, many blends) including but not limited to: ■ Apples ■ Herbs ■ Melons ■ Mushrooms ■ Peppers ■ Potatoes ■ Squash ■ Tomatoes ■ Maple syrup	■ Butter ■ Cheese ■ Eggs ■ Fresh produce, including but not limited to: ■ Apples ■ Berries ■ Broccoli ■ Carrots ■ Kale ■ Squash ■ Sweet corn ■ Tomatoes ■ Frozen produce ■ Corn ■ Peas ■ Milk ■ Oil (camelina)	■ Fresh produce including ■ Lettuce ■ Sprouts ■ Tomatoes
For more information	apperts.com	bixproduce.com	cooppartners.coop	upperlakesfoodsinc.com
Anderson Maple Syrup Cumberland, Wis. Maple Syrup		X		
Axdahl Farms (F) Stillwater, Minn. Produce		X		
Big River Farms (O) Marine on St. Croix, Minn. Vegetables, herbs			X	
Bushel Boy Owatonna, Minn. Tomatoes		X		
Cedar Summit Farm (O,R) New Prague, Minn. Fluid milk, drinkable yogurt			X (via drop-ship)[8]	
Costa Farm & Greenhouse Mahtomedi, Minn. Produce		X		
Crystal Ball Farms (O,R) Osceola, Wis. Fluid milk			X (via drop-ship)	
Donnay Dairy (O) Kimball, Minn. Goat cheese		X	X	

Company	Appert's Foodservice	Bix Produce Company	Co-op Partners Warehouse7	Upper Lakes Food Inc.
Driftless Organics (O) Soldiers Grove, Wis. Beef, produce, sunflower oil			X (via drop-ship)	
Ed Field & Sons Andover, Minn. Vegetables		X		
Eichten's Hidden Acres Center City, Minn. Cheese (R9)		X	X	
Featherstone Farm (O) Rushford, Minn. Produce			X (via drop-ship)	
Ferndale Market (A)[10] Cannon Falls, Minn. Turkey				X
Forest Mushrooms St. Joseph, Minn. Mushrooms		X	X (via drop-ship)	
Future Farm Food and Fuel Baldwin, Wis. Lettuce		X		
Gardens of Eagan (O) Northfield, Minn. Produce			X	
Hoch Orchard (O) La Crescent, Minn. Tree fruits, berries			X (via drop-ship)	
Jack and the Green Sprouts River Falls, Wis. Sprouts		X		
Joe Zywiec Vegetable Farm Cottage Grove, Minn.		X		
Kadejan Poultry (A) Glenwood, Minn. Poultry			X (via drop-ship)	
Larry Schultz Owatonna, Minn. Eggs, poultry			X (via drop-ship)	
Morning Star Farm Cokato, Minn. Cheese			X	
Nagel Produce Arlington, Minn. Produce		X		
Nordic Creamery[11] **(N,R)** Westby, Wis. Butter, cheese			X	
Pahl Farms (F) Apple Valley, Minn. Strawberries, vegetables		X		
PastureLand Belleville, Wis. Yogurt			X (via drop-ship)	
Pastures-A-Plenty Co & Farm (F) Kerkhoven, Minn. Pork			X (via drop-ship)	

Company	Appert's Foodservice	Bix Produce Company	Co-op Partners Warehouse7	Upper Lakes Food Inc.
Pepin Heights Orchard Lake City, Minn. Apples, cider		X		
Poplar Hill Dairy (A,H) Scandia, Minn. Pasteurized goat milk, goat cheese				
Riverside Farms Elk River, Minn. Vegetables		X		
River Valley Sprouts (O) Houston, Minn. Sprouts		X	X	
Songs Mushroom Farm Gays Mills, Wis. Mushrooms		X		
Southeast Minnesota Food Network Beef, bison, cheese, eggs, honey, lamb, pork, poultry, produce, wild rice			X (via drop-ship)	
Svihel Farms, Inc. (F) Foley, Minn. Vegetables	X	X		X
Thousand Hills Cattle Company (A,G,H)[12] Cannon Falls, Minn. Beef			X (via drop-ship)	
Vine Valley Farms Stewart, Minn. Vegetables		X		X
Waterworks/Rob's Gourmet Greens Hollandale, Minn. Lettuce, herbs		X		
Wescott Orchard[13] Elgin, Minn. Produce		X		X
Wild Country Maple Syrup (O) Lutsen, Minn. Maple syrup			X (via drop shipment)	

OTHER DISTRIBUTORS

Bergin Fruit & Nut Company (berginnut.com), based in St. Paul, Minn., sells fruit purchased from Wescott Orchard, see endnote 4.

H. Brooks (hbrooks.com): located in New Brighton, Minn., does not sell directly to institutions, but many growers who completed the IATP SARE project farmer/producer surveys sell to H. Brooks, which in turn sells to institutional suppliers.

Reinhart Foodservice (rfsdelivers.com): The La Crosse, Wis. distribution center carries Fifth Season Cooperative products, most of which are foods produced by local, sustainable farmers/producers. For more information visit the Co-op's website at http://fifthseason.coop/ or download the August 2013 Buyers Newsletter, which contains the Fifth Season 2013 Product List with Reinhart product codes, http://fifthseason.coop/wp-content/uploads/2013/08/FSC-Buyers-newsletter-August-2013-1.pdf.

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

Developed by Marie Kulick, Earth Wise Communications, with assistance from Emily Barker, IATP.

ENDNOTES

1. Food Alliance Certified Products, Food Alliance, January 2013, http://food-alliance.org/files/Food%20Alliance%20Certified-Products%202013.pdf (accessed October 8, 2013).

2. Directory of Minnesota Organic Farms 2012-13, Minnesota Department of Agriculture, http://www.mda.state.mn.us/~/media/Files/food/organicgrowing/organicdirectory.ashx (accessed October 8, 2013).

3. Minnesotagrown.com, Minnesota Department of Agriculture, http://www3.mda.state.mn.us/mngrown/home.aspx (accessed October 8, 2013).

4. List of Farms & Apiaries, Certified Naturally Grown, http://www.naturallygrown.org/farm-list.html (accessed October 8, 2013).

5. Per a phone conversation between Emily Barker (IATP) and a representative from Anderson Maple Syrup on May 1, 2013, the syrup used to make their products is all from US producers, primarily from Minnesota, Wisconsin, Ohio and New York. The syrup is typically comingled to create their products for retail sale, and thus would generally not meet the GGHC FS Credit 3 definition of local. However, for larger, bulk purchases, they will do custom state-produced orders, where all of the syrup would be from a desired state, which would meet the local definition. These orders must specifically be requested by the purchaser.

6. Pepin Heights' apples are usually comingled with apples from other orchards before sale under the Pepin Heights label.

7. Per their Fall/Winter 2012 Product Catalog, Co-op Partners Warehouse (CPW) "works with several regional producers to deliver their product on our trucks." This "drop-ship" method allows additional local producers to sell their product direct to buyers, aggregate orders and have it delivered via CPW. For a list of current Producer Direct Partners, contact CPW.

8. Drop-Shipped Product, Co-op Partners Warehouse, http://www.coop-partners.coop/services_drop_shipping.php (accessed October 8, 2013).

9 Per phone conversation between Marie Kulick, Earth Wise Communications and Tammy Stephens, office manager for Eichtens Hidden Acres LLC on October 8, 2013, all of Eichten's natural cheeses are made on their farm from fresh cow's milk. They do not use GMO-rennet and the milk is produced from cows not given added hormones or rBGH.

10. http://ferndalemarketonline.com/home/

11. Milk for cheese and butter comes from Bekkum Family Farms LLC.

12. Home page, Thousand Hills Cattle Company, http://www.thousandhills-cattleco.com/ (accessed October 8, 2013).

13. Per a phone conversation between Emily Barker (IATP) and a representative from Wescott on February 26, 2013, they have their own orchards in Minnesota, Washington, and Chile. In season, they do local production, but fill in from elsewhere during the remainder of the year. Buyers should confirm with Wescott to verify if current produce is local.

Iowa, Minnesota and Western Wisconsin Sustainable Farmers, Producers Interested in Selling to Hospitals

This directory includes individual and groups of Iowa, Minnesota, and Wisconsin sustainable farmers/producers who indicated via an IATP SARE project farmer/producer survey that they are interested currently in selling to hospitals and were willing to have their information shared.

This directory is not all-inclusive, as there may be additional farmers/producers in Minnesota and Wisconsin who would be interested in selling to hospitals but did not participate in our survey. To find other producers who may be interested in selling to wholesale customers in Iowa see the Iowa Buy Fresh Buy Local Directory (www.iowafreshfood.com/uploads/PDF_File_61325466.pdf), in Minnesota see the Minnesota Grown Wholesale Database (www3.mda.state.mn.us/whlsale) or in Wisconsin see the Farm Fresh Atlas™ 2013 Western Wisconsin Local Food Directory (www.wifarmfresh.org).

FARMER/PRODUCER CONTACT INFORMATION BY STATE

NOTE: An asterisk "*" indicates that the products sold under the farm/business name/label come from multiple sustainable farmers/producers, but each farmer's/producer's products are packaged separately. A double asterisk "**" indicates that products from more than one farm are usually or always co-mingled before sale under the farm/business name/label.

Iowa

Farm/business	Location	Contact name	Contact information	Products	Delivery radius	Interested in food service farm visits
Grass Run Farm, Inc.**	Dorchester, Iowa	Kristine Jepsen	(563) 277-0052 kristine@grassrunfarms.com www.grassrunfarms.com	Beef	Depends on volume	Yes

Minnesota

Farm/business	Location	Contact name	Contact information	Products	Delivery radius	Interested in food service farm visits
Big River Farms*	Marine on St. Croix, Minn.	Glen Hill	(651) 433-3676 glenhill@mnfoodassociation.org www.mnfoodassociation.org	Produce	40-50 miles	Yes
Carlson's Orchard	Annandale, Minn.	Dale Carlson	(320) 274-8699 carlson.orchard@gmail.com	Produce	Depends on quantity	No
Community Table Cooperatives**	St. Paul, Minn.	Collie Graddick	(612) 961-8262 collie@communitytable.coop www.communitytable.coop	Beef, Chicken, Fish, Produce	100 miles	Yes
Costa Farm & Greenhouse	White Bear Lake, Minn.	Karin Costa	(651) 429-8184 rkcosta@usfamily.com www.costafarm.com	Produce	40 miles	Yes
Ferndale Market	Cannon Falls, Minn.	John Peterson	(507) 263-4556 john@ferndalemarketonline.com www.ferndalemarketonline.com	Turkey	100 miles, also contracts freight for high-volume orders through Coop Partners Warehouse	Yes
Garden Fresh Farms	Maplewood, Minn.	Dave Roeser	(612) 886-6631 droeser@gardenfreshfarms.com gardenfreshfarms.com	Produce, Fish	20 miles	Yes
Good Earth Mill & Grains	Good Thunder, Minn.	Rachel Hollerich	(507) 380-5281 rachel@goodearthmill.com www.goodearthmill.com	Produce, Pork		No
Hulgan House Heritage Farms	Montgomery, Minn.	Doreen Devoy-Hulgan	(507) 779-6627 doreen.devoy@gmail.com	Chicken, Eggs, Pork, Produce, Specialty Poultry, Turkey	50 miles	Yes
Laughing Loon Farm LLC	Northfield, Minn.	Dayna Burtness	(612) 812-1923 dayna@laughingloonfarm.com www.facebook.com/LaughingLoonFarm	Produce	Depends on order size	Yes
Muddy Feet Farm	Minnetrista, Minn.	Stephanie Stillman	(763) 242-3604 farmerstillman@gmail.com muddyfeetfarm.org	Produce	20 miles	Yes
Paradise Valley Buffalo Ranch	Bagley, Minn.	Duane Hayes	(218) 694-2290 hayesbuf@gvtel.com www.bisonisbetter.com	Bison	60 miles	No
Pepin Heights Orchards, Inc.**	Roseville, Minn.	Timothy Byrne	(651) 398-5503 tim@pepinheights.com www.pepinheights.com	Produce	75 miles	Yes
Prairie Pride Farm of MN, LLC	Mankato, Minn.	Dawn Hubmer	(507) 245-3117 dawnhubmer@gmail.com www.prairiepridepork.com	Chicken, Pork	50 miles	No
Prairies Past Produce	Pipestone, Minn.	Lisa Smith	(507) 825-3845 lisasmith@nobleswildblue.com	Produce		Yes
River Valley Sprouts	Houston, Minn.	Laurie LeGrande	(507) 896-3602 llegrande1@gmail.com	Produce	170 miles	No
Rolling Hills Traeger Ranch	Avon, Minn.	Christina Traeger	(320) 293-2995 britishwhitebeef@gmail.com lovebritishwhites.com	Beef, Chicken, Pork	35-100 miles, depends on product	No
Sunrise Flour Mill**	North Branch, Minn.	Martha (Marty) Glanville	(651) 674-8050 marty@sunriseflourmill.com www.sunriseflourmill.com	Grains (miller)	Depends on order size	Yes

Farm/business	Location	Contact name	Contact information	Products	Delivery radius	Interested in food service farm visits
Way of Life Gardens, LLC	Wells, Minn.	Deborah Mertens	(507) 317-5453 dmwlg2010@gmail.com	Produce	120 miles, maybe	Not at this time

Wisconsin

Farm/business	Location	Contact name	Contact information	Products	Delivery radius	Interested in food service farm visits
Bullfrog's Eat My Fish Farm	Menomonie, Wis.	Herby Radmann	(715) 664-8775 bullfrog@eatmyfish.com www.eatmyfish.com	Fish	25 miles, regional—Wis. and Minn.	No
Buvala Farm LLC	Pepin, Wis.	Matthew Buvala	(715) 495-7927 matthewbuvala@gmail.com	Chicken, Eggs	60 miles	Yes
Castle Rock Organic Dairy	Osseo, Wis.	Carla Kostka				
Cedar Hill Green-house & Farm	River Falls, Wis.	Betty Lindahl	(715) 426-1831 cedarhillgreenhouse@ comcast.net www.cedarhillfarmandgreen-house.com	Produce	15 miles	No
Circle K Orchard	Beldenville, Wis.	Wilson Mills	(715) 821-7799 wilsonmills@hughes.net www.circle-k-orchard.com	Produce	50 miles	Yes
LoFam Farm	Chippewa Falls, Wis.	Gary Loew	(715) 288-6704	Beef, Dairy, Eggs, Pork, Produce	Depends on product, on-farm up to 20 miles	Yes
Threshing Table Farm	Star Prairie, Wis.	Jody Lenz	(715) 248-7205 threshingtablefarm@fron-tiernet.net www.threshingtablefarm.org	Produce	20 miles	Yes

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Sustainable Farm-to-Hospital Toolkit

Online Resources for Hospitals Interested in Connecting to Sustainable Farmers, Producers

HEALTH-RELATED FOOD SYSTEM ISSUES

Antibiotics

- Antibiotics, Animal Agriculture and MRSA: A New Threat
  http://www.iatp.org/files/421_2_107139.pdf

- No Time to Lose: Science Supporting Public Health Action to Reduce Antibiotic Overuse in Food Animal
  http://www.iatp.org/documents/no-time-to-lose

Chemical toxicants

- Driving Down Pesticide Risks
  http://www.organic-center.org/reportfiles/DRIfinal11-1[1].pdf

- Feeding Arsenic to Poultry: Is this Good Medicine?
  http://www.noharm.org/lib/downloads/food/Feeding_Arsenic_to_Poultry.pdf

- Mercury and High Fructose Corn Syrup: Frequently Asked Questions
  http://www.iatp.org/files/421_2_105091.pdf

- Not So Sweet: Missing Mercury and High Fructose Corn Syrup
  http://www.iatp.org/files/421_2_105026.pdf

- Potential Health Impacts of Certain Persistent and Other Chemicals Detected in Sludge
  http://www.iatp.org/files/421_2_104204.pdf

- Smart Guide on Sludge Use in Food Production
  http://www.iatp.org/files/421_2_104203.pdf

- Smart Plastics Guide: Healthier Food Uses of Plastics
  http://www.iatp.org/files/421_2_102202.pdf

- What's on my food?
  http://www.whatsonmyfood.org/index.jsp

Climate impacts

- The Changing Climate for Food and Agriculture: A Literature Review
  http://www.iatp.org/files/451_2_104516.pdf

- Identifying Our Climate Foodprint: Assessing and Reducing the Global Warming Impacts of Food and Agriculture in the U.S.
  http://www.iatp.org/files/258_2_105667.pdf

INSTITUTE FOR AGRICULTURE AND TRADE POLICY
2105 First Avenue South Minneapolis, Minnesota 55404 USA iatp.org
December 2013

Hormones

- Position Statement on rBGH
  http://www.noharm.org/lib/downloads/food/HCWH_Position_on_rBGH.pdf

- rBGH (rBST)-Free Yogurt Nutrient Comparison Chart
  http://www.psr.org/chapters/oregon/safe-food/yogurt-comparisons.xls (spreadsheet download)

- Smart Guide: Hormones in the Food System
  http://www.iatp.org/files/421_2_106678.pdf

Genetic engineering

- Position Statement on Genetically Engineered Food
  http://www.noharm.org/lib/downloads/food/Genetic_Engineered_Food_Stmnt.pdf

Food worker safety

- The Hands that Feed Us: Challenges and Opportunities for Workers along the Food Chain
  http://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf

POLICY ADOPTION AND DEVELOPMENT

Hospitals

- Healthy Food in Health Care: A Pledge for Fresh, Local, Sustainable Food
  http://www.noharm.org/lib/downloads/food/Healthy_Food_in_Health_Care.pdf

- Health and Sustainability Guidelines for Federal Concessions and Vending Operations
  http://www.cdc.gov/chronicdisease/resources/guidelines/food-service-guidelines.htm

- Healthy Hospital Choices—Promoting Healthy Hospital Food, Physical Activity, Breastfeeding and Lactation Support and Tobacco-Free Choices: Recommendations and Approaches from an Expert Panel
  http://www.cdc.gov/nccdphp/dnpao/hwi/docs/HealthyHospBkWeb.pdf

- Healthy Hospital Initiative Healthy Food Challenge
  http://healthierhospitals.org

Health professionals

- American Academy of Pediatrics, "Pesticide Exposure in Children"
  http://pediatrics.aappublications.org/content/early/2012/11/21/peds.2012-2757

- American Dietetic Association, "Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability"
  http://www.eatright.org/About/Content.aspx?id=8360

- American Dietetic Association, American Nurses Association, American Planning Association and American Public Health Association, "Principles of a Healthy, Sustainable Food System"
  http://www.planning.org/nationalcenters/health/pdf/HealthySustainableFoodSystemsPrinciples.pdf

- American Medical Association, "Report 8 of the Council on Science and Public Health: Sustainable Food"
  http://www.ama-assn.org/resources/doc/csaph/csaph-rep8-a09.pdf

- American Nurses Association , "2008 House of Delegates: Resolution Healthy Food in Health Care"
  http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Environmental-Health/PolicyIssues/HealthyFoodinHealthCare.pdf

- American Public Health Association, "Toward a Healthy, Sustainable Food System"
  http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1361

- California Medical Association, "2007 House of Delegates: Resolution 705-07, Improving Health through Sustainable Food Purchasing"
  http://www.noharm.org/lib/downloads/food/CMA_Resolution_Sust_Food_Purch.pdf

- Minnesota Academy of Family Practitioners, "2008 House of Delegates Report: Improving Health through Sustainable Food Purchasing"
  http://www.mafp.org/2008hodreport.asp

Category-specific

Beverages (non-dairy)

- Hydrate for Health: A Call for Healthy Beverages in Health Care
  http://www.noharm.org/lib/downloads/food/Hydrate_For_Health.pdf

- Purchaser's Guide to Sourcing Sustainable Coffee and Tea
  http://www.noharm.org/lib/downloads/food/Sourcing_Sustainable_Coffee_Tea.pdf

Fruits, herbs and vegetables

- 2012 Shopper's Guide to Pesticides in Produce
  http://www.ewg.org/foodnews/

- Frozen Local: Strategies for Freezing Locally Grown Produce for the K-12 Marketplace
  http://www.iatp.org/files/2012_12_11_FreezingReport_JB_web.pdf

- A Seasonal Look at Fresh Produce (Minnesota)
  http://www.mda.state.mn.us/~/media/Files/food/minnesotagrown/producecalendar.ashx

- Seasonal Availability of Wisconsin Fruits and Vegetables
  http://www.cias.wisc.edu/foodservtools/2-Get-started/wisconsin-produce-calendar.pdf

- Serving Locally Grown Produce in Food Facilities (Minnesota)
  http://www.misa.umn.edu/prod/groups/cfans/@pub/@cfans/@misa/documents/asset/cfans_asset_288774.pdf

- Smart Produce Guide: Safer, sustainable produce for healthy children
  http://www.iatp.org/files/421_2_102204.pdf

Dairy (including eggs)

- A Purchasing Guide to Sourcing Dairy Products Produced Without rBGH
  http://www.noharm.org/lib/downloads/food/Purchasing_Non-rBGH_Dairy.pdf

- Institutional Guide for rBGH-Free Yogurt Companies
  http://www.psr.org/chapters/oregon/safe-food/recombinant-bovine-growth.html

- Nationwide rBGH- (rBST-) Free Cheese Contacts
  http://www.psr.org/chapters/oregon/assets/pdfs/r-bgh-free-cheese-chart.pdf

- rBGH- (rBST)-Free Dairy Processors: Top 100 List (as of 9/15/10)
  http://www.psr.org/chapters/oregon/assets/pdfs/top-100-rbgh-free-dairies.pdf

- Scrambled Eggs: Separating Factory Farm Egg Production from Authentic Organic Agriculture
  http://www.cornucopia.org/egg-report/scrambledeggs.pdf

- Smart Guide to Minnesota Dairy Without rBGH
  http://www.iatp.org/files/421_2_105184.pdf

Grocery

- Cereal Crimes
  http://cornucopia.org/cereal-scorecard/docs/Cornucopia_Cereal_Report.pdf

- Smart Guide to Food Dyes: Buying Foods That Can Help Learning
  http://www.iatp.org/files/421_2_105204.pdf

- Purchaser's Guide to Sourcing Food Without Genetically Engineered Ingredients
  http://www.noharm.org/lib/downloads/food/Purchasing_Non-GMO_Food.pdf

Meat, poultry and seafood

- Approved Sources of Meat and Poultry for Food Facilities (Minnesota)
  http://www.mda.state.mn.us/licensing/inspections/~/media/Files/food/foodsafety/meatpoultry.ashx

- 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

- Health Care's Commitment to Sustainable Meat Procurement Four Case Studies

http://www.noharm.org/lib/downloads/food/HC_Commitment_Sustainable_Meat_Procurement.pdf

- Purchaser's Guide to Sourcing Sustainable Poultry
  http://www.noharm.org/lib/downloads/food/Purchas_Sustainable_Poultry.pdf

- Sale of Home or Farm Raised Poultry (Minnesota)
  http://www.mda.state.mn.us/licensing/inspections/~/media/Files/food/foodsafety/poultrysales.ashx

- Seafood Watch Buyer's Guide January 2013
  http://www.montereybayaquarium.org/cr/cr_seafoodwatch/content/media/MBA_SeafoodWatch_Jan2013_BuyersGuide.pdf

- Seafood Watch January 2013 Culinary Chart of Alternatives
  http://www.montereybayaquarium.org/cr/cr_seafoodwatch/content/media/MBA_SeafoodWatch_ChartofAlternatives_Jan2013.pdf

- Smart Seafood Guide 2012
  http://documents.foodandwaterwatch.org/doc/SeafoodCard2012.pdf

- The Super Green List: Connecting Human and Ocean Health
  http://www.montereybayaquarium.org/cr/cr_seafoodwatch/sfw_health.aspx

Multi-category

- Pride of the Prairie Buy Fresh Buy Local Foods Guide
  http://localfoods.umn.edu/bfblpotp/localfoodsguide

- Buying Local Food for Food Service in Minnesot
  http://www.mnproject.org/pdf/Guide%20to%20Buying%20Local.pdf

- Smart Meat and Dairy Guide for Parents and Children: Safer, sustainable food for healthy children and a healthier environment
  http://www.iatp.org/files/421_2_102203.pdf

Contractors and group purchasing organizations

- Strategies to Increase Sustainable Food Options via GPO and Distributors (HCWH, 2011)
  http://www.noharm.org/lib/downloads/food/Sustainable_Food_and_GPOs.pdf

- Integrating Sustainability Requirements Into Health Care Food Service Contracting (HCWH, 2011)
  http://www.noharm.org/lib/downloads/food/Integrating_Sustainability_Food_Service.pdf

Examples of contracting documents

- Minneapolis Public Schools Culinary and Nutrition Services Request for Information (local produce)
  http://nutritionservices.mpls.k12.mn.us/uploads/mps_f2s_request_for_information-application.pdf

- Chartwells Request for Information (chicken raised without antibiotics)
  www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsChikRFI-jan14.pdf

- Chartwells Request for Information (local produce)
  www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsProdRFI-Jan9c.pdf

- School Food Focus Request for Information from Farmers, Processors, and Distributors to Supply Locally Grown Fresh and Frozen Fruits and Vegetables (2013), for a copy of the document and related appendices contact Kymm Mutch at kmutch@schoolfoodfocus.org.

- Wisconsin Farm to School: Toolkit for School Nutrition Directors (section on produce bid process)
  www.cias.wisc.edu/wp-content/uploads/2011/09/4-locate-and-purchase-local-foods.pdf

Finding sustainable farmers/producers

By certification (products grown in the U.S.)

- American Grassfed
  http://www.americangrassfed.org/producer-profiles/producer-members-by-state/

- Animal Welfare Approved
  http://www.animalwelfareapproved.org/product-search/
- Certified Humane Raised & Handled
  http://www.certifiedhumane.org/index.php?page=producers-products
- Certified Naturally Grown
  http://www.naturallygrown.org/farm-list.html
- Food Alliance
  http://foodalliance.org/files/FoodAllianceCertified-Products2012.pdf
- Food Justice Certified
  http://www.agriculturaljusticeproject.org/ajpclientspage.html
- Non-GMO Project Verified
  http://www.nongmoproject.org/find-non-gmo/search-participating-products/
- Protected Harvest
  http://www.protectedharvest.org/?page_id=68
- Salmon Safe
  http://www.salmonsafe.org/livewell/wine-list
- USDA Organic
  http://apps.ams.usda.gov/nop/
  - Directory of Minnesota Organic Farms
    http://www.mda.state.mn.us/food/organic/directory.aspx
  - Wisconsin Organic Farm & Business Directory
    http://datcp.wi.gov/uploads/Farms/pdf/2011OrganicDirectory.pdf
  - North Dakota Organic Advisory Board
    http://www.ndorganics.nd.gov/
  - South Dakota Organic and Sustainable Farms Directory
    http://www.farmerspal.com/organic-farms/region/south-dakota/page/1/
  - Iowa Organic Producers Directory
    http://www.idalsdata.org/iowadata/organics.cfm
  - Nebraska Organic and Sustainable Farms Directory
    http://www.farmerspal.com/organic-farms/region/nebraska/page/1/
  - Certified Organic Producers in Kansas
    http://www.ksda.gov/kansas_agriculture/content/153/cid/1157
  - Missouri Organic and Sustainable Farms Directory
    http://www.farmerspal.com/organic-farms/region/missouri/
  - Ohio Good Earth Guide to Organic and Ecological Farms, Gardens, and Related Businesses
    http://www.oeffa.org/countymap.php
  - Indiana Organic and Sustainable Farms Directory
    http://www.farmerspal.com/organic-farms/region/indiana/page/1/
  - Guide to Michigan's Organic and Ecologically Sustainable Growers and Farms
    http://www.moffa.net/farm-guide.html

Farmer auctions

Illinois

- Arthur produce auction
  http://www.brightdsl.net/~fwo/other_auctions/IL.html

Indiana

- Wayne County produce auction
  http://in.marketmaker.uiuc.edu/business/38178-wayne-county-produce-auction-llc
- Adams county produce auction
  http://www.adamsflowerproduce.com/
- Wakarusa produce auction
  http://wakarusaproduceauction.com/

Iowa

- Elma produce auction
  http://cedarvalleyproduceauction.com/
- Frytown produce auction
  http://www.yoderauctionservice.com/yoderauctionproduce.htm
- Southern Iowa produce auction
  http://www.southerniowaproduce.com/

- Lamoni produce auction
  http://www.lamoniproduceauction.com/

Missouri

- Produce auctions
  http://agebb.missouri.edu/hort/auction/

Ohio

- Produce auctions
  http://www.brightdsl.net/~fwo/other_auctions/OH.html

- Homerville Wholesale Produce Auction
  http://www.homerproduceauction.com/

Wisconsin

- Produce auctions
  http://www.ifmwi.org/auctions.aspx

Food hubs

- Regional Food Hub Resource Guide, http://ngfn.org/resources/ngfn-database/knowledge/FoodHubResourceGuide.pdf

- USDA Working List of Food Hubs
  http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5091437

Producer directories

Nationwide:

- USDA Know Your Farmer, Know Your Food
  http://www.usda.gov/wps/portal/usda/usdahome?navid=KNOWYOURFARMER

- GRACE Eat Well Guide
  http://www.eatwellguide.org/i.php?pd=Home

- Local Harvest
  http://www.localharvest.org/

North central region

ILLINOIS:

- Buy Fresh Buy Local Central Illinois
  http://sfc.smallfarmcentral.com/dynamic_content/uploadfiles/101/2012_BFBL_Directory_reduced.pdf

- Local Foods Directory – Northern Illinois, summer 2013
  http://web.extension.illinois.edu/jsw/downloads/49261.pdf

INDIANA:

- A Local Food Directory for Richmond
  http://www.copeenvironmental.org/assets/Richmond_Local_Food_Directory.pdf

- Index of Locally Grown Food in Bloomington
  http://www.bloomingtononline.net/directory/category/Locally-Grown-Food/108#.Ui9NOsZONnE

- Indiana Locally Grown Food
  http://eatlocalgrown.com/directory/tag/state/indiana/

IOWA:

- Buy Fresh Buy Local Directory for Black Hawk and Neighboring Counties
  http://www.uni.edu/ceee/sites/default/files/LocalFoods/localfoodguide-2013.pdf

- Iowa Buy Fresh Buy Local Directory
  http://www.iowafreshfood.com/uploads/PDF_File_61325466.pdf

- Where Can I Buy Local? Internet Resource Guide
  http://www.localfoodsconnection.org/wp-content/uploads/2009/03/where-can-i-buy-local-food.pdf

KANSAS:

- Buy Fresh North Central Kansas
  http://www.buyfreshnck.com/services.html

MICHIGAN:

- Local First Farms and Producers
  http://www.localfirst.com/directory/category/farms_producers

- Taste the Local Difference – NW Michigan
  http://www.mlui.org/food-farming/projects/taste-the-local-difference/#.Ui9OXsZONnE

MINNESOTA:

- Minnesota Grown Wholesale Database
  http://www3.mda.state.mn.us/whlsale

MISSOURI:

- AgriMissouri
  http://agrimissouri.com/

- Eat Local! A Directory of Northeast Missouri Farmers
  http://www.foodcircles.missouri.edu/nemoeatlocal.pdf

- Kansas City Food Circle 2013 Directory
  http://www.kcfoodcircle.org/docs/KCFC-Directory.pdf

- Sourcing Local Food in Missouri Internet Resource
  http://mofarmtoschool.missouri.edu/files/Slide%2018-SourcingLocalFoodinMo.pdf

NEBRASKA:

- Buy Fresh Buy Local Nebraska
  http://food.unl.edu/c/document_library/get_file?uuid=4dea3564-c9f4-42c9-be45-631f462c0004&groupId=4089462&.pdf

- Nebraska Food and Meat Directory
  http://www.nda.nebraska.gov/publications/promotion/food_meat_directory.pdf

NORTH DAKOTA:

- North Dakota Local Foods Directory 2013
  http://www.nd.gov/ndda/files/resource/2013_Local_Foods_DirectoryWeb.pdf

OHIO:

- Ohio Proud Market Directory
  http://www.ohioproud.org/markets.php

- Our Ohio Buying Local Directory
  http://ourohio.org/food/buying-local

SOUTH DAKOTA:

- Dakota Rural Action's South Dakota Local Foods Directory
  http://sdlocalfood.org/

WISCONSIN:

- Farm Fresh Atlas™ 2012 Western Wisconsin Local Food Directory
  http://www.wifarmfresh.org/FFA2012_web.pdf

Food safety rules and regulations

- Bridging the GAPs: Strategies to Improve Produce Safety, Preserve Farm Diversity and Strengthen Local Food Systems
  http://www.iatp.org/files/258_2_106746.pdf

- Market Development, Licensing, Labeling and Regulation Requirements (Wisconsin)
  http://www.cias.wisc.edu/foodservtools/2-Get-started/licensing-labeling-and-regulation-requirements.pdf

- On-Farm Food Safety Information for Food Service Personnel
  http://www.extension.umn.edu/farm-to-school/docs/farm-food-safety-questions.pdf

- Organic Essentials: A comprehensive guide for identifying safe and nutritious food
  http://www.organic-center.org/reportfiles/TOC_PocketGuide_2011.pdf

Label guides

- Decoding Food Labels
  http://www.earthwatch2.org/sustainability/decoding%20labels.htm

- Food Eco-Labels: A Purchasing Guide
  http://www.noharm.org/lib/downloads/food/Food_Eco-Labels.pdf

- Greener Choices, Eco-labels
  http://www.greenerchoices.org/eco-labels

- Why Eat Organic
  http://swroc.cfans.umn.edu/prod/groups/cfans/@pub/@cfans/@swroc/documents/asset/cfans_asset_366337.pdf

Policies and procedures

- Guide to Developing a Sustainable Food Purchasing Policy
  http://www.sustainablefoodpolicy.org

- Sustainable Food Purchasing Guide
  http://www.yale.edu/sustainablefood/purchasing_guide_002.pdf.pdf

PREPARATION, PRESERVATION AND PROCESSING

- Balanced Menus Recipe Toolkit
  http://www.noharm.org/lib/downloads/food/Balanced_Menus_Recipe_Toolkit.pdf

- Existing Food Facilities Planning to Can Fresh Foods for Sale or Service (Minnesota)
  http://www.extension.umn.edu/farm-to-school/toolkit/sourcing-food/docs/canning-fact-sheet.pdf

- Existing Food Facilities Planning to Freeze, Dry or Otherwise Preserve Fresh Foods for Sale or Service (Minnesota)
  http://www.extension.umn.edu/farm-to-school/docs/FReezing-fact-sheet.pdf

- Fruit and Veggie Quantity Cookbook
  http://www.dhhs.nh.gov/dphs/nhp/documents/cookbook.pdf

- Menu – The Guide to Culinary Inspiration
  http://www.foodservicedirector.com/menu/home

- Now We're Cooking – A Collection of Simple Scratch Recipes Served in Minnesota Schools
  http://www.health.state.mn.us/schools/greattrays/pdfs/NowCooking.August22.pdf

- Oklahoma F2S Cooking, A Farm to School Cookbook
  http://www.kidchenexpedition.com/cookbook/

- Oregon Balanced Menus: A Collection of Regional Hospital Recipes
  http://www.psr.org/chapters/oregon/healthy-food-in-health-care/oregon-balanced-menus-recipe-1.pdf

- Recipes for Healthy Kids – Cookbook for Schools, Recipes for 50 to 100 Servings
  http://www.teamnutrition.usda.gov/Resources/r4hk_schools.html

- Recipes from the Healthy Kitchen
  http://www.avera.org/heart-hospital/healthy-kitchen-recipes/

- Recommended Kitchen Equipment for From-Scratch Cooking (Wisconsin)
  http://www.cias.wisc.edu/foodservtools/4-Incorporate-local-foods/recommended-kitchen-equipment-for-FRom-scratch-cooking.pdf

- Recommended Kitchen Equipment for Light Processing (Wisconsin)
  http://www.cias.wisc.edu/foodservtools/4-Incorporate-local-foods/recommended-kitchen-equipment-for-light-processing.pdf

- The National Health Service Recipe Book (pp. 28-47)
  http://www.hospitalcaterers.org/better-hospital-food/downloads/recipe_book.pdf

PROGRESS REPORTS

- Healthy Food, Healthy Hospitals, Healthy Communities-Stories of Health Care Leaders Bringing Fresher, Healthier Food Choices to Their Patients, Staff and Communities
  http://www.healthobservatory.org/library.cfm?refid=72927

- Menu of Change—Healthy Food in Health Care, A 2013 Program Report with Highlights, Awards and Survey Results
  http://www.noharm.org/lib/downloads/food/Menu_of_Change_2013.pdf

- Menu of Change Healthy Food in Health Care, A 2011 Program Report with Highlights, Awards and Survey Results
  http://www.noharm.org/lib/downloads/food/Menu_of_Change_2011.pdf

- Menu of Change—Healthy Food in Health Care, a 2008 Survey of Healthy Food in Health Care Pledge Hospitals
  http://www.healthyfoodinhealthcare.org/downloads/Menu_of_Change.pdf

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Developed by Marie Kulick, Earth Wise Communications, with assistance from Emily Barker, Catherine Reagan and Tara Ritter, IATP.

Online Resources for Sustainable Farmers, Producers Interested in Selling to Hospitals

EXAMPLES OF CONTRACTING DOCUMENTS

- Minneapolis Public Schools Culinary and Nutrition Services Request for Information (local produce) http://nutritionservices.mpls.k12.mn.us/uploads/mps_f2s_request_for_information-application.pdf
- Chartwells Request for Information (chicken raised without antibiotics) www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsChikRFI-jan14.pdf
- Chartwells Request for Information (local produce) www.familyfarmed.org/wp-content/uploads/2013/01/ChartwellsProdRFI-Jan9c.pdf
- School Food Focus Request for Information from Farmers, Processors, and Distributors to Supply Locally Grown Fresh and Frozen Fruits and Vegetables (2013), for a copy of the document and related appendices contact Kymm Mutch at kmutch@schoolfoodfocus.org.
- Wisconsin Farm to School: Toolkit for School Nutrition Directors (section on produce bid process) www.cias.wisc.edu/wp-content/uploads/2011/09/4-locate-and-purchase-local-foods.pdf

FARM TO HOSPITAL CASE STUDIES AND PROGRESS REPORTS

- Health Care's Commitment to Sustainable Meat Procurement Four Case Studies http://www.noharm.org/lib/downloads/food/HC_Commitment_Sustainable_Meat_Procurement.pdf
- Healthy Food, Healthy Hospitals, Healthy Communities-Stories of Health Care Leaders Bringing Fresher, Healthier Food Choices to Their Patients, Staff and Communities http://www.healthobservatory.org/library.cfm?refid=72927
- Menu of Change—Healthy Food in Health Care, A 2013 Program Report with Highlights, Awards and Survey Results http://www.noharm.org/lib/downloads/food/Menu_of_Change_2013.pdf
- Menu of Change Healthy Food in Health Care, A 2011 Program Report with Highlights, Awards and Survey Results http://www.noharm.org/lib/downloads/food/Menu_of_Change_2011.pdf

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- Menu of Change—Healthy Food in Health Care, a 2008 Survey of Healthy Food in Health Care Pledge Hospitals
  http://www.healthyfoodinhealthcare.org/downloads/Menu_of_Change.pdf

FINDING HOSPITALS IN THE NORTH CENTRAL REGION

National

- American Hospital Directory
  http://www.ahd.com/

- U.S. Department of Veterans Affairs
  http://www.va.gov/directory/guide/allstate_flsh.asp?isflash=&dum=ALL

State-specific

- Illinois Hospital Association, IHA Member Directory
  http://www.ihatoday.org/hospital-directory.aspx

- Indiana Hospital Association, Indiana Hospitals,
  https://www.ihaconnect.org/Indiana-Hospitals/Pages/Indiana-Hospitals.aspx

- Iowa Hospital Association, Roster of Hospitals
  http://www.ihaonline.org/imis15/IHAOnline/Member_Directory/roster_of_hospitals.aspx

- Minnesota Hospital Association, Find a Minnesota Hospital
  http://www.mnhospitals.org/mn-hospitals/find-a-hospital

- Missouri Hospital Association, Locate a Hospital
  http://web.mhanet.com/about-us/mha-membership/locate-a-hospital/

- Nebraska Hospital Association, Nebraska Network Hospitals and Critical Access Hospitals
  http://www.nhanet.org/pdf/cah/Copy%20of%20Nebraska%20Network%20and%20Critical%20Access%20Hospital%202010-2011.pdf

- North Dakota Hospital Association, Member Directory
  http://www.ndha.org/?id=20

- Ohio Hospital Association, Member Hospitals
  http://www.ohanet.org/members/

- Wisconsin Hospital Association, Wisconsin Hospitals
  http://www.wha.org/wisconsin-hospitals.aspx

- Wisconsin Department of Health and Human Services, Wisconsin Health Care Provider Directories, Hospitals
http://www.dhs.wisconsin.gov/bqaconsumer/healthcare/directories.htm

FOOD SAFETY RULES AND REGULATIONS

- Approved Sources of Meat and Poultry for Food Facilities (Minnesota)
http://www.mda.state.mn.us/licensing/inspections/~/media/Files/food/foodsafety/meatpoultry.ashx

- Market Development, Licensing, Labeling and Regulation Requirements (Wisconsin)
http://www.cias.wisc.edu/foodservtools/2-Get-started/licensing-labeling-and-regulation-requirements.pdf

- On-Farm Food Safety Information for Food Service Personnel
http://www.extension.umn.edu/farm-to-school/docs/farm-food-safety-questions.pdf

- Sale of Home or Farm Raised Poultry (Minnesota)
http://www.mda.state.mn.us/licensing/inspections/~/media/Files/food/foodsafety/poultrysales.ashx

- Serving Locally Grown Produce in Food Facilities (Minnesota)
http://www.misa.umn.edu/prod/groups/cfans/@pub/@cfans/@misa/documents/asset/cfans_asset_288774.pdf

LISTS OF HOSPITALS COMMITTED TO HEALTHY FOOD IN HEALTH CARE PRINCIPLES

- Searchable list of hospitals that have signed up for the Healthy Hospital Initiative Healthy Food Challenge
http://healthierhospitals.org/about-hhi/participating-hospitals

- Signatories to the Healthy Food in Health Care Pledge
http://www.healthyfoodinhealthcare.org/signers.php?pid=36

POLICIES AND PROGRAMS THAT SUPPORT HOSPITAL PROCUREMENT OF SUSTAINABLE FOOD

Hospitals

- Health and Sustainability Guidelines for Federal Concessions and Vending Operations
http://www.cdc.gov/chronicdisease/resources/guidelines/food-service-guidelines.htm

- Healthy Food in Health Care: A Pledge for Fresh, Local, Sustainable Food
http://www.noharm.org/lib/downloads/food/Healthy_Food_in_Health_Care.pdf

- Healthy Hospital Choices—Promoting Healthy Hospital Food, Physical Activity, Breastfeeding and Lactation Support and Tobacco-Free Choices: Recommendations and Approaches from an Expert Panel
http://www.cdc.gov/nccdphp/dnpao/hwi/docs/HealthyHospBkWeb.pdf

- Healthy Hospital Initiative Healthy Food Challenge
http://healthierhospitals.org

Health professional association position statements

- American Academy of Pediatrics, "Pesticide Exposure in Children"
http://pediatrics.aappublications.org/content/early/2012/11/21/peds.2012-2757

- American Dietetic Association, "Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability"
http://www.eatright.org/About/Content.aspx?id=8360

- American Dietetic Association, American Nurses Association, American Planning Association and American Public Health Association, "Principles of a Healthy, Sustainable Food System"
http://www.planning.org/nationalcenters/health/pdf/HealthySustainableFoodSystemsPrinciples.pdf

- American Medical Association, "Report 8 of the Council on Science and Public Health: Sustainable Food" http://www.ama-assn.org/resources/doc/csaph/csaph-rep8-a09.pdf

- American Nurses Association , "2008 House of Delegates: Resolution Healthy Food in Health Care" http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Environmental-Health/PolicyIssues/HealthyFoodinHealthCare.pdf

- American Public Health Association, "Toward a Healthy, Sustainable Food System" http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1361

- California Medical Association, "2007 House of Delegates: Resolution 705-07, Improving Health through Sustainable Food Purchasing" http://www.noharm.org/lib/downloads/food/CMA_Resolution_Sust_Food_Purch.pdf

- Minnesota Academy of Family Practitioners, "2008 House of Delegates Report: Improving Health through Sustainable Food Purchasing" http://www.mafp.org/2008hodreport.asp

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Sustainable Farm-to-Hospital Toolkit

Seasonal Availability of Produce and Other Foods Produced in Minnesota and Wisconsin

Vegetable	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Apples												
Apple Cider												
Artichokes, Jerusalem												
Arugula												
Asparagus												
Barley												
Beef												
Beets												
Beet Greens												
Blackberries												
Bok Choy												
Broccoli												
Brussel Sprouts												
Buckwheat												
Butter												
Cabbage												
Carrots												
Cauliflower												
Celeriac												
Celery												
Chard												
Cheese												
Chicken												

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Vegetable	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Chokecherries												
Collards												
Corn Meal												
Cress (Greens)												
Cucumbers												
Currants												
Daikon												
Dandelion (Greens)												
Dried Herbs												
Duck												
Eggplant												
Eggs												
Endives												
Fennel												
Flax												
Garlic												
Garlic Greens												
Goat												
Gooseberries												
Green Beans												
Honey												
Horseradish												
Jams												
Jellies												
Kale												
Kohlrabi												
Lamb												
Leeks												
Lettuces												
Melons												
Mushrooms												
Mustard												
Oats												
Okra												
Onions												
Parsnips												
Peas												
Peppers												
Plums												
Popcorn												
Pork												
Potatoes												

Vegetable	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Pumpkins												
Purslane												
Radicchio												
Radishes												
Raspberries												
Rhubarb												
Rutabaga												
Rye												
Scallions												
Shallots												
Soybeans												
Spelt												
Spinach												
Sprouts												
Strawberries												
Squash, summer												
Squash, winter												
Sweet Corn												
Sweet Potatoes												
Tomatoes												
Turkey												
Turnips												
Wheat												
Zucchini												

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Sustainable Food Procurement: Working with Current Supply Chain Partners

Many hospitals prefer to purchase most, if not all, food and beverage items, including any sustainably produced items, via their current supply chain partners. In using this approach to support sustainable farmers/producers, hospitals will encounter opportunities and challenges.

KEY OPPORTUNITIES

- Most mainline distributors now carry a variety of USDA Organic food and beverage items and fluid milk and yogurt products produced without recombinant bovine growth hormone (rBGH)/recombinant bovine somatotropin (rBST) (see Table 1.1). They may also carry Marine Stewardship Council certified seafood items, and one or more lines of Fair Trade certified coffee, tea, cocoa and chocolate.

- Regional distributors, specialty distributors, and bread and dairy suppliers are also likely to carry some certified organic items and fluid milk produced without rBGH/rBST.

- Some distributors carry a limited supply of one or more types of food, e.g., produce, cheese and beef, grown/raised by sustainable farmers/producers local to their distribution centers.

- Upon request, distributors and suppliers will usually try to find sustainable products that meet the needs of one or more specific customers.

- Sometimes when a hospital finds a supplier they like whose products are not currently carried by their distributor, such as a company that sells chicken that was raised without antibiotics, their distributor will help to facilitate a relationship in order to keep the hospital's business.

Table 1.1 Excerpt from a list of USDA Organic products carried by one distributor

Description	Type	Vendor name
Tea bag organic pure green	Organic	Bigelow
Coffee Grnd Organic Decaf Serena	Organic	Starbucks
JUICE ORANGE PULPY	Organic	Organicville
MILK HOMO ORGANIC	Organic	Organicville
Milk Choc Low Fat 1 % Organic	Organic	Organicville
MILK NON FAT ORGANIC	Organic	Organicville
EGG SHELL BRN ORGANIC	Organic	Hillandale Iowa
Milk Soy Plain	Organic	White Wave
Milk Soy Vanilla Organic Kosher	Organic	Med Diet
YOGURT FRENCH VAN L/F ORGANIC	Organic	DOT FOODS

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Table 1.1 Excerpt from a list of USDA Organic products carried by one distributor

Description	Type	Vendor name
Yogurt Vanilla Low Fat Organic	Organic	Stoney Field Farms
Potato Fry Crinkle Cut	Organic	LAMB WESTON
Bagel 16 grain w/ seed organic	Organic	French Meadow
Pasta Fettuccine Organic	Organic	Med Diet
Pasta Spaghetti organic	Organic	Med Diet
ROLL CIABATTA SNDWCH HOGIE ORG	Organic	Richs Products
Sauce Soy Tamari No Wheat organic	Organic	Med Diet
Chicken CVP Thigh Bnls Skinless ORGANIC	Organic	Hain Pure Protein
Squash Acorn ORGANIC	Organic	organic
TOMATO CRUSHED ORGANIC	ORGANIC	GENERAL MILLS
CARROT ORGANIC BABY PEEL FRESH	Organic	BOLTHOUSE FARMS
LETTUCE SPRING MIX ORGANIC PLW	Organic	BSCC PRODUCE SALINA
Bar Granola choc chip organic	Organic	General Mills
Choc bar roseberry organic	Organic	European Imports

KEY CHALLENGES

- Other than USDA Organic items, major distributors sell and/or identify in catalogs and ordering systems very few, if any, other types of eco-labeled products. So unless hospitals purchase these certified items directly from farmers/producers or companies that sell these products, most hospitals will find it extremely difficult to purchase foods that are American Grassfed certified, Animal Welfare Approved, Certified Humane Raised & Handled, Fair Trade certified, Food Alliance Certified, Non-GMO Project Verified, etc.

- It can be even more challenging for hospitals to identify and purchase items appropriately identified as "raised without antibiotics," "raised without added hormones," "no genetically engineered ingredients," or "USDA Grassfed." Though many of these products have made it into mainstream markets, distributors do not always carry them or carry them only in certain markets. Even if distributors are carrying these products, hospitals still have to go out of their way to find them in catalogs.

- Some distributors and suppliers identify fluid milk, yogurt, and other dairy products produced without rBGH/rBST in on-line ordering systems, but these products seem to be inconsistently marked. For instance, produced without rBGH/rBST since August 2009, Yoplait yogurt products should be consistently marked as such in distributor catalogs, but they are not—some of these products are marked as "rBST-free" in ordering catalogs and some, though produced the same way, are not. This inconsistency makes it harder for hospitals to choose these products when ordering, to know which of their purchases are sustainable, and to have trust in the information provided by these distributors (see Table 1.2).

- While many distributors use the term "local" to describe products that they sell, distributor definitions of "local" often differ considerably from what most consumers think of as "local." Thus, use of this term, though intended to help customers identify and purchase "local" items, leads to further confusion. If a hospital does not pay attention to the difference in definitions, it will lead to misunderstanding about what they are actually buying. They can result in their erroneously giving a purchasing preference to a corporation, instead of the sustainable farmers/producers they intend to support (see Table 1.3). In addition, when distributors do actually carry products produced by local, sustainable farmers/producers and label them so they are easy for hospitals to order, these products may not be available in the form most readily used by hospitals, such as three- or four-ounce boneless, skinless chicken breasts and pre-processed fruits and vegetables.

- Since supporting many types of sustainable farmers is not always as easy as picking products out of an online catalog, a hospital's food service director, or other food service staff person could end up spending many extra hours working to increase their use of sustainable products through their current supply chain partners.

Table 1.2 Examples of Designated and Undesignated "rBGH-free" Products Purchased from a Distributor

Description	Label
MILK CHOC FF RBGH FREE	LOLORIG
MILK LO FAT 1% RBGH FREE	LOLORIG
MILK SKIM RBGH FREE	LOLORIG
MILK SKIM WHITE SELECT	KEMPS SELECT
MILK 1% WHITE SELECT PLST	KEMPS SELECT
KEMPS SEL CHOC 1% MILK	KEMPS SELECT

Table 1.2 Examples of Designated and Undesignated "rBGH-free" Products Purchased from a Distributor

Description	Label
YOGURT, STWBY BLNDED RBST FREE	YOPLAIT
YOGURT, BLBRY LIGHT RBST FREE	YOPLAIT
YOGURT, VNL LOW FAT POUCH RBST	YOPLAIT
YOGURT, STWBY GREEK FT/FR SS	YOPLAIT
YOGURT, BANA CRM PIE LIGHT	YOPLAIT
YOGURT, KEY LIME FT/FR SS CUP	YOPLAIT

Table 1.3 An Alphabetical Sample of Items Included in a Distributor Report of "Local" Products Purchased by a Minnesota Hospital

Product description	Grower/Producer
BEEF, STK FIL SRLN MRNTD WHSKY	J&B GROUP-ELLISON FOODSERVICE
BISCUIT, STHRN STYL EASY SPLIT	GENERAL MILLS INC
CANDY, COTN BAG	BARREL O FUN INC
CHEESE, CHEDR MILD SS REC IW	MONARCH FOODS
CHIP, SESD SPORT KTL	BARREL O FUN INC
CHIP, TORTLA CORN YLW RND	MONARCH FOODS
CORN DOG, CHIX BTRD .67 Z MINI	BRAKEBUSH BROTHERS INC
EGG, HARD CKD PLD WHL DRY PK	MICHAEL FOODS INC
ENHANCER, MSG PWDR PURE SHKR	MONARCH FOODS
FOOD COLORING, RED LIQ BTL	MONARCH FOODS
JUICE BASE, ORNG 100% 4.5:1	MONARCH FOODS
MIX, STFNG SESD TFF TRADL	DIAMOND CRYSTAL BRANDS
PUDDING POP, SWIRL LOW FAT FZN	WELLS ENTERPRISES INC
SALSA, MILD SHLF STABL PREM	COOKIES FOOD PRODUCTS
SAUCE, GRLC TFF PLST REF DBL	VENTURA FOODS LLC
SAUSAGE, TRKY LNK 1 Z SPCL	HORMEL FOODS CORPORATION
SPICE, CURRY PWDR PLST SHKR	MONARCH FOODS
TURKEY, BRST & THIGH RST SKON	JENNIE-O TURKEY STORE SALES LL

BENEFITS AND TRADEOFFS

As hospitals likely know, there are at least a few benefits to buying sustainable food items through their current supply chain partners. It can be a time saver with all orders placed at the same time. It can be convenient since sustainable and conventional products are delivered at the same time. Product pricing may be better. In addition, all purchases will count toward the overall percentage of products purchased through the supplier and thus can lead to further discounts. However, hospitals should be aware that there are several tradeoffs.

Hospitals may pay more

When buying USDA Organic and other products produced by sustainable farmers/producers via intermediaries, such as distributors, hospitals may end up paying more for these products than they would if purchased directly from the sustainable farmers/producers. How much more will depend on the mark-up added by distributors, cost of delivery via the farmer/producer, current supply and demand, and type of product, production methods, and other factors. However, if hospitals are not communicating with sustainable farmers/producers in their community, they will never know.

Support only the largest farms

Many distributors, especially the larger mainline distributors, have product liability, food safety, volume, and pricing requirements that only the largest farms and operations can meet. Thus, in relying only on distributors to obtain sustainable foods, a hospital may unknowingly bar many of the more modest scaled farms/operations in their community from selling to them.

Less benefit to local environment and economy

Most sustainable food and beverage items carried by distributors and suppliers consist of raw ingredients that originate far from the purchasing hospital. The farmers, farm workers, rural communities, and overall environment will benefit from purchase of these sustainable items, but an opportunity is lost to support the people, places, and natural resources closer to home.

NEXT STEPS

To increase purchase of sustainable foods via existing supply chain relationships, hospitals are encouraged to take the following steps.

Step 1

Meet with each of your current distributor/supplier sales representatives to learn the following:

- The types and brands of products they carry that are labeled as follows:
  - Aquaculture Stewardship Council certified (Pangasius and tilapia)*
  - Bird Friendly (coffee)
  - Certified Humane Raised & Handled (eggs)
  - Fairtrade/Fair Trade Certified (coffee, tea, cocoa, chocolate, bananas)
  - Food Alliance Certified (variety)
  - Marine Stewardship Council certified (wild-caught fish and shellfish)
  - Produced without use of rBGH/rBST (fluid milk and other milk-based dairy products)
  - Rainforest Alliance Certified (coffee, tea, cocoa, chocolate, produce)
  - Raised without added hormones (beef, veal, lamb)
  - Raised without antibiotics/No antibiotics administered (beef/bison, lamb, poultry, pork)
  - USDA Organic (variety)

  NOTE: List only includes eco-labels/label claims most likely tracked or highlighted in product descriptions by distributors/suppliers and the types of products most likely labeled as such now. Asterisked eco-label was not in existence when latest version of Green Guide for Health Care Food Service Credits published. For a detailed list of meaningful eco-labels and label claims see the IATP Sustainable Farm to Hospital Toolkit resource entitled "Food and Beverage-Related Eco-Labels/Label Claims."

- The methods they use to identify the above-listed items in ordering systems and any other information needed to facilitate order placement, e.g., one distributor labels USDA Organic products as "ORGNC" in product descriptions, another inserts "ORGANIC" in the product description and uses the term "sustainable" to identify Food Alliance Certified and other products. Some distributors and suppliers use the term "rBST-free" to identify products produced without use of rBGH/rBST in product descriptions.

  NOTE: Distributors make mistakes such as listing a non-dairy product as "rBST-free" or not identifying products as having a specific attribute, even if they do.

- How they identify food and beverage items produced by sustainable farmers/producers in your local area, and any other information they can provide to help determine whether their methods will assist or hinder your ability to buy and track purchases that meet your priorities.

  NOTE: Many distributors will identify products as "local," but their definitions often do not meet the Green Guide for Health Care (GGHC) Food Service Credit 3 definition of "local" and may not align with what your hospital considers to be "local", so it is important to get clarification on the definition used by your distributors and others suppliers. For instance, most of items that distributors identified as "local" in the reports it provided to the IATP SARE project collaborators in 2012 and 2013 were products manufactured by food companies that had processing facilities located within 250 miles of their distribution centers.

Step 2

If a distributor/supplier does not currently carry a desired eco-labeled product, such as Fairtrade coffee, or product that meets certain desirable criteria, such as chicken raised without antibiotics, ask the sales representative how they can help to meet the hospital's needs, and if known suggest names of products the hospital would be interested in purchasing.

Step 3

If a distributor/supplier's definition of local, sustainable aligns with your hospitals, take the following steps:

- Ask them to substitute local, sustainable produce for non-local produce items automatically when they are available. This can help your hospital to maximize purchase of local, sustainable produce based on what you typically order.

  NOTE: During peak season, local produce typically costs less than or equal to non-local items, so this should not result in your paying more for these items. If in doubt, consult your distributor or suppler.

- Ask the distributor to provide information about the typical window of availability for the local,

sustainable products they carry, such as how long produce items that store well—apples, potatoes, onions, or have longer growing seasons—cool season crops will be available and when, versus items that may only be available for a short time—fresh berries, asparagus and rhubarb.

- To increase purchase of local, sustainably grown produce not typically ordered through the distributor or products that a hospital may typically buy in frozen form, such as fresh berries, ask the distributor/supplier sales representative(s) to provide the hospital with advance notice, typically one week, of when local items will be coming in or running out. Also, keep chefs and other menu planners informed so they can adapt menus to reflect what is available, especially when items have a short window of availability.

- Keep a chart of the seasonal availability of foods grown/raised in your geographic area on hand and refer to it regularly. This will provide a general guide to what is available and when, remind procurement staff to keep an eye out for notices from the distributor, and pay attention to the availability of local, sustainable products, especially produce items that the hospital might not buy normally.

Remember that some cool season/more cold tolerant produce items are grown during the spring and fall, and others store well and may be available long after the typical growing season, so pay attention to what is available through your distributor throughout the year, not just in the summer months.

Step 4

If the distributor's or supplier's definition and labeling of local, sustainable products does not align with GGHC FS Credit 3 or the hospital's priorities, purchase food and beverages directly from individuals and groups of sustainable farmers/producers located nearby. In this way, hospitals can support sustainable farmers/producers far and near and large and small. See the IATP Sustainable Farm to Hospital Toolkit resource entitled "Ten Steps to Creating Mutually Beneficial Relationships with Local Farmers, Producers." Note: Per the 2013 IATP SARE project farmer/producer surveys, the majority of sustainable farmers/producers interested in selling products to hospitals (60.9 percent) do not currently work with distributors.

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

Written by Marie Kulick, Earth Wise Communications

Ten Steps to Creating Mutually Beneficial Relationships with Local, Sustainable Farmers, Producers

I think that relationship is very important. When there is a good working relationship between the farmer and the person in charge of buying at the institution, it's much easier to work through 'Bumps' than if each is seen as a faceless business,
–Jody Lenz, Threshing Table Farm.

1. KNOW YOUR HOSPITAL'S LEVEL OF COMMITMENT

One advantage of buying produce, beef, turkey and more from a farmer or producer instead of buying through a distributor is that a hospital's food service staff, and perhaps other hospital staff, can meet the farmer(s) and develop a mutually beneficial relationship with them. In time, these staff can also help to develop models and methods for the other hospitals in their area or within their health system to use. However, when expectations are unmet on either side, the effects are felt much closer to home than when something does not work out with a product purchased via a distributor.

Thus, it is important for hospital food service staff to be clear about their administration's level of commitment, whatever it is, and communicate this information to any sustainable farmers/producers that the hospital is seeking to do business with in the community. Dollar value goals are important, but equally, if not more important, is a commitment to honor verbal as well as written agreements made with farmers and producers, and to the extent possible provide advance notice of any changes. Not doing this can lead to bad feelings that may linger for a long time.

NOTE: It is also important that administrators are aware of their hospital's procurement relationships with area farmers/producers and understand the effects of outsourcing food service management or making other decisions that can undermine an otherwise mutually beneficial arrangement.

2. PREPARE BEFORE REACHING OUT

Hospital food service staff should know what the answers are to the following questions before reaching out to local, sustainable farmers/producers:

- Will interested farmers/producers need to complete a formal application or bid process before the hospital can buy their products? If yes, what are the requirements?
- What is the hospital interested in buying?

- How much of these products does the hospital buy each week, month or year?
- How frequently does the hospital order these products?
- What is the current price per pound (or other applicable volume)?
- How much does pricing for these products fluctuate during the year?
- If necessary to assure that local, sustainable farmers/producers get a fair price for their products, is the hospital willing to pay a premium for them? How much more might the hospital be willing to pay?
- Is the hospital open to working with local, sustainable farmers/producers who have not sold to hospitals before, understanding that there will likely be a learning curve, or is working with a farmer who has experience selling to hospitals or other institutions preferred?
- Is the hospital willing to buy from multiple farmers/producers, just a few or one?
- Is the hospital willing or able to make partial payment in advance, if necessary to achieve fixed pricing, protect the farmer in case of cancellation, etc.?

Track purchases weekly

If the volumes and types of products that the hospital buys varies much from week-to-week, month-to-month or season-to-season, it would be helpful to track how much of each product that might be bought from a local farmer or producer is used each week, month, or season of the year. Then use this information to predict the volume of product the hospital might need or want to buy from a local, sustainable farmer/producer and determine how far in advance they need to communicate this information and/or have a local source lined up. This type of information would also be helpful if the hospital ever decides to do a request for proposal (RFP) or request for information (RFI) similar to that of the Minneapolis School District, School Food FOCUS, or Chartwells for local, sustainable food items such as produce, chicken, beef, etc. For links to this documents, see the list of Additional Resources for Hospitals in the IATP Sustainable Farm-to-Hospital Toolkit.

Tracking can also help the farmer plan how much to produce and store, such as for onions or potatoes. Distributors should be able to provide these types of reports for the last 6 months to a year and going forward if requested in advance. Otherwise, maintain copies of invoices and/or enter the data into a tracking sheet.

Threshing Table vegetable delivery to Hudson Hospital.

3. DEVELOP A SUSTAINABLE FOOD PURCHASING PROTOCOL

Hospitals are encouraged to adopt a farm-to-hospital sustainable sourcing protocols for the following reasons:

- To assure hospital administrators and other interested parties that the foods purchased directly from one or more local, sustainable farmers/producers came from "approved sources" in compliance with voluntary food service implementation of Hazard Analysis and Critical Control Points (HAACP) principles, designed to reduce food safety risks[1,2,3]
- To provide local, sustainable farmers/producers with the same information on hospital requirements and preferences and increase transparency
- To provide a simple, less onerous way to assure that foods purchased directly from one or more local, sustainable farmers/or producers are as safe, if not safer, than similar foods purchased via a distributor
- To formalize goals, procedures and requirements related to purchase of foods or beverages from individual local, sustainable farmers and producers or groups of the same
- To mainstream hospital procurement of food directly from local, sustainable farmers/ producers
- To address the general food safety concerns that arise when serving both healthy and immune-compromised people
- To engender consumer confidence

> When developing protocols, it is important for the hospital to keep in mind their reasons for creating connections with area farmers, and ensure that the protocols act as a bridge and not as a moat. "There is an important and unique connection between healthcare and local and sustainable food," said one SARE project health care collaborator. "In order to truly meet our mission to improve the lives of the communities we serve, we need to be a role model and provide healthy food options to our patients."

For more on the important components of a purchasing protocol and sample protocols, see the IATP Sustainable Farm to Hospital Toolkit resource "Using Written Protocols to Guide Direct Procurement of Food from Sustainable Farmers, Producers."

4. FIND INTERESTED FARMERS/PRODUCERS

After completing steps one through three, it is time for the hospital to learn which local, sustainable farmers/producers sell the types of products the hospital is interested in buying. Fortunately, hospitals can choose from a variety of options.

Farmers markets/CSAs/auctions

Some hospital chefs met the farmers they buy from at a farmers' market; in some cases, the hospital hosted the farmers' market. Others hospitals have gone from being a workplace drop site for employees who purchased farm shares from a community supported agriculture (CSA) farm to buying produce and other products from the CSA farm for use in the hospital kitchen. Hospital food service employees have also met and purchased products sold by local, sustainable farmers/producers at auctions where area farmers/producers sell their produce, flowers, animals raised for meat and more.

Natural food stores

In addition, hospital food service employees can scan the names of farms on produce, dairy, meat, poultry, and seafood items for sale at food cooperatives and other natural food stores in their area to see which farmers/producers are selling enough volume to supply retailers. The department managers/buyers in each of these areas are also very knowledgeable about area farmers/producers, and are often willing to share their wisdom with others.

Online resources

Almost every organization behind the various third party eco-labels maintains a list of certified farmers/producers on their website. For instance, a Wisconsin hospital could find a nearby producer that sells American Grassfed certified products by going to the American Grassfed Association website, following the links to the list of certified producers, and scrolling down to the producers located in Wisconsin.

Many states, including every state in the north central SARE region, have one or more directories of farmer/producers that are interested in direct marketing their products through a variety of means including institutional sales, e.g., western Wisconsin's Farm Fresh Atlas™, www.wifarmfresh.org/FFA2012_web.pdf. In addition, some states, such as Minnesota, have created on-line resources just for matching interested farmers/producers to wholesale customers—Minnesota Grown Wholesale Database, www3.mda.state.mn.us/whlsale.

Other resources are searchable on a national level; two specifically focused on smaller-scale sustainable farms (GRACE Eat Well Guide, www.eatwellguide.org and Local Harvest, www.localharvest.org), two resources for finding regional food hubs, and the USDA Know Your Farmer, Know Your Food portal, www.usda.gov/wps/portal/usda/usdahome?navid=KNOWYOURFARMER. Hospitals in Minnesota and western Wisconsin should also check out the IATP Sustainable Farm-to-Hospital Toolkit resource "Iowa, Minnesota, and Western Wisconsin Sustainable Farmers/Producers Interested in Selling to Hospitals."

Hospitals are also encouraged to sign up for local listservs such as Minnesota's Sustag listserv or get on more traditional mailing lists to be kept informed of state or regional buyer-grower events.

For links to additional online resources, including websites for produce auctions, resources with farm-to-institution examples, and more see the "Finding sustainable farmers/producers" section of the IATP Sustainable Farm-to-Hospital Toolkit resource "Online Resources for Hospitals Interested in Connecting to Sustainable Farmers, Producers."

Buying from farmers at auctions, farmers markets

Hospitals should follow the same steps when buying products from farmers at farmers markets and auction as they would when reaching out to specific farmers/producers that they have heard about via word of mouth, buyer-grower events, websites, or on-line producer directories.

Food service employees can learn a lot from a morning or afternoon of informal conversations with farmers at farmers markets, such as what they produce, their growing or production methods, their interest in or experience in selling to institutions such as hospitals, experience with wholesale pricing, contact information, etc. Food service employees should also confirm that they are talking to a farmer or a member of the farms family or staff and not a reseller of produce or other food vendor, since farmers markets vary in who they allow to sell via the markets. Food service employees can also learn a lot from a field trip to an auction where produce and other farm products are sold at or below wholesale prices. Small quantities of products can be purchased at both types of venues to evaluate quality.

Keep in mind that product bought via farmers markets and auctions, typically need to be paid for at purchase and transported by the buyer, though some auctions may offer billing options and delivery, but at these venues, a hospital can also meet farmers/producers that are interested in establishing a more formal procurement relationship in which delivery and other details can be negotiated. Also, keep in mind that like hospitals and farmers, no two farmers markets or farm product auctions are alike and there is no such thing as a bad question.

Every week, DC Central Kitchen buys produce from the Menonite farmers auction near Harrisonburg, VA. The auction is a highly affordable source of high-quality local produce for our meals and catering operations. Photo courtesy of cc user DCCentralKitchen on Flickr.

For an introduction to produce auctions see "Produce Auctions; Iowa & National" at http://www.greatplains-growers.org/2013%20GPGC%20Presentations/OMalley,%20Patrick-%20Produce%20Auction.pdf, "Regional Wholesaling of Vegetables: Wholesale Produce Cooperative Auctions at http://agebb.missouri.edu/hort/auction/auctions.pdf, and Produce Auctions at http://www.ifmwi.org/auctions.aspx

5. INTERVIEW FARMERS/ PRODUCERS, VISIT FARMS

Unless there is only one potential supplier, interview a few to get a feel for the differences in the way they do business. Learn how they grow crops or raise animals, what their capacity is, their production and quality goals, and the other types of information needed to determine whether the farmer's capabilities and needs coincide with the hospital's needs and goals as outlined in the purchasing protocol mentioned above.

Initial telephone conversations are acceptable, but hospitals should always meet in person with a potential farm partner, before buying products. At a minimum, key food service staff should plan to visit the farm or operation, and the farmer/producer should visit the hospital kitchen and cafeteria and, if practicable, eat a meal with food service staff and share product samples.

When asked what could have worked better in their experience selling to a hospital, one farmer who responded to the IATP 2012 SARE project survey said,

> There needed to be more contact between the growers and the actual kitchen staff that worked with the product so that education and expectations on product could take place. Just selling through administration did not work. They, in most cases did not know exactly what they were ordering and kitchen staff became frustrated with the process.

It is good to have some specific questions in mind when first meeting with a farmer/producer and, if interviewing multiple potential suppliers, to have these questions in writing to assure some consistency. Be prepared to ask specific as well as open-ended questions. Begin with open-ended questions including:

- What are you most interested in selling to the hospital?
- Why are you interested in selling to the hospital?
- What other types of food do you produce?
- Can you describe the methods you use or do not use?

Why local farmers/producers want to sell to hospitals

- Increase access to healthy, locally grown food (91.3 percent)
- Educate others about the food system and where food comes from (82.6 percent)
- Build relationships within my community (78.3 percent)
- Helps diversify my markets (78.3 percent)
- New revenue source for my farm (69.6 percent)
- Fair, steady prices (56.5 percent)
- Reduce my farm's ecological footprint by selling to buyers close by (56.5 percent)
- Large volume orders (47.8 percent)
- Reliable customer (47.8 percent)
- Provides a market for surplus for variable quantities (47.8 percent)
- Provides a market for seconds (26.1 percent)

Based on results of IATP 2012 and 2013 SARE project surveys of local farmers and producers

Then move onto the specific questions. These questions should be guided by the hospital's draft purchasing protocol(s), but also include questions such as:

- What is the most our hospital can buy at one time?
- What is the least?
- When are your products available?
- How much do they cost?
- Do you deliver?

Also, be prepared to provide farmers/producers with basic information about what the hospital typically buys, how much is used on a weekly basis, etc. The hospital may settle on what can be bought right away, but plan to be patient in case it takes a while. One farmer who currently sells to hospitals remarked, "[S]imply determining the product(s) that fit best is always the challenge, and is magnified in the health care setting with cost, nutrition, and volume parameters to meet."

6. BE STRATEGIC WHEN CHOOSING TIMES TO MEET

In most north central region states, winter is often the best time to meet with produce growers to discuss options for increasing types and amounts of fruits, including berries, vegetables and herbs your hospital is interested in buying in the coming year or years. Many sustainable meat and poultry producers will also need several months to a year or more of lead time to adjust their production. Also, if more than one hospital from a system is interested, consider joint meetings with farmers/producers. If hospitals are located close together the staff may also be able to discuss synergies with farmers in product purchases, delivery times and days, and more.

7. MAINTAIN TWO-WAY COMMUNICATION

Following the above-listed steps should help to lay the foundation for good relationships, but all good relationships need maintenance. Just as food service employees meet regularly with distributor sales representatives and attend meetings to learn about new products and provide feedback, a hospital's food service director or other appropriate staff person, such as the executive chef, and the hospital's farm partners should meet regularly to share what is working well, what can be improved, and what changes, if any, they would like to make.

> The relationship between the farmers and the institution is so important," says one SARE project farmer. "There has to be complete comfort between the two so that concerns can be addressed before they become real problems.

8. OPTIMIZE QUALITY OF PRODUCTS FROM FIELD TO FORK

Optimize the delivery schedule so that fresh produce, in particular, goes from field to farm to plate as quickly as possible, especially if labeling the product as local on menus, salad bars, etc. and/or with the farm/producer's name. This is even more important if charging a higher price for the local product, because freshness and high quality is a key reason that consumers are willing to pay more for local produce. Work with farmers to assure that most produce

items are picked, stored, transported, and used or stored again at optimal temperatures in order to maximize maintenance of nutritional value. If purchasing sustainable meat and poultry items or produce you have never prepared before from farmers/producers, ask them to provide tips or even training to staff on how to successfully prepare the product for consumption. For instance, hospitals should learn the best ways to prepare very lean meats, such as bison or grass-fed beef.

9. BE PATIENT, CREATIVE AND OPEN TO CHANGE

A hospital may find sustainable producers or producer groups in the area that already have, as one SARE project producer put it "consistent and convenient systems in place to make the process manageable" for purchase of at least some types of products. However, this may not always be the case. It is best not to expect things to work perfectly at first, to expect some trial and error, but believe that with patience, open two-way communication, and experience, processes will become efficient and replicable.

Again, some sustainable producers have experience selling to institutions and other wholesale customers and have adapted or designed their operations to offer products in the cuts, pack sizes, forms (fresh, frozen, etc.) and volumes these businesses typically buy, but many others have not. These latter sustainable farmers/producers may never choose to go this super-streamlined route to institutional sales for any number of reasons, but many of the farmers/producers still produce products that creative and flexible food service staff can easily work into their menus. In some cases, these products can be used still by large and very large hospitals, for very specialized needs, such as serving maple syrup, honey, bacon, sausage, eggs, cream, and/or fresh berries, etc., for a monthly physicians' breakfast meeting or other special events with advance planning.

However, nearly 41 percent of all community hospitals and many VA hospitals in the north central region are very, very small—having fewer than 50 staffed beds each—and more than 62 percent of all hospitals in the north central region are very small—having fewer than 100 staffed beds each.[4] Many of these latter hospitals, have an average daily census that is much lower than 100, and employee numbers that are significantly lower than the bigger hospital in the region. For these smaller, and in many cases rural, hospitals, it should be much easier to incorporate the smaller volumes and types of products available from the smaller non-commercial and commercial farmers/producers who are interested in having their farm-fresh products served to hospital patients and staff.

10. SHARE LESSONS LEARNED

As hospital food service personnel gain experience in working with sustainable farmers/producers and using their products on a routine basis, it is important to share this experience with others.

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

Written by Marie Kulick, Earth Wise Communications

ENDNOTES

1 Managing Food Safety: A Manual for the Voluntary Use of HACCP Principles for Operators of Food Service and Retail Establishments. US FDA (2008) http://www.fda.gov/Food/GuidanceRegulation/HACCP/ucm2006811.htm (accessed July 22,2013).

2 HACCP-Based Standard Operating Procedures (SOPs). National Food Service Management Institute and United States Department of Agriculture (2005), http://sop.nfsmi.org/HACCPBasedSOPs.php (accessed July 22, 2013).

3 HAACP-based SOPs: Receiving deliveries (Sample SOP), http://sop.nfsmi.org/HACCPBasedSOPs/ReceivingDeliveries.pdf (accessed July 22, 2013).

4 AHA Hospital Statistics 2013 Edition

Hospital Food Purchasing: A Primer for North Central Region Sustainable Farmers/Producers

There are 1,456 registered community hospitals (non-federal, short-term general and other special hospitals) and 37 VA hospitals/medical centers[1] in the north central region— Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.[2,3,4]

The Institute for Agriculture and Trade Policy (IATP) estimates that these hospitals spent nearly $1 billion on food and beverages in 2012. Many of these hospitals have expressed interest in buying sustainably produced food and beverages, but most are likely spending less than 10 percent of their current food budgets on these products and buying few if any of these items directly from sustainable farmers/producers located in nearby communities. Thus, north central region hospitals represent a large potential market for sustainable farmers/producers. See the IATP report Connecting Sustainable Farmers to Hospitals—A Farmer/Producer-Focused Report at www.iatp.org/farm-to-hospital.

Hospitals are urban or rural. Most VA hospitals/medical centers are in urban areas, and nationwide 60 percent of registered community hospitals are located in urban areas. However, in the north central region, slightly more than half of the community hospitals are in rural areas, and in some states there are far more community hospitals in rural areas than urban. See Table 1.1 for comparison of rural versus urban community hospitals in north central region states.

Table 1.1—Rural Versus Urban Community Hospitals in North Central Regions States[5] (ranked by percent rural)

State	Rural	Urban	Portion of community hospitals that are rural
Nebraska	70	16	81.4 percent
North Dakota	33	8	80.5 percent
South Dakota	42	11	79.2 percent
Kansas	99	33	75.0 percent
Iowa	84	34	71.2 percent
Minnesota	81	51	61.4 percent
Wisconsin	56	69	44.8 percent
Missouri	53	67	44.2 percent
Michigan	58	95	37.9 percent
Illinois	64	124	34.0 percent
Indiana	40	85	32.0 percent
Ohio	55	128	30.1 percent

This is important for sustainable farmers/producers to note, because urban hospitals tend to have much higher patient volumes than rural hospitals and consequently will serve more meals (patient and retail) and have higher volume needs. Urban hospitals typically have 100 staffed beds or more, while nearly half of all rural hospitals have 25 or fewer staffed beds.[6]

In 2011, nearly 62 percent of community hospitals and 27 percent of VA hospitals/medical centers in the north central region had 99 or fewer staffed beds.[7,8] Per IATP's research,

these smaller hospitals typically spent $140,000-$400,000 on food and beverages, while hospitals with 100 or more staffed beds spent $600,000-$5 million. See Table 1.2 for a comparison of the demand represented by a small, rural hospital and a large, urban hospital.

Table 1.2—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 lbs	43,683lbs
Chicken	2,922 lbs	51,575 lbs
Pork	717 lbs	22,858 lbs
Turkey	900 lbs	14,423 lbs
Seafood	838 lbs	8,804 lbs
Produce, fresh, whole	7,949 lbs	70,327 lbs
Produce, fresh, pre-processed	8,009 lbs	89,698 lbs
Produce, frozen	1,707 lbs	20,792 lbs
Fluid milk	1,100 lbs	22,150 lbs
Eggs	750 dozen shell; 1,100 lbs processed	4,814 dozen shell; 28,583 lbs liquid
Butter	721 lbs	2,945 lbs
Cheese	2,408 lbs	19,593 lbs

NOTE: The number of beds available for patient use usually indicates a hospital's size. The maximum number of beds a hospital can operate is its "licensed beds." Most hospitals beds are not full on a routine basis. Therefore, a hospital's "staffed bed" number—the number of licensed beds for which staff is on hand at any given time to attend to patients—is a better indicator of size. However, the number of staffed beds can also include routinely vacant beds, so the best size indicator of a hospital's size is a hospital's average daily census (ADC). A hospital's ADC may be much lower than staffed beds, and provides the most accurate count of the number of patients for which hospitals serve meals on a routine basis. Unfortunately, a hospital's ADC is not reported as publically or routinely as staffed beds.

Regardless of size, all hospitals are likely to prepare and serve food and beverages to patients staying in the hospital, and most make food and beverages available for purchase by staff, outpatients, and visitors via cafeterias and vending.[9] Many also cater on-site meetings and events.

Food service operations may vary considerably from one hospital to another. Some hospitals only prepare and serve a few hundred meals a day; others make thousands. Some hospitals prepare all meals onsite, others off-site at a centralized kitchen. These latter hospitals are usually part of a hospital system and not standalone. Some hospitals make almost every meal from scratch using raw, unprocessed ingredients; others use a considerable amount of readymade items they just heat and serve. Some manage food service in-house; others hire a company to do it for them. Finally, some hospitals give their food service managers and chefs considerable leeway to decide what to buy and from whom, but many provide almost no flexibility. These differences can affect whether and how sustainable farmers/producers sell products to hospitals in their community.

Meals served

Hospitals tend to serve three meals per day every day of the year to patients (in-house) and provide snacks as well. The availability of food through retail operations, such as cafeterias, will vary depending on the time of day. All of the hospitals with retail dining services that completed the latest Food Service Director survey serve lunch and almost all served breakfast.[10] Most hospitals also make dinner and snacks available via retail dining, but the fewer retail meals the hospitals served on average, the less likely they were to offer dinner and snacks. Note: Hospitals that serve 500 or more retail meals per day were more likely to serve additional late night meals.

Generally, the number of patients, employees, and visitors for a given hospitals will have the greatest influence on the number of meals served on average. A hospital with an ADC of 15 patients will serve approximately 45 patient meals per day while a hospital with an ADC of 800 will serve approximately 2,400 patient meals per day.[11] Similarly, a small hospital with 300 employees might serve 150 retail meals per day while a large hospital with 8,000 or more employees will serve thousands of retail meals per day.

In addition, the ratio of patient to retail meals served will vary from one hospital to another, with some hospitals serving more patient meals on average than non-patient

meals. However, per the latest Food Service Director survey, overall hospitals tend to serve fewer patient meals than non-patient meals—41 percent patient meals to 59 percent retail meals/transactions.[12]

Meal preparation

More often than not, all of these meals are prepared on-site, and through some combination of the use of purchased ingredients to make food from scratch and purchased food items that are ready to heat or serve. However, some health systems use a commissary model to prepare in-patient meals, preparing food at a central location, and delivering the food to hospital kitchens in bulk or pre-plated for service. More of these latter meals will be made from scratch. In recent years, many hospitals, especially larger hospitals that serve more patient meals and have higher annual food and beverage expenditures,[13] have switched to a hotel-style, room service model for patient meals, whereby patients can order from a many option menu and have meals delivered when they are hungry and available to eat them. Per FoodService Director, this amounts to about 40 percent of hospitals. The remaining 60 percent use a more limited menu and deliver meals and snacks at predetermined times.

Overall management

By some estimates, most hospitals still hire employees to manage and run their food service operations (self-op). The Association for Healthcare Foodservice (AHF) reports that "self-op facilities represent 80 [percent] of food and beverage purchases in the industry."[14] In addition, Food Service Director reports that 78 percent of hospital respondents to their 2013 survey manage food service in-house, 17 percent outsource management, and 5 percent have split management.[15]

In contrast, the latest Food Service Director Contractor census indicates that food service contractors are managing at least a portion of food service operations at 3,702 hospitals,[16] a number equal to 65 percent of the 5,724 registered hospitals in the U.S. However, little information was provided regarding the census methodology, so it is difficult to gauge the accuracy of this latter calculation.

Regardless, the percentage of self-op to contract food service seems to vary from place to place. For example, most of the hospitals in the Twin Cities metropolitan area have hired one of the top three food service contractors: Compass Group North America, Sodexo, Inc., and Aramark Corp.—to manage their food service operations, but many non-metro area Minnesota and western Wisconsin hospitals manage food service in-house.[17]

NOTE: Together Compass Group, Sodexo, and Aramark controlled 95 percent of the contracted hospital market in 2011.18 See Table 1.3 for a list of the top management companies that have hospital accounts.

Table 1.3—Top Management Companies with Hospital Accounts[19] (ranked by overall revenue, not hospital revenue)

Management company	Headquarters	Hospital portion of business	Area served (if known)
Compass Group North America	Charlotte, N.C.	26 %	International
Sodexo, Inc.	Gaithersburg, Md.	29 %	International
Aramark Corp.	Philadelphia, Pa.	18 %	International
Thompson Hospitality	Herndon, Va.	7 %	North America
Valley Services, Inc.	Jackson, Miss.	22 %	United States
Healthcare Services Group, Inc.	Huntingdon Valley, Pa.	1 %	47 states and Canada
AVI Food Systems, Inc.	Warren, Ohio	15 %	Ohio and contiguous states
Metz Culinary Management	Dallas, Pa.	8 %	Not listed
Unidine Corp.	Boston, Mass.	33 %	Across the United States
Treat America Food Services	Merriam, Kans.	10 %	Midwestern states
A'viands Food & Services Mgt.	Roseville, Minn.	3 %	Midwest, Southwest
Thomas Cuisine Management	Meridian, Idaho	81 %	Idaho, Mont., Ore., Wash.
Southern Food-service Management, Inc.	Birmingham, Ala.	2 %	Nationwide
Cura Hospitality	Orefield, Pa.	18 %	Pa., Del., N.Y.
Continental Dining & Refreshment Services	Sterling Heights, Mich.	6 %	Mich. (now part of Compass Group)
CL Swanson Corp.	Madison, Wis.	2 %	Midwest, MidSouth
HHA Services	St. Clair Shores, Mich.	77 %	Not listed
Prince Food Systems, Inc.	Houston, Tex.	70 %	Mainly in Tex. but also has sites in Ohio, La., Minn., and Tenn.

Table 1.3—Top Management Companies with Hospital Accounts[19] (ranked by overall revenue, not hospital revenue)

Management company	Headquarters	Hospital portion of business	Area served (if known)
Luby's Culinary Services	Houston, Tex.	85 %	Tex.
FAME Food Management, Inc.	Wakefield, Mass.	10 %	Nationwide
Nutrition Management Services Co.	Kimberton, Pa.	20 %	Not listed
Linton's Managed Services	East Norriton, Pa.	29 %	Pa., N.J., Md., Del., Fla.
Kosch Hospitality	Rochester, Mich.	5 %	Mich., Ohio

In addition, some hospitals manage patient food operations in-house and outsource management of retail operations. For instance, federal government employees run patient food service operations for most VA hospitals/medical centers, and Veterans Canteen Service, a contractor, manages most of the cafeterias and other retail operations.[20] Other health systems may use contractors to manage both patient and retail food service operations at all of their hospitals, and some only use contractors to manage these operations at a few of their facilities.

Hospitals also differ in how they use these contractors. For instance, a hired food service management company may only provide a few company managers who oversee a staff of hospital food service employees or the company may employ most or all food service personnel working at a particular facility—managers, supervisors, chefs, line cooks, servers, etc.

Contracts tend to last several years, and it is common for one major contractor to replace another when a contract ends. Contracts also tend to stipulate whether the management company can use its own suppliers or will be required to use hospital-designated suppliers.

As mentioned in IATP's *Connecting Sustainable Farmers to Hospitals: A Farmer/Producer-Focused Report*, some sustainable farmer/producers have had success selling to hospitals that have contract food service management, but 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 sustainable 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. This statement is based largely on anecdotal evidence and the author's experience from working with hospitals on this issue for nearly 10 years. However, per the Health Care Without Harm (HCWH) 2013 Healthy Food in Health Care (HFHC) survey, only 16.7 percent (2 of 12) of north central region hospital respondents who purchased food directly from farmers/producers in 2012 had contract food service, the remainder managed food service in-house.[21]

NOTE: Most of the hospitals that completed the HFHC survey have signed the HFHC Pledge, a voluntary commitment to increase purchases of sustainably produced food and to promote and source from sustainable producers, among other steps, and/or are participants in the Healthier Hospitals Initiative (HHI) Healthier Food Challenge, with at least a portion of these hospitals working to achieve percentage-based goals for local and/or sustainable food procurement. In addition, the following food service contractors have pledged to support the efforts of hospital clients that have signed the HFHC Pledge and work at the corporate level to support several HFHC measures:

- ARAMARK Healthcare
- Fresh & Natural Food Service Group
- HHA Services
- Integrated Support Solutions, Inc.
- Metz Culinary Management
- Morrison
- Unidine Corporation

For additional information on the HFHC Pledge for hospitals and the companion food service contractor pledge, see http://www.healthyfoodinhealthcare.org/pledge.php.

Food service staff

Regardless of whether hospital employees or contractor employees manage a hospital's food service operation, a hospital's food and nutrition department is usually divided into patient and non-patient/retail-related services. If patient and retail services are managed jointly, whether by

hospital employees or contractor employees, there is usually someone in a director position that oversees all food service operations. This lead staff person usually has a title similar to the following: director of food and nutrition, food service director, director of nutrition services, etc., and is often a registered dietitian (RD). If the person is also in charge of laundry or other services, their title may be director of hospitality services. In these settings, the food service director is ultimately responsible for all food and beverage purchasing decisions, even if delegated to another staff person, such as an assistant director or executive chef. The food service director usually reports to someone in upper level management, such as, a vice president of operations.

If management is separated—patient operations managed in-house and retail operations outsourced for instance—each operation will have a director that reports to an upper-level hospital manager, i.e., a patient food service manager and a retail food service manager. Whichever is the case, sustainable farmers/producers interested in selling to hospitals should seek to develop relationships with these directors and managers. Executive chefs can also be great allies for sustainable farmers/producers who wish to sell to hospitals in their community, but not all hospitals have them, especially smaller hospitals.

HOSPITAL FOOD PURCHASING

Source of ingredients/ prepared food items

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. US Foods, Sysco, Gordon Food Service, Food Services of America, and Reinhart Foodservice are some of the primary mainline distributors serving hospitals. In making these commitments, hospitals limit their ability to purchase from sources other than their mainline distributors.

Hospitals make these commitments via their relationships with one or more group purchasing organizations (GPO) that serve hospitals and other institutions nationwide— Amerinet , HealthTrust, MedAssets, Novation, Premier, and others. 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 member and one or more distributors. These distributor 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.[22]

NOTE: Eighty percent of north central region registered community hospitals are in a GPO.[23] In addition, FoodService Director reports in their 2011 Hospital Census Highlights that 82 percent of hospitals use a GPO for at least a portion of their food service purchases.[24] 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. Many hospital food service employees are likely to have Hazard Analysis and Critical Control Point (HACCP) training and use HACCP on a voluntary basis to reduce the risk of food borne illness. Like other food service establishments, hospitals are largely concerned with two issues when it comes to HAACP: (1) receiving food/ingredients at proper temperatures and getting perishable food into cold storage quickly and (2) receiving food/ingredients from approved sources—suppliers who comply with regulations applicable to the sale of their product. For more on HAACP and food service operations see *Managing Food Safety: A Manual for the Voluntary Use of HAACP Principles for Operators of Food Service and Retail Establishments*, http://www.fda.gov/downloads/Food/GuidanceRegulation/HACCP/UCM077957.pdf

ADDITIONAL IATP RESOURCES

More information on hospital food procurement, including detailed information on product types, volumes, etc. can be found in the body and appendices of the IATP report, *Connecting Sustainable Farmers to Hospitals—A Farmer/Producer-Focused Report*, www.iatp.org/farm-to-hospital.

This publication is part of the IATP Sustainable Farm to Hospital Toolkit—a product of the North Central Region Sustainable Agriculture Research and Education-funded project *Connecting Sustainable Farmers to Emerging Health Care Markets*.

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ENDNOTES

1. 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.

2. 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.

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

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

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

6. 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).

7. 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.

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

9. 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).

10. 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).

11. Hospitals will likely serve fewer than three meals per day per patient as many factors influence what patients can eat, when they can eat, and whether they can eat.

12. 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).

13. 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).

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

15. 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).

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

17. Based on author's experience.

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

19. Mike Buzalka. FM's 2011 Top 50 Management Companies. Food Management (September 1,2011), http://food-management.com/business-amp-industry/fms-2011-top-50-management-companies (accessed October 28, 2013).

20. 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).

21. 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 was given access to and is able to report the north central region specific survey data in aggregate.

22. 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 was given access to and is able to report the north central region specific survey data in aggregate.

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

24. Non-Patient Service Drives Hospitals. FoodService Director. August 15, 2011.

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