

# CASE STUDY



## Sustainable Food Procurement and Provision

### The Problem

One contributing factor of the food industry's impact on the environment and climate change comes from "food miles," or the distance food travels from farm to plate. The USDA found that the food industry accounts for 16% of energy consumption in the United States. Researchers calculated that foods such as rice, tomatoes, and green peppers travel an average of 1,700 miles, halfway from Seattle to New York. Transporting food over such long distances via rail, water, road, and especially air uses excess fossil fuels and creates additional pollutants such as carbon dioxide and nitrogen oxides in the atmosphere.

Northern New England's prime farmland has the highest real estate values in the country that drive up local farmers' production costs. Small-scale farmers normally do not have large advertising budgets to attract consumers to their healthy produce. According to Ellen Lewis, assistant director of Dartmouth-Hitchcock Medical Center (DHMC) Food and Nutrition Services, "If the farms don't make it, they will become housing developments, so it's very special to support local farmers."

DHMC Foods and Nutrition Services (FNS), serves an average of 750 patient meals every day. Its retail operations include a main dining room that generates \$2.25 million a year in sales and a café that generates \$650,000 a year in sales. In addition, there are three on-site outside vendors providing supplementary food services to staff and visitors. The large scale of food services in hospitals such as DHMC contributes to the healthcare industry's heavy carbon footprint, yet food services is also a well-established avenue for implementing sustainability programs at many healthcare facilities. Director of Food and Nutrition Services Deborah P. Keane, RD, LD saw



### Executive Summary

Food that is locally produced and processed provides many benefits to personal health, community economies, and the environment. Foods that travel fewer miles from farm to plate consume fewer fossil fuels. DHMC's Food and Nutrition Services (FNS) has been working to change its food offerings to more nutritious and locally sourced and sustainable meals since 2009. The program started by removing the deep fat fryers and has grown to establishing a twice-weekly farmers market. The FNS department has expanded its network of New England vendors to provide greens, baked goods, eggs, meat, and dairy to DHMC customers. Director of Food and Nutrition Services Deborah P. Keane, RD, LD uses her responsibility to make final purchasing decisions to transition the hospital towards local foods. According to Keane, as hospitals and consumers continue to voice their demand for local foods, suppliers are working to develop local food infrastructures around the country.

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Deborah Keane

Director, Dartmouth-Hitchcock Medical Center Food and Nutrition Services

that her institution’s emphasis on population health and environmental stewardship aligned with her personal mission to promote nutritious, environmentally-preferred, local foods to DHMC customers.

## Strategy & Implementation

In 2009, FNS removed the department’s deep fat fryers and replaced 23,500 annual servings of fried chicken fingers with the same amount of grilled Atlantic salmon and 120,000 other fried items with more baked, healthier alternatives. Ever since then, sustainable and healthy food initiatives have been gaining momentum at DHMC through connections with the surrounding agricultural community.

FNS has a Menu Committee with weekly meetings where supervisory staff from all sections of the department (clinical nutrition, hot and cold food production, patient services,



purchasing, and retail services) deliberates over the quality, cost, distribution, handling requirements, and nutritional value of all products. Local options can be locally sourced and/or processed and may also be certified organic, gluten-free, or hormone-free. Final purchasing decisions are made by Keane. After considering all the variables, she may choose a more expensive, but locally sourced, healthier product.

Local products come to the attention of the Menu Committee directly from vendors, trade shows, regional meetings, or by reaching out to other community health care centers about their local food procurement.

For instance, at the June 2013 “Champions of Change Healthcare and Foodservice Forum,” New England hospitals and their local and national food vendors were able to discuss ways to work together to better serve the healthcare community with locally sourced and sustainably produced products. National vendors such as US Foods expressed support for the hospitals’ preference for greater local options yet informed the hospitals that establishing the infrastructure for local products will take time.

The Healthy Living Committee at DHMC is a key partner that FNS looks to for ideas on healthy and sustainable food initiatives. The Healthy Living Committee is a multidisciplinary team of hospital and community members who identify opportunities for improving the health of all people in the DHMC region, especially the DHMC workforce, patients, and visitors. DHMC also partners with a community based program called HEAL “Healthy Eating Active Learning” that supports Keane’s ideas

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by linking sustainable food messages to the community in places such as public schools and civic offices. The DHMC Communications and Marketing department is another partner that helps promote FNS' sustainable food messages via internal hospital communications.

One of DHMC's most visible sustainable food initiatives is the onsite farmers market that opened in 2012. In its first season, the "Farm Fridays" market attracted an estimated 250 weekly shoppers. About 10% of the customers were patients and visitors. Patrons, especially ones who commute long distances to Dartmouth-Hitchcock, liked having a convenient source of fresh local

food. In its second year, the DMHC farmers market expanded to opening on Fridays and Tuesdays. The farmers market features four local farms and the delivery site for the 60 employees who are supporting the Community Supported Agriculture (CSA) Program. CSA programs can be found all over the nation with some minor varieties, but normally are set up for community members to pay farmers a fee in exchange for a weekly supply of fresh produce throughout the growing season. The upfront fee helps farmers' cash flow and marketing early in the season.

Advertising for the DHMC farmers market is limited to patients and staff to minimize parking issues and competition with community-based farmers markets. The market is also subject to possible inclement weather and DHMC's regulations on land use. According to Dr. Robert McLellan, Section Chief of Occupational and Environmental Medicine and Medical Director of Live Well/Work Well, Dartmouth-Hitchcock plans to grow the program not only in the variety of available products in a range of price ranges but also to link it to a program that teaches people how to cook meals from local foods.

## Benefits

1) In 2012, out of a total food budget of \$2,420,500, approximately 23.8% was spent on local and sustainable foods. That percentage is expected to be higher in 2013 because of direct purchases from local farmers and

other planned product changes

2) Face-to-face interactions with farmers contribute to DHMC's community connections. DHMC directly supports local farmers, their families, workers, and the local economy through its sustainable foods program.

3) Local vendors produce significantly less packaging waste via reusable plastic bins. DHMC also provides some vendors with reusable bins that are more efficient for storage in the main kitchen.

## Challenges and Lessons Learned

The biggest challenge for FNS is that Keane's current local food vendors do not have enough local products to meet DHMC demand. As more hospitals and general consumers voice their demand for local foods, the industry is responding and gradually bringing more of these products to the market. One large future supplier of local products is a meat processing plant opening in Vermont summer 2013.

Another challenge comes from not having enough kitchen labor capacity to complete the preparation that local produce requires. Pre-washed and bagged lettuce, peeled and pre-cut carrots, potatoes, and onions are types of local products DHMC would like to purchase that are hard to find nearby. DHMC prefers organic products that are minimally labor-

### DHMC's Local Products:

Produce (zucchini, corn, Swiss chard, parsnips, eggplant, etc.)

Cage Free Shelled and liquid eggs

Burger Patties

Pork Roast

Yogurt

Milk

Bean and Grain Mixed Salads

Protein bars

Tofu

Cookies

Bread

Gluten- Free Bread and desserts

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### Healthier Hospitals Initiative: Healthier Foods Challenge

DHMC has signed on to all three challenges in the Healthier Food in Health Care Pledge

1. **Balanced Menus**
2. **Healthy Beverages**
3. **Local/Sustainable Foods**



intensive to prepare such as squash, cream cheese, and oatmeal. In the future, FNS also hopes to obtain more freezer space for local produce storage long beyond the growing season.

Keane noticed as customers became more knowledgeable about the myriad of benefits of local food, they ask questions and drive food service directors like her to do more research in how to provide sustainable food. Keane's advice for food service leaders who are just beginning to provide sustainable food options is to start small and network with hospital associations such as Practice Greenhealth to learn from other facilities. "By sharing accomplishments," Keane says, "health facilities can show how they are taking actions to improve the health and sustainability of our environment. That leads to recognition and respect from not just patients and customers, but also senior leaders and local businesses. Ultimately, we need to work together to increase the practice of purchasing affordable, local, and environmentally sustainable products."

## Endnotes

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