



# Plow to Plate: The Community Hospital as Change Agent

By Elaine Eldridge

The founders of Plow to Plate® want to change not merely what we eat, where our food comes from, and what happens to it before it arrives on our plates, but the entire culture surrounding food.<sup>1</sup> In particular, cofounder Marydale DeBor wants both individuals and institutions to recognize the crucial role food plays in promoting and sustaining health.

At New Milford Hospital, an 85-bed community hospital in New Milford, Connecticut, the goal of changing attitudes about food has become a reality. Just six years ago, New Milford's food services struggled with chronic and serious complaints from both patients and staff about unappetizing, poor-quality food. Their vendor was unresponsive to demands for improvement, even to resolve public health code violations. Food service staff were demoralized, and surveys by Press Ganey, a national patient satisfaction survey organization, ranked the hospital at a low 30th percentile among the nation's health care institutions.

At the same time, DeBor, an attorney who was then vice president of external affairs at New Milford Hospital, New Milford community pediatrician and public health leader Dr. Diane D'Isidori, and prominent local chef Anne Gallagher were growing increasingly appalled by the statistics on childhood obesity and the consequent rise in type 2 diabetes among children. "We couldn't fix the country's eating habits overnight," says DeBor, "but we knew we had to start somewhere." Believing strongly that the hospital should be a model for the community as well as its patients and employees, DeBor approached Dr. Joseph Frolkis, a specialist in preventive cardiology and director of the hospital's cardiovascular disease prevention clinic, who was then also serving as the hospital's CEO.

Dr. Frolkis agreed to a complete overhaul of the hospital's food system and committed to support the development of what became known as Plow to Plate, a coordinated web of hospital- and community-based programs dedicated to challenge the rising rates of obesity, diabetes, and cardiovascular disease in the hospital's primary service area and its surrounding communities.

Plow to Plate sprang from the belief that the community hospital could be a change agent. In late 2006, when Plow to Plate was born, New Milford Hospital had two primary goals: to raise its Press Ganey patient satisfaction ratings and to provide patients and staff with nutritious meals, made from scratch, using organic ingredients sourced from local and regional farms and dairies.

Once the commitment was made, change came rapidly, although not always easily. One of the early steps was joining Health Care Without Harm (HCWH), a coalition of more than 470 organizations in 52 countries "working to transform the health care sector so it is no longer a source of harm to people and the environment."<sup>2</sup> In 2007 New Milford committed to the HCWH Healthy Food in Health Care pledge, which calls for fresh, whole food from local sources that is produced without synthetic pesticides, antibiotics, hormones, or other chemicals. The pledge also asks member institutions to work with their communities to support sustainable, humane agricultural systems. A copy of the pledge is prominently displayed at the entry to the New Milford Hospital cafeteria.

## The Shorter the Food Chain, the Better the Food

A few months later, New Milford Hospital hired CT-based Sustainable Food Systems to conduct a thorough food service assessment and to make recommendations for bringing the hospital into compliance with its new policies. The assessment and ensuing recommendations led to the decision to issue a request for proposals (RFPs) to food service vendors.

Before issuing the RFP, New Milford tried to get its major food vendor to accept the new requirements—unsuccessfully. The new contract was ultimately awarded to Unidine Corporation, which reflects the HCWH mission in its emphasis on sustainable and healthy food service practices and community involvement. In fact, the RFP and contract explicitly state the Healthy Food in Health Care policy.

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Jennifer Almquist



A field of certified organic green beans is ready for harvest at family-owned Riverbank Farm, Roxbury, CT.



Plow to Plate cofounder Marydale DeBor (with basket) and the culinary staff celebrate food for health in the New Milford Community Hospital café; chef Kerry Gold is on Marydale's right in the chef's jacket.

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The hospital's contract with Unidine reflects the Plow to Plate belief that the vendor is a necessary and welcomed partner in building and maintaining a sustainable food system. The procurement specifications include, for example, that the vendor will build a supply chain with local and regional farms, dairies, fisheries, and co-ops. At present, six farms provide the hospital with meat and produce from May through October, with other farms supplying specialty seasonal products, and a co-op that provides dairy products throughout the year.

Not surprisingly, Plow to Plate vendors are expected to maximize the use of the best and freshest ingredients and not merely avoid, but eliminate, fried and processed foods, sugared drinks, high-fructose corn syrup, and meat and dairy products contaminated with hormones and antibiotics. Genetically modified (GM) foods are to be avoided, but, DeBor notes, determining the presence of GM products can be extremely difficult once the supply chain extends beyond Plow to Plate's known agricultural partners.

A more unusual contract provision requires that Unidine participate in the community coalition formed to support the Plow to Plate initiative. This coalition of farmers, chefs, educators, and health care providers supports a wide range of programs to educate residents about the importance of a healthy diet to overall health and well being. In addition, Unidine is expected to participate in the hospital's in-house education and marketing programs to patients, employees, and visitors concerning the healthy food in health care approach to food service.

Unidine began serving fresh, nutritious, and appetizing meals in July 2008, less than two years after DeBor and her colleagues decided something had to change. Press Ganey patient satisfaction surveys rose steadily, and by 2010 New Milford Hospital ranked nationally in the mid-90th percentiles.

As its name suggests, Plow to Plate emphasizes as little interference and distance as possible between where food is grown and when and how it arrives on the plate: local, sustainable, nutritious, and tasty. Unidine chef Kerry Gold, who is also New Milford Hospital's dining services director, trained at the Culinary Institute of America (Hyde Park, NY); he isn't serving up unadorned mushrooms or greenery that a rabbit would snub. That mushroom is probably a portobello with gorgonzola, and other entrees may include salmon with herbs from the hospital's rooftop culinary garden; ravioli in a sauce of eggplant, chick peas, and cherry tomatoes flavored with rosemary; or grilled pork with garlic mashed potatoes or butternut squash risotto. For the soup lovers there is celery root bisque, sweet potato and corn, roasted plum tomato, potato with leek, and a very popular carrot ginger soup. The salad bar offers at least 20 condiments, such as peas, a variety of nuts, herbs, and chopped fresh peppers; diners can also choose protein-rich quinoa and orzo salad or almond chicken salad with cranberries and herbs. Lavender scones and healing tulsi (holy basil) tea are made with herbs from the hospital garden.

And what does all this cost? The previous annual hospital food budget was about \$850,000, and the current annual hospital food budget is ... about \$850,000. "That's largely," explains DeBor, "because we've eliminated so much waste by always cooking from scratch and using all parts of each ingredient. Soup stock, for example, is made with celery tops, stalks, parsley stocks, onion skins, carrot tops, and roots."

Another source of savings resulted from streamlining menus for patients and retail café patrons. The new menus offer fewer, but nutritionally and gastronomically superior, options. Emphasizing a plant-based diet reduces the amount of meat served, and the money saved by serving less meat—traditionally the greatest cost in hospital food purchasing—is spent on supporting local, organic farms.

### Institutional Change and Partnerships

DeBor emphasizes that Plow to Plate represents not merely a change in operations but a change in institutional culture. The commitment by the CEO and senior management team to Healthy Food in Health Care places food service on an equivalent platform with other mission-based operations, such as surgical and medical care. This change in culture means

that food service is no longer a support service, like housekeeping or laundry, but an integral element of medical and health care practice.

This sea change was achieved by using focused, persistent leadership, community organization, and public health strategies (i.e., a social ecology approach to change) combined with a great deal of risk-taking with the supply chain. The early, decisive partnerships vital to Plow to Plate success involved New Milford's senior management and Unidine. A third group, whose cooperation greatly contributed to the success of the Plow to Plate program, was the existing food service staff at New Milford.

Bringing in Unidine meant not only hiring Unidine chefs, but replacing the previous vendor's canned, frozen, and packaged foods with fresh, whole ingredients, a change that completely altered how food was to be prepared and served. Staff members were trained in culinary skills (e.g., knife skills for



preparing whole foods with the least amount of waste); communication and client service to help facilitate the room service model adopted; and fresh

Bill Stuart of Stuart Family Farm, Bridgewater, CT, raises grass-fed, all-natural beef using sustainable and humane husbandry practices. The farm is Animal Welfare Approved.

### From 30th Percentile Rankings to a National Model

#### 2006

- Press Ganey reports New Milford Hospital's patient satisfaction with the food service at the 30th percentile nationally
- Plow to Plate begins as a broad initiative to make food a cornerstone of health maintenance and disease prevention

#### 2007

- New Milford Hospital joins HCWH and commits to Healthy Food in Health Care pledge
- The hospital community outreach department adds "food learning" to existing outreach activities
- RFP issued after vendor fails to meet new food procurement and preparation policies

#### 2008

- Unidine Corporation retained to provide organic, chemical-free, locally sourced food
- First meals under new program served (July)
- Fried foods (and frying equipment) and sugared sodas no longer offered
- New menus feature plant-based entrees, less meat, and hormone-free dairy products
- Kitchen employees and volunteers build a 300-square-foot culinary healing garden atop the loading dock outside the hospital; the garden features herbs, peppers, eggplant, pole beans, cucumbers, and edible flowers
- Overall Press Ganey patient meal satisfaction rankings for the second half of the year average in the 60th percentiles

#### 2009

- Third-quarter Press Ganey patient overall meal satisfaction rating climbs to the 90th percentile
- With \$170,000 from the hospital capital budget, minor kitchen renovations are completed: warming lines are removed to add preparation space to accommodate fresh food and the new room service model
- A focus on community seniors is added to the Plow to Plate initiative; Senior Suppers begin

#### 2010

- Planetree, an internationally recognized leader in patient-centered care, awards New Milford Hospital a Spirit of Planetree Award in the category of Nutritional and Nurturing Aspects of Food
- Press Ganey patient satisfaction surveys place New Milford Hospital at the mid-90th percentile
- Hospital receives Glynwood Center Harvest Award for Good Food for Health

#### 2011

- Plow to Plate poster selected from hundreds of applicants for presentation at the national convention of the Institute for Health Care Improvement, Orlando, Florida
- Plow to Plate and Girl Scouts of Connecticut begin plan to create a healthy food badge for local Scouts, with plans to go statewide. First project teaches gardening and healthy eating to Girl Scouts (ages 5 to 11); the girls make organic salsa with peppers they grew in the hospital culinary garden.

#### 2012

- Exploring collaboration with Southern Connecticut State University to engage students pursuing a master's in public health degree and to develop evaluation methodologies that can be used to examine and measure comprehensive community and hospital innovations in public health like Plow to Plate
- Grant from a local community foundation provides transportation twice a week from local senior centers, enabling the expansion of the Senior Suppers program by 15 percent
- Ongoing marketing program informs service-area primary care physicians about Plow to Plate initiatives, especially those related to risk reduction and management of diabetes, obesity, and cardiovascular disease



Jennifer Almajusi

A plate of pan-seared tuna with asparagus, sliced cucumbers, and red onion slices on a bed of mesclun greens—all organic—is ready for a patient at New Milford Community Hospital.

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—Marydale DeBor

food procurement, including site visits to distributors and farms. A shared governance approach to decisions about uniforms, service challenges, and food presentation also helped bring staff members on board.

Using funds from the Connecticut Department of Agriculture, a marketing and education campaign was developed that included Plow to Plate-branded placemats (with direct messages about nurturing foods) and napkins; table and tray tent cards feature local farmers and nutrition facts related to organic, sustainable food systems.

While these in-house innovations took shape, Plow to Plate moved out into the community to build additional partnerships with farmers, chefs, educators, and health care professionals to create and foster programs for children, seniors, and all ages in between.

In collaboration with the New Milford mayor’s office and the local farmers’ market, the number and types of vendors at the market were expanded, which tripled the size of the market from 2007 to 2009. Branding was not restricted to hospital napkins: The market was renamed the Plow to Plate Farmers’ Market, and their distinctive logo was added to road signs on the major state road leading to New Milford.

To encourage families with children to buy vegetables at the market, the Plow to Plate team developed Farm Bucks, which are vouchers backed with funds from local foundations and distributed by community physicians. Farm Bucks are identified by serial numbers so both the distributing physicians and the products bought at the farmers’ market can be tracked.

Senior Suppers were launched to help combat malnutrition among the elderly in the community. The low-priced meals are accompanied by informal talks by hospital doctors and nutritionists. Although the actual cost of each meal is \$1.65 more than the \$5 charged to the seniors, the difference is covered by local donors.

Youth Chef Advocates, with its potential to influence peers, families, and the greater community, is perhaps the most far-reaching of all the Plow to Plate programs. The first cohort (2008–2009) for this intensive program comprised 20 high school students who attended sessions structured over the nine-month Connecticut growing season. Subjects of the sessions include the relationship between a healthy diet and disease prevention; sustainable methods of agriculture, livestock, and fishing (including on-site visits); and culinary skills, kitchen safety, and decorum. Youth Chefs are also responsible for completing a public advocacy project, which

to date have included a storybook and coloring book for young elementary school students, letters to the editor on sustainable food systems published by local newspapers, and videos shared at school and on YouTube. The dinners prepared by the Youth Chefs for their families are increasingly well attended. The third cohort of teenagers will begin in 2012. The Connecticut Department of Agriculture, private donors, and local foundations funded the first two cohorts of the Youth Chef Advocates program at a cost of \$49,000 for each cycle. New Milford Hospital will support the program sessions for the third cohort, demonstrating its belief that the community hospital and young people are able agents of change.

### Centrality of Food to Health and Health Care Practice

DeBor is passionate about changing attitudes toward food in the hospital industry. “All hospital and health care facilities ought to embrace the approach of putting food service as an integral part of health care services delivery,” she argues. “Not an afterthought, not an ancillary service, not a necessary evil.” She points out that since money must be spent on food, it might as well be treated as an asset, “not a nagging liability.”

Examples of food as an asset include the many programs conducted through the hospital’s learning kitchen, which count as community benefit in meeting IRS regulatory requirements and thus help to maintain New Milford Hospital’s tax status as a non-profit. In addition, since nutritious food reduces the risk of rehospitalization, and therefore reduces costs, it is a treatment focus for patients who are malnourished when they are admitted and is a part of their discharge plan.

While food services operations at New Milford are comparatively small, DeBor is quick to note that she and chef Gold maintain that the size of an institution (whether a hospital, business, or university) is relevant only to the extent that the supply chain must be managed. The methods used by New Milford can be followed by others; the supply chain challenge is in acquiring sufficient volume and an efficient delivery-distribution system for the procurement of fresh and uncontaminated ingredients. In fact, asserts DeBor, “a large institution has a real advantage because it can negotiate and create a distribution network by virtue of its buying power; it can negotiate with ‘broadliners’ to do a much better job of working with growers and producers not currently in the supply chain but that meet the institution’s healthy food requirements.”

The 1.2-million-square-foot National Conference Center in Loudoun County, Virginia, for example,

sources organic produce from vendors within 150 miles through its Farm-to-Table program. The center is also committed to the use of locally caught fish and subscribes to the sustainability initiatives of the Seafood Watch Program. As many as 18,000 guests a month are accommodated in 917 guest rooms and more than 250 meeting rooms, which adds up to a formidable amount of locally sourced fish, fruits, and vegetables.<sup>3</sup>

Hospital food service has been estimated as a \$12 billion per year industry.<sup>4</sup> With that much buying power, hospitals across America have the clout to help change how Americans think about food, where our food comes from, and what happens to it between plow and plate.

## References

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## Health Care Institutions with Sustainable, Organic, Healthy, and Good-to-Eat Foods

Although college and university food services of all sizes have embraced organic and sustainable food, the concept is comparatively new to the hospital food service industry. Along with New Milford Community Hospital, these health care institutions are leading the way in providing healthy food for their patients:

**Henry Ford West Bloomfield Hospital.** Food is serious business at this 300-bed facility, which is part of Michigan's Henry Ford Health Care System. Menus use not only fresh, organic, sustainably sourced ingredients but nutrient-rich foods tailored to patients' medical conditions. Patients, staff, and visitors are offered low-sodium, flavorful soups and carefully planned high-fiber salads filled with vitamins, minerals, and antioxidants. Entrees feature lean meats and fresh vegetables as well as vegan and kosher options. Care is taken to ensure that food is appealing as well as nutritious, because food left on patients' plates, no matter how nutritious, does not provide the energy needed to heal.

Two sustainable-agriculture farms (Chef's Garden in Huron, OH, and certified organic Maple Creek Farm in Yale, MI) provide produce for the hospital's kitchen. West Bloomfield's commitment to healthy food is also reflected in the hospital's 90-seat demonstration kitchen, where patients, their families, and community members attend cooking classes to learn to prepare healthy, tasty meals. Recent classes include nutrition for active men, healthy soul food for diabetics, and sustainable gardening. A more wide-reaching educational objective, still in the planning stages, is the establishment of the Culinary Institute for Health Care, which will train health care industry chefs and restaurant chefs from across the country to prepare nutritious food for patients and guests and to join in encouraging their communities to adopt healthy eating to maintain health and well being.

The hospital's new 1,400-square-foot greenhouse also serves as an educational resource for patients, school groups, and community members. "Kids are our main focus group," explains Michelle Lutz, greenhouse consultant. "They need to know what fresh, local food should taste like because nutrition and freshness go hand-in-hand." The greenhouse's three-part hydroponic system uses Bato buckets, nutrient film technique, and plant towers to produce vegetables and herbs. "No iceberg lettuce here," laughs Lutz. "There are over 800 varieties of heirloom lettuce. We've chosen the romaine, spinach, arugula, and kale, among others, with the highest nutritional content and best taste." Thirty varieties of heirloom tomatoes are grown, along with cucumbers, okra, eggplant, strawberries, and sweet peppers that boast more vitamin C than citrus fruits.

In addition to supporting sustainable agricultural practices that harm neither the land nor people, Henry Ford West Bloomfield demonstrates its commitment to sustainability by being a LEED-certified silver facility.

For more information, see: [http://www.henryford.com/home\\_wbloomfield.cfm?id=48969](http://www.henryford.com/home_wbloomfield.cfm?id=48969) and <http://www.henryford.com/body.cfm?id=52255>.

**Fletcher Allen Health Care.** Located in Burlington, VT, Fletcher Allen operates in affiliation with the University of Vermont. The 562-bed facility follows a room service model in which patients can order food when they want it. This is a lot of room service: The hospital serves almost 1.5 million meals per year to its patients (during fiscal year 2010 there were over 50,000 inpatient and outpatient admissions).

Nutrition services management and staff are responsive to all three parts of the triple bottom line. Fletcher Allen is a member of the Vermont Fresh Network, a consortium devoted to encouraging farmers, chefs, food services, and consumers to support both local economies and health by eating locally grown food, which at Fletcher Allen includes organic fruits, vegetables, and poultry; they also use rBST-free milk, sustainable seafood, and, of course, Vermont maple syrup. Fletcher Allen was one of the first hospitals in the country to sign the Healthy Food in Health Care

pledge. It has also signed the HCWH petition in support of the Preservation of Antibiotics for Medical Treatment Act of 2011 (HR 965). At present, Fletcher Allen is able to procure 35 percent of its poultry and meat from animals not treated with antibiotics.

At the October 2011 FoodMed conference in Seattle, Fletcher Allen took first place in the HCWH Sustainable Food Procurement Award, which recognizes sustainable, health-promoting food purchasing; over 40 percent of Fletcher Allen's annual \$3.5 million food budget goes toward healthy and sustainable products. Another first-place award was earned in the Public Policy and Advocacy category, which recognized, among its other accomplishments, Fletcher Allen's Center for Nutrition and Healthy Food Systems. One of the center's major goals is to continue to be nationally known as a model for sustainable, healthy food systems. In Fletcher Allen's YouTube video *Healthy Food in Hospitals and Health Care*, Diane Imrie, director of Nutrition Services, notes that as teachers and role models, "Hospitals have a great opportunity to teach . . . This initiative can happen anywhere across the country."

For more information, see: <http://www.fletcherallen.org/> and [http://www.fletcherallen.org/about/environmental\\_leadership/center\\_nutrition\\_healthy\\_food\\_systems/](http://www.fletcherallen.org/about/environmental_leadership/center_nutrition_healthy_food_systems/).

**John Muir Health.** John Muir Health, with in-patient facilities on three campuses in Concord and Walnut Creek, CA, is committed to healthy food and sustainable agriculture. But like New Milford's Plow to Plate initiative, change did not happen overnight. Working with established industry vendors, in particular, proved difficult. "Back in 2006 when we initiated our Healthy Food in Healthcare campaign at John Muir Health, we were challenged to find sustainable products through our prime vendor," reports Executive Chef Alison Negrin. "Purchasing from small local growers was not an option. Transparency of local produce sourcing was also something we could not be provided with."

Today, approximately 25 percent of the 1,979,904 meals served at John Muir Health facilities (958 beds total) feature locally grown, sustainable products. This progress led to John Muir Health (Concord) earning a third-place award in Sustainable Food Procurement at the October 2011 FoodMed conference held in Seattle, as well as second place in the Food Climate Health Connection category. The latter award recognizes health care facilities that have taken significant steps in reducing their climate footprint. Food service contributes to this reduction by reducing the amount of meat on the menu, which reduces the greenhouse gas emissions caused by meat production.

Negrin is John Muir Health's representative on the Bay Area Hospital Leadership Team, a consortium of nine health care facilities that pools its purchasing power to obtain greater access to sustainably raised food and works with national food service vendors to try to modify traditional contract restraints. In addition, says Negrin, "We have joined together with other institutions around the country to advocate for increased sustainable products from prime vendors." These combined efforts have led to the ability to require large produce companies to provide data on where food comes from and how it is produced.

Adds Negrin, "I believe that it is our responsibility as health care providers to model healthy eating as well as to ensure that our patients, community, and staff are offered food that is sustainably grown, purchased, and prepared with their health and the health of our environment in mind."

For more information, see: <http://www.johnmuirhealth.com/> and <http://www.johnmuirhealth.com/services/nutrition-services.html>.