

Sustainable Hospital Dining: Implementing Plant-Forward Meals in Boston

As part of its commitment to the Cool Food Pledge—to reduce food-related greenhouse gas emissions by 25% by 2030—Beth Israel Deaconess Medical Center (BIDMC) introduced plant-forward initiatives in its retail food services and launched a new inpatient menu in March 2025. This practicum project evaluated the implementation using customer feedback, chef and staff insights, sales data, and climate impact analysis to assess acceptance and effectiveness. Additional efforts included promoting locally sourced plant-forward meals during Earth Week and advancing sustainability in catering systems by reducing food waste and offering more climate-conscious choices.

Bo Wang, 05/2025



Customer Feedback on Plant-Forward Options

Plant-Forward Interventions: Customer Feedback (n = 52, March 2025)

- Health benefits, taste & variety, and price were the top factors for purchasing plant-forward meals.
- Preferred plant-forward foods included grain bowls, soups, and plant-based burgers.
- 58% of respondents consume plant-forward meals a few times a week or daily.
- Feedback on the **turkey sausage** was positive for nutrition, flavor, texture, and price, with requests for improvements in price, portion size, and promotion.
- The **vegetable root hash** had positive intent to repurchase, but feedback indicated a need for better flavor, texture, portion size, and more promotion.
- Additional request: daily availability of hard-boiled eggs.

Portal
Intro



Source: Customer questionnaire feedback

BIDMC TODAY

BIDMC Advances Sustainable Dining with the Cool Food Pledge and New Menu Offerings

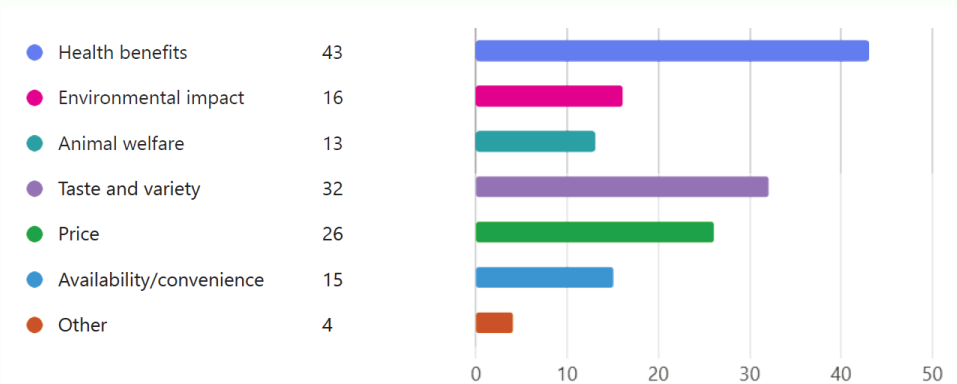
BIDMC has taken a bold step toward sustainability by committing to this global initiative.

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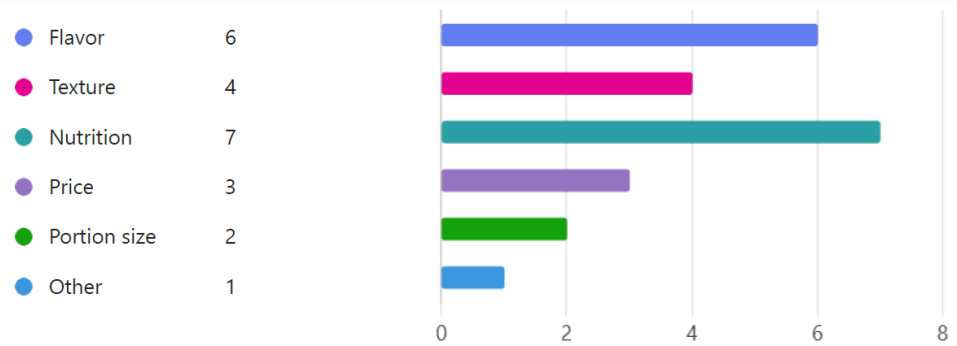
Beth Israel Deaconess Medical Center has taken a bold step toward sustainability by committing to the Cool Food Pledge, a global initiative led by the World Resources Institute to reduce food-related greenhouse gas emissions while ensuring nutritious, satisfying meals. By participating, BIDMC is aligning its food services with its broader mission of promoting health and sustainability.

Recognizing the significant role food plays in both individual and planetary health, BIDMC is curating menus that encourage sustainable food choices while meeting diner preferences. A key part of this effort includes new breakfast offerings (featured below) and a new patient menu that was rolled out on March 5th.

Graph1: Factors that influence customers' decision on plant-forward meals



Graph2: Main reasons selected by customers who like the plant-forward meals



Chef & Retail Operations Insights

Chief Team Insights

- Mixed perceptions on plant-based options, with **turkey sausage** receiving positive feedback, but **vegetable root hash** facing skepticism due to the lack of traditional breakfast proteins.
- While adding new items was **logistically easy**, **customer acceptance** remained a challenge.
- The **Cool Food Pledge** is seen as an environmental initiative, but **staff education** is necessary.
- **Ingredient sourcing** is improving, though challenges remain in variety and cost. **Profit margins** are stable, but **pre-developed recipes** and **corporate support** such as cost subsidies, staff training could streamline processes.
- **Chefs should be involved early** in recipe planning and testing. **Sampling and customer surveys** recommended before menu rollouts.
- **Taste and familiarity** are key drivers; **price and marketing** influence choices; health benefits alone aren't always persuasive
- Shifting away from **red meat** presents challenges, but **jackfruit** and **tofu** show promise as alternatives.
- Open to more plant-based meals if they meet criteria for **flavor, affordability, and ease of preparation**.

Retail & Catering Operations Insights

- Customer feedback on plant-based meals is generally **positive or neutral**. **Turkey sausage** was particularly **well-received**, surpassing the previous pork-based option in popularity, while **vegetable root hash** had limited engagement. Its **flavor** may have contributed to its lower popularity.
- Factors such as customer **dietary preferences** (e.g., **health-conscious** individuals and **vegetarians**) support plant-based meal choices, while **protein-focused diets** and **unfamiliarity** with dishes may discourage others.
- **Pricing** for plant-based meals is on par with meat options, though further **discounts** could hurt **profit margins**.
- Successful dishes, like **eggplant parm**, highlight the potential of plant-based options when they are **consistent** and **well-promoted**.
- Suggestions for improvement include increasing **sampling opportunities**, enhancing **flavor profiles**, and providing clearer **nutritional information** to attract **protein-focused customers**.

Actionable Takeaways from Interviews:

To successfully integrate plant-based meals, prioritize **flavor and familiarity**—focus on dishes like turkey sausage, lentil shepherd's pie, and falafel gyro that mimic traditional flavors while avoiding bland or unfamiliar textures. **Sampling and engagement** are critical; offer free tastings, highlight top dishes as "Chef's Recommendations," and pilot **customizable stations** (e.g., falafel bars). Optimize the menu by **featuring** plant-based options **consistently**, balancing **variety** with meat dishes, and promptly adjusting based on feedback. Internally, **standardize recipes**, **train staff** on plant-based prep, and **clarify sustainability goals** like the Cool Food Pledge. Monitor sales data to confirm **cost efficiency**—**plant-based ingredients** often lower costs, but **pricing** should remain competitive. **Expand successful dishes** (e.g., eggplant parm, jackfruit tacos) while introducing **seasonal specialties** to sustain interest. A **phased rollout**—starting with high-flavor dishes, then scaling based on feedback—will ensure long-term adoption.

New Patient Menu Launch: Highlights & Opportunities

Launch Success & Top Dishes

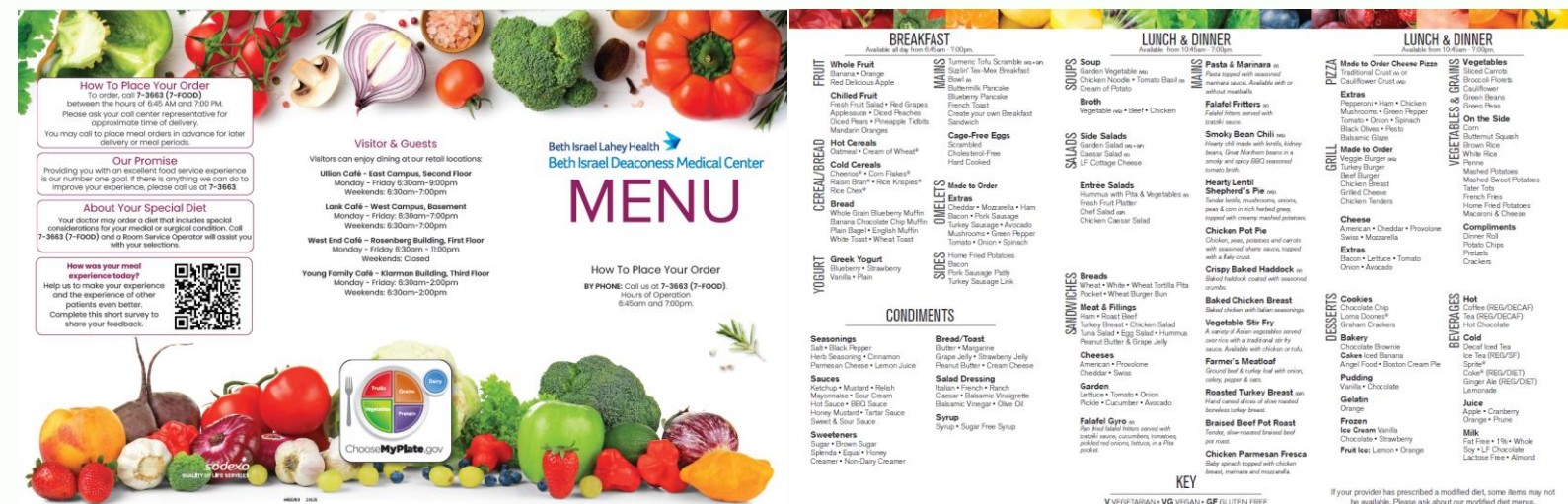
- **Rollout Success:** Pre-launch testing with nursing staff, cafeteria teams, and patient advisory groups helped refine dishes ahead of rollout. A smooth implementation followed, driven by early previews that built excitement and strong initial reception. Quick adaptations, such as adjusting spice levels and clarifying menu labels, addressed early feedback.
- **Top Plant-Based Dishes:** Lentil Shepherd's Pie emerged as a comforting favorite, Falafel Gyro was praised for its bold Mediterranean flavors and texture contrast, and Smoky Bean Chili gained popularity after adding spice warnings.

Opportunities for Improvement

- **Consistency:** Standardize recipes across campuses to ensure uniform quality.
- **Expansion:** Add seasonal/specialty items (e.g., summer grain bowls) to maintain interest.
- **Customization:** Pilot "create-your-own" stations (e.g., falafel bar with toppings).
- **Staff Training:** Reinforce plant-based prep techniques to maintain dish integrity.
- **Marketing:** Highlight "Chef's Recommendations" and verbally share sustainability benefits with interested patients.
- **Cost-Effective Innovation:** Explore affordable ways to introduce more customizable options based on patient requests.
- **Monitoring:** Track repeat orders to assess long-term popularity.

Key Patient & Staff Feedback

- **Positive:** "More flavorful than expected" (challenged hospital food stereotypes). Increased variety reduced menu fatigue for long-stay patients.
- **Critiques:** Occasional requests for milder versions of spicy dishes (e.g., chili). Desire for more "build-your-own" options (e.g., quesadillas, salad toppings).



Source: Interview of Patient Service Operations, April 2025

Sales Performance and Climate Impact Analysis

Sales & Margins Impact

- Turkey sausage outsold pork sausage, reflecting strong customer interest. While pork sausage had a slightly higher per-portion profit margin, the significantly higher sales volume of turkey sausage made it the more profitable option overall—generating nearly \$2,000 more in annual profit. This performance underscores turkey sausage as both a healthier and economically sound choice to prioritize in future menu planning.
- Vegetable Root Hash and Corned Beef Hash show similar sales, although subject to short-term variations and the potential for flavor improvements. Both are priced the same, but Vegetable Root Hash has a 26% higher profit margin (80% vs. 54%), resulting in nearly \$6,000 more in annual profit. This makes Vegetable Root Hash the more profitable and economically viable option to prioritize, especially with the potential for enhanced flavor appeal.

Climate Impact

- Replacing pork sausage with turkey sausage yields a per-portion emissions savings of 0.0006 metric tons of CO₂ equivalent (MTCO₂e), resulting in an annual reduction of approximately 10.53 MTCO₂e.
- Similarly, substituting corned beef hash with vegetable root hash saves 0.0494 MTCO₂e per portion, translating to an estimated annual reduction of 353.57 MTCO₂e.
- Together, these changes contribute to a 3.64% decrease in total annual foot-related emissions, demonstrating the cumulative power of small, consistent dietary shifts in institutional settings.

Product	Sale Price	Profit Margin	Weekly Sales (March 10)	Weekly Sales (March 17)	Weekly Sales (March 24)	Yearly revenue estimate	Yearly profit estimate
Turkey Sausage	\$0.99	\$0.66	259 portions	171 portions	230 portions	\$11,325.6	\$7,550.4
Pork Sausage	\$0.99	\$0.72	150 portions	0 portions	0 portions	\$7,722.0	\$5,616.0
Vegetable Root Hash	\$1.99	\$1.60	/	48 portions (March 18 & 20)	/	\$17,474.9	\$13,068.5
Corned Beef Hash	\$1.99	\$1.08	/	59 portions (March 17, 19 & 21)	/	\$13,607.3	\$7,377.4

Source: Retail & Catering sales data; BIDMC sustainability calculation. No significant shift toward other meat alternatives was observed during the intervention period.

Source: bidmc.catertrax.com

Thanks!