



## **Implementing Plant-Based Meals as the Default Choice at NYC Health + Hospitals**

The benefits of plant-based foods have been well documented, leading to growing interest in this healthy and sustainable approach to eating. In fact, 35% of Americans state that they are actively trying to reduce meat consumption, and 16 million Americans identify as vegetarian. The health effects of switching to plant-based eating are immense. Heart disease is the leading cause of death in the U.S., leading to nearly 700,000 deaths each year. Consuming less meat decreases the risk of heart disease, stroke, obesity, high blood pressure, high cholesterol, diabetes, and even some forms of cancer.

The goal is to empower patients to make healthy choices by encouraging them to opt for plant-based dishes. NYC Health + Hospitals is leading the way by serving plant-based dishes as the chef's recommendation at breakfast, lunch and dinner, tracking to serve 800,000 meals this calendar year, while already having reduced our food service carbon emissions by 36%.

### **History of Plant-Based Dining at NYC Health + Hospitals**

In 2019, then-Brooklyn Borough President Eric Adams asked hospitals to sign a Meatless Monday pledge. After NYC Health + Hospitals President and Chief Executive Officer Dr. Mitchell Katz made the pledge, the health system worked with dining services partner Sodexo to begin offering plant-based meals each Monday at its 11 hospitals. Although patients had the option to request a meat-based dish instead, the plant-based meals proved extremely popular, with an average of 97% of patients eating plant-based each Monday.

In March 2022, the health system expanded on this success by offering plant-based meals as the chef's recommendation for lunch every day. In late 2022, plant-based meals became the primary option for all dinners, as well, enabling patients to receive the nutrition they need entirely through plant-based ingredients. NYC Health + Hospitals now serves more than 14 unique, tasty, nutritious, and culturally diverse plant-based dishes that patients genuinely enjoy.

A pivotal factor in contributing to the success of our plant-based menu was the hiring of an Executive Chef who has been dedicated to the development and enhancement of these menu offerings. The Executive Chef actively engages in discussions with operational staff, hospital executives, physicians, and nurses with the aim to continuously refine and enhance the menu. Furthermore, the team has implemented a centralized culinary preparation model to ensure control and efficiency in meal production.

### **Ongoing Benefits of Plant-Based Dining**

Plant-based dishes are versatile and can be delicious and comforting. NYC Health + Hospitals serves about 15,000 meals a day, and patient satisfaction has remained above 95% for those accepting plant-based meals since the program began. In addition to being healthy and environmentally friendly, plant-based dishes are also cost effective, which has been valuable to manage rampant inflation and the pressure it has created on operating budgets. When comparing animal protein entrees to plant-based protein entrees, a savings of \$0.59 per tray was identified. Outside variables such as supply chain will play a role in cost trends.

Plant-based dishes are also an excellent way to curb greenhouse gas emissions. For example, beef requires 20 times more land and emits 20 times more greenhouse gas than legumes per unit of protein consumed. Cows

release a high level of methane gas, which is up to 34 times more potent than carbon dioxide and has a greater effect on climate change. In addition, the land required to raise livestock often leads to deforestation, leaving fewer trees to mitigate the effects of greenhouse gases. Since implementing plant-based dining, NYC Health + Hospitals has decreased carbon dioxide emissions for overall purchases by more than 30%.

## Future

As this program continues to grow and expand, NYC Health + Hospitals and Sodexo will look for opportunities to continue to partner across the continuum of care. Leveraging and partnering with the health system's Offices of Ambulatory Care, Population Health and Lifestyle Medicine will allow providers and patients the ability to obtain information to be used on a continued journey in improving health outcomes. Specifically, we know a plant-based diet can positively impact some of the social determinants of health measures. Many of our ambulatory care patients have health issues such as diabetes, hypertension, and cardiovascular disease, and a plant-based diet can assist in reducing some of the risks that can exacerbate their disease. Furthermore, we plan to strategically involve our robust network of outpatient dietitians with select providers to enhance nutrition-related disease management and wellness while looking at outcomes to measure this impact.

## Step 1: Leadership and Stakeholder

- Identify leadership and stakeholder support across the organization: food and nutrition experts, physicians, administration, communications, and patient relations.
- Gather support from local officials to become ambassadors to the program.
- Share science and evidence with identified officials and stakeholders that support the initiative.

*In 2019, then-Brooklyn Borough President Eric Adams requested hospitals to sign on to a Meatless Monday pledge, and Dr. Katz endorsed NYC Health + Hospitals to support Meatless Monday.*

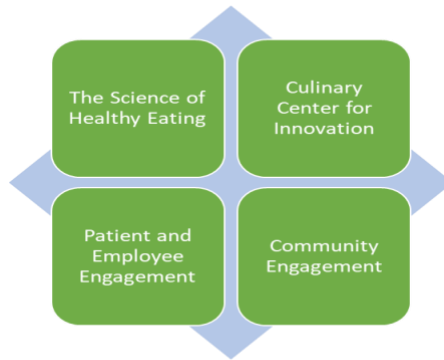


### Mayor Adams & NYC Health + Hospitals Announce Successful Rollout and Expansion of Plant-Based Meals as Primary Option for Patients in NYC Public Hospitals

Now serving plant-based lunches at our 11 hospitals; Plant-based dinners available now at Lincoln, Metropolitan, and Woodhull

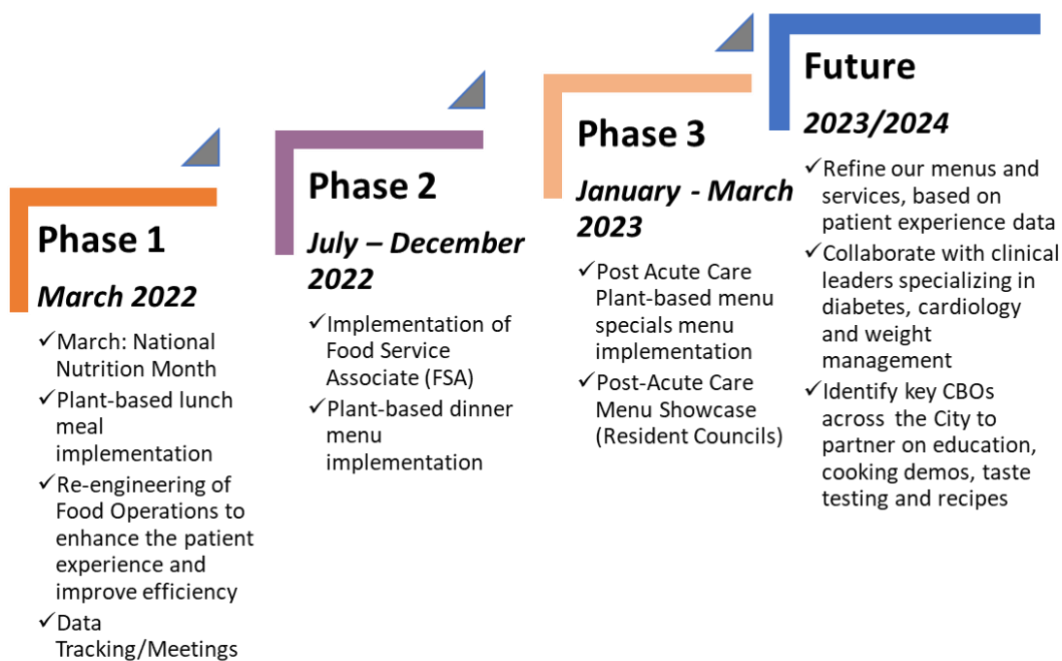
## Step 2: Mission/Vision/Values and Pillars

- Compose mission, vision and values to guide and drive initiative and align with organizational mission, vision and values.
- Determine pillars in which program will stand on: Science, Innovation, Patient and Employee Engagement, Community Engagement.



**Step 3: Timeline and Program Needs**

- Gather team to build timeline.
- Stepwise/phased approach to gain traction and determine feedback.
- Identify leaders for each phase to determine action steps, dates for implementation.
- Determine any investment needed for operations, leadership, culinary team, management services, equipment.



**Step 4: Research and Development**

- Conduct research to find scientific references that support initiatives.
- Research and development for menu and recipes.
- Develop collateral, tools, and educational materials to provide to patients, residents, consumers, employees, employers.

- Nutritional analysis software used to adjust recipes for any micro or macro nutrient.
- Menu extensions provide variation for different therapeutic diets.
- Dietitian and Culinary Team can work together to individualize a meal for any patient based on their individual needs.

<https://www.nychealthandhospitals.org/services/patient-meals>

### Sample Menu

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
<b>LUNCH</b>						
Minestrone Soup	Black Bean Soup	Tomato Soup	Carrot Ginger Soup	Green Pea Soup	Lentil Soup	Butternut Squash & Apple Soup
Sancocho with Rice	Jackfruit and Lentil Jambalaya with Sunshine Rice and Broccoli	Chipotle Vegetable Taco with Corn Tortilla, Yellow Rice, Black Beans, Plant Based Cheese and Salsa	Falafel with Harissa Sauce, Whole Wheat Pita and Roasted Eggplant	Curried Kabocha Squash, Lima Beans, Dill and Rice	Penne Pasta with Pea Pesto and Roasted Grape Tomatoes	Gandules Y Calabaza over Sunshine Rice
<i>Alternate Lunch</i>						
Zesty Three Bean Chili over Yellow Rice and Green Beans	Garden Bolognese over Rotini with Mixed Vegetables	Gandules Y Calabaza over Sunshine Rice	Zesty Three Bean Chili over Yellow Rice and Green Beans	Sancocho with Rice	Falafel with Harissa Sauce, Whole Wheat Pita and Roasted Eggplant	Orange Cauliflower with Edamame over Brown Rice Pilaf
<b>DINNER</b>						
Tossed Salad	Spring Mix Salad	Coleslaw	Chick Pea Salad	Cucumber Salad	Tangy Slaw	Tossed Salad
Garden Bolognese with Rotini and Spinach	Pad Thai Noodle Bowl	Moroccan Root Vegetable Tagine with Tricolor Cous Cous	Southern Black-eye Pea Casserole with Plant Based Corn Bread topped with Plant Based Shredded Cheese	Zesty Jackfruit Burrito Bowl with Jicama Slaw and Broccoli and Flour Tortilla	Spanish Vegetable Paella with Yellow Rice	Red Curry Vegetables with Roasted Tofu
<i>Alternate Dinner</i>						
Moroccan Vegetable Tagine with Roasted Chickpeas with Brown Rice Pilaf	Rigatoni Pasta Al Forno with Plant Based Ricotta Cheese	Curried Kabocha Squash with Lima Beans, Dill and White Rice	Orange Cauliflower with Edamame with Brown Rice Pilaf	Garden Bolognese with Rigatoni and Mixed Vegetables	Fiesta Black Bean Burger on a Whole Wheat Bun with Cauliflower	Whole Wheat Sicilian Pizza with Plant Based Cheese

### Step 5: Engagement

- Offer presentations or “road shows” to all stakeholder across the organization to present the program, its mission and goals to leadership and employees. This should include as many disciplines and services lines as possible.
- Share the science behind plant-based nutrition and how it affects both the patient’s health and the health of the planet as clearly defined and shared with all participants.
- Provide samples of menu items. This allows participants to understand the concept and become ambassadors of the program.
- Create excitement by hosting events and activities to provide messaging and education about the initiative. Explain the “why” behind the program through activities such as recipe contests, trivia, tabling events, symposiums.
- Distribute marketing materials throughout facilities to spark interest, conversation, and high-level takeaways about the benefits of the program, such as screen savers, tv screens, lobby flyers and posters.
- Partner with advocacy groups and/or community-based organizations to engage and drive change within the community.



**NYC HEALTH+HOSPITALS**

## SANCOCHO

Originating in Latin America, **Sancocho** is a root vegetable stew made with indigenous ingredients such as plantains, chickpeas, jackfruit, and yucca. The stew is seasoned with a sofrito which is an aromatic from the Latin culture

**Plant-based**

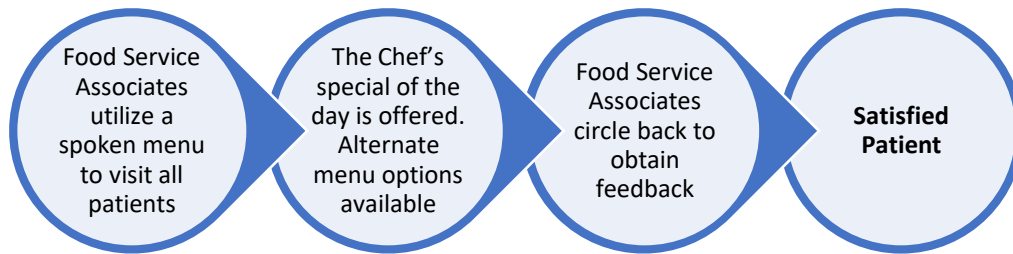
- **Antioxidants:** Yucca root is rich in molecules called antioxidants. **Antioxidants** have been shown to fight a different set of molecules called **free radicals** in the body that can cause your body damage and potentially lead to cancer.
- **Vitamin C:** Plantains, Yucca, and Jackfruit are rich in **Vitamin C!** Vitamin C is an important part of keeping our bodies and immune system working well.
- **Protein:** Chickpeas, found in this Sancocho dish, are high in **Protein**. When we eat enough protein, we allow our muscles to build and stay healthy.

### Step 6: Patient Dining Program

- Assess the patient dining experience to ensure patient-centered care as it aligns with the organizational goals, mission, and vision.
- Identify an employee to “own” the process and provide a closed loop process to drive patient satisfaction.

## Food Service Associates:

A new role, the Food Service Associate (FSA), was created at NYC Health + Hospitals to provide restaurant-like service to patients. The FSA serves as the ambassadors for the plant-based program, engaging with the patient, taking menu selections, and offering the Chef's Recommendation of the day (the plant-based entrée). They also deliver the patient's meal, perform rounding on patients to ensure meal satisfaction, perform service recoveries when needed, and collect the tray at the end of the meal. These interactions provide multiple opportunities to engage the patient about their experience while also promoting the plant-based program. This role was an essential bridge to our success.



### Step 7: Tracking and Trending Results

- Determine metrics to be tracked and analyzed.
- Gather baseline data prior to implementation.
- Established cadence to gathering data daily, weekly, and monthly.
- Analyze and revise program accordingly.



*\*Tray Cost Savings refers to the overall cost savings per patient meal.*

## References

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