

# Improving Plant-Based Meal Uptake in Hospital Inpatients: A Quality Improvement Project at King’s College Hospital

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## Introduction

Hospital food service is a key opportunity to promote both patient health and environmental sustainability. Diets rich in plant-based foods are associated with lower risks of chronic diseases and can significantly reduce dietary greenhouse gas emissions<sup>[1]</sup>. The EAT-Lancet “Planetary Health Diet” recommends doubling consumption of fruits, vegetables, legumes, and nuts, while reducing red meat and sugar by over 50%, to improve health outcomes and environmental impact<sup>[1]</sup>. Aligning hospital menus with these guidelines could help achieve healthcare sustainability goals. The NHS has committed to a net-zero carbon footprint by 2045<sup>[2]</sup>, yet a recent analysis of 36 UK hospital menus found limited progress toward plant-forward offerings—42% of hospitals surveyed had no fully plant-based main entrée option on the dinner menu<sup>[3]</sup>. There remains untapped potential for hospitals to reduce food-related carbon emissions by increasing plant-based meal options<sup>[3]</sup>.

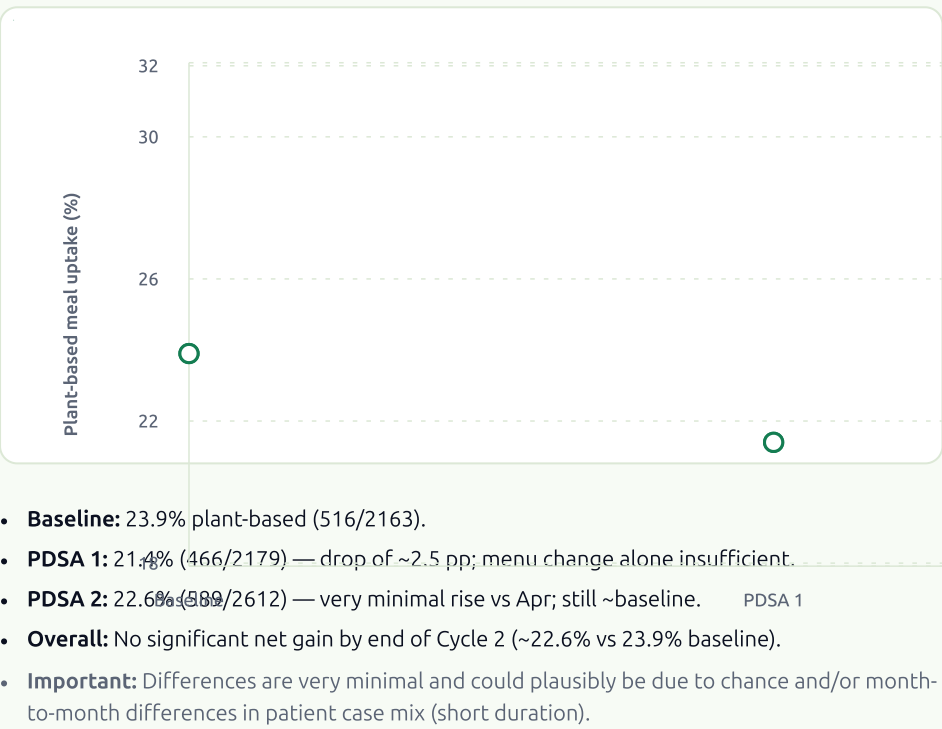
## Aim, Objective & Standard

- AIM
- Improve uptake of plant-based meals by inpatients to support patient choice, nutritional diversity, and a lower carbon footprint.
- OBJECTIVE
- Increase the percentage of plant-based main meals selected on target wards.
- STANDARD / CRITERIA
- Align with EAT-Lancet Planetary Health Diet<sup>[1]</sup>: *global consumption of fruits, vegetables, nuts, and legumes to double, and consumption of foods such as red meat and sugar to be reduced by more than 50%.*

## Methodology

- QIP at two inpatient wards (Denmark Hill, London), March–May 2024. Baseline: patient menu choices (veg vs non-veg mains) in March. Two PDSA cycles followed:
- PDSA 1 — MENU REDESIGN
- Vegetarian options listed first (choice architecture; content unchanged).
  - No labels added/removed; staff brief on layout (no formal training).
- PDSA 2 — INFORMATION/EDUCATION CAMPAIGN
- Leaflet “Plant-Powered Plates” (health & environmental benefits) + gentle prompts.
  - Four-week distribution to raise awareness and support menu changes.

## Key Results



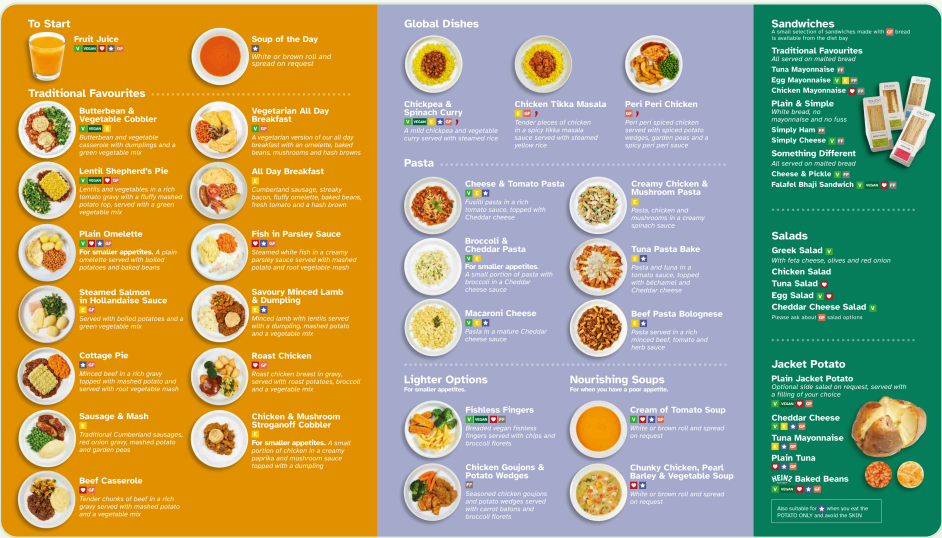
## Discussion

- Menu re-ordering + short IEC had *very minimal* impact in isolation; likely within normal variation.
- Patient turnover and case mix varied — part of the difference may reflect chance rather than true effects.
- For nudges to work, patients must actually see and consider the menu; visibility and point-of-order workflow are critical.
- Education raised awareness but did not reliably change choices without human facilitation at ordering.
- Main learning:** Passive interventions alone are unlikely to produce meaningful change.

## Limitations

- Short QIP duration; limited time for behaviour change to consolidate.
- Institutional change needs decision-maker support and frontline engagement; staff may need training and consistent messaging.
- Possible differences in meal availability/quality not assessed; negative experiences may deter selection.

## Menu Snapshot



Extract from the redesigned menu highlighting plant-forward meal placement used in PDSA Cycle 1.

## Recommendations / Next Steps

- Train ordering staff** to offer plant-based first with positive framing; script and coach prompts.
- Add **low-carbon icons** / clear labels; improve taste/appeal of veg dishes; consider small “default-veg” pilots.
- Run longer PDSA cycles; monitor fidelity (menu visibility, staff prompts) and case mix.

## References

- EAT-Lancet Commission. *Summary Report*. <https://eatforum.org/eat-lancet/summary-report/>
- NHS England. *Delivering a ‘Net Zero’ National Health Service* (Greener NHS). <https://www.england.nhs.uk/greenernhs/>
- Holmes M, Wellstead A, et al. *How Sustainable Are Hospital Menus in the United Kingdom?* J Hum Nutr Diet. 2025. <https://onlinelibrary.wiley.com/doi/10.1111/jhn.70019>