



College of Humanities and Sciences (CHS)

Case Competition 2024

7 August – 18 September



Problem Statement

Food wastage in the healthcare setting is an economic, ethical and social concern. For example, in the United Kingdom, the 'Report of the Independent Review of NHS (National Health Service)'¹ cited ERIC Data² which stated that, in NHS hospitals, "14 million kg of unserved meals were thrown away in 2018 to 2019," a figure that the Report considered "a significant underestimation." Citing WRAP³, the report revealed that "the annual cost of [NHS] hospital food waste is £230 million, 39% of the total food budget." Food wastage can arise from reasons such as poor patient appetite, missed meals for medical procedures, limited dietary selection, lack of quality presentation of the food, lack of resources among nurses to provide good food service, and inconducive eating environments.

In the Singapore context, hospitals face food waste challenges too. For example, according to an NUHS (National University Health System) spokesperson, every day, across NUHS, two tonnes of food are wasted⁴. Changi General Hospital generates around 725 kg of food waste daily⁵. It was also reported that in Singapore General Hospital, "an average of 639,553 tonnes of food waste are disposed each year" and "the cost involved to dispose such amount of waste is estimated to be \$46,022,234."⁶ Likewise, Tan Tock Seng Hospital is also facing similar challenges in food wastage. Over the years, hospitals in Singapore have implemented various strategies to reduce the amount of food waste generated in the inpatient setting. Some strategies adopted include implementing awareness campaigns, planning of meal portions and mealtimes to minimise leftovers, as well as upcycling of food waste to generate useful products.



Your task is to identify a cause of inpatient food wastage in Singapore hospitals, and propose an original solution to alleviate the problem.

The proposed solution could involve one or more of these approaches: technology, communication strategy, design thinking, behaviour intervention, upcycling, food waste management, etc. It should also include an assessment of feasibility, scalability, cost-benefit analysis, and impact (if any) on productivity and patient experience. The proposal should not exceed 2,000 words. It should be written in prose that is clear and concise.

1. Report of the Independent Review of NHS hospital Food, 2020
2. NHS Digital, "Estates Returns Information Collection Summary page and dataset for ERIC 2018/19," 17 October 2019
3. WRAP, "Overview of Waste in the UK," November 2013
4. CNA, "Healing patients and the environment: How two Singapore hospitals are going green," 2018
5. SingHealth, "Food waste not wasted," 2018
6. Singapore Healthcare Management 2023, "Giving hospital food waste a new lease of life: Valorisation of food waste through usage of black soldier flies (BSF)"



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