

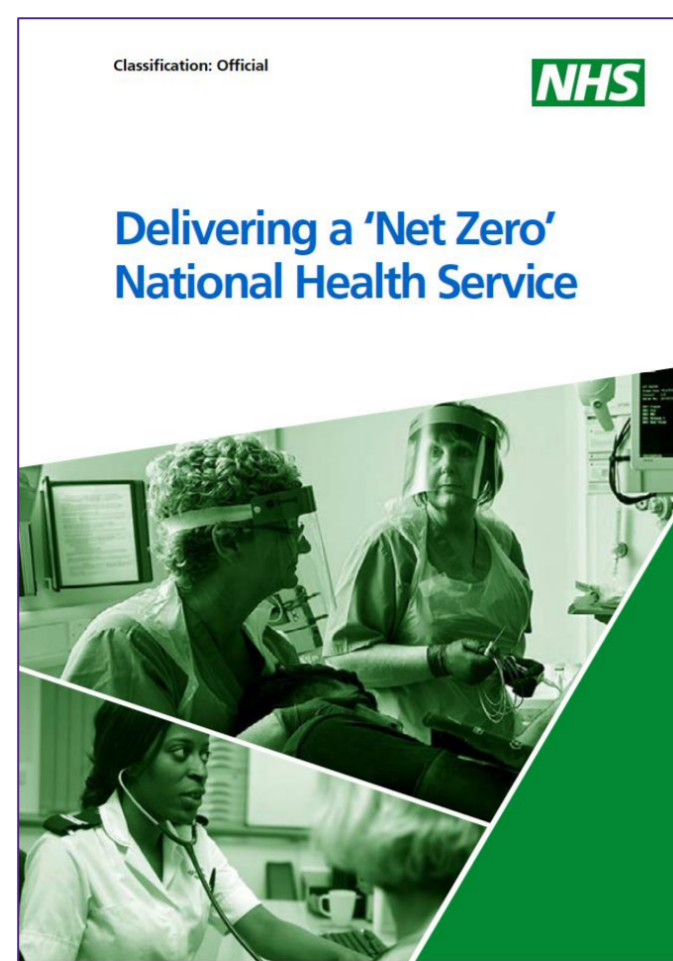
Improving recycling of medical nutrition packaging in primary and secondary care: follow-up survey results and next steps

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BACKGROUND

In June 2019, The Newcastle Hospitals NHS Foundation Trust were the first healthcare organisation in the world to declare a climate emergency, committing to be net zero carbon by 2040¹. With the NHS representing almost 5% of England's carbon footprint² the Nutrition and Dietetics department proposed a sustainability project focussing on recycling of medical nutrition product packaging across the Trust which was approved as part of the Trust 'SHINE' (Sustainable Healthcare in Newcastle) programme³.

The Nutrition and Dietetics team and Nutricia worked in collaboration to align with both organisations sustainability objectives along with the greener NHS ambition.



The estimated volume of recyclable packaging was 0.5 million units per year. The project was undertaken over an 18-month period.

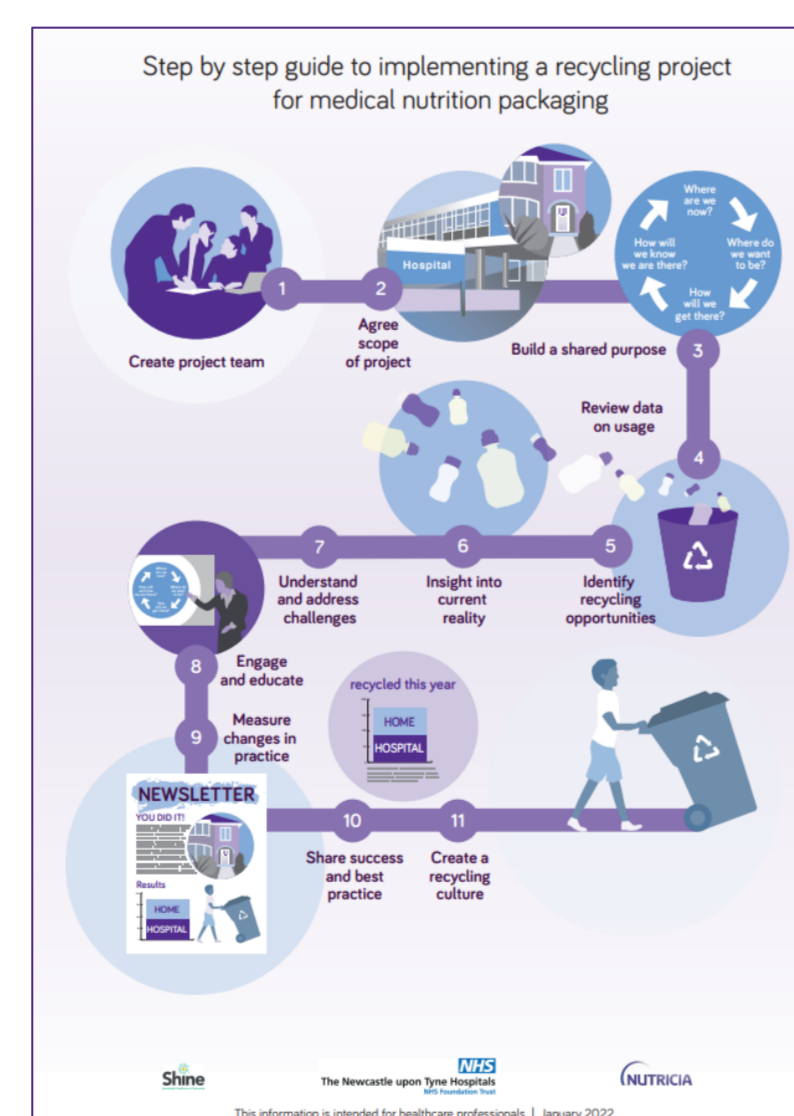
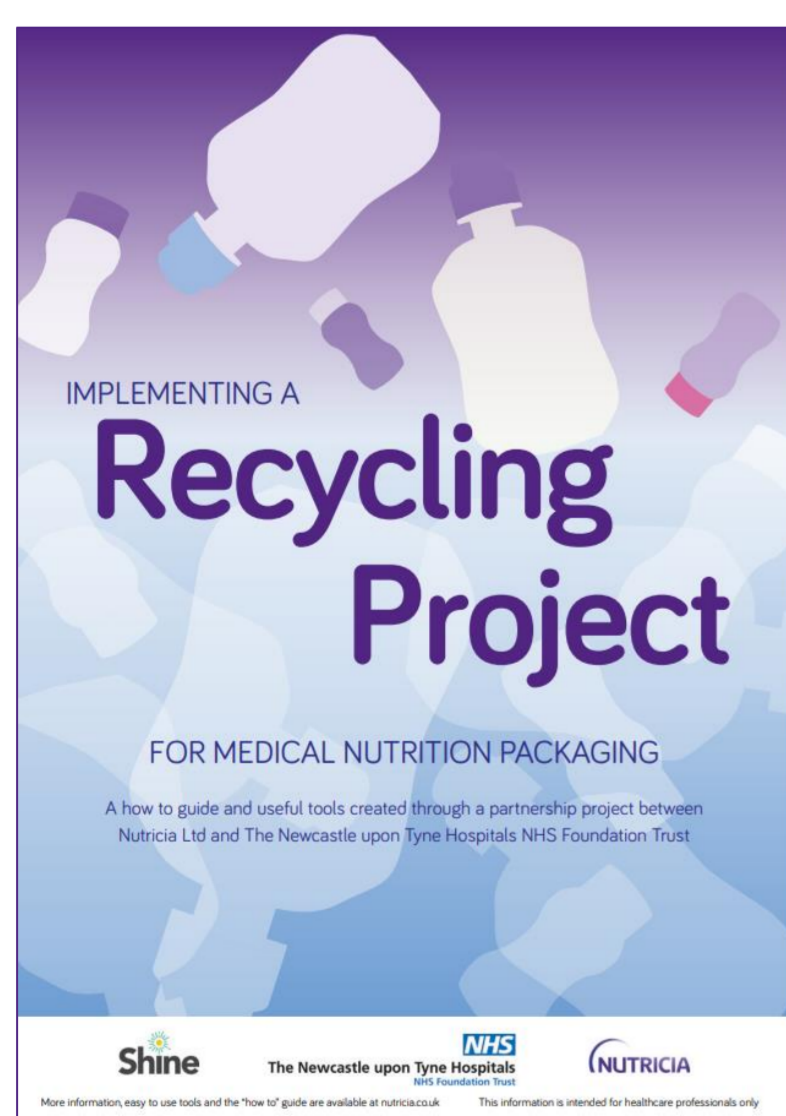
Phase 1 of the project, conducted in 2021, involved baseline surveys to understand current levels of recycling and to measure the potential impact of future interventions⁴.

- In **primary care** an online survey was completed by 37* home enterally tube fed (HETF) patients and revealed that half of patients recycled none, or very little, of their medical nutrition product packaging.
- In **secondary care** an online survey was completed by 104 staff on selected hospital wards and identified that only 63% knew what medical nutrition product packaging could be recycled.
- Both surveys identified a role for education to raise awareness of recyclability of medical nutrition packaging.

In phase 2 a follow-up survey was undertaken to assess the impact of educational activities on self-reported recycling.

METHODS

A programme of education was undertaken across primary and secondary care, this was launched during National Recycling Week in September 2021. Information was promoted by healthcare professionals across all settings, through team meetings, newsletters, ward posters and patient leaflets.



Surveys were undertaken to reassess current levels of recycling between September and October 2022.

- In **primary care**, homecare nurses completed an online questionnaire with patients and carers managing HETF.
- In **secondary care** an online survey was conducted of ward staff on selected hospital wards identified as high users of medical nutrition products.

References:

1. Limb M. The BMJ Awards 2020: Environmental sustainability and climate action. BMJ 2020; 369: m1214. 2. NHS England. Delivering a 'Net Zero' National Health Service. 2022. Available from: B1728-delivering-a-net-zero-nhs-july-2022.pdf (england.nhs.uk) [Accessed Nov 2023]. 3. Newcastle upon Tyne Hospitals NHS Foundation Trust. Climate Emergency Strategy 2020-2025. Available from: <https://www.newcastle-hospitals.nhs.uk/wp-content/uploads/2021/02/Climate-Emergency-Strategy-2020-2025.pdf> [Accessed Nov 2023]. 4. Callaghan J, et al. Improving the recycling of medical nutrition product packaging in primary and secondary care: initial survey results and plans for implementation of educational support. Clin Nutr 2022; 48: 519.

* Phase 1 abstract⁴ reported on n=28 responses, however, n=37 in total were received following submission.

RESULTS

In **primary care**, 38 patients/carers completed the survey of which 66% (25/38) reporting recycling $\geq 50\%$ of MN packaging (**Fig 1**).

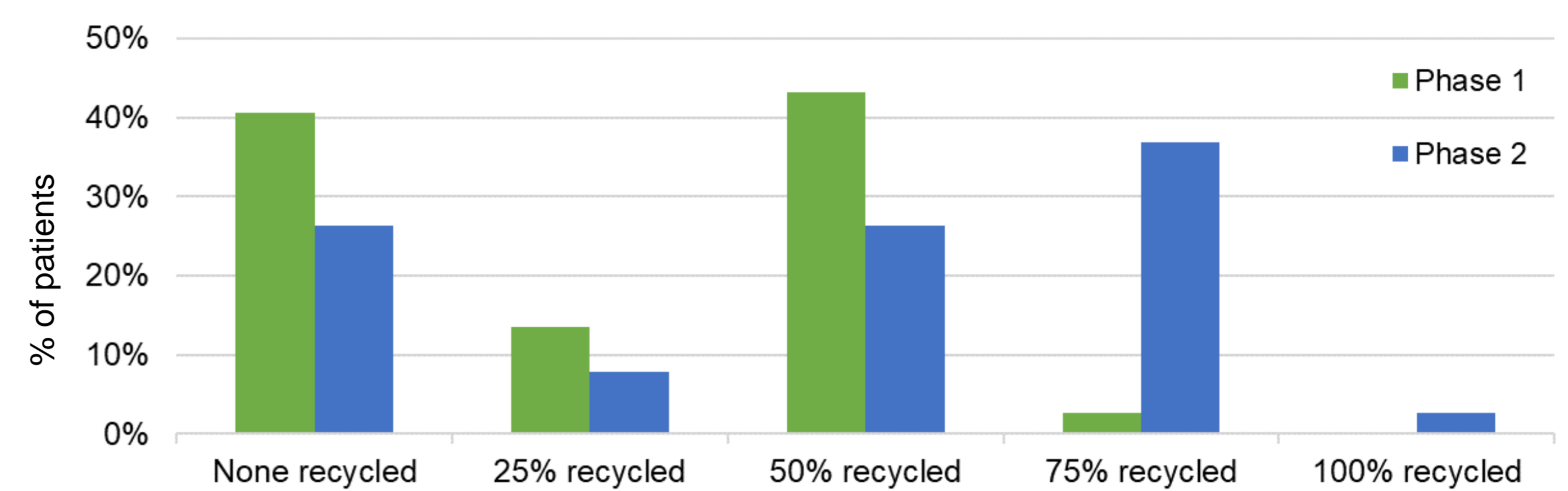


Fig.1 Responses to 'Thinking about your tube feeding equipment, how much do you currently recycle?' phase 1 (n=2021; 37*)⁴ vs. phase 2 (2022; n=38).

- Reported rates of recycling were lower for those new to HETF with 63% (5/8) reporting recycling $\leq 25\%$.
- Only a quarter of patients/carers reported not recycling any packaging (26%, 10/38), of these 50% cited lack of time.
- Most patients reported they had given clear advice/encouragement to recycle, scoring a mean 4.6 out of 5 (where 1 was none given).

In **secondary care**, 15 ward staff completed the survey (80% nurses).

- All (15/15) agreed they regularly recycle at work and 73% (11/15) knew what medical nutrition product packaging could be recycled.
- Factors identified as preventing more recycling are shown in **Fig 2**.

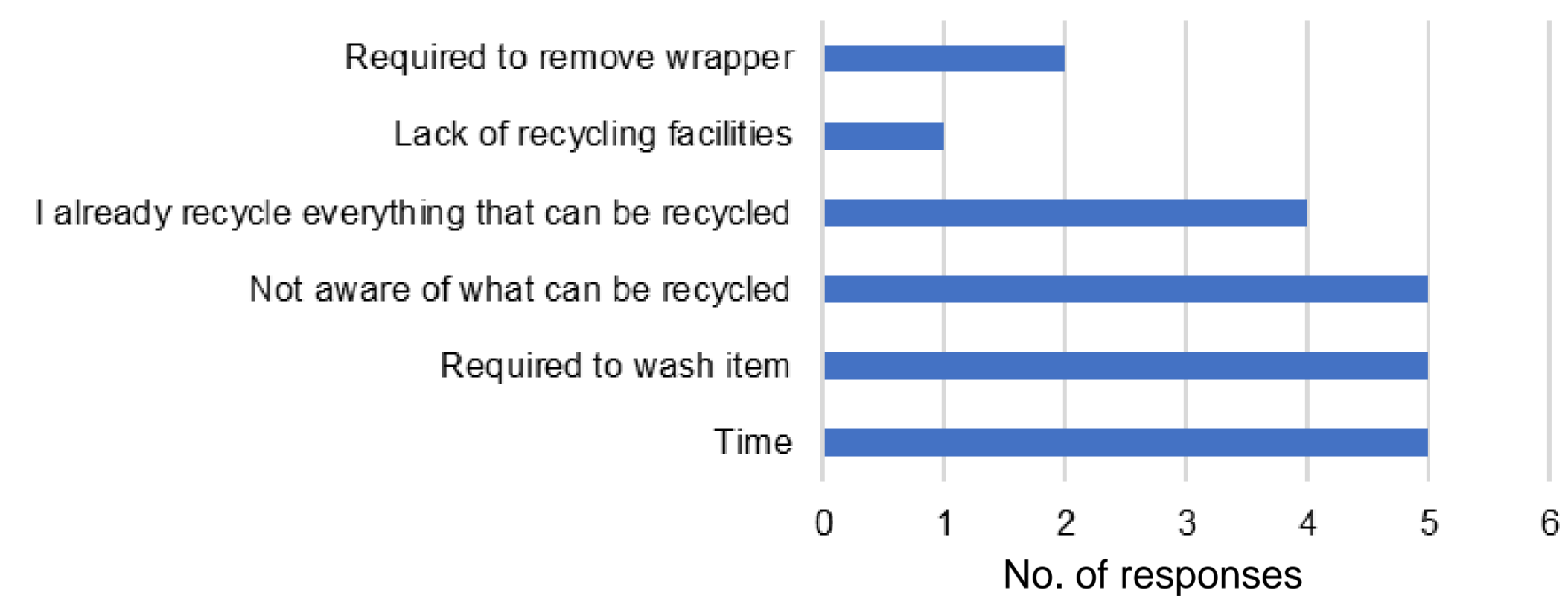


Fig 2. Responses to 'What prevents you from recycling nutritional feed / supplement packaging? (tick all that apply)' (n=14).

- Respondents reported more information on posters (33%, 5/15) and additional recycling bins (20%, 3/15) would encourage more recycling.

DISCUSSION

This initiative demonstrates that a collaborative approach between the NHS and an industry provider can impact sustainability targets with increases observed in primary and secondary care self-reported recycling of medical nutrition product packaging.

Personal attitudes and behaviours of patients and staff will ultimately influence the outcomes of recycling initiatives; however, these results demonstrate by raising awareness through training, visible information resources, promotional materials and consistent messages from all healthcare professionals throughout clinical pathways, it is possible to change behaviours towards recycling of medical nutrition packaging.

NEXT STEPS

Recycling of medical nutrition packaging continues to be an important focus for both The Newcastle upon Tyne Hospitals NHS Foundation Trust and Nutricia.

The Newcastle upon Tyne Hospitals NHS Foundation Trust will revisit recycling regularly to keep this 'top of mind' addressing staff turnover and the continuous flow of new patients commencing on medical nutrition.

Low rates of recycling were reported by patients new to HETF and care homes which warrants further focus.

Other NHS Trusts have used the resources created during this project to run similar initiatives. Please scan the QR code for templates and more information.

