Malnutrition in England and how failure to prevent, detect early, and effectively treat malnutrition is impacting on the NHS.

Submission to Lord Darzi's open consultation

August 2024

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Executive summary

Preventable malnutrition, specifically under-nutrition, contributes to exacerbated comorbidities, complications and poorer outcomes. Malnutrition-related presentations take up valuable healthcare professional time and prolong stays in hospital beds, reducing productivity and contributing to an estimated £22.6 billion NHS cost per year. Indeed, it costs more not to treat malnutrition than to do so – by up to 2-5 times. This submission presents data on the prevalence and cost of malnutrition, and the clinical and cost effectiveness of intervention, education, and investment. For the NHS to be a system fit for the future, we must prioritise combatting malnutrition, embedding nutritional screening and nutritional care delivery.

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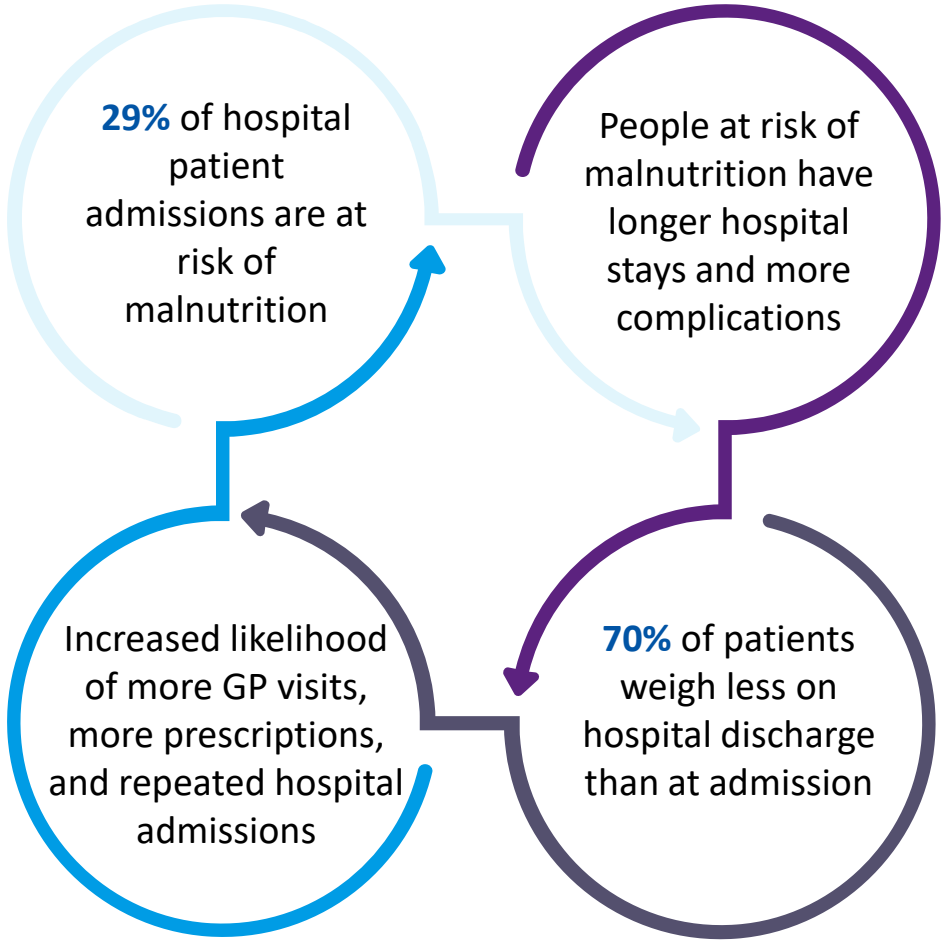
Malnutrition contributes to exacerbating comorbidities and health complications, leading to increasing admissions, longer lengths of hospital stay, and reduced productivity

Malnutrition affects an estimated **5%** of the population in England, and a significant proportion of these people are in the health and social care system.[1] For instance, **62%** of cancer patients screened as part of a survey in 2022 were found to be at risk of malnutrition.[2]

Due to England's ageing population, it is estimated that an additional **516,000** people will be affected by malnutrition by 2035.[3]

Malnutrition makes people more susceptible to disease, in turn making their nutritional status worse and impairing recovery. The Malnutrition Carousel (see right) depicts this downward cycle of exacerbated comorbidities and health complications.[1]

Furthermore, in-hospital malnutrition and deprivation are interrelated. Studies investigating the link between deprivation and in-hospital malnutrition have shown that patients with medium and high malnutrition risk were admitted from areas with significantly greater deprivation than low-risk patients. The odds of malnutrition in people from the most deprived quartile of the Index of Multiple Deprivation (IMD) were greater than those of the least deprived quartile by a **factor of 1.59**.[4]



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2. BAPEN. 2022. Malnutrition and Nutritional Care Survey in Adults. Available at https://www.bapen.org.uk/pdfs/reports/mag/national-survey-of-malnutrition-and-nutritional-care-2022.pdf. Accessed August 2024.
3. Future Health. 2023. Hiding in plain sight: Tackling malnutrition as part of the prevention agenda. Available at https://www.futurehealth-research.com/site/wp-content/uploads/2023/10/Hiding-in-plain-sight-Web-FINAL-Nov-2023.pdf. Accessed August 2024.
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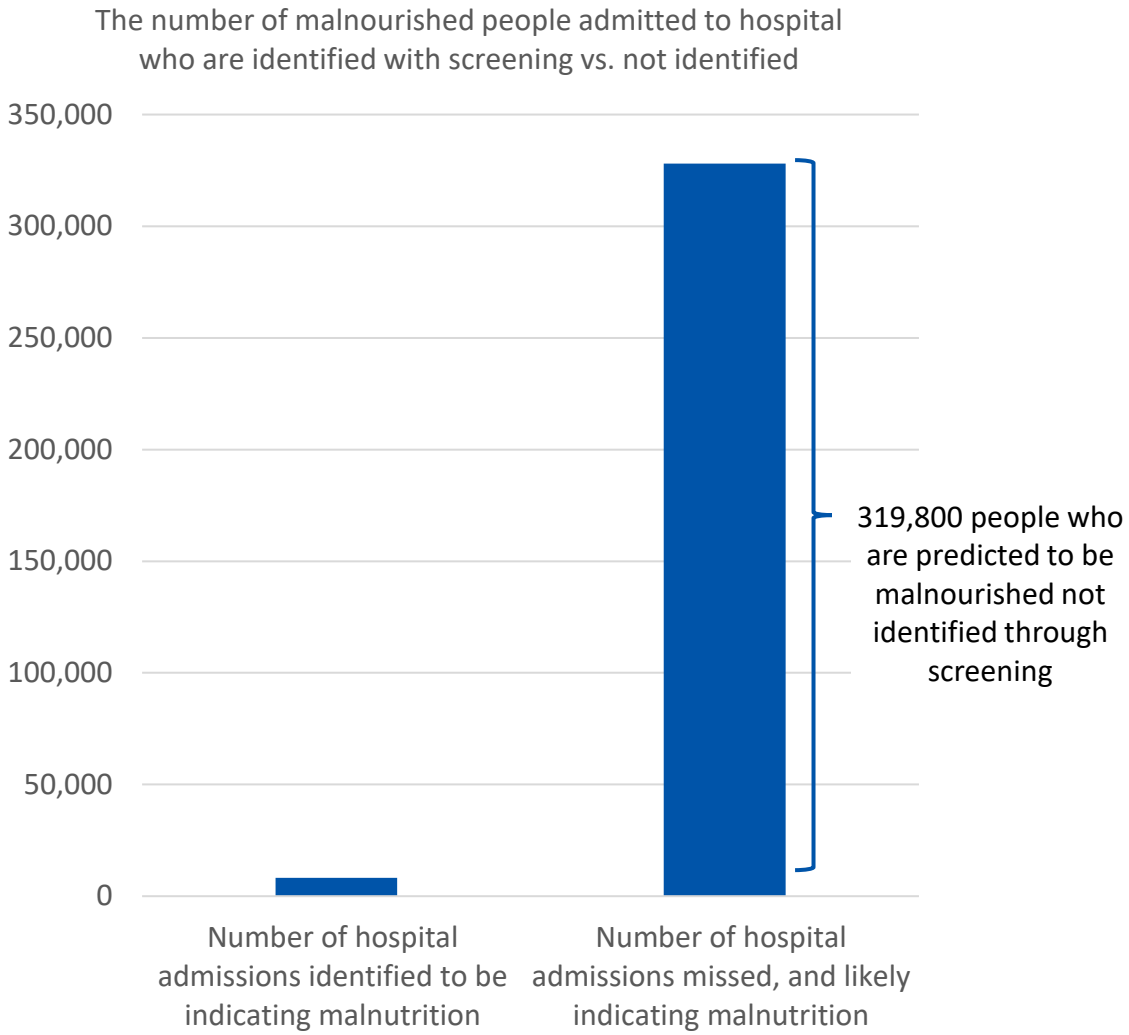
Lack of screening for malnutrition

Screening for the risk of malnutrition in care settings is important for enabling early and effective interventions. There are a number of NICE-approved malnutrition screening tools, for instance 'MUST' – the Malnutrition Universal Screening Tool, which is the most commonly used tool in the UK. NICE has recommended regular screening and management of nutrition.[1] Malnutrition continues to go unrecognised, and therefore untreated, in many hospitalised patients.

Data shows that **fewer than 0.05%** of hospital patient admissions are classified as indicating malnutrition, in 91 out of 221 Trusts in England analysed.[2] This is despite official estimates suggesting this figure should stand at 2%.[3] Given that, from 2022-23, there were 16.4 million hospital admissions, this is the difference between **8,200 and 328,000 people** – as demonstrated in the graph on the right.[4]

The BSNA estimates that **more than half** of the Trusts in England are significantly under-reporting malnutrition rates compared to accepted national estimates.[2] Indeed, data suggests that just **72%** of Trusts have a clinical nutrition team, despite a requirement for all hospitals to implement nutrition support teams and nutrition steering committees that was brought in 25 years ago.[5]

This points to a system-wide failure to consistently screen for malnutrition, resulting in the overall incidence of malnutrition being significantly under-recorded and the presence of a much more significant problem than the available data suggests. This lack of screening is further compounded by a lack of appropriate interventions, treatment and care plans for those at risk.



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2. British Specialist Nutrition Association. 2021. Forgotten not Fixed: the increasing burden of malnutrition in England. Available at https://uploads.bsna.co.uk/production/knowledge-hub/FINAL-Malnutrition-Map-20-February-2018.docx.pdf?dm=1612274950. Accessed August 2024.
3. M Elia and CA Russell. Combating malnutrition: recommendations for action. 2009.
4. Hospital Admitted Patient Care Activity, 2022-23. 21 September 2023.
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The NHS and economic cost associated with malnutrition in England

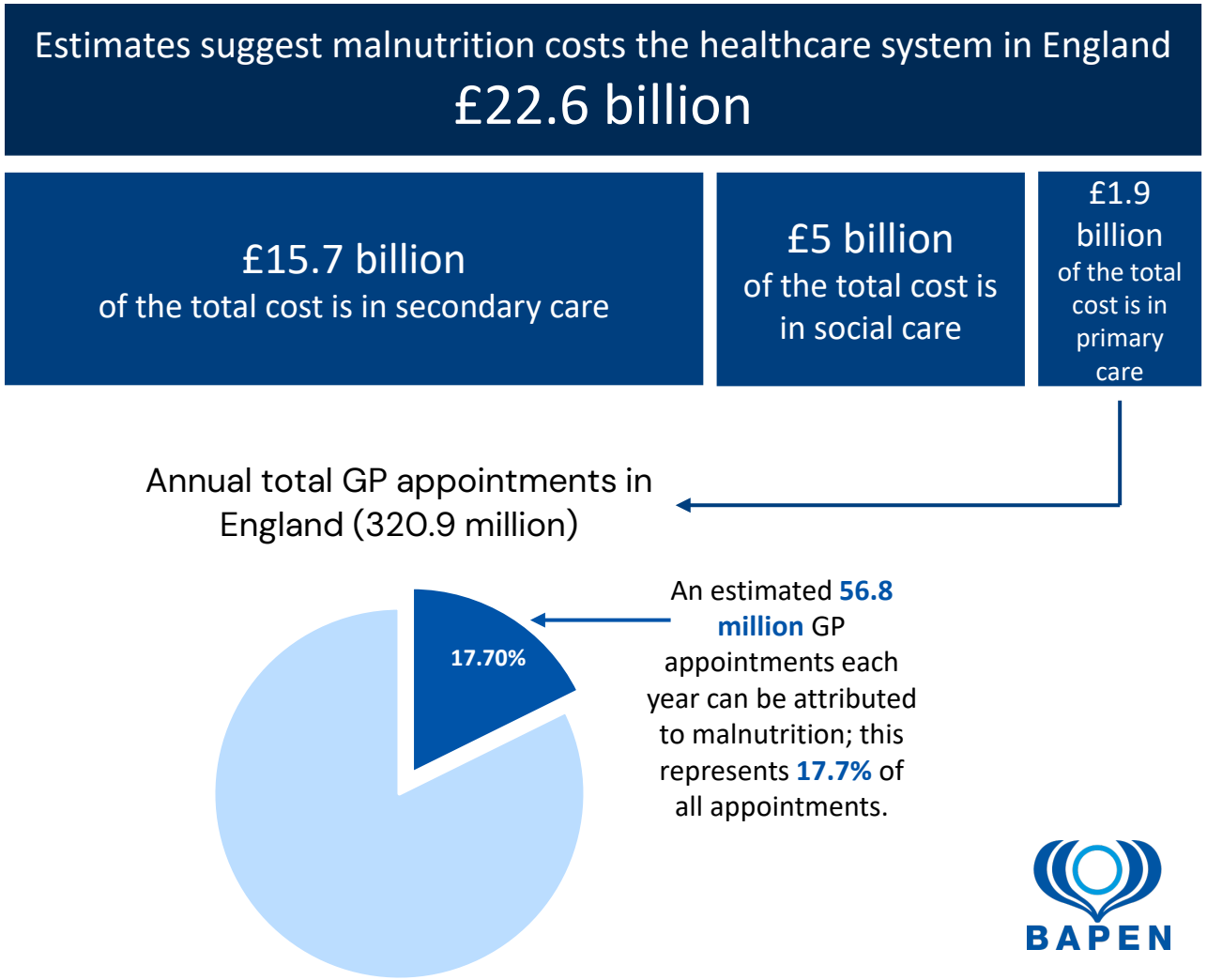
Research conducted in 2023 estimates that the additional cost of a person with malnutrition is **£7,775 per person per year**, at a total cost to the healthcare system in England of **£22.6 billion**. The breakdown of this cost can be seen in the chart on the right.[1]

Given the DHSC's spending in 2022/23 was £181.7 billion, this would suggest that over **12%** of expenditure is on malnutrition.[2]

Furthermore, it is estimated that nationally just under **£1 in every £5** of the NHS budget is spent on people with disease-related malnutrition, with some ICBs spending an estimated **20% or more** of their budgets on people with malnutrition.[1]

Within primary care, the chart also demonstrates the proportion of GP appointments that are attributable to malnutrition, within primary care. On top of this, there are an estimated **464,000 additional hospital admissions per year** for people with malnutrition, resulting in **2.9 million bed days**.

Prevention, early detection and effective treatment of malnutrition could make a significant contribution to reducing the demand for secondary care, as well as reducing the burden and costs in primary care and social care.



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2. GOV.UK. Public Expenditure Statistical Analyses 2023. Available at https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2023. Accessed August 2024.

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Evidence for nutritional intervention

There are multiple studies which evidence the benefit of intervention. The intention with all forms of nutrition support is to increase uptake of essential nutrients and improve clinical outcome.

The Cochrane data displayed in this table assessed the benefits and harms of nutrition support versus no intervention, treatment as usual, or placebo in hospitalised adults at nutritional risk. The data, based on very high sample numbers, shows reductions in risk of serious adverse events and morality.

The treatment of preventable malnutrition offers a low-risk, cost-effective opportunity to optimise the overall quality of patient care, improve clinical outcomes, and reduce costs.

Cochrane data on the effectiveness of nutrition support to reduce complications during stay and mortality, at maximum follow-up[1]

	Result	Number of participants	Number of trials	Risk ratio, confidence interval, statistic significance
Serious adverse events	**9%** reduction in the risk of serious adverse events following nutritional support	23,413	137	RR 0.91, 95% CI 0.85 to 0.97, P = 0.004
Mortality	**7%** reduction in mortality following nutritional interventions	23,170	127	RR of 0.93, 95% CI 0.88 to 0.99, P = 0.03

1. Feinberg, J. et al. Nutrition support in hospitalised adults at nutritional risk. Cochrane Database of Systematic Reviews 2017, Issue 5. Art. No.: CD011598. DOI: 10.1002/14651858.CD011598.pub2. Accessed August 2024.

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Effectiveness of nutrition support

The table on the right summarises the costs, cost savings, and net cost savings of implementing malnutrition screening, nutritional assessments, and nutritional support in hospital and community care pathways. These statistics are in relation to the whole population of the country, as well as the population served by a typical clinical commissioning group in England (about 250,000 people in 2011) and the population of a typical parliamentary constituency (about 100,000 - since in 2011–12 there were 533 constituencies serving a population of 53 million).[1]

The results of all three models listed favoured the proposed interventions by **£63-81 million per year**. The returns (cost-savings) were **2–5 times greater** than the investments (costs) depending on the model, including with costs of prescribable oral nutrition supplements, enteral and parenteral nutrition.

The magnitude of the cost savings is likely even greater today, further demonstrating the need for up-to-date research on the value of nutrition support to supplement these 2011 figures.

There are multiple studies that reiterate both the clinical and cost effectiveness of nutrition interventions, for instance oral nutrition supplements.[2,3]

Despite the evidence of the scale of the problem, NHS England guidance on how to commission good nutritional care and the NICE guidance to address the issue effectively, tackling malnutrition has not been a priority with clear standards, benchmarking and standardised metrics for systems and organisations to achieve.

	Cost impact (£1000s)		
	per total population‡	per 100,000 people†	per 250,000 people††
Model 1			
Increase in screening –direct costs	£19,746.15	£36.63	£91.57
Increase in nutritional assessment –direct cost	£5,742.16	£10.83	£27.08
Increase in nutritional support	£13,125.60	£24.76	£61.90
Total extra cost	**£38,613.91**	***£72.84***	***£182.10***
Decrease in activity (mainly secondary care)			
Total cost saving	***£101,806.41***	***£192.04***	***£480.11***
Overall net cost saving	***£63,192.50***	***£119.20***	***£298.01***
Model 2			
Increase in screening –direct costs	£13,714.10	£25.87	£64.67
Increase in nutritional assessment –direct cost	£5,359.05	£10.11	£25.27
Increase in nutritional support	£93.99	£0.18	£0.44
Total extra cost	***£19,167.13***	***£36.16***	***£90.39***
Decrease in activity (mainly secondary care)			
Total cost saving	***£101,037.46***	***£190.59***	***£476.48***
Overall net cost saving	***£81,870.33***	***£154.44***	***£386.09***
Model 3			
Increase in screening –direct costs	£19,746.15	£37.25	£93.12
Increase in nutritional assessment –direct costs	£5,742.16	£10.83	£27.08
Increase in nutritional support	£13,125.60	£24.76	£61.90
Total extra cost	***£38,613.91***	***£72.84***	***£182.10***
Decrease in activity (mainly secondary care)			
Total cost saving	***£115,527.93***	***£217.93***	***£544.82***
Overall net cost saving	***£76,914.01***	***£145.09***	***£362.72***

‡ The population of England (2011) was 53, 012,456
† Approximates to the population of a parliamentary constituency in England
†† Approximates to the population served by a clinical commissioning group in England

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2. Smith TR, et al. Ready-Made Oral Nutritional Supplements Improve Nutritional Outcomes and Reduce Health Care Use-A Randomised Trial in Older Malnourished People in Primary Care. Nutrients. 2020 Feb 18;12(2):517.
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Thank you

If you have any questions or require any further detail, please reach out to bapen@mandfhealth.com

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