

Exploring the sustainability impact of Oral Nutritional Supplements

Rebecca Fisher - Allied Health Professional Prescribing and Procurement Advisor, NHS LPP

Simon Rowland - Sustainability Manager, NHS LPP

Louise Davey-Hewins - Clinical Fellow in Sustainability, Greener NHS | NHS England | NHS Sussex ICB

Denise Rosembert - Assistant Director for Medicines Optimisation, NHS LPP

Welcome

- Welcome
- Introductions
- Housekeeping
- Accessing the report in full: version 2 to be published in the new year (open access)

Learning objectives

1. To understand the principles of sustainable healthcare
2. To understand which nutrition products are in scope
3. To explore our work to date 'Scoping the sustainability impact of ONS' report
4. To raise awareness of overprescribing dashboard
5. To reflect on the journey so far and next steps

Introduction

How did this project start?

Today's audience

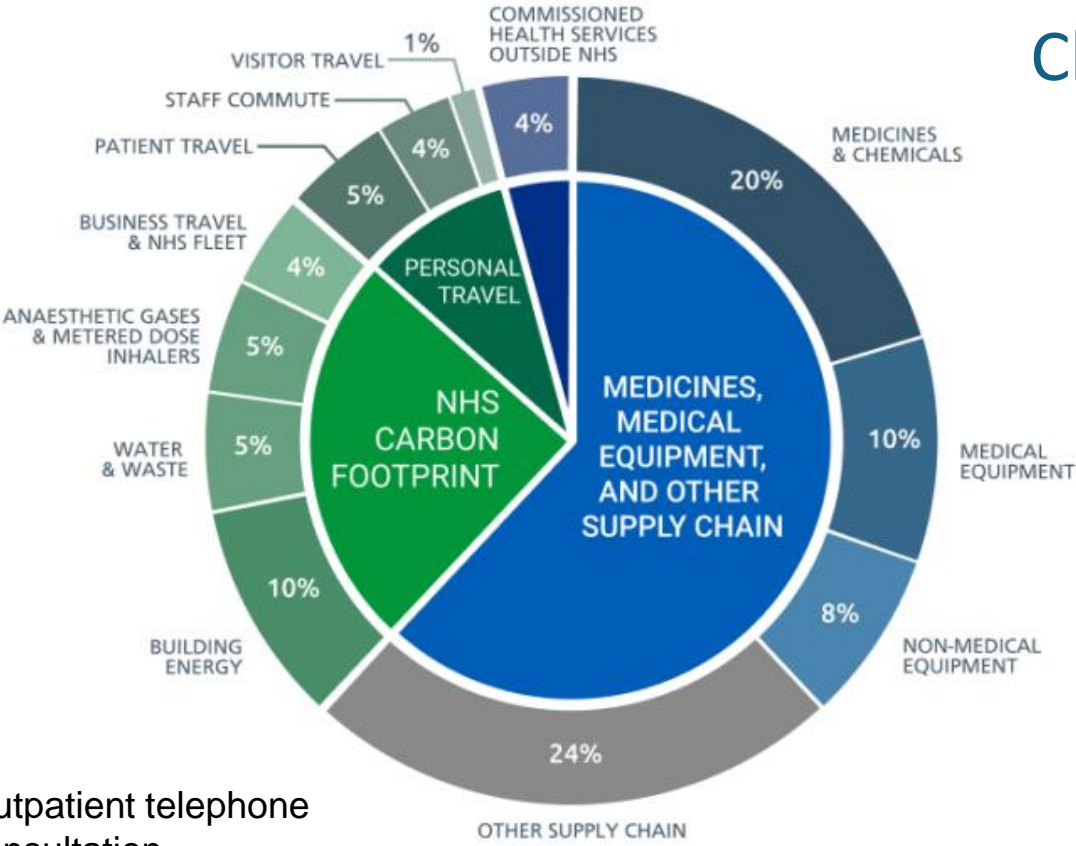
Iterative piece –

We are hoping for others to feel empowered to start working on this

What do the public think of sustainability in healthcare?



Clinical practice underpins healthcare's environmental impact



Outpatient telephone consultation
~0.1 KgCO₂e



Ambulance journey to hospital
~56 KgCO₂e

High intensity inpatient bed stay of 10 days
~895 KgCO₂e

Increasing carbon emissions

The principles of sustainable healthcare

1. PREVENTION

Promoting health and preventing disease by tackling the causes of illnesses and inequalities

3. LEAN SERVICE DELIVERY

Streamlining care systems to minimise wasteful activities



2. PATIENT SELF-CARE

Empowering patients to take a greater role in managing their own health and healthcare

4. LOW CARBON ALTERNATIVES

Prioritising treatments and technologies with a lower environmental impact

Mortimer, F. The Sustainable Physician. Clin Med 10(2). April 1, 2010. D110-111.

Background to Oral Nutritional Supplements

- Nutritional products approved by the Advisory Committee on Borderline Substances (ACBS).
- The ACBS are responsible for advising on the prescribing and use of borderline substances in NHS primary care and the community.
- We have considered just one category of ACBS products, standard Oral Nutritional Supplements (ONS)
- Most ONS are dairy (with a few plant based alternatives now available but representing a minority of market share)
- Ready to drink (RTD) or powders made up with fresh milk
- A majority of ONS are imported, particularly Ready to Drink (food miles) with smaller suppliers more likely to manufacture powders in UK
- For nutritionally vulnerable omnivorous older adults, with concern regarding frailty and malnutrition, the normal dietary preference should be reflected in any prescribing choices (awareness of our own nutritional bias)
- Carbon footprint of Ready to Drink vs powders made up with local milk
- ONS can be essential in certain conditions but most often prescribed for older adults where the evidence is limited

Scope

Out	In
Prevention/promotion plant based diets in well free living individuals	Nutrition support in malnourished, vulnerable individuals
Biological value of proteins from different sources and realistic serving sizes in malnourished/nutritionally vulnerable older adults with poor appetite	Personalised care, patient choice and consent, respect for individual dietary preferences
Nutritional & taste/mouth feel properties of dairy vs plant based milks, promoting plant based ONS	Awareness of our own biases when prescribing/recommending products to patients
Hospital supplied ONS, off script use of ONS	Primary Care prescribing, England

Hierarchy of needs, emotions and bias



Jason Manford
@JasonManford



Thank goodness for @McDonaldsUK milkshakes! 400 calories of vanilla flavoured life-saving goodness and the only thing Nana Manford has consumed for a week! Just need her strong enough to get home and be with her family now. ❤️

8:20 PM · Mar 21, 2023 · 2.2M Views

437 179 20K 34



Post your reply

Reply



McDonal 🌟 @Mcl · Mar 21, 2023

All our love (& Shakes!) to Nana Manford ❤️

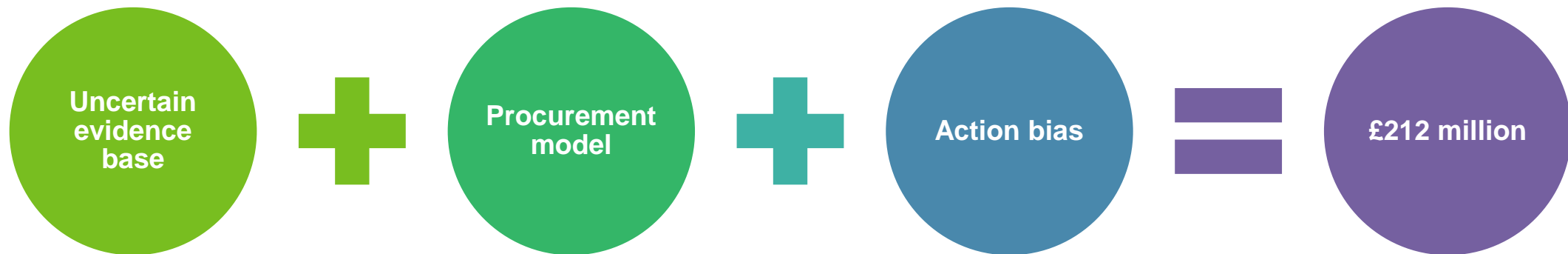
5 2 833 40K

Nutritional products in scope

12 months data (Oct '23—Sep '24), Primary Care, England

Category	Items*	Cost*
Standard ONS	3,964,334	£212,385,952
Paediatric ONS	173,408	£35,076,897
Standard tube feed	139,994	£57,346,395
Standard paediatric tube feed	48,305	£19,851,953

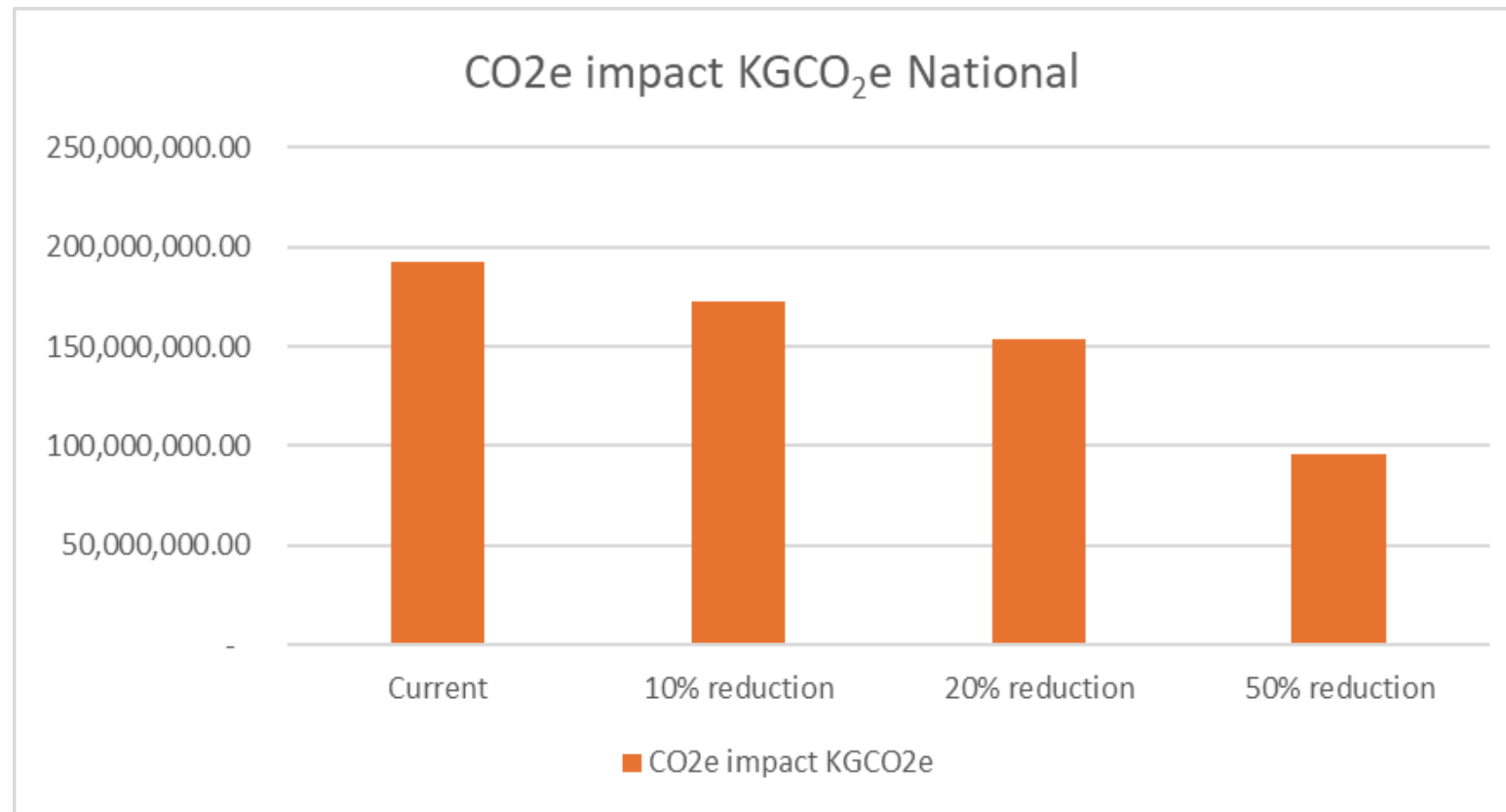
Standard ONS challenges



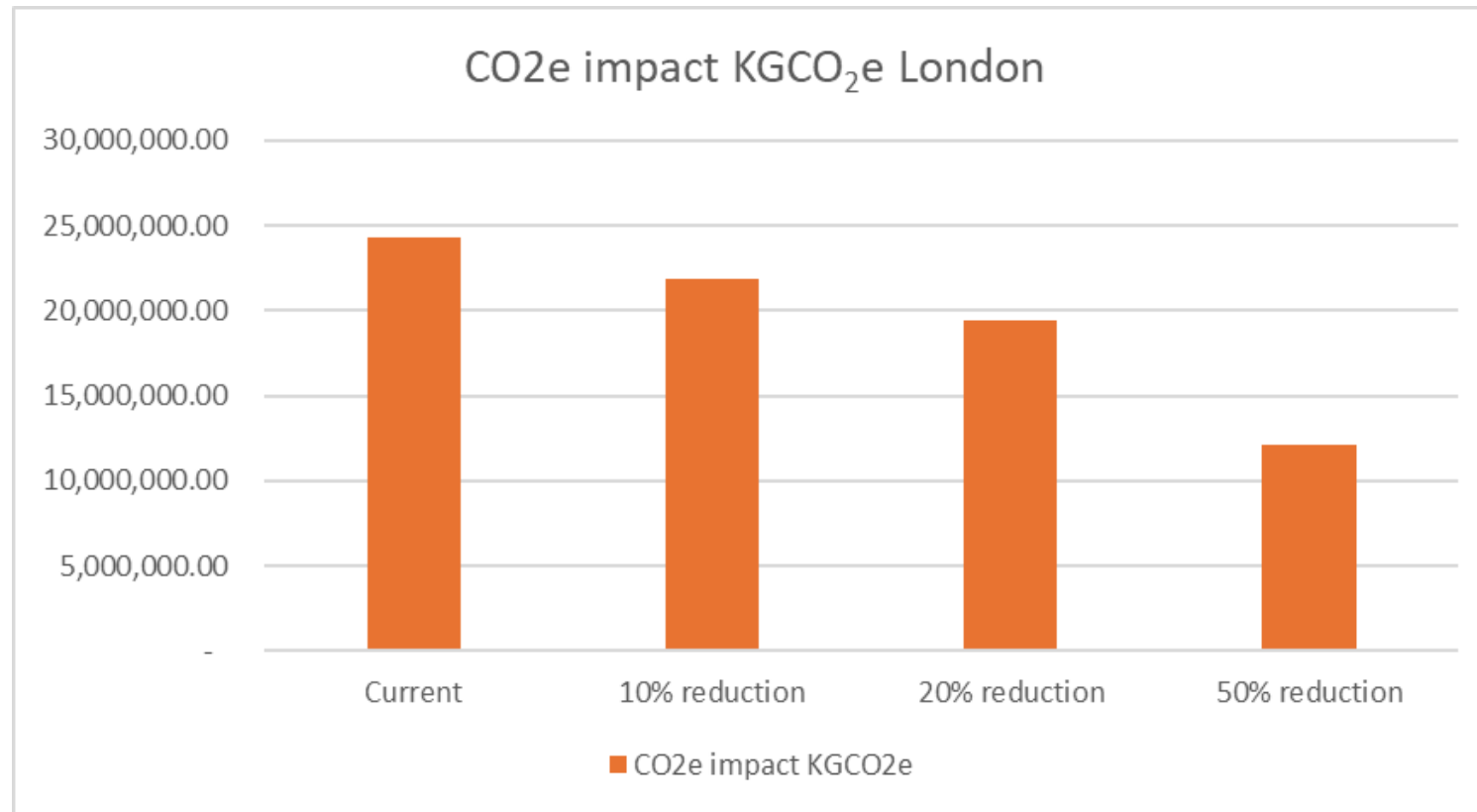
Scoping the sustainability impact of ONS

1. The CO₂e cost of production and processing
2. The CO₂e cost of transportation
3. Disposal: ONS packaging and challenge of recycling
4. Disposal: Wastage of nutrient dense product: impact on sewage system and water quality (eutrophication)
5. Social value

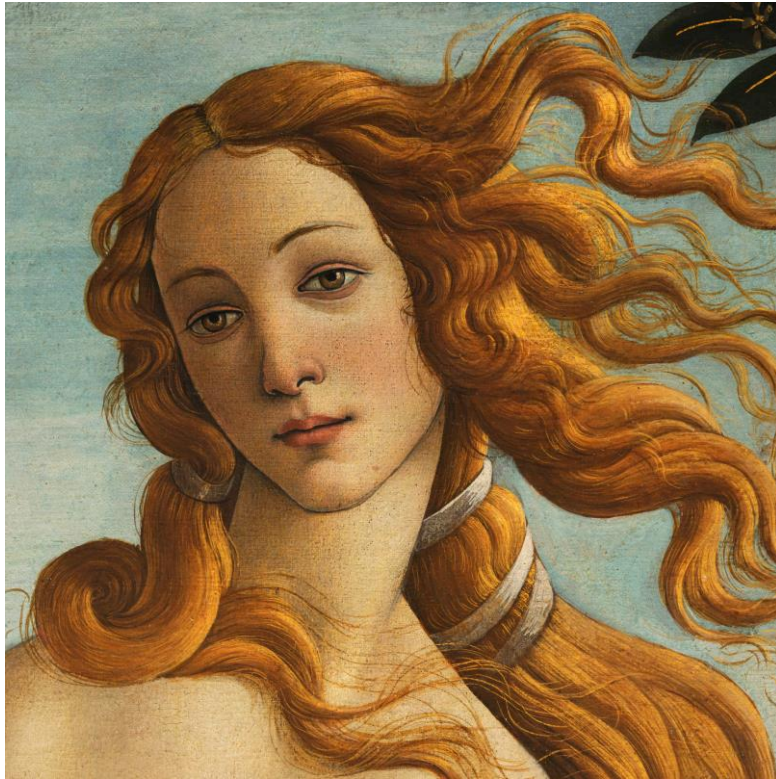
The CO₂e cost of production and processing



The CO₂e cost of production and processing



What does this equate to?



The CO₂e cost of transportation

Product	Presentation (ml/g)	Servings per 1kg	Servings per 1 tonne	kgCO ₂ e per serving
Ready to drink 1.5kcal/ml	200	5	5,000	0.00811142
Ready to drink 2.4kcal/ml	125	8	8,000	0.0050696
Powder	57	17.54	17,544	0.0038463
Fresh Milk	200	5	5,000	

Disposal: ONS packaging and challenge of recycling

Low carbon pathways: what about the packaging of ONS?

- **CARTON**
- 68% Local Authorities collect of which:
 - 80% collections comingled/two-stream →
 - <20% collections multi-stream →
- **PLASTIC**
- 100% Local Authorities collect
- Easily sorted, regardless of collection method
- Demand for food-grade recycling
- **SACHETS** non recyclable or soft plastics



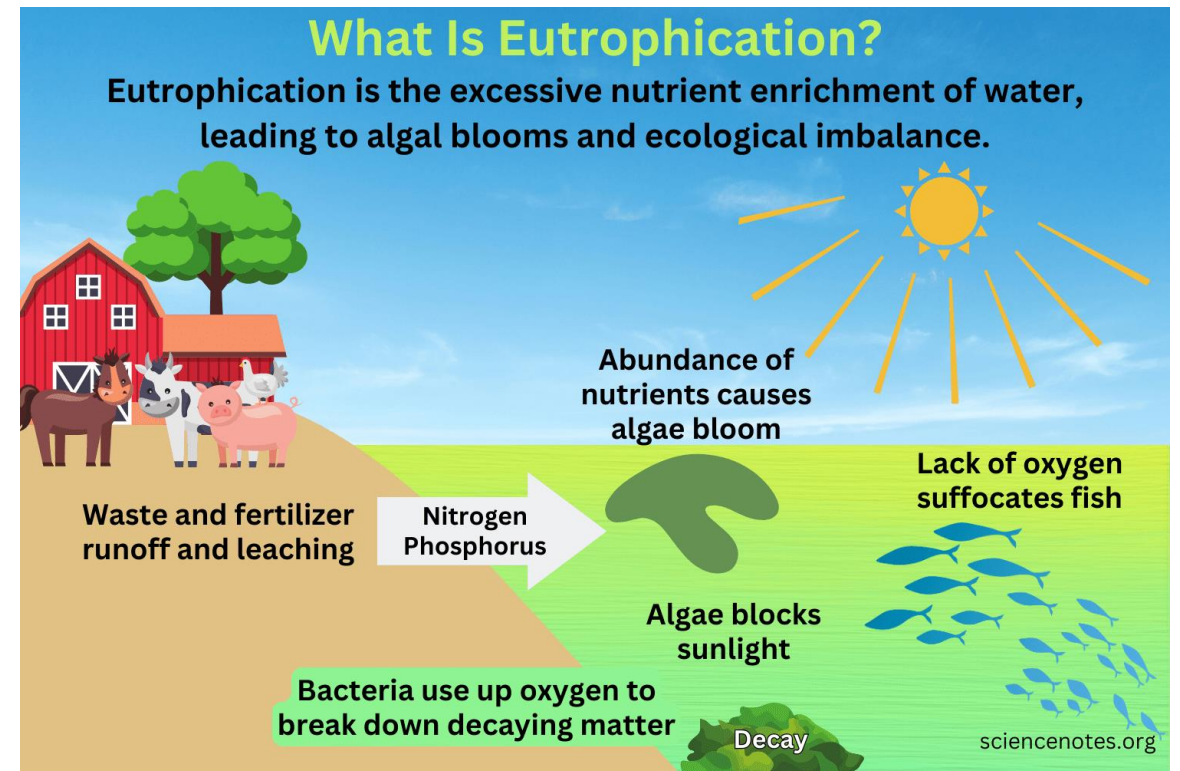
NEED
Knowledge
Motivation
Infrastructure

Disposal : eutrophication (nutrient pollution)

- Agriculture, aquaculture, septic tanks, urban wastewater, urban stormwater runoff, industry, and fossil fuel combustion
- ONS not consumed must be disposed of after 4-12 hours at room temperature for food safety reasons
- ONS wastage : how is it disposed of? Down the sink!
- Unique selling point of ONS: nutrient dense
- ONS is therefore a small source of nutrient pollution, along with all the other sources
- Rivers and seas polluted



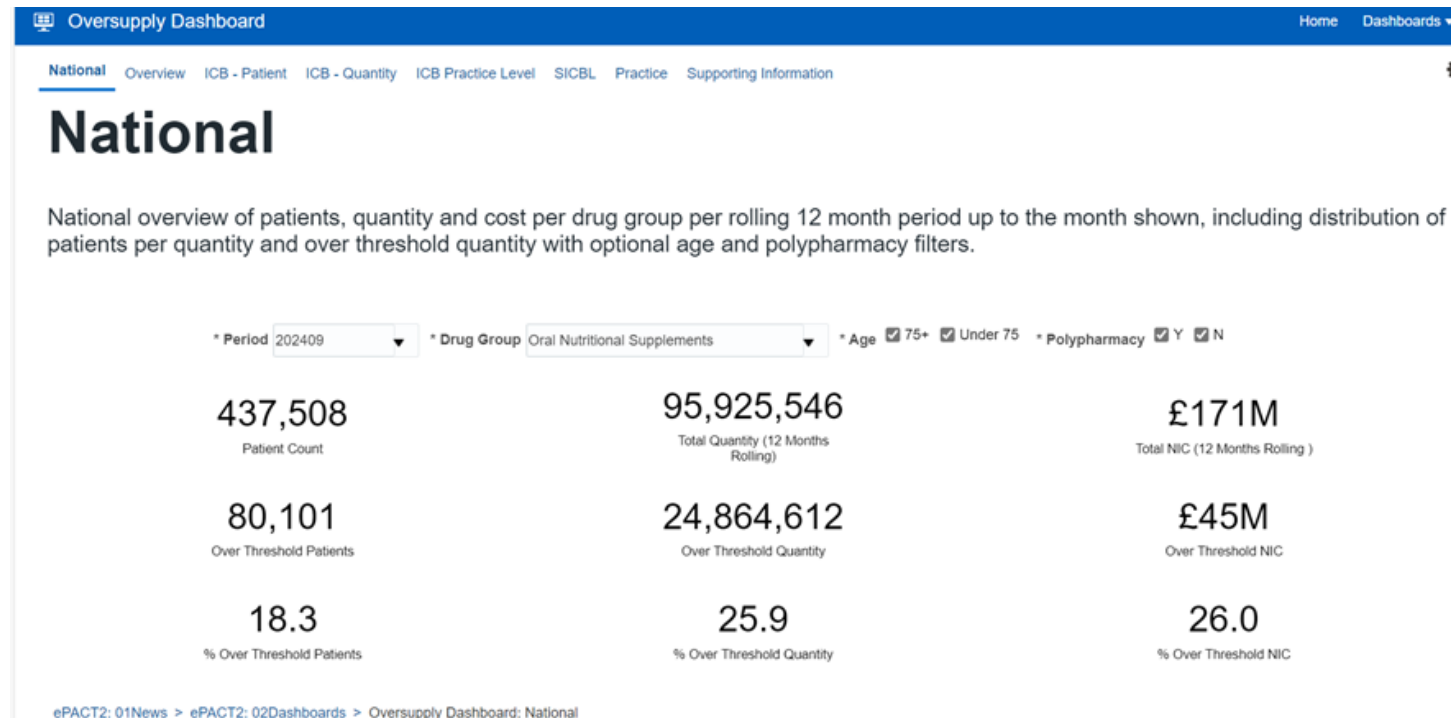
Eutrophication



Social value

- Different meanings in different contexts
- 10% weighting in procurements
- Focus on additionality
- Opportunities
 - Local employment from local production
 - Reduced transport mileage/green transport leading to reduced CO₂_e
 - Greener methods of production

Overprescribing toolkit and oversupply dashboard



Sustainable value

$$\text{Sustainable value} = \frac{\text{Outcomes for patients and populations}}{\text{Environmental + social + financial impacts (the 'triple bottom line')}}$$

Further resources

<https://sustainablehealthcare.org.uk/courses/>

<https://www.nhsbsa.nhs.uk/access-our-data-products/epact2/dashboards-and-specifications/oversupply-dashboard>

<https://www.rpharms.com/resources/repeat-prescribing-toolkit>

<https://www.health.org.uk/publications/public-perceptions-of-climate-change-and-health-september-2021>

[Eating, drinking and ageing well - British Dietetic Association \(BDA\)](#)

Next steps – what can you take forward?

- If making ONS recommendations/prescribing think:
 - 1) Has this person been given adequate food based strategies and dietary counselling?
 - 2) Follow local formulary : powders 1st choice for financial and sustainability reasons (demonstrate awareness of personal nutritional bias)
- Could you discuss if sustainable value is being met with ONS?

$$\text{Sustainable value} = \frac{\text{Outcomes for patients and populations}}{\text{Environmental + social + financial impacts (the 'triple bottom line')}}$$
- Is there a SusQI project I could carry out in my area?
- The current procurement model and net zero aspirations are not compatible – what can clinical and procurement teams do to influence what's included in the contract specifications/asks?
- Start reporting on the ONS sustainability impact in the same way that we think about inhalers

Reflections on work to date



Any questions for us?

A questionnaire following today's session is available here:

<https://www.smartsurvey.co.uk/s/KB1ZYL/>

We would very much appreciate your input