

Plant-Based Eating for Health and Sustainability

Dr Shireen Kassam
24th June 2026

About me



- Haematologist and Certified Lifestyle Medicine Physician
- Founder & director of Plant-Based Health Professionals UK
- Sustainability lead for pathology practice – RCPATH
- Education on plant-based diets and cancer at University of Winchester
- Honorary lecturer Hull York Medical School
- Author/Vegan since 2013

Diet and health

- <1 in 10 children meet their 5 a day
- <1 in 5 adults meet their 5 a day
- 96% of children and adults do not meet fibre recommendations
- 85% of children and 82% of adults consume excess saturated fat
- 95% of children and 83% of adults consume excess free sugar

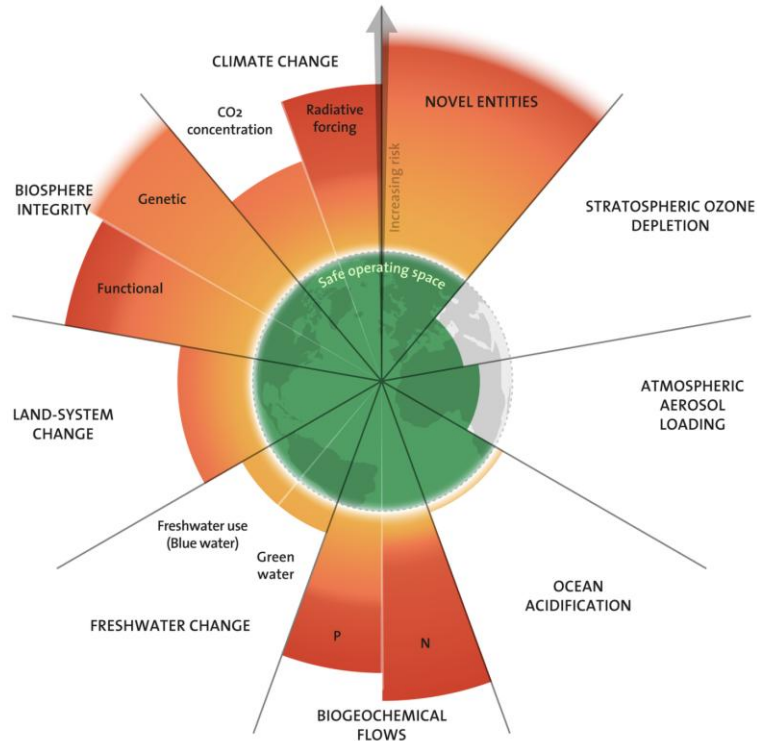
UK's unhealthy food habits cost £268bn a year, report finds

Exclusive: Food, Farming and Countryside Commission added up cost to NHS and economy of diet-linked disease



<https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-2019-to-2023/national-diet-and-nutrition-survey-2019-to-2023-report>
<https://ffcc.co.uk/publications/the-false-economy-of-big-food>

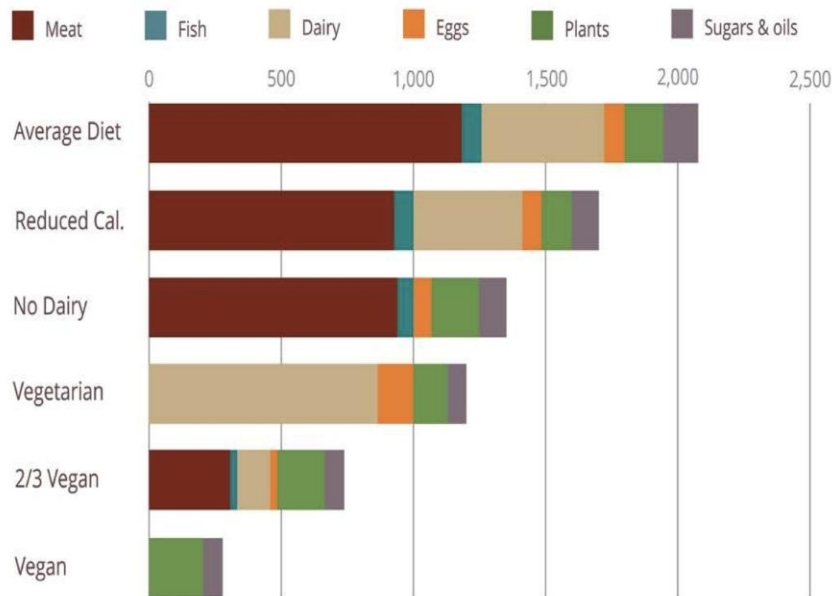
The Earth is beyond 7 of 9 planetary boundaries



- Food systems are the largest contributor to transgression of **five** planetary boundaries
- *Climate change, loss of biodiversity, biosphere integrity, freshwater use, nitrogen/phosphorus balance, pesticides/antimicrobial use*

What we eat matters

GHG emissions of various diets kg of CO2 equivalents per year



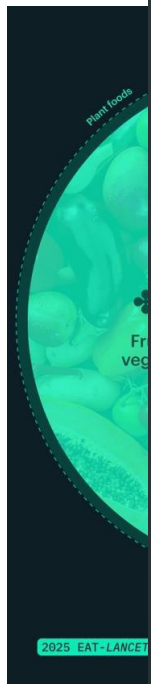
Kim et al (2019) Country-specific dietary shifts to mitigate climate and water crises. *Global Environmental Change*

Which milk is best for the planet?



Poore & Nemecek (2018) Reducing Food's Environmental Impacts Through Producers and Consumers. *Science*

Eat-
>87.5



diet



ed meat (105g)
poultry (210g)
fish (210g)

save 15 million
nature deaths per

r 2, 2025

/S0140-6736(25)01201-2

<https://www.stockh>

Eat-Lancet Action Brief



<https://pan-int.org/phd2025>

Call to action



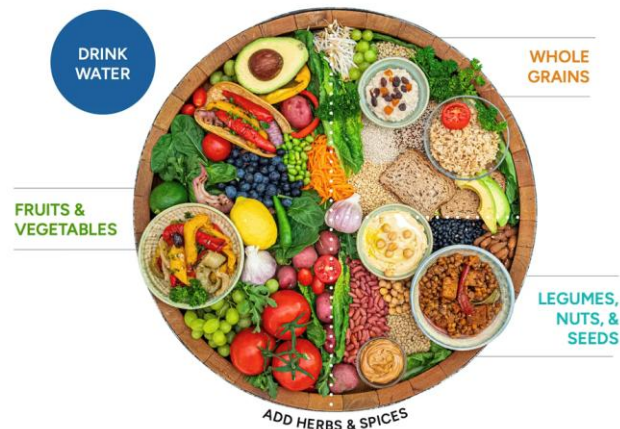
- **Promote** the role of healthy, sustainable and just diets in preventing and treating medical conditions
- **Recognise** dietitians and nutritionists as essential members of multidisciplinary teams needed to drive dietary shifts
- **Embed** healthy, sustainable, and equitable nutrition in healthcare professionals' training, education, and practice
- **Reorient** healthcare system efforts towards prevention & routine nutrition care

Benefits of plant-based eating

- Low in energy yet high in nutrients
- Supports a healthy body weight
- Low in saturated fat
- improves blood lipids
- High in fibre
- Helps satiety, improves gut health & insulin sensitivity
- High in phytonutrients
- Lowers inflammation
- Low in sugar
- Supports health across all ages & stages of life

Whole Food, Plant-Predominant Plate

Dietary Position Statement: For the treatment, reversal, and prevention of lifestyle-related chronic disease, ACLM recommends a dietary pattern based predominantly on a variety of minimally processed vegetables, fruits, whole grains, legumes, nuts, and seeds.



Health impacts of the EAT-Lancet PHD

Health outcome	Reduction %	Reference
All-cause mortality	23%	Am J Clin Nutr. 2024;120(1):80-91. doi:10.1016/j.ajcnut.2024.03.019
CVD mortality	14%	Am J Clin Nutr. 2024;120(1):80-91. doi:10.1016/j.ajcnut.2024.03.019
Cancer mortality	10%	Am J Clin Nutr. 2024;120(1):80-91. doi:10.1016/j.ajcnut.2024.03.019
Respiratory disease	47%	Am J Clin Nutr. 2024;120(1):80-91. doi:10.1016/j.ajcnut.2024.03.019
Neurodegenerative disease	28%	Am J Clin Nutr. 2024;120(1):80-91. doi:10.1016/j.ajcnut.2024.03.019
Type 2 diabetes incidence	32%	PLoS Med. 2025;22(9):e1004633. doi:10.1371/journal.pmed.1004633
All-cause and CVD mortality in black women	18% & 26%	Am J Clin Nutr. 2025;121(3):589-596. doi:10.1016/j.ajcnut.2025.01.023
Obesity and type 2 diabetes in South Asians	20% & 20%	Curr Dev Nutr. 2025;9(6):107468. doi:10.1016/j.cdnut.2025.107468

Already in clinical guidelines



Circulation

New online
<https://doi.org/10.1161/CIR.0000000000001435>



AHA SCIENTIFIC STATEMENT

2026 Dietary Guidance to Improve Cardiovascular Health: A Scientific Statement From the American Heart Association

Heart-healthy dietary patterns contain primarily vegetables and fruits, whole grains, healthy sources of protein, liquid nontropical plant oils (eg, soybean, canola, olive oils), and minimally processed foods.

American Cancer Society Guideline for Diet and Physical Activity for Cancer Prevention

Cheryl L. Rock, PhD, RD¹; Cynthia Thomson, PhD, RD²; Ted Gansler, MD, MPH, MBA³; Susan M. Gapstur, MPH, PhD⁴; Marjorie L. McCullough, ScD, RD⁵; Alpa V. Patel, PhD⁶; Kimberly S. Andrews, BA⁷; Elisa V. Bandera, MD, PhD⁸; Colleen K. Spees, PhD, MEd, RDN⁹; Kimberly Robien, PhD, RD¹⁰; Sheri Hartman, PhD¹¹; Kristen Sullivan, MPH, MS¹²; Barbara L. Grant, MS, RD¹³; Kathryn K. Hamilton, MS, RD¹⁴; Lawrence H. Kushi, ScD¹⁵; Bette J. Caan, DrPH¹⁶

A variety of vegetables—dark green, red and orange, fiber-rich legumes (beans and peas). Fruits, especially whole fruits with a variety of colors and whole grains.

© 2020 American Cancer Society.

Keywords: cancer prevention, dietary patterns, nutrition, physical activity

CA Cancer J Clin 2020;70:245–271

Clinical Practice Guideline

Richard M. Rosenfeld, MD, MPH, MBA, DipABLM¹; Meegan L. Grega, MD, FACLM, DipABLM²; Micaela C. Karsen, PhD, MSPH³; Abd Moain Abu Dabrh, MBBCh, MS, NBC-HWC⁴; R. Nisha Aurora, MD, MHS⁵; Jonathan P. Bonnet, MD, MPH, FFAFP, FACLM, CAGSM, DipABOM, DipABLM⁶; Lori Donnell, MBA, Stephanie L. Fitzpatrick, PhD, Beth Frates, MD, FACLM, DipABLM⁷; Elizabeth A. Joy, MD, MPH, FACS, FAMSM, DipABLM⁸; Jane F. Kapustin, PhD, CRNP, BC-ADM, FAANP, FAAN, Dawn R. Nove, RD, CDCES⁹; Gunadhar Panigrahi, MD, FACC, DipABLM, FACLM, Arun Ram, MD, MBA, FCP, Lianna S. Levine Reisner, MSOQ, Wilk Marone Valencia, MD, MSc, Lorraine J. Westberry, PhD, RD¹⁰

The clinician or HCP should be an advocate for lifestyle interventions as first-line management for prediabetes and T2D, including .. a whole-food, plant-predominant eating plan

An American Society For Preventive Cardiology Clinical Practice Statement. Am J Prev Cardiol. 2022 Mar 2;10:100323. doi: 10.1016/j.ajpc.2022
American Cancer Society guideline for diet and physical activity for cancer prevention. CA Cancer J Clin. 2020 Jul;70(4):245–271. doi: 10.3322/caac.21591
Evidence-based European recommendations for the dietary management of diabetes. *Diabetologia* (2023). <https://doi.org/10.1007/s00125-023-05894-8>

Hospitals can lead by example

- >50% of eligible patients stick with the plant-based meal
- >90% satisfaction rates
- Emissions from food have fallen by 36%
- Cost reduction per meal of 59 cents

Health

New York City Hospitals Make Plant-Based Meals the Default Option

September 29, 2022



Aligns with NHS priorities



1

Health
promotion

2

Commitment
to net zero

3

One health
approach

4

Financial

5

Inclusion and
diversity

6

Social justice

<https://www.england.nhs.uk/long-term-plan/>



Our mission

The **Plants First Healthcare Coalition** supports, upskills, and empowers UK healthcare settings to serve inclusive, sustainable, and delicious plant-rich menus.

Top strategies



Plant-based defaults



Plant milk default



Tasty titles



**Plant-based culinary +
service staff training**



**Climate-friendly
ratios**



**Subtle
substitutions**



**Prime
placement**



Meat reduction



**Healthcare professional
+ dietitian training**

Timeline



- Menu audit
- Baseline data collection
- Site visit

1 month



- Pilot design
- Staff training
- Recipe development
- Menu redesign
- Staff and patient taste testing

1-3 months



- Pilot implementation
- Data collection
- Quality control visit

3 months



- Data calculation
- Communications opportunities
- Celebrate success

1-2 months

NHS recipe bank



Developing 100%
plant-based
recipes for the NHS
recipe bank



Spaghetti bolognese

Made with 80g beef mince per portion.
Served with 75g whole wheat spaghetti.

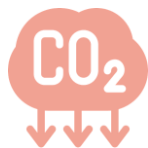
Cost: £1.12

Saturated fat: 6.1g

Fibre: 12g

Protein: 29g

CO2 emissions: 3.53 kg



VERY HIGH
carbon rating



**Over 50%
cheaper**



**90% lower in
saturated fat**



**33% more
fibre + 15%
more protein**



**81% less
CO2**

vs.

Spaghetti bolognese (ve)

Made with 50g lentils and 30g dried soya mince per portion.

Served with 75g whole wheat spaghetti.

Cost: 46p

Saturated fat: 0.6g

Fibre: 16g

Protein: 33g

CO2 emissions: 0.67 kg

VERY LOW
carbon rating



*Based on adult portion. Recipe calculations via Nutritics. CO2e rating accurate as of 08/01/26 via Food Steps analysis. Cost saving may differ depending on wholesale price variations. Cost comparison based on ASDA online pricing which are often higher than wholesale.

GBD + Sodexo + Nuffield Health

PLANT-FORWARD MENU FOR PATIENT MEALS

14%

Less meat per person

22%

Reduction in food-related
greenhouse gas emissions

90%

Satisfaction maintained



GBD + Royal National Orthopedic Hospital

CLIMATE-FRIENDLY RATIOS AND TASTY TITLES FOR STAFF MEALS

3,000

Meals shifted from meat-based to plant-based

33%

Reduction in meat per meal per person

40%

Reduction in food-related greenhouse gas emissions



Satisfaction remained high



Event catering



HOW-TO...

Prioritise Plant-Based & Sustainably Sourced Food



 **UK Health Alliance on Climate Change**

HOW-TO...
Prioritise Plant-Based & Sustainably Sourced Food



"Food is the single strongest lever to optimize human health and environmental sustainability on earth." EAT Lancet Commission, 2009

Health professionals need to show climate leadership by applying the same due diligence to food as we do other areas of our work.

The evidence is clear. Plant-based, sustainably sourced food offers the greatest benefits to planetary and human health; when done well, it is nutritious, delicious and culturally inclusive.

Prioritising plant-based, sustainably sourced food is one of UK Health Alliance on Climate Change's (UKHACC) eleven member commitments. This toolkit will help members to not only achieve this commitment, but also gain Climate & Healthcare scorecard points and meet recommendations from UKHACC's Building A Healthy & Sustainable Food System report.

It includes practical steps, know-how, case studies and templates to help your organisation successfully champion a plant-based food culture. **Let's go.**



ANIMAL Vs PLANT-BASED FOODS

THE DATA

For a quick comparison, producing 1kg of beef emits 60kg of greenhouse gases (measured as carbon dioxide equivalents, or CO₂ eq.), 1kg of lamb and cheese emits 20kg of CO₂ eq. and chicken and pork emit 6 and 7kg respectively.

Plant-based foods have comparatively low emissions. Producing 1kg of peas emits about 1kg of CO₂ eq., wheat or rye around 1.4kg, root vegetables 0.4kg, nuts 0.3kg, and soya milk 0.9kg.

FOOD WASTE vs PLANT-BASED

Although local sourcing and food waste reduction are important, the evidence is clear that the most impactful food intervention is to eat plant-based foods. It's about what you eat, rather than where it's from.



Food Type	kg Greenhouse Gas (CO ₂ eq.)
Beef	60
Lamb	20
Cheese	20
Chicken	6
Pork	7
Peas	1
Wheat or rye	1.4
Root vegetables	0.4
Nuts	0.3
Soya milk	0.9

Summary

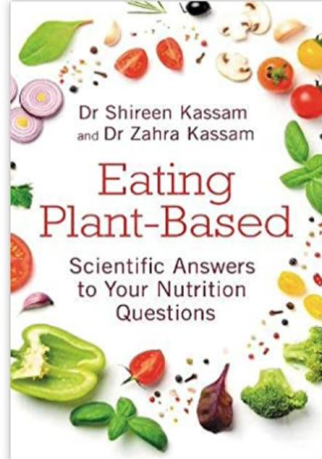
- Plant-based diets are a key part of the solution to the health and climate crises
- Public sector catering is a strong lever for change
- Plant-based meals support wider healthcare goals
- Behavioural nudges and using choice architecture can change eating habits without restricting choice.

Resources

PLANT-BASED NUTRITION IN CLINICAL PRACTICE



EDITED BY DR. SHIREEN KASSAM,
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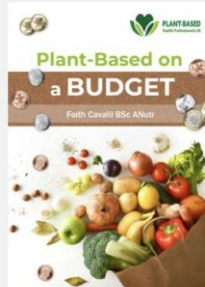
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Dr. Shireen Kassam

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Website: PBHP.UK



Join PANCO, our global online community!

The **Global Healthy Hospital Food Network** includes **266 members from 20 countries** across Europe, Africa, Asia, North America, and Oceania. The largest groups are dietitians and nutritionists, medical doctors, management and administration staff, professionals in research and science, and NGOs and policy-makers. Around 50% work directly in hospitals.



The Network's Impact



266

Members



20

Countries
reached



6+

Online Events
hosted



PLANT-BASED
Health Professionals UK

