

Benefits of a Plant-Based Diet

Dr Shireen Kassam

Consultant Haematologist, Founder of Plant-Based Health Professionals UK



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This talk

- Discuss the evidence supporting plant-based diets for individual and planetary health
- Understand international consensus on diet, nutrition and health
- Make a pledge to take action!

Definitions

- Vegan
- Vegetarian (lacto-ovo)
- Flexitarian
- Whole food plant-based diet
- Predominately plant-based diet
- (Omnivorous, pescatarian)

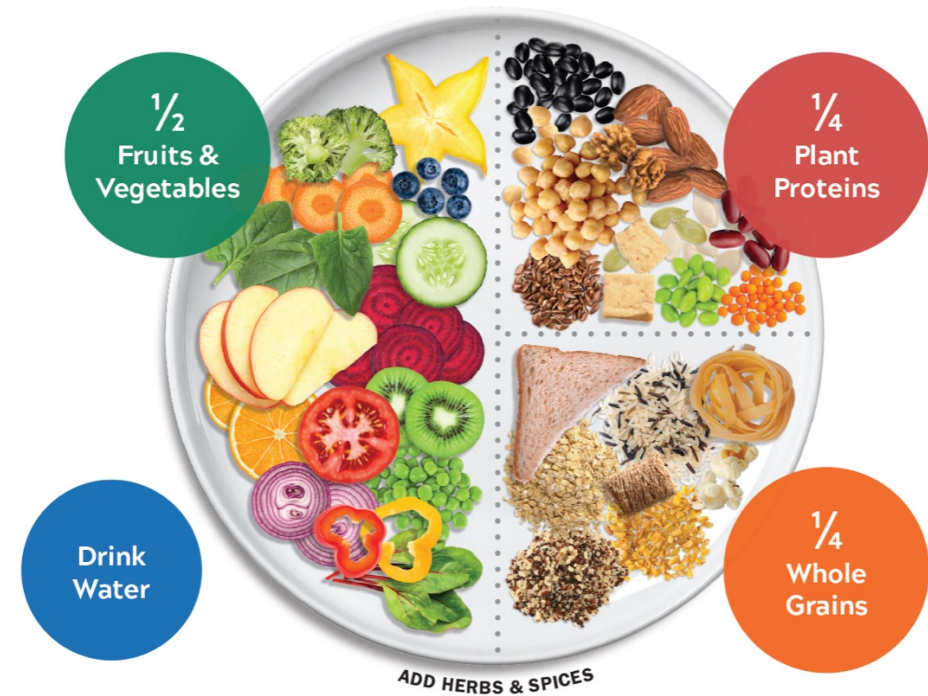


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A WHOLE FOOD, PLANT-BASED PLATE

Nutrition Prescription for Treating & Reversing Chronic Disease

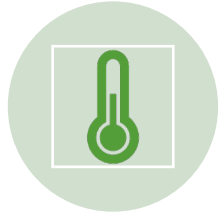
The Dietary Position of the American College of Lifestyle Medicine (ACLM) is defined as: Eating a whole food, plant-based diet helps treat and reverse chronic diseases. ACLM endorses a minimally processed diet that is predominantly fruits, vegetables, whole grains, legumes, nuts and seeds.



Why are we talking about food?



HEALTH CRISIS



CLIMATE
BREAKDOWN



BIODIVERSITY
LOSS



ANTIBIOTIC
RESISTANCE



PANDEMIC
RISK



AIR
POLLUTION



SOCIAL
JUSTICE

The health problem

- Unhealthy diets are responsible for 26% of deaths globally
- 31% of premature deaths in Europe
- Creating 35% of all greenhouse gas emissions
- In 2022, all forms of malnutrition, hunger to obesity, have increased



2022 Global Nutrition Report

The '2022 Global Nutrition Report: Stronger commitments for greater action' sets out the role of accountability and its ability to transform action to tackle the nutrition crisis. It analyses the hard work underway and emphasises the role of every stakeholder to demonstrate why coordination is the only way we can deliver sustainable nutrition outcomes.

What are these dietary risk factors?

Bad diets killing more people globally than tobacco, study finds

Eating and drinking better could prevent one in five early deaths, researchers say



Leading to 12 million premature deaths globally every year

▲ While sugar and trans-fats are harmful, the biggest problem is the lack of healthy foods in our diets, researchers found. Photograph: Philip Toscano/PA

Dietary risk	Causes of death
High in sodium	Cardiovascular disease
Low in whole grains	Cancer
Low in fruits and seeds	Type 2 diabetes
Low in vegetables	

>50% of food bought is ultra-processed



National diet and nutrition survey *Nutrients* **2018**, 10(5), 587

Life expectancy vs healthy life expectancy

TIMES HEALTH COMMISSION

Rising levels of ill health costing economy £150bn a year

Lost income tax, benefit payments and bigger NHS budgets are taking a heavy toll on the public purse, according to Times analysis



- Lifestyle expectancy 82.9 yrs for women, 79.2 yrs men

But

- Healthy lifestyle expectancy 63.4 for males and 64.1 for females

GBD 2019 Diseases and Injuries Collaborators. **Global burden of 369 diseases and injuries, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019.** *The Lancet*. 17 October 2020. doi:10.1016/S0140-6736(20)30925-9.

<https://www.thetimes.co.uk/article/times-health-commission-government-promote-healthier-lifestyles-obesity-h2k799p6f>

Healthy diet patterns



Mediterranean

Dietary Approaches to Stop Hypertension

MIND

Nordic

Traditional Asian/African

Vegetarian/Vegan

Whole food plant-based

*MIND = Mediterranean-DASH Intervention for Neurodegenerative Delay

Defining a Healthy Diet: Evidence for The Role of Contemporary Dietary Patterns in Health and Disease. Nutrients. 2020 Jan 27;12(2):334. doi: 10.3390/nu12020334.

Foods that promote health



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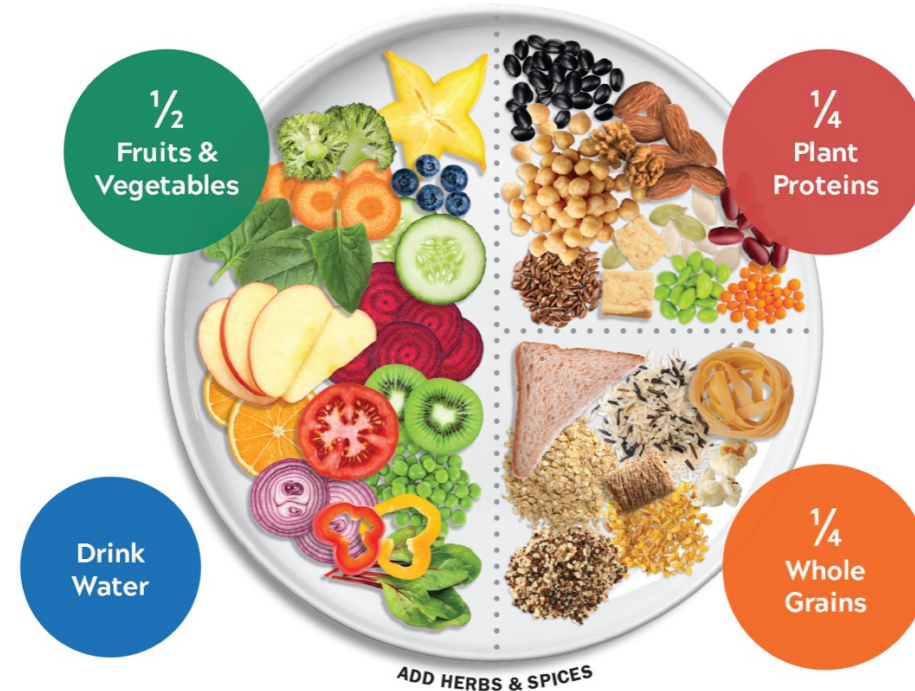
American College of
Lifestyle Medicine

ACLM recommends an eating plan based predominantly on a variety of minimally processed vegetables, fruits, whole grains, legumes, nuts and seeds.

A WHOLE FOOD, PLANT-BASED PLATE

Nutrition Prescription for Treating & Reversing Chronic Disease

The Dietary Position of the American College of Lifestyle Medicine (ACLM) is defined as: Eating a whole food, plant-based diet helps treat and reverse chronic diseases. ACLM endorses a minimally processed diet that is predominantly fruits, vegetables, whole grains, legumes, nuts and seeds.



Plant-based diets in clinical guidelines

Contents lists available at ScienceDirect

American Journal of Preventive Cardiology

journal homepage: www.journals.elsevier.com/american-journal-of-preventive-cardiology

ELSEVIER

Practical, Evidence-Based Approaches to Nutritional Modifications to Reduce Atherosclerotic Cardiovascular Disease: An American Society For

The ACC/AHA recommendations can be met with a Mediterranean, DASH, healthy vegetarian, and exclusively plant-based diets

¹ Department of Nutrition, College of Natural, Behavioral, and Health Sciences, Simmons University, Boston, MA, USA
² Division of Preventive Medicine, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA
³ Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston MA, USA
⁴ University of Arizona, Phoenix AZ, USA

ARTICLE INFO

Keywords:
 Nutrition
 Cardiovascular disease prevention
 Cardiovascular disease
 Clinical trials
 Social determinants of health

ABSTRACT

Despite numerous advances in all areas of cardiovascular care, cardiovascular disease (CVD) is the leading cause of death in the United States (US). There is compelling evidence that interventions to improve diet are effective in cardiovascular disease prevention. This clinical practice statement emphasizes the importance of evidence-based dietary patterns in the prevention of atherosclerotic cardiovascular disease (ASCVD), and ASCVD risk factors, including hyperlipidemia, hypertension, diabetes, and obesity. A diet consisting predominantly of fruits, vegetables, legumes, nuts, seeds, plant protein and fatty fish is optimal for the prevention of ASCVD. Consuming more of these foods, while reducing consumption of foods with saturated fat, dietary cholesterol, salt, refined grain, and ultra-processed food intake are the common components of a healthful dietary pattern. Dietary recommendations for special populations including pediatrics, older persons, and nutrition and social determinants of health for ASCVD prevention are discussed.

CA CANCER J CLIN 2020;70:245-271

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;

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.

Medical Dietetics and Health Sciences, School of Health and Rehabilitation Sciences, Comprehensive Cancer Center and James S. Hodge Research Institute, The Ohio State University College of Medicine, Columbus, Ohio⁴ Department of Exercise and Nutrition Sciences, Department

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

Diabetologia
<https://doi.org/10.1007/s00125-023-05894-8>

GUIDELINES

Evidence-based European recommendations for the dietary

Consume minimally processed plant foods, such as whole grains, vegetables, whole fruit, legumes, nuts, seeds and non-hydrogenated non-tropical vegetable oils.

Development and Evaluations (GRADE) approach to determine the certainty of evidence for each recommendation based on findings from the commissioned and identified systematic reviews. Our findings indicate that a range of foods and dietary patterns are suitable for diabetes management, with key recommendations for people with diabetes being largely similar for those for the general population. Important messages are to consume minimally processed plant foods, such as whole grains, vegetables, whole fruit, legumes, nuts, seeds and non-hydrogenated non-tropical vegetable oils, while minimising the consumption of red and processed meats, sodium, sugar-sweetened beverages and refined grains. The updated recommendations reflect the current evidence base and, if adhered to, will improve patient outcomes.

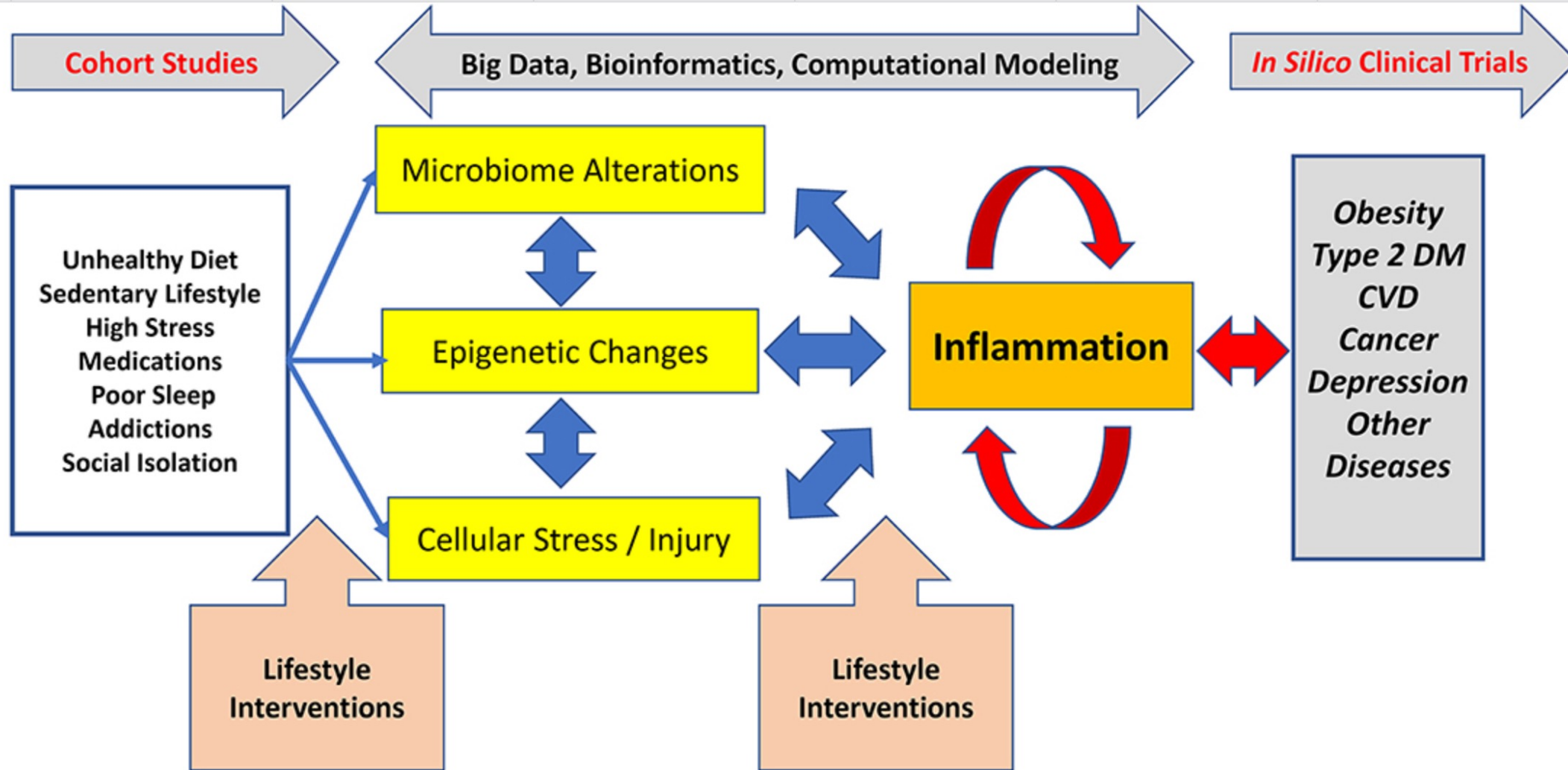
Keywords: Diabetes management · Dietary guidance · Eating advice · Nutrition recommendations · Type 2 diabetes prevention

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

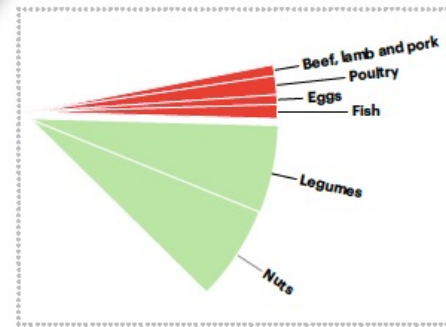
Evidence-based European recommendations for the dietary management of diabetes. *Diabetologia* (2023). <https://doi.org/10.1007/s00125-023-05894-8>

Addressing the root cause



What is a healthy and sustainable diet?

>85% plant-based



Per week

- 1 portion of red meat (98g)
- 2 portions poultry (200 grams)
- 3 eggs

- Estimated to save 11 million premature deaths per year

Co-benefits of a sustainable diet



Co-benefits from sustainable dietary shifts for population and environmental health: an assessment from a large European cohort study

Jessica E Laine, Inge Huybrechts, Marc J Gunter, Pietro Ferrari, Elisabete Weiderpass, Kostas Tsilidis, Dagfinn Aune, Matthias B Schulze, Manuela Bergmann, Elisabeth H M Temme, Jolanda M A Boer, Claudia Agnoli, Ulrika Ericson, Anna Stubbendorff, Daniel B Ibsen, Christina Catherine Dahm, Mélanie Deschasaux, Mathilde Touvier, Emmanuelle Kesse-Guyot, Maria-Jose Sánchez Pérez, Miguel Rodríguez Barranco, Tammy Y N Tong, Keren Papier, Anika Knuppel, Marie-Christine Boutron-Ruault, Francesca Mancini, Gianluca Severi, Bernard Srour, Tilman Kühn, Giovanna Masala, Antonio Agudo, Guri Skeie, Charlotta Rylander, Torkjel M Sandanger, Elio Riboli, Paolo Vineis

Summary

Background Unhealthy diets, the rise of non-communicable diseases, and the declining health of the planet are highly intertwined, where food production and consumption are major drivers of increases in greenhouse gas emissions, substantial land use, and adverse health such as cancer and mortality. To assess the potential co-benefits from shifting to more sustainable diets, we aimed to investigate the associations of dietary greenhouse gas emissions and land use with all-cause and cause-specific mortality and cancer incidence rates.

Methods Using data from 443 991 participants in the European Prospective Investigation into Cancer and Nutrition (EPIC) study, a multicentre prospective cohort, we estimated associations between dietary contributions to greenhouse gas emissions and land use and all-cause and cause-specific mortality and incident cancers using Cox proportional hazards regression models. The main exposures were modelled as quartiles. Co-benefits, encompassing the potential effects of alternative diets on all-cause mortality and cancer and potential reductions in greenhouse gas emissions and land use, were estimated with counterfactual attributable fraction intervention models, simulating potential effects of dietary shifts based on the EAT–*Lancet* reference diet.

Findings In the pooled analysis, there was an association between levels of dietary greenhouse gas emissions and all-cause mortality (adjusted hazard ratio [HR] 1·13 [95% CI 1·10–1·16]) and between land use and all-cause mortality (1·18 [1·15–1·21]) when comparing the fourth quartile to the first quartile. Similar associations were observed for cause-specific mortality. Associations were also observed between all-cause cancer incidence rates and greenhouse gas emissions, when comparing the fourth quartile to the first quartile (adjusted HR 1·11 [95% CI 1·09–1·14]) and between all-cause cancer incidence rates and land use (1·13 [1·10–1·15]); however, estimates differed by cancer type. Through counterfactual attributable fraction modelling of shifts in levels of adherence to the EAT–*Lancet* diet, we estimated that up to 19–63% of deaths and up to 10–39% of cancers could be prevented in a 20-year risk period by

Largest analysis to date

443,991 participants from the EPIC study

10 countries, median f/u 14 years

Eat-Lancet planetary health diet as reference

Greater adherence resulted in up to 63% reduction in all-cause mortality

Up to 39% of cancers could be prevented

Reduce GHG emissions up to 50% and land use up to 62%.

Nutritionally adequate

British Dietetic Association confirms well-planned vegan diets can support healthy living in people of all ages

<https://www.bda.uk.com/resource/british-dietetic-association-confirms-well-planned-vegan-diets-can-support-healthy-living-in-people-of-all-ages.html>

The Blue Zones

- Ikaria, Greece
- Loma Linda, California
- Nicoya peninsula, Costa Rica
- Okinawa, Japan
- Sardinia, Italy



MONTHLY

Retreat from meat: Blue zones centenarians eat about 2 oz or less about 5x per month



Reduce dairy



WEEKLY

Slash sugar: Consume only 28 grams (7 teaspoons) of added sugar daily



Eliminate eggs:
No more than 3 per week



Go easy on fish:
Fewer than 3 oz, up to 3 times weekly



Snack on nuts:
About 1-2 handful a day



DAILY

Drink mostly water: About 7 glasses / day;
coffee, tea, and wine in moderation



eat often with family and friends

Daily dose of beans: Half-cup to one cup / day



Go wholly whole: Single-ingredient, raw, cooked, ground, or fermented, and not highly processed

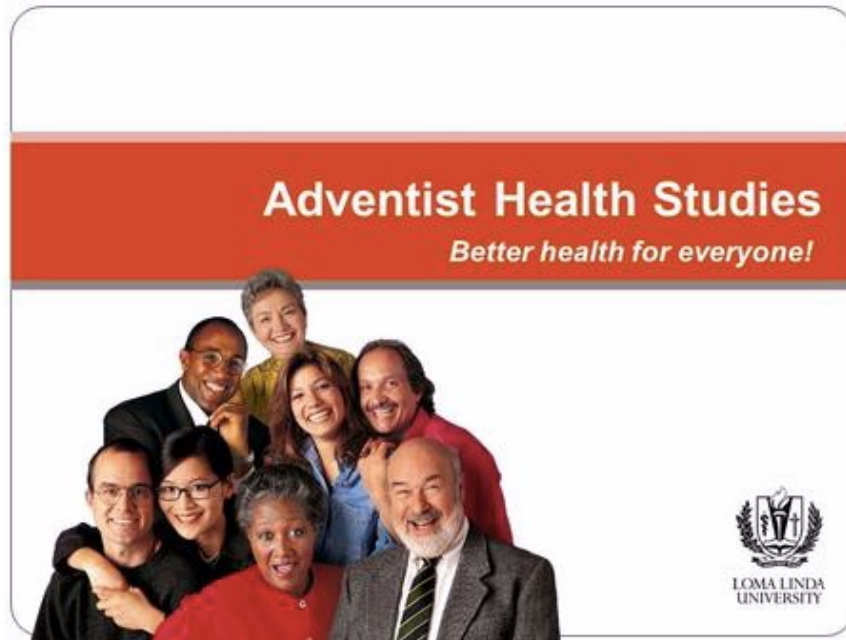


95-100% plant-based



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Prospective cohort studies on vegan health



Adventist Health Study-2 (AHS-2)

- >96,000 SDAs from North America; began in 2002 – ongoing

EPIC-Oxford

- >65,000 participants from the UK; began in 1993 - ongoing

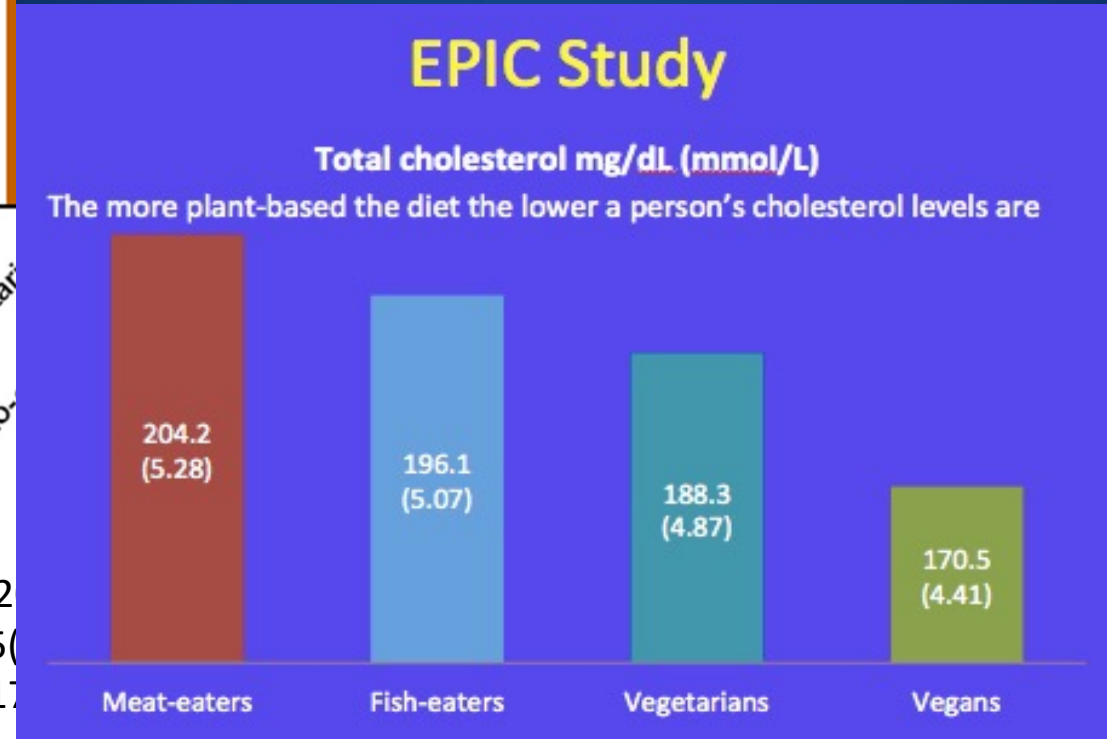
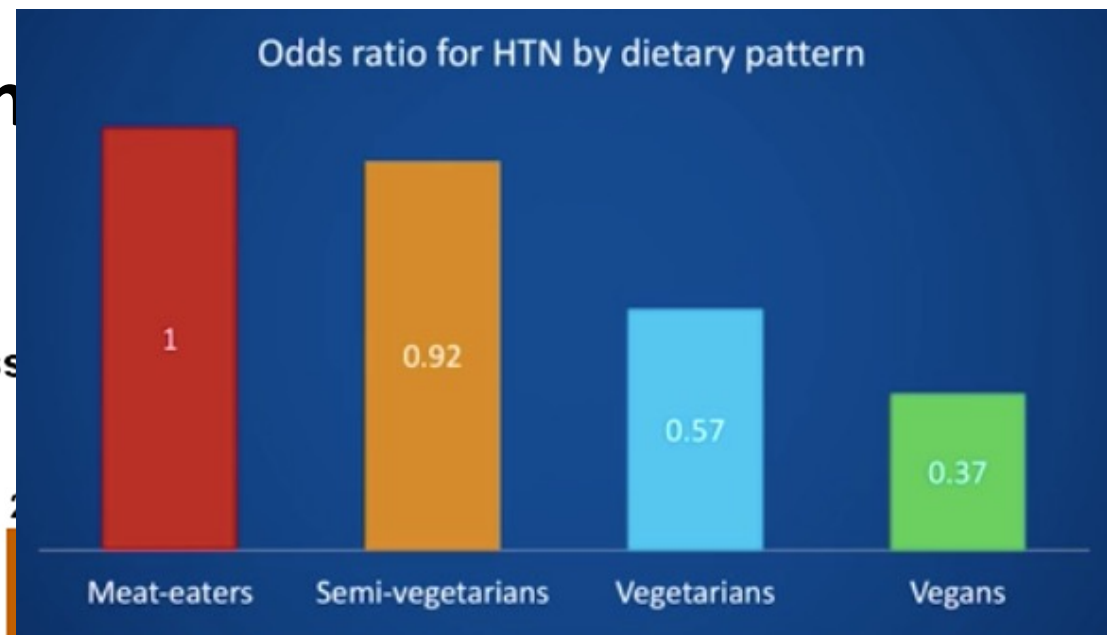
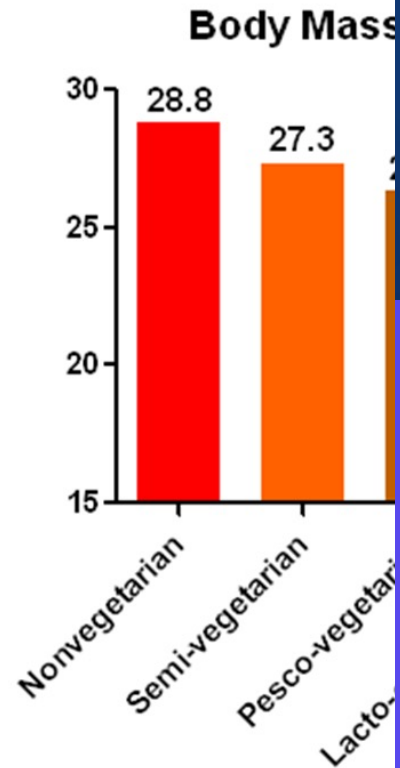


≈1/3 are lacto-ovo vegetarian or vegan

Prospective cohort



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Tonstad S, et al. *Diabetes Care*. 2012 Oct; 15(10):2292-9.
Public Health Nutr. 2012 Oct; 15(10):2292-9.
Eur J Clin Nutr. 2014 Feb;68(2):171-8.
Tonstad S. *Nutr Metab Cardiovasc Dis*. 2015;25(4):292-9.

UK Biobank study

472,377 participants followed for 11.4 yrs

- Regular meat-eaters (n = 247,571)
- Low meat-eaters (n = 205,385)
- Fish-eaters (n = 10,696),
- Vegetarians (n = 8685, including 466 vegans)

Vegetarians 14% ↓ cancer

Vegetarian women 18% ↓ breast cancer

Vegetarian men 31% ↓ prostate cancer

Research article | [Open Access](#) | [Published: 24 February 2022](#)

Risk of cancer in regular and low meat-eaters, fish-eaters, and vegetarians: a prospective analysis of UK Biobank participants

[Cody Z. Watling](#) ✉, [Julie A. Schmidt](#), [Yashvee Dunneram](#), [Tammy Y. N. Tong](#), [Rebecca K. Kelly](#), [Anika Knuppel](#), [Ruth C. Travis](#), [Timothy J. Key](#) & [Aurora Perez-Cornago](#)

[BMC Medicine](#) **20**, Article number: 73 (2022) | [Cite this article](#)

3174 Accesses | **1609** Altmetric | [Metrics](#)

Abstract

Background

Following a vegetarian diet has become increasingly popular and some evidence suggests that being vegetarian may be associated with a lower risk of cancer overall. However, for specific cancer sites, the evidence is limited. Our aim was to assess the associations of vegetarian and non-vegetarian diets with risks of all cancer, colorectal cancer, postmenopausal breast cancer, and prostate cancer and to explore the role of potential mediators between these associations.

The Tzu Chi Health Study



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6002 participants in Taiwan

- 4625 certified Tzu Chi volunteers and 1377 non-Tzu Chi volunteers

1/3 vegetarian/vegan

Vegetarians have better health

- ↓ Body weight
- ↓ Diabetes
- ↓ Fatty liver
- ↓ gallstone
- ↓ Stroke
- ↓ Medical expenditure

Vegetarian Epidemiology: Review and Discussion of Findings from Geographically Diverse Cohorts, *Advances in Nutrition*, Volume 10, Issue Supplement_4, November 2019, Pages S284–S295, <https://doi.org/10.1093/advances/nmy109>

Is bone health a concern?

- Only if
 - female of low BMI
 - insufficient vitamin D, B12, protein and calcium
 - diet quality is paramount
 - weight-bearing and resistance exercise

Vegetarian and vegan diets and risks of total and site-specific fractures: results from the prospective EPIC-Oxford study'. *BMC Med* **18**, 353 (2020). <https://doi.org/10.1186/s12916-020-01815-3>

Dietary patterns and hip fracture in the Adventist Health Study 2: combined vitamin D and calcium supplementation mitigate increased hip fracture risk among vegans', *The American Journal of Clinical Nutrition*, nqab095, <https://doi.org/10.1093/ajcn/nqab095>

Risk of hip fracture in meat-eaters, pescatarians, and vegetarians: results from the UK Women's Cohort Study. *BMC Med* **20**, 275 (2022). <https://doi.org/10.1186/s12916-022-02468-0>

Association of plant-based dietary patterns with the risk of osteoporosis in community-dwelling adults over 60 years: a cross-sectional study. *Osteoporos Int.* 2023 May;34(5):915-923. doi: 10.1007/s00198-023-06700-2



Food prescriptions – food as medicine

- *‘produce prescriptions were associated with significant improvements in F&V intake, food security, and health status for adults and children, and clinically relevant improvements in glycated haemoglobin, blood pressure, and BMI for adults with poor cardiometabolic health’.*

Impact of Produce Prescriptions on Diet, Food Security, and Cardiometabolic Health Outcomes: A Multisite Evaluation of 9 Produce Prescription Programs in the United States

Kurt Hager , Mengxi Du, Zhongyu Li, Dariush Mozaffarian, Kenneth Chui, Peilin Shi, Brent Ling, Sean B. Cash, Sara C. Folta and Fang Fang Zhang

Originally published 29 Aug 2023 | <https://doi.org/10.1161/CIRCOUTCOMES.122.009520> | Circulation: Cardiovascular Quality and Outcomes. 2023;0:e009520

Abstract

BACKGROUND:

Produce prescriptions may improve cardiometabolic health by increasing fruit and vegetable (F&V) consumption and food insecurity yet impacts on clinical outcomes and health status have not been evaluated in large, multisite evaluations.

METHODS:

This multisite, pre- and post-evaluation used individual-level data from 22 produce prescription locations in 12 US states from 2014 to 2020. No programs were previously evaluated. The study included 3881 individuals (2064 adults aged 18+ years and 1817 children aged 2–17 years) with, or at risk for, poor cardiometabolic health recruited from clinics serving low-income neighborhoods. Programs provided financial incentives to purchase F&V at grocery stores or farmers markets (median, \$63/months; duration, 4–10 months). Surveys assessed F&V intake, food security, and self-reported health; glycated hemoglobin, blood pressure, body mass index (BMI), and BMI z-score were measured at clinics. Adjusted, multilevel mixed models accounted for clustering by program.

RESULTS:

After a median participation of 6.0 months, F&V intake increased by 0.85 (95% CI, 0.68–1.02) and 0.26 (95% CI, 0.06–0.45) cups per day among adults and children, respectively. The odds of being food insecure dropped by one-third (odds ratio, 0.63 [0.52–0.76]) and odds of improving 1 level in self-reported health status increased for adults (odds ratio, 1.62 [1.30–2.02]) and children (odds ratio, 2.37 [1.70–3.31]). Among adults with glycated hemoglobin $\geq 6.5\%$, glycated hemoglobin declined by -0.29% age points (-0.42 to -0.16); among adults with hypertension, systolic and diastolic blood pressures declined by -8.38 mmHg (-10.13 to -6.62) and -4.94 mmHg (-5.96 to -3.92); and among adults with overweight or obesity, BMI decreased by -0.36 kg/m² (-0.64 to -0.09). Child BMI z-score did not change -0.01 (-0.06 to 0.04).

Plant-based diet and COVID-19



Eating a plant-rich diet helps
to protect against COVID-19

July 13, 2021

- Healthy plant-based diet
- ↓ risk of COVID-19 by 10%
- ↓ risk of severe COVID-19 by 40%

‘Based on these results, we’ve calculated that nearly a third of COVID-19 cases could have been prevented if these differences in diet quality and wealth had not existed’.

Diet quality and risk and severity of COVID-19: a prospective cohort study

Gut Published Online First: 06 September 2021. doi: 10.1136/gutjnl-2021-325353

Not just about surviving, but thriving

> [Br J Nutr.](#) 2023 Oct 23:1-26. doi: 10.1017/S0007114523002258. Online ahead of print.

Plant-based diets benefit aerobic performance and do not compromise strength/power performance: A systematic review and meta-analysis



Y O Damasceno ¹, C V F S Leitão ¹, G M de Oliveira ¹, F A B Andrade ¹,
A B Pereira ¹, R S Viza ¹, R C Correia ¹, H O Campos ^{1 2}, L R Drummond ^{1 3},
L H R Leite ⁴, C C Coimbra ¹

Affiliations + expand

PMID: 37869973 DOI: [10.1017/S0007114523002258](#)

 [Download PDF](#)

Abstract

Plant-based diets have emerged as athletic performance enhancers for various types of exercise. Therefore, the present study evaluated the effectiveness of plant-based diets on aerobic and strength/power performances, as well as on body mass index (BMI) of physically active individuals. This systematic review and meta-analysis was conducted and reported according to the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement. A systematic search of electronic databases, including PubMed, Web of Science and SPORTDiscus, was performed. On the basis of the search and inclusion criteria, four and six studies evaluating the effects of plant-based diets on aerobic and strength/power performances in humans were respectively included in the systematic review and meta-analysis. Plant-based diets had a moderate but positive effect on aerobic performance



Nutrient intakes

'As plant-based diets are generally better for health and the environment, public health strategies should facilitate the transition to a balanced diet with more diverse nutrient-dense plant foods.'

Dietary Pattern	Risk of Inadequacy	Favourably High Intake
Vegans	EPA, DHA,	fibre, PUFA, ALA,
	vitamins B12, D,	vitamins B1, B6, C, E, folate,
	calcium, iodine, iron (in women), zinc	magnesium
Vegetarians	fibre, EPA, DHA,	PUFA, ALA,
	vitamins B12, D, E,	vitamin C, folate,
	calcium, iodine, iron (in women), zinc	magnesium
Meat-eaters	fibre, PUFA, ALA (in men),	protein,
	vitamins D, E, folate,	niacin, vitamin B12,
	calcium, magnesium	zinc

UK guidance

- The foods most damaging to our health are those with the highest emissions, pollution, land and water use.
- A diet rich in **plant-based foods** have a significant environmental impact, has benefits for health and the environment.
- Some individuals may choose to **limit their consumption of animal products**..... it is possible to get the nutrients they need from eating a varied and balanced plant-based diet
- **Prioritise plant-based and sustainably sourced food**

Guidance

Climate and health: applying All Our Health

Published 18 May 2022

Guidance

Healthy eating: applying All Our Health

Published 10 January 2023



**UK Health Alliance
on Climate Change**

<https://www.gov.uk/government/publications/climate-change-applying-all-our-health/climate-and-health-applying-all-our-health#further-reading-resources-and-good-practice>
<https://www.gov.uk/government/publications/healthy-eating-applying-all-our-health/healthy-eating-applying-all-our-health#what-a-healthy-balanced-diet-is>

<https://ukhealthalliance.org/about/our-commitments/prioritise-plant-based-and-sustainably-sourced-food/>

Hospitals can lead by example

Health

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

September 29, 2022



Image: @defaultveg on Instagram



- 60% of patients stick with the plant-based meal
- Emissions from food have fallen by 36%

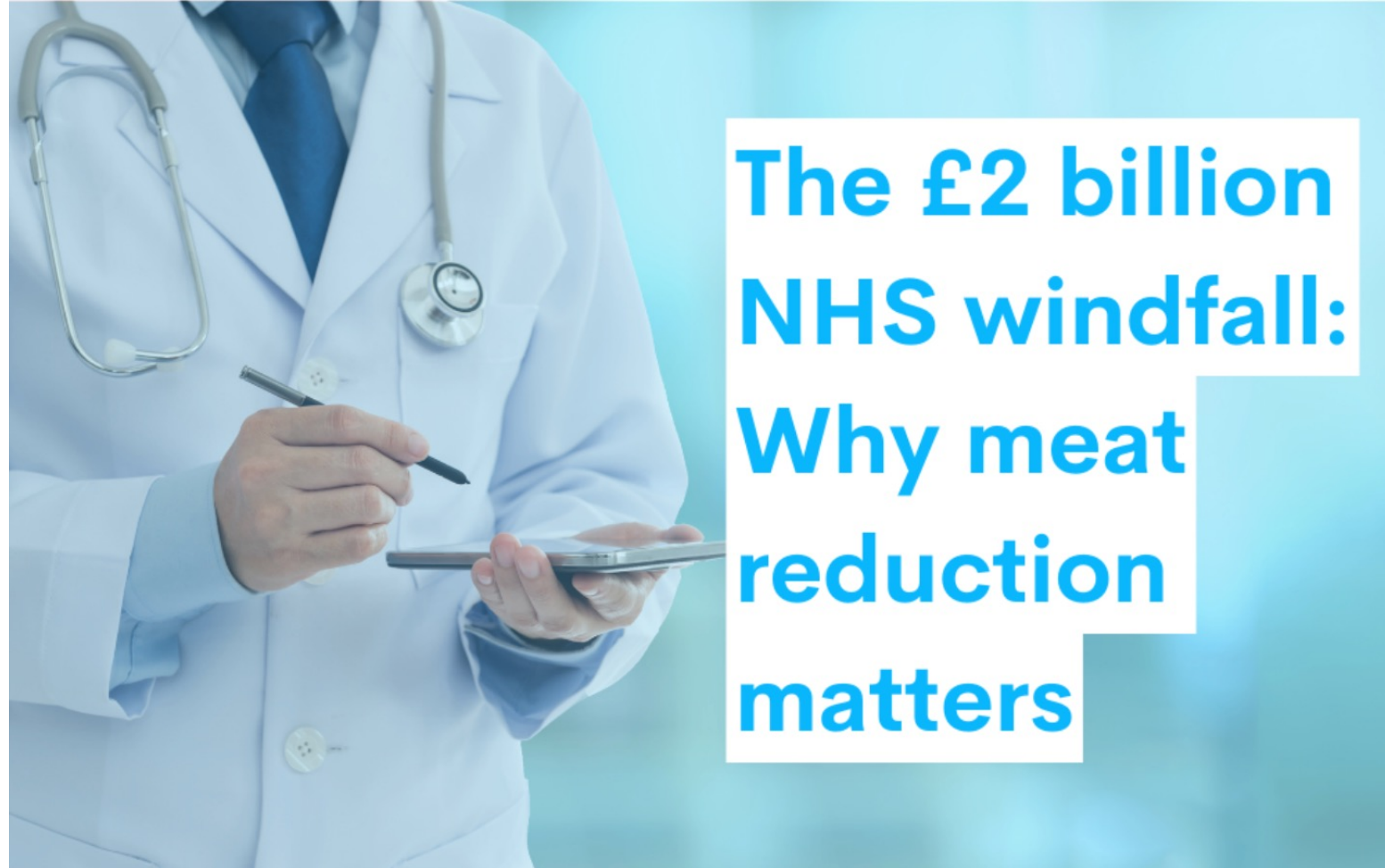
<https://dnyuz.com/2023/08/31/how-new-yorks-public-hospitals-cut-carbon-emissions-more-vegetables/>



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Cost savings

- Improved health
- Less diabetes and CVD
- Environmental benefits
- Lower household costs
- Implementing meat-free defaults in public catering could save the NHS £74M a year



The global and regional costs of healthy and sustainable dietary patterns: a modelling study, The Lancet Planetary Health, Volume 5, Issue 11, 2021

<https://www.conservativeanimalwelfarefoundation.org/plant-based-diet/the-2-2-billion-windfall-for-the-nhs-new-research-reveals-how-the-uk-could-unlock-savings/>

<https://www.ohe.org/insight/could-plant-based-diets-transform-health-care-spending/>

Exeter City Council To Raise Awareness Of The Benefits Of Plant-Based Food

03.01.23



An increased focus on plant-based foods will provide individuals with a better variety of choice without excluding non-plant-based options.

Exeter City Council will be playing a role in raising awareness of the benefits of plant-based foods for the climate.

A motion supported by Councillors asks the Council to transition to plant-based catering at all internal Council-catered meetings, showcase plant-based foods at Council-run events, ensure all Council-run external sites have plant-based food options available and more.

These actions aim to encourage people to be aware of their choices and their impact on the climate.

<https://devonclimateemergency.org.uk/taking-action/exeter-city-council-to-raise-awareness-of-the-benefits-of-plant-based-food/>

What's happening at universities?



Plant-based Universities

- Student-led campaign at over 70 universities (UK and international)
- Urge universities to **transition to 100% just and sustainable plant-based catering.**
- In the 2022-3 academic year, they championed successful policy motions at **7 university student unions** (including UCL) to transition to fully plant-based catering.
- Appeared on BBC News, the Guardian, Good Morning Britain.

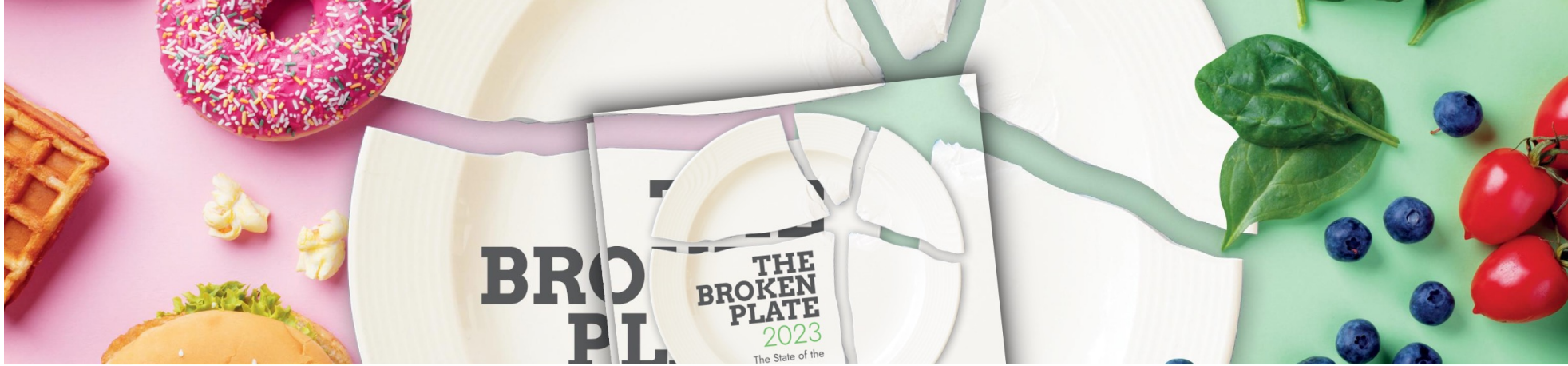


Food

Hundreds of academics call for 100% plant-based meals at UK universities

Open letter backs student-led campaign for vegan catering to fight climate crisis

<https://www.plantbaseduniversities.org/join>



REPORT

The Broken Plate 2023

27/06/2023

- The poorest fifth of UK households would need to spend **50%** of their disposable income on food to meet the cost of the Government-recommended healthy diet. This compared to just **11%** for the richest fifth.
- **Healthy life expectancy** in the most deprived tenth of the population is 19 years less for women and 18 years less for men than in the least deprived 10th.
- More healthy foods are over **twice as expensive** per calorie as less healthy foods
- by 2050, emissions from the food system will be **four times** higher than the level that is needed if the UK is to meet its net zero target.

<https://www.foodfoundation.org.uk/publication/broken-plate-2023>



Food choices are a social justice issue

- Higher prevalence rate of mental health issues
- Increased criminal activity
- Domestic violence
- Physical injuries
- Anti social behaviours

<https://doi.org/10.1177/15248380211030243>

The Psychological Impact of Slaughterhouse Employment: A Systematic Literature Review

Jessica Slade¹ and Emma Alleyne¹ 

TRAUMA, VIOLENCE, & ABUSE
1-12
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DOI: 10.1177/15248380211030243
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Abstract

The role of a slaughterhouse worker (SHW) involves the authorized killing of living beings, yet there is limited understanding of the consequences this behavior has on their well-being. The purpose of this systematic review is to collate and evaluate the current literature on the psychological impact of slaughterhouse employment. Fourteen studies met the specific a priori inclusion criteria. The findings from this review were demarcated by the focus of studies: (1) the prevalence of mental health disorders, (2) the types of coping mechanisms used, and (3) the link between slaughterhouse employment and crime perpetration. It was found that SHWs have a higher prevalence rate of mental health issues, in particular depression and anxiety, in addition to violence-supportive attitudes. Furthermore, the workers employ a variety of both adaptive and maladaptive strategies to cope with the workplace environment and associated stressors. Finally, there is some evidence that slaughterhouse work is associated with increased crime levels. The research reviewed has shown a link between slaughterhouse work and antisocial behavior generally and sexual offending specifically. There was **no** support for such an association with violent crimes, however. Based on existing research, we suggest future directions for research (i.e., applying more methodological rigor) but highlight key findings for practitioners and policymakers that warrant attention.

Keywords

slaughterhouse worker, mental health, depression, anxiety, crime, coping mechanisms

There are specific types of employment that require the authorized killing of living beings. Given the traumatic nature of this work, there has been research investigating the psychological impact, but only in a subset of professions (e.g., war veterans [MacNair, 2002], veterinarians, and researchers who conduct experiments on animals [Bennett & Rohlf, 2005]). However, very little is known about the consequences of working in slaughterhouses (also known as abattoirs). Slaughterhouse workers (SHWs) are involved in the deaths of more than 70 billion animals each year worldwide (Sanders, 2018). In order to meet market demand, the meat industry employs a workforce of approximately 75,000 people (British Meat Processors Association, 2019) in approximately 250 slaughterhouses in the United Kingdom (Department for Environment Food & Rural Affairs, 2019), with equivalent numbers in the United States (United States Department of Agriculture, 2020). Furthermore, statistics show that the majority of these employees have limited educational attainment and come from a low socioeconomic background (Victor & Barnard, 2016), with migrants making up 70% of the work-

include using animals as a surface to extinguish cigarettes, decapitating animals and ridiculing their dismembered bodies, and inflicting abuse on animals as a form of game playing and entertainment (Animal Aid, 2015; Nagesh, 2017). In the United Kingdom, these videos prompted a change in legislation, whereby slaughterhouse establishments were required to install closed-circuit television (CCTV) to act as a deterrent, and if needed, to aid investigations (Embury-Dennis, 2018). However, animals are not the only victims of the slaughterhouse industry. Modern-day slaughterhouses prosper as a result of the industrialization of the production line (Hendrix & Brooks Dollar, 2017). Consequently, this puts immense pressure on the workers to keep up with such high demand (Dillard, 2008) resulting in violations of workplace policies (e.g., SHWs being denied bathroom breaks—Oxfam America, 2016; drug use to meet high production line demand—Hendrix & Brooks Dollar, 2017). Employment statistics, in addition to reports of high turnover (Fitzgerald, 2010), underline the need to better



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Conclusion

- *The medical profession can help to move the needle by embracing radical change when possible — especially within our own ranks — and incremental change when necessary to promote harm reduction. We owe it to the profession, to our patients, and to the planet we share'*

Conclusions

Large body of evidence to support plant-based diets for personal and planetary health

National and international guidelines are catching up with the evidence

Human health and diet patterns must be considered in the context of global planetary health

Actions you can take

- Think about your everyday favourite meals and how you can make them more plant-based
- Decide to take a plant-based challenge and invite a friend to join you
- Make a point of asking your patients about their diet



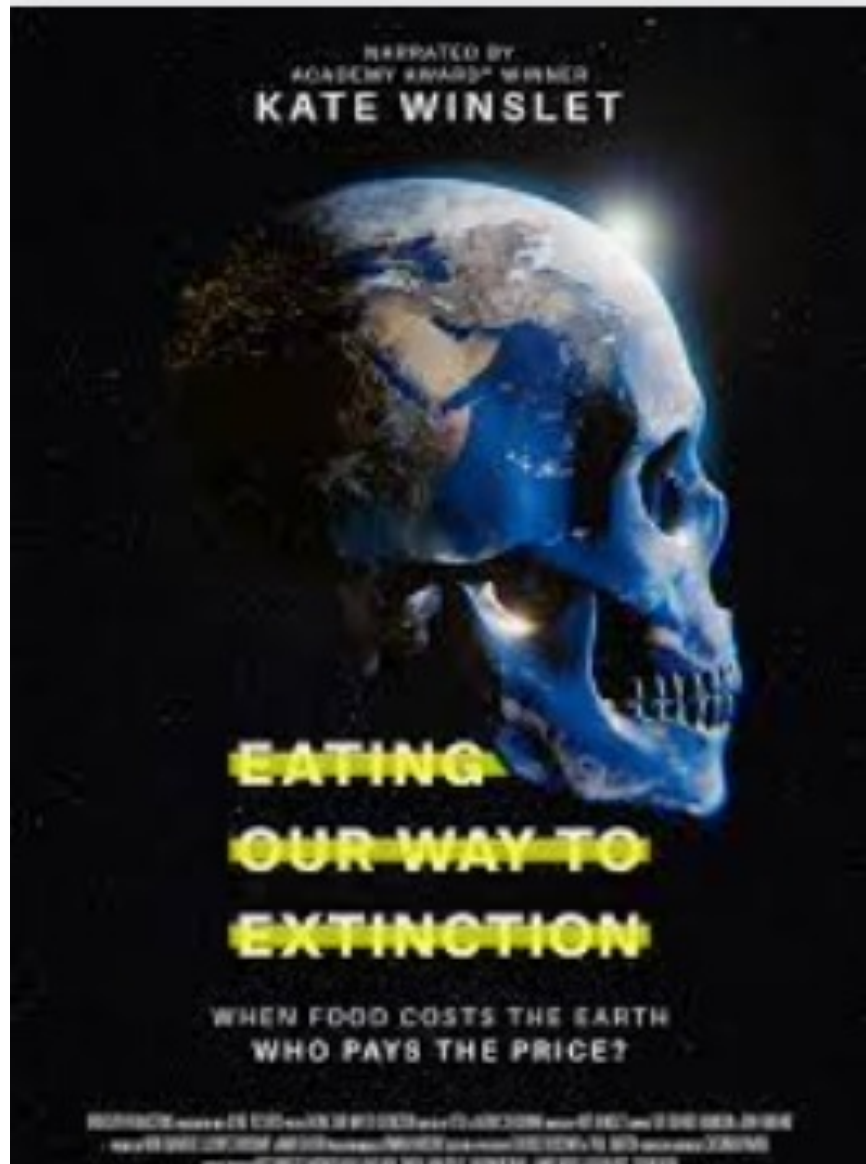


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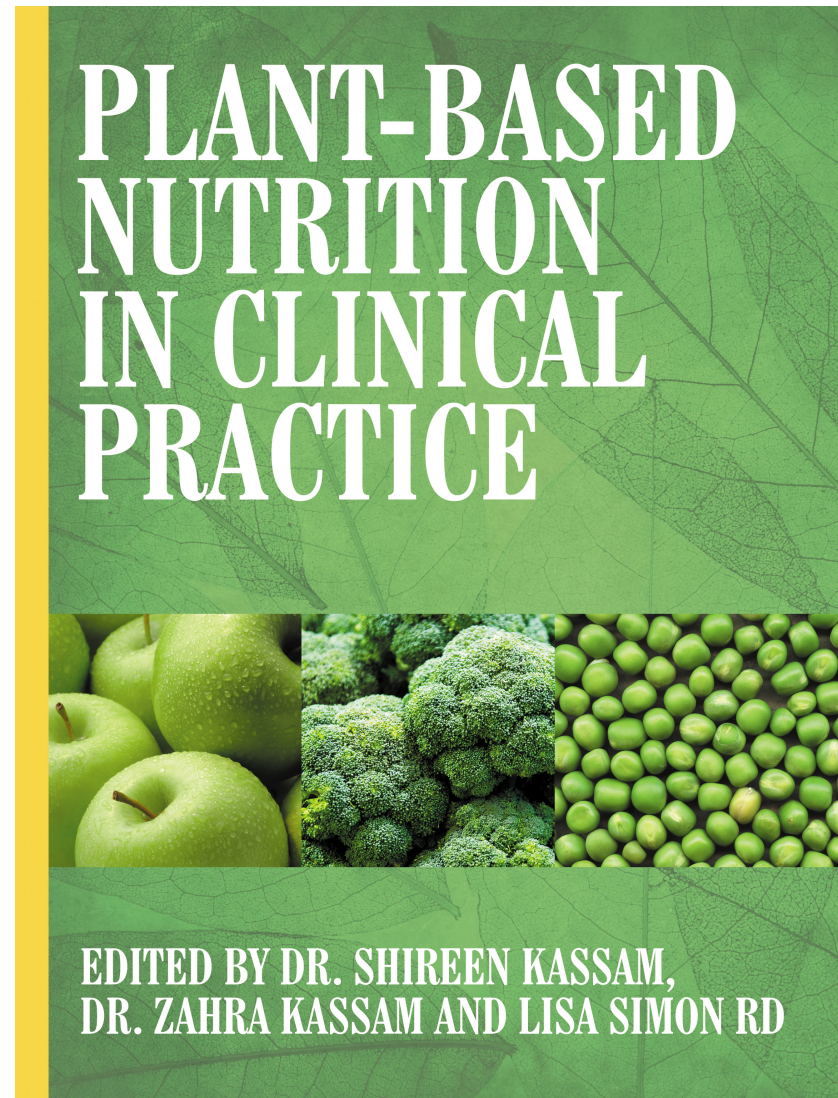
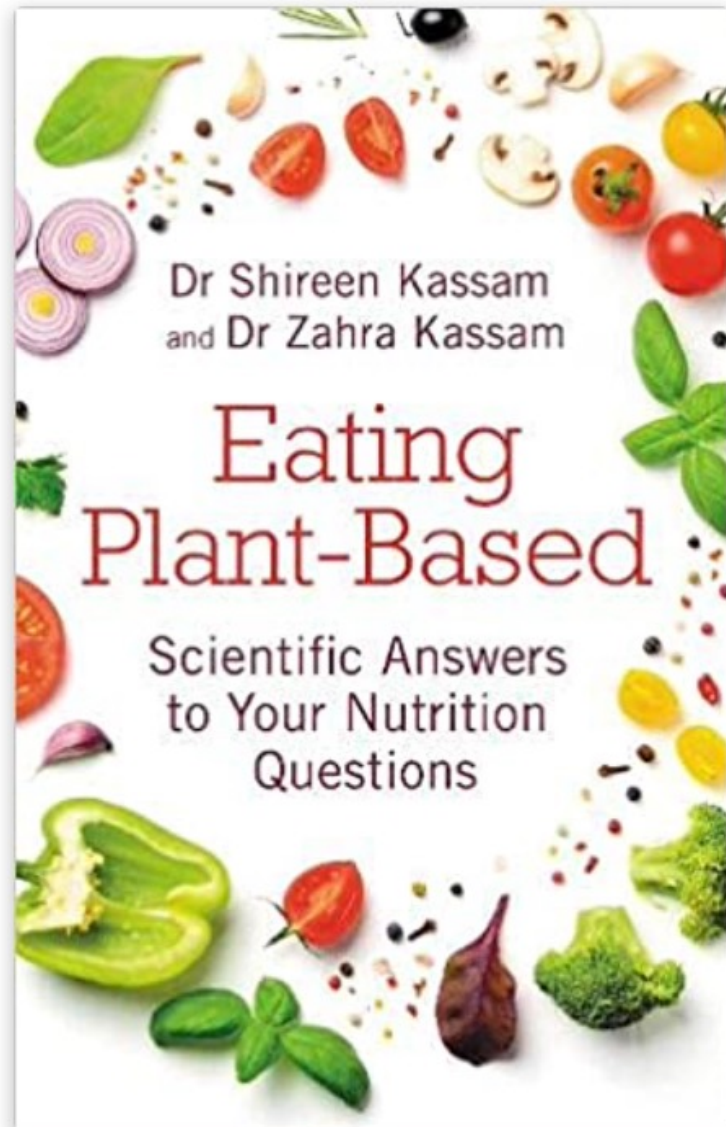


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