EPIC-Oxford Newsletter 2025



Happy New Year 2025 from all of us here at the EPIC-Oxford Study, and many thanks to all of the participants who have made the study possible.

EPIC-Oxford has now been running

for more than 30 years. This year we will be working to expand the study, which is of increasing importance due to wide and growing interest in the health and environmental impacts of plant-based diets.

May 2024: work began on the new phase of EPIC-Oxford

We successfully secured five-year funding from the UK's <u>Medical Research Council (MRC)</u> to resurvey all surviving participants, and to recruit 80,000 new participants. Our aims are to increase the number of participants following plant-based diets (i.e. vegan, or low intakes of any animal products), and to further enhance the diversity of the population. We will also collect blood samples from a further 5,000 participants selected by diet group, age, gender and ethnicity.



This new phase will result in a cohort of 145,000 people, which will be the world's most informative resource for studying the impacts of plant-based diets. We aim to make the resource widely accessible to

researchers through a partnership with the <u>UK Longitudinal Linkage Collaboration (UK LLC)</u>, the national Trusted Research Environment for longitudinal research. The research made possible using this resource will provide robust contemporary evidence on the long-term benefits and risks of plant-based diets, and on whether any identified risks can be mitigated.

Scientific advancement - recent and ongoing

As well as work using EPIC-Oxford, the EPIC Europe network continues its collaborative research including developing plans to expand research on inherited risk factors for cancer and other common diseases, including collaboration with a biotechnology company. EPIC-Oxford has continued to provide important evidence on the relationships of diet and other factors with long-term health, with our main focus on the health of vegetarians and vegans as well as collaborative work in the EPIC study across Europe on risk factors for cancer and other chronic diseases. In the last year these data have been included in analyses leading to more than 20 scientific publications. Below we summarise the findings from a few of these.

Blood measures and risk of prostate cancer

Continuing our programme of research on prostate cancer using the data from EPIC-Oxford together with the whole EPIC-Europe consortium, we compared blood measurements using a method called "metabolomics" to

assay 150 biological factors including amino acids, fats and other factors in the blood of 4,400 men who were subsequently diagnosed with prostate cancer, and a matched set of men who remained cancer free. We found that certain patterns of metabolites in the blood were altered within several years of prostate cancer diagnosis, but it appears that these alterations are largely caused by the developing tumour rather than being factors which themselves may increase the risk of cancer developing.

Grenville et al. Int J Cancer. 2025 Mar 1;156(5):943-952.



Establishment of the Cancer Risk in Vegetarians Consortium, and first report on dietary and lifestyle characteristics of the participants.

The associations of vegetarian diets with risks for sitespecific cancers have not been estimated reliably due to the low number of vegetarians in previous individual studies. To address this, we established the Cancer Risk in Vegetarians Consortium, which includes the data from EPIC-Oxford and the previous Oxford Vegetarian Study together with data from nine other relevant studies in the UK, North America, South Asia and East Asia. 2.3 million participants were included, with 2.1 million meat eaters, 60,903 poultry eaters, 44,780 pescatarians, 81,165 vegetarians, and 14,167 vegans. Food intake differences between the diet groups varied across the cohorts; for example, fruit and vegetable intakes were generally higher in vegetarians than in meat eaters, and adiposity was generally lower in vegetarians, particularly vegans, except for the cohorts in India. In general, but with some exceptions, vegetarians were also more likely to be highly educated and physically active and less likely to smoke. We are currently working on these data to examine the associations of vegetarian and vegan diets with cancer risk.

Dunneram et al. BMC Public Health. 2024 Aug 2;24(1):2095.



Nutritional quality of diet characterized by the Nutri-Score profiling system and cardiovascular disease risk: a prospective study in 7 European

countries

"Nutri-Score" is a 5-colour front-of-pack nutrition label reflecting the nutrient profile of foods, developed in France based on the UK Food Standards Agency's Nutrient Profiling System. The score is assigned for each food based on the content of energy, sugars, saturated fatty acids, salt, fibre, and protein, and the percentage content of fruit, vegetables, and pulses. We used the EPIC-Europe dataset to examine whether people reporting diets with a better Nutri-Score enjoy better health, and confirmed that those with better scores had a lower risk of cardiovascular disease.

Deschasaux-Tanguy et al. Lancet Reg Health Eur. 2024 Sep 10:46:101006.

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Association of circulating fatty acids with cardiovascular disease risk: Analysis of individual-level data in three large prospective cohorts and updated meta-analysis.

The details of the associations of saturated and unsaturated fatty acids (FAs) with cardiovascular disease (CVD) remain under investigation. We used data from EPIC-Europe, together with data from UK Biobank and another UK study, to examine risk for cardiovascular disease in relation to blood levels of a wide range of fatty acids. The results confirmed that the major types of saturated fatty acids were strongly associated with disease risk.

Shi F. Eur J Prev Cardiol. 2024 Oct 4:zwae315.

Assessing **Performance** Contemporary **Plant-Based** Diets against the UK Dietary Guidelines: Findings from the Feeding the Future (FEED) Study.

Using data from FEED, we compared mean daily nutrient intakes between diet groups and assessed compliance with recommended dietary guidelines. All participants met the UK dietary recommendations for fruit and vegetables, sodium, and protein, although protein intakes were lowest among vegetarians and vegans. Omnivores did not meet the fibre recommendation and only vegans met the saturated fat recommendation. All diet groups exceeded the free sugars recommendation. Higher proportions of vegetarians and vegans were below the estimated average requirements for zinc, iodine, selenium, and, in vegans, vitamins A and B12, whereas calcium intakes were similar across the diet groups. People following plant-based diets showed good compliance with most dietary targets, and their risk for inadequate intakes of certain nutrients might be mitigated by improved dietary choices and/or food fortification.

Lawson I et al. Nutrients. 2024 Apr 29;16(9):1336.

The EPIC-Oxford Participant Panel

Recruiting again now! Be part of the EPIC-Oxford Participant Panel. We established a participant panel for the EPIC-Oxford study in 2019, consisting of a group of existing study participants who meet with the EPIC team about once a year via video conference. It is important for us to have a participant panel to discuss and take advice on issues such as areas for research, providing adequate information about the study, disseminating research findings and writing lay summaries, and providing feedback on the use of health data. The most recent online meeting of the Panel was held in November 2023. We discussed the new MRC grant, the Cancer Risk in Vegetarians Consortium, the new FEED study, and sought the advice of the participants on future projects including on diet, genetics and proteins, and planned future linkage of EPIC-Oxford with the UK LLC.

New research grant participant panels

We are recruiting for two specific research grant participant panels, where the participant panel members and research team will work together to refine the research aims and dissemination plans. The prostate cancer programme grant participant panel will feedback on our research plans to understand molecular and genetic risk factors of prostate cancer, while the participant panel for a World Cancer Research Fund project will feedback on our research to understand how diet may affect cancer risk via blood proteins. Please email us to express your interest and for more details.

Public engagement

Our team has contributed to policy discussions on diet and health. We reviewed a POSTnote (Parliamentary Office of Science and Technology (POST)) which summarised the evidence and current policies on food, diet, nutrition and cancer. Also, members of our team provided oral and written evidence for the UK House of Lords Food, Diet and Obesity Committee. Our researchers also attended the Lifelong Aging Fair in Brixton and shared our research with local communities. We have also sought opportunities to discuss research priorities with patient groups. We took part in discussions with local prostate cancer survivor groups on research priority setting for the advancement of prostate cancer prevention research. Tammy Tong and Keren Papier partook in a panel discussion alongside the director Tom Pickering following the Oxford Population Health Festival of Global Health film screening of 'I could never go vegan.'

Thank you

We would like to thank all of the EPIC-Oxford participants for your continued support. If you wish to contact us our details can be found below. Our website is regularly updated with news and new publications, and we value the support of our participants to be able to continue this important research.

Our Team

The Principal Investigator of EPIC-Oxford is Professor Tim Key and the Co-Investigator is Professor Ruth Travis. The study is co-ordinated by the Steering Committee, comprising Professors Tim Key and Ruth Travis, Dr Tammy Tong and Dr Keren Papier.

Please be reminded that participants in EPIC-Oxford are free to withdraw from the study at any time. Full details of how to do this, as well as details of how we use your data, are given on our website at https://www.ceu.ox.ac.uk/research/epicoxford-1/for-participants/frequently-asked-questions-1 or if you don't have access to the website you can contact us by e-mail or telephone. Our privacy policy can also be viewed https://www.ceu.ox.ac.uk/research/epic-oxford-1/forparticipants/data-protection.

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