

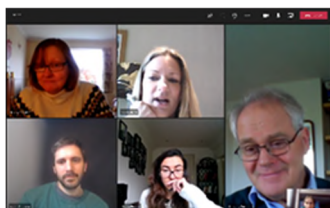
EPIC–Oxford Newsletter 2020



Season's Greetings!

From all of us at EPIC-Oxford, we wish you a very Merry Christmas and a Happy New Year!

Despite the challenges that coronavirus has given us all this year, the team here at EPIC-Oxford has been able to adapt to different ways of working. On our computers at home and over Zoom calls, we are continuing our important research into the relationships of diet and other factors with long-term health.



As previously, our main focus has been work in EPIC-Oxford on diet and the health of vegetarians and vegans, and work in the EPIC study across Europe on risk factors for cancer, especially prostate cancer in men. We thank all the participants in EPIC-Oxford and the funding agencies for their continued support. In the last year, the data you have contributed to EPIC-Oxford (www.epic-oxford.org) have been included in analyses leading to more than 50 scientific publications. Below we summarize the findings from a few of these:



Diet and risk of bone fractures

Healthy bones need an adequate supply of nutrients, particularly calcium and vitamin D, but the impact of various vegetarian dietary patterns on the risk of fractures has not been clear. Ten years ago we looked at this in EPIC-Oxford and found that vegans had a modest increase in risk of total self-reported fractures, but that this appeared to be largely due to low average intakes of calcium, and that those vegans who consumed sufficient calcium did not have an increase in risk. This year we revisited this topic, with much longer follow-up and objective data on many more fractures obtained by linking to NHS hospital records. We again found an increased risk of fractures in vegans, particularly for fractures of the hip, and this increased risk appeared to be partly but not completely explained by low intakes of calcium in some vegans. The higher risk in vegans also appeared to affect those with the lowest body mass index - i.e. the thinnest people. More research is needed to look at other possible contributing factors, but these findings underline the need for everyone to ensure that they obtain enough nutrients such as calcium and vitamin D, as well as the importance of

maintaining a “healthy weight” – neither under- nor overweight.

BMC Med. 2020 Nov 23;18(1):353.

<https://pubmed.ncbi.nlm.nih.gov/33222682/>



Diet and risk of ischaemic heart disease and stroke in the EPIC-Europe study

EPIC-Oxford is part of the larger EPIC-Europe collaboration involving ten countries across Europe, co-ordinated by the World Health Organization's International Agency for Research on Cancer in Lyon, France. This year scientists who are part of the team in Oxford have published results from work they have led analysing the relationships of dietary factors with risks of both ischaemic heart disease (heart attack) and stroke. EPIC-Europe is one of the largest studies on this topic in the world, with data on 400k people, including 8,500 who suffered a heart attack and nearly 6,000 who suffered a stroke. For ischaemic heart disease, moderately lower risks were seen for people who consumed the most fruits and vegetables, nuts and dietary fibre, whereas there were no clear associations with consumption of other plant foods such as cereals and legumes; further analyses also showed a higher risk of heart attacks in people who consumed the highest amounts of red and processed meat. Broadly similar results were seen for ischaemic stroke, the predominant form of this disease.

Int J Epidemiol. 2020 Nov 27;dya155.

<https://pubmed.ncbi.nlm.nih.gov/33245137/>

Circulation. 2019 Jun 18;139(25):2835-2845.

<https://pubmed.ncbi.nlm.nih.gov/31006335/>

Eur Heart J. 2020 Jul 21;41(28):2632-2640.

<https://pubmed.ncbi.nlm.nih.gov/32090257/>



Diet, nutrition, and cancer risk

In an invited review article, members of the EPIC-Oxford team together with other international experts assessed our current understanding of the relationship of diet with risk of cancer. Much of the evidence considered comes from the research published over the last 25 years from the EPIC collaboration, as well as similar large population-based studies from around the world. The evidence shows clearly that obesity and alcohol increase the risk of several types of cancer, and these are the most important nutritional factors contributing to the total burden of cancer worldwide. For colorectal cancer, processed meat increases risk and red meat probably increases risk; dietary fibre, dairy products, and calcium probably reduce risk. Fruits and vegetables are not clearly linked to cancer risk, although very low intakes might increase the risk for aerodigestive and

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some other cancers. Other nutritional factors might contribute to the risk of cancer, but the evidence is currently not strong enough to be sure.

BMJ. 2020 Mar 5;368:m511.

<https://pubmed.ncbi.nlm.nih.gov/32139373/>



Health impacts and environmental footprints of diets that meet the UK Eatwell Guide recommendations

Part of the research in EPIC-Oxford is supported by the LEAP project – Livestock, Environment and People, which is funded by the Wellcome Trust and aims to rigorously assess the impacts on human health, the environment and the health of the planet of consumption of meat and dairy products. As part of this work we collaborated with scientists at the London School of Hygiene and Tropical Medicine, and used data from EPIC-Oxford together with data from UK Biobank and the Million Women Study to evaluate the health impacts and environmental consequences of adherence to UK national dietary recommendations - the “Eatwell Guide”. We found that higher adherence to the Eatwell Guide was associated with 30% lower diet-related greenhouse gas emissions and a 7% lower risk of overall age-adjusted mortality; the largest reduction in environmental footprints was seen in people adhering to the Eatwell recommendation on lower consumption of red and processed meat.

BMJ Open. 2020 Aug 26;10(8):e037554.

<https://pubmed.ncbi.nlm.nih.gov/32847945/>



Public engagement in 2020

To find out more about what people knew and found surprising about processed meat, two of our Nutritional Epidemiologists designed a COVID-safe public engagement activity called ‘Don’t Go Bacon my Heart’. The online quiz ran for one month in May and reached over 300 people from around the world, and found that responders did have a good general understanding of processed meat, but that we can improve how we communicate research on processed meat by considering contexts such as the preparation of different meats in different cultures.

We also worked together with journalists at the New Scientist to assess the effects of their short-term vegan diet experiments this year on environment and nutrition. We found that, on average, people changing rapidly to a vegan diet consumed less energy, saturated fat and protein, and more carbohydrates and fibre. We also found that greenhouse gas emissions attributable to their foods dropped by more than 50%.

Recruiting again now! Be part of the EPIC-Oxford Participant Panel.

We established a participant panel for the EPIC-Oxford study last year, consisting of a group of existing study participants who met with the EPIC team via video conference in September 2019. 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. We would like to expand the number of volunteers on this panel so if you would like to volunteer or wish to know more about the panel, please email us at queries@epic-oxford.org for further information.

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 Associate Professor Ruth Travis. We also have six Nutritional Epidemiologists, a Statistician, two Research Co-ordinators and a Research Admin Assistant.

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 <http://www.epic-oxford.org/faq/> 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 at <http://www.epic-oxford.org/privacy-notice/>

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