Thousands of lives could be saved if rest of UK adopted average diet in England

November 3 2011

Around 4,000 deaths could be prevented every year if the UK population adopted the average diet eaten in England, concludes research published in *BMJ Open*.

Death rates for cardiovascular disease and cancer are higher in Scotland, Wales, and Northern Ireland than they are in England, and it is well known that these diseases are associated with a poor diet that is high in saturated fats and salt and low in fibre, fruits and vegetables.

The researchers therefore looked at mortality data for coronary heart disease, stroke, and 10 cancers associated with diet, including those of the gullet, bowel, and stomach, in all four UK countries for the years 2007 to 2009 inclusive.

And they estimated average intake of 10 dietary components, including energy intake, in each of the four countries, drawn from national representative data from the Family Food Survey for the same period.

These data showed that people in Scotland and Northern Ireland consistently ate more saturated fat and salt and fewer fruits and vegetables every day than their English cousins, while the differences between Wales and England were less consistent over the three years.

The authors then calculated what differences in death rates could be expected from population changes in average dietary quality, using the DIETRON model - a conceptual mathematical model that calculates the

impact of food consumption on health outcomes.

Between 2007 and 2009, just under 22,000 more people died in Wales, Scotland, and Northern Ireland from cardiovascular disease and diet related cancers than would be expected if mortality rates were as low as in England, with most of the difference (mortality gap) accounted for by deaths in Scotland.

The application of the DIETRON model showed that more than 6,000 deaths over the three years could have been prevented or delayed in Scotland - equivalent to 40% of the mortality gap between England and Scotland - if the population had eaten the average diet in England.

The reduction in the mortality gap was even greater for Wales and Northern Ireland, at 81%. This suggests that other non-dietary risk factors contribute to the mortality gap in Scotland.

Deaths from coronary heart disease accounted for the largest proportion of the mortality gap for all three countries.

In all, more than 11,000 deaths could have been prevented or delayed - around half of the excess deaths from cardiovascular disease and diet related cancers - the calculations showed. Differences in total energy intake and fruit and vegetable consumption accounted for most of the variation in death rates.

The authors acknowledge that diet alone cannot close the mortality gap completely, and that the impact of other behavioural risk factors, such as smoking, alcohol, and lack of exercise, also need to be taken into account.

But they conclude: "Diet has a substantial impact on geographical variations in mortality from coronary heart disease, stroke and various

cancers within the UK."

And they suggest that "fat taxes" which have been mooted as a way of nudging people into healthier behaviours, might only work if they are paired with subsidies for fruit and vegetables.

Provided by British Medical Journal