Media Release

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Global obesity study used to standardise future health programs

A five-year global study into the relationship between Body-Mass Index (BMI) and mortality has shown people classed as overweight or obese have higher mortality rates.

The Global BMI Mortality Collaboration was established to provide a standardised comparison of associations of BMI with mortality across different populations.

It is the first time a study of this nature has been carried out across four continents, with the research covering 4 million people in 32 countries, mainly located in Australia/New Zealand, East Asia, Europe and North America.

The World Health Organization (WHO) estimates that more than 1.3 billion adults worldwide are overweight and a further 600 million are obese.

Professor Rachel Huxley, Curtin University Faculty of Health Sciences, said the research was important as it made variations across major global regions clearer.

“The worldwide prevalence of obesity is high and increasing,” Professor Huxley said.

“Partly because the prevalence of obesity differs by region, for all-cause mortality there was wide variation across regions with North America at the top, followed by Europe, Australia/New Zealand and East Asia.

“These findings suggest that if the entire population had ideal levels of BMI this would avoid about 1 in 5 premature deaths in North America, 1 in 7 in Europe, 1 in 10 in Australia/New Zealand, and 1 in 20 in East Asia, assuming that the associations of overweight and obesity with mortality in our primary analyses largely reflect causal effects.”

As BMI is increasing in many populations the study suggests the pattern of high mortality from adiposity in North America may become typical elsewhere unless the increase in overweight and obesity can be halted.

In addition, the results showed a substantially higher mortality rate not only among those in WHO’s underweight category, but also in those with BMI of 18.5 - 20 kg/m2, suggesting that in excessively lean populations being underweight remains a cause for concern.

“Most previous analyses have focused on people living in one particular country or continent, even though relationships of overweight and underweight might differ from one population to another,” Professor Huxley said.

“We showed that wherever overweight and obesity are common the relationship with all-cause mortality is positive and broadly similar, supporting strategies to combat the entire spectrum of excessive adiposity worldwide.”

Analysis was restricted to people who had never-smoked and those without certain pre-existing chronic diseases.

Body-mass index and all-cause mortality: Individual-participant-data meta-analysis of 239 prospective studies in four continents was published in The Lancet and is available here.

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Notes to the Editor:

Approximate population-attributable fraction due to overweight and obesity:

North America	18 per cent
Europe	15 per cent
Australia/New Zealand	10 per cent
East Asia	5 per cent

Contact:

Cheyenne Martin, Acting Media Consultant, Media Relations, Curtin University
Tel: (08) 9266 3357 Mobile: 0401 103 877 Email: cheyenne.martin@curtin.edu.au
Web: http://news.curtin.edu.au/media-centre/ Twitter: @CurtinMedia

Susanna Wolz, Acting Media Relations Manager, Curtin University
Tel: (08) 9266 9085 Mobile: 0478 310 708 Email: susanna.wolz@curtin.edu.au
Web: http://news.curtin.edu.au/media-centre/ Twitter: @CurtinMedia