

## 2<sup>nd</sup> International Conference on **Alzheimer's Disease and Dementia** September 23-25, 2014 Valencia Convention Centre, Spain

### Body mass index and risk of future dementia over two decades in two million people

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**D**ementia and obesity are huge public health issues and it has been proposed that obesity in middle age may lead to dementia in old age. A cohort derived from an electronic health care database in the United Kingdom Clinical Practice Research Datalink (CPRD) included subjects aged 40 years or older with at least one body mass index (BMI) recording between 1992 and 2007. Follow-up was from first eligible BMI reading until censoring at earliest of: practice's last data collection date, patient death/transfer out of practice or first record of dementia. Subjects with a record of dementia (defined by Read medical codes) prior to the first eligible BMI reading were excluded. Incidence rates were calculated for each BMI category using Poisson Regression. A study population of 1,958,415 subjects was available with a mean duration of follow-up of 10 years. Dementia was recorded in 45,609 subjects with a crude rate of 2.4 per 1,000 person years. The rates per 1,000 person years, age and sex standardised to reflect predicted rates of dementia in a 75 year old male were: 13.9 for underweight, 9.8 for normal weight, 7.7 for overweight, 6.8 for obese class I, 6.2 for obese class II and 5.6 for obese class III. The association persisted throughout the 22 year period of follow-up. This preliminary analysis refutes the hypothesis that obesity in middle age increases the risk of dementia in old age. Further investigation to understand this trend is underway.

#### Biography

Qizilbash Nawab was Director of Epidemiology and Evidence-based Medicine, GSK (1997-2005). He was trained under and worked with Professor Sir Richard Peto F.R.S., and was founding editor of the Cochrane Dementia Group. He is also trained in general internal medicine and geriatrics under Professor Sir John Grimley Evans and was Honorary Consultant Physician at the Radcliffe Infirmary, Oxford (1997-2000), and St's Mary's Hospital, London (2005-2006). He was the originator of the Prospective Studies Collaboration: individual participant data meta-analysis of 61 of the largest prospective cohort studies from 4 continents.

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