**Abstract**

**Introduction:** The burden of nutritional disorders is increasing despite advances in scientific research and health promotion. Nutritional disorders include excess body mass conditions especially obesity (body mass index [BMI] > 30 kg/m²) and being overweight (BMI > 25 and < 30 kg/m²). These conditions are now considered as precursors to several diseases including diabetes, heart disease, musculoskeletal disorders as well as psychiatric illnesses. We studied the global burden of obesity to assess temporal trends and regional variations of this highly prevalent nutritional disorder.

**Methods:** We used the Global Burden of Disease database from the Institute of Health Metrics (www.healthdata.org) at the University of Washington, Seattle. This database collates data from a very large number of studies and census figures to generate regional estimates for health statistics. We analyzed the data from 1990 to 2015 using global averages for years lived with disability (YLD). The primary risk factor analyzed was 'High body-mass index'. The effect of high BMI on all causes of health reduction (including diabetes) were studied for temporal (1990 to 2015) and regional/national patterns.

**Results:** The global burden of diseases due to high BMI is rising continuously, from 213 YLDs per 100,000 in 1990 to 388 YLDs in 2015. A high burden of YLDs was seen in developed regions including North America and Australasia, Northern Europe and Middle East were also disproportionately affected. Areas with low rates of YLDs from obesity included sub-Saharan Africa, south Asia and south east Asia. Marked increases in the rates per 100,000 populations were seen over 1990 to 2015 in countries such as Fiji, USA, Egypt and Ukraine. The burden of suffering is higher among women than men.

**Conclusion:** The global burden of suffering due to illnesses caused by high body mass index is continuing to rise. Existing public health measures appear to be ineffective and more efficacious nutritional education and health promotion strategies are urgently needed. Conflicts of interest disclosure: no external or commercial funding source, and no holding of significant equity in a company relevant to the study.