

Obesity in Elderly and Life Expectancy in India

Giridhara R Babu ^{1§}

¹MBBS, MPH (Epidemiology), MBA, PGMLE, PhD candidate, Department of Epidemiology, School of Public Health, University of California, Los Angeles, CA 90024. [§]Assistant Professor, Public Health Foundation of India, Indian Institute of Public Health – Hyderabad, Plot no # 1, ANV Arcade, Amar Co-op Society, Kavuri Hills, Madhapur, Hyderabad 500081.

Life expectancy of Indians during the past fifty years has been steadily increasing exponentially matching the trend that took several hundred years shown in Developed countries.^{1,2,3} Some of the possible reasons for such exponential rises gained by Indians in years are controlling deaths caused by epidemics and pandemic infectious diseases, and absence of famines or wars since India's independence. The high death rates due to infectious diseases were dramatically curtailed due to availability of antibiotics and further with introduction of Universal Immunization program. This was followed by improved living conditions, advances in public health, and availability of advanced medical interventions.

Results from estimates of World Bank indicate that India has share of her good and bad news. The good news so far has been that Life expectancy is increasing until now and bad news is whether such rate of increase can be maintained over next few decades. Currently India has excellent health service delivery mechanisms, which are efficient in extending the lives of her people by treating

chronic conditions and cancer. However, the question is whether such “improvements” in technology are addressed only to cure ailing population or can India address preventive programs aimed at decreasing the burden of obesity and chronic conditions.

Hence, the next big threat to Life Expectancy improvements appears to be stemming from obesity and chronic diseases in middle and old age, which are directly linked to an increased risk for death and morbidity. Attempts to predict life expectancy of Indian population, in terms of whether it is improving or getting worse becomes even more intricate in the absence of scientific data available for such evaluations.^{5,6}

The controversy around definition of obesity has been discussed in detail in literature.^{7,11} This is because BMI gets altered in old age due to age-dependent changes in numerator and denominator in calculation.^{8,9} Evidence from studies indicates that obesity and overweight in adulthood are associated with large decreases in life expectancy and increases in early mortality.^{10,11,12,13}

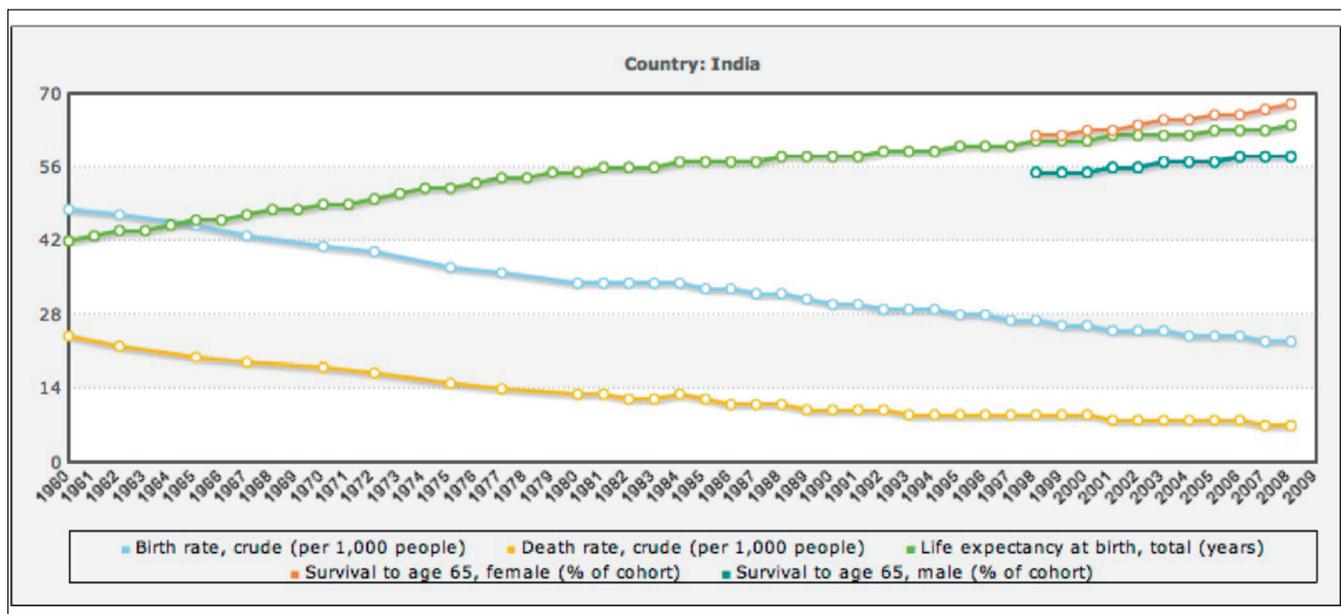


Figure.1: Improvements in Life Expectancy-India (1960-2009)

Source: The World Bank Group⁴

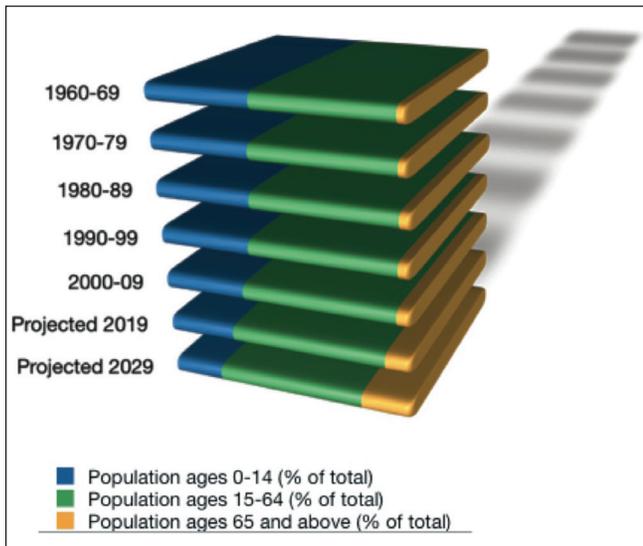


Figure 2: Observed and Projected composition of age-groups for Indians (1960 to 2010).

There is increasing evidence that obesity can result in early mortality and disability.^{14,15} However, there are many challenges to delineate the association between obesity and old age with other variables on mortality in the elderly. Since confounding effects by different variables in this association accumulate over the lifetime, it is difficult to accurately measure and account for these factors.¹⁶

Further, the health risks of obesity in the elderly are mostly underestimated due to survivor bias seen in the elderly people (only those who have survived fatal effects of obesity and chronic diseases), inability to separate competing mortalities due to relatively shortened life expectancy in older persons and effects by other covariates such as smoking.^{17,18}

In summary, India is surpassing through dual burden of diseases and consequences of obesity might take a greater toll. Hence policy makers should focus on promoting prevention and treatment of obesity related conditions. Based on priorities in public health expenditure, the country can effectively implement population-level interventions to reduce obesity. Health care providers should engage in complete evaluation of co morbidity and weight history, in the elderly obese persons to comprehensively address potential adverse health effects of obesity. The steady rise in life expectancy observed in the modern era may

soon come to an end and the youth of today may, on average, live less healthy and possibly even have shorter lives than their parents.

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