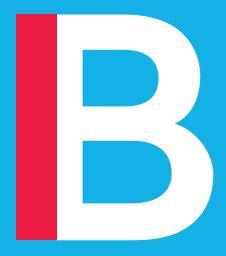
Imperial College Business School

The Economic Impact of Disease in G20 Countries

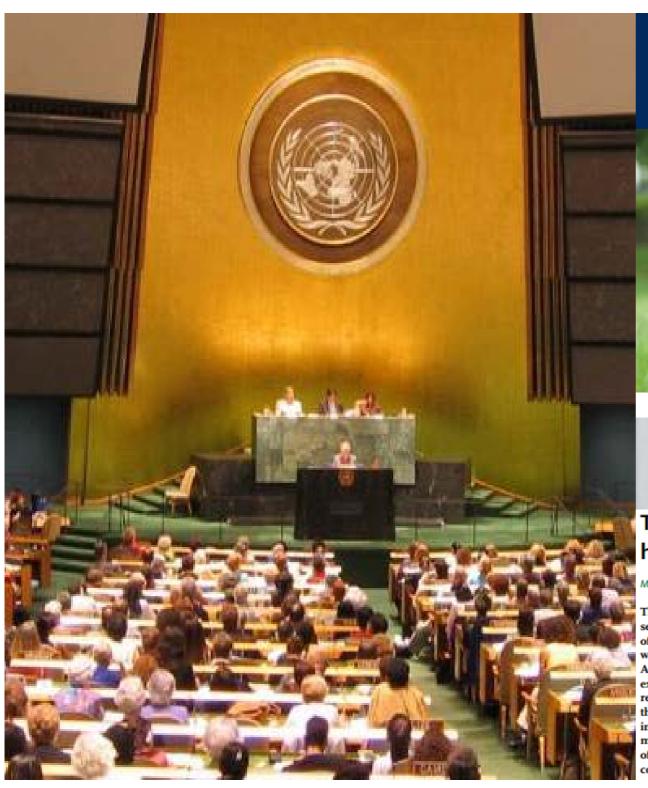
Franco Sassi PhD

Professor of International Health Policy and Economics, Imperial College Business School





Making an Economic Case for Tackling Disease



The Global Economic Burden of Non-communicable Diseases



THE LANCET

Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness

Michele Cecchini, Franco Sassi, Jeremy A Lauer, Yong Y Lee, Veronica Guajardo-Barron, Daniel Chisholm

The obesity epidemic is spreading to low-income and middle-income countries as a result of new dietary habits and sedentary ways of life, fuelling chronic diseases and premature mortality. In this report we present an assessment

sedentary ways of life, fuelling chronic diseases and prema of public health strategies designed to tackle behavioura with obesity, including aspects of diet and physical inac Africa. England was included for comparative purpose expected to generate substantial health gains while er reductions of health-care expenditures. These strategies is that improve population awareness about the benefits of increase the price of unhealthy food content or reduce measures that improve nutritional information or restrict of measures for the prevention of chronic diseases woul cost-effectiveness profile.



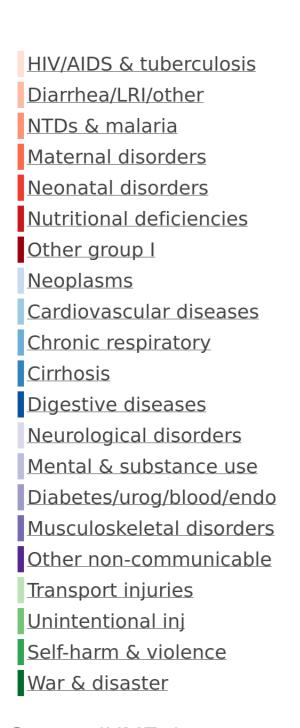
Disease Burden from CDs and NCDs in G20 Countries

150M -

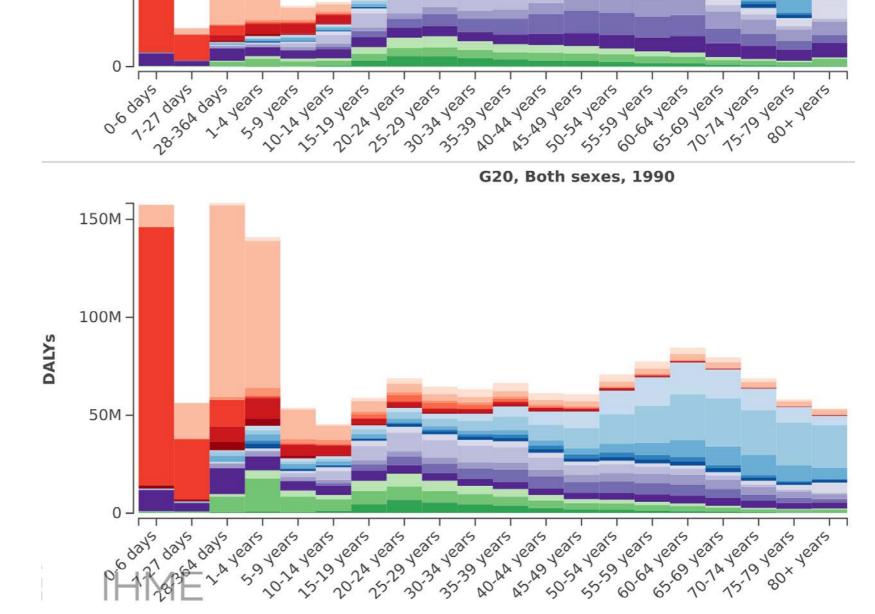
100M

50M

DALYS







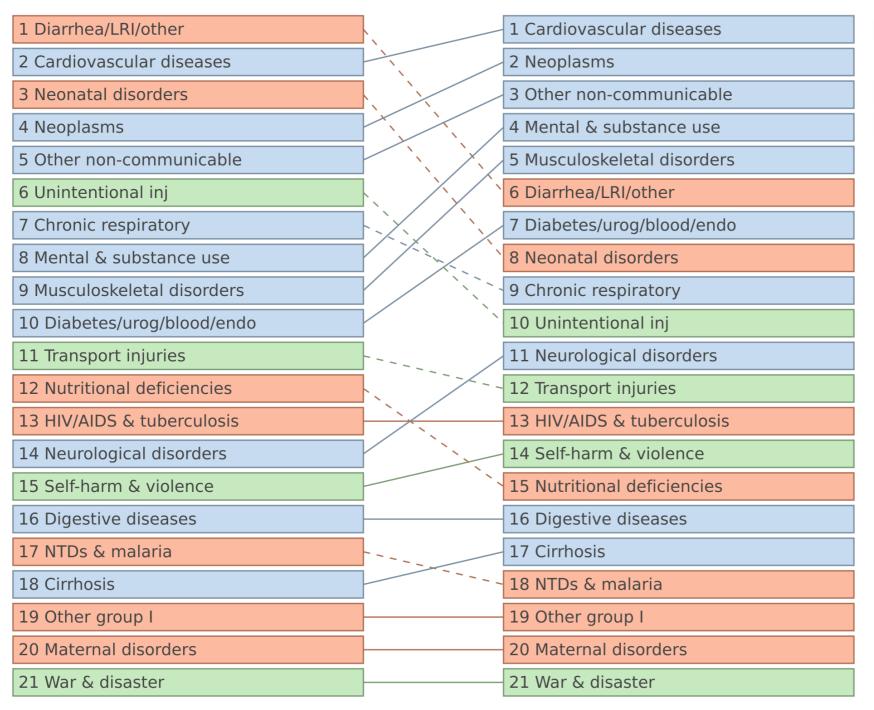
G20, Both sexes, 2015





Top Causes of Disease Burden in G20 Countries – 1990 and 2015

G20
Both sexes, All ages, DALYs per 100,000
1990 rank
2015 rank



Communicable, maternal, neonatal, and nutritional diseases

Non-communicable diseases
Injuries

Source: IHME data



Years Lived with Disability in G20 Countries

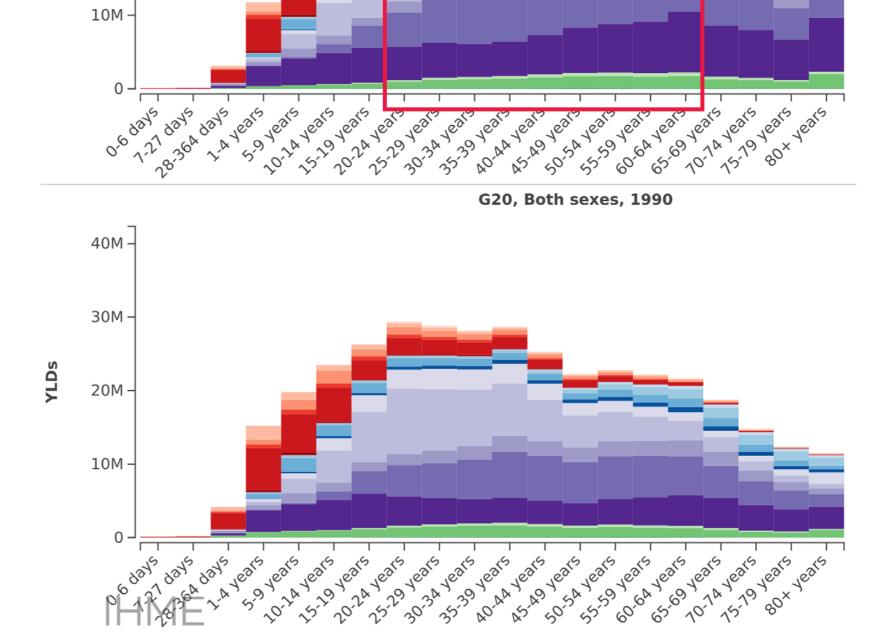
40M -

30M -

20M







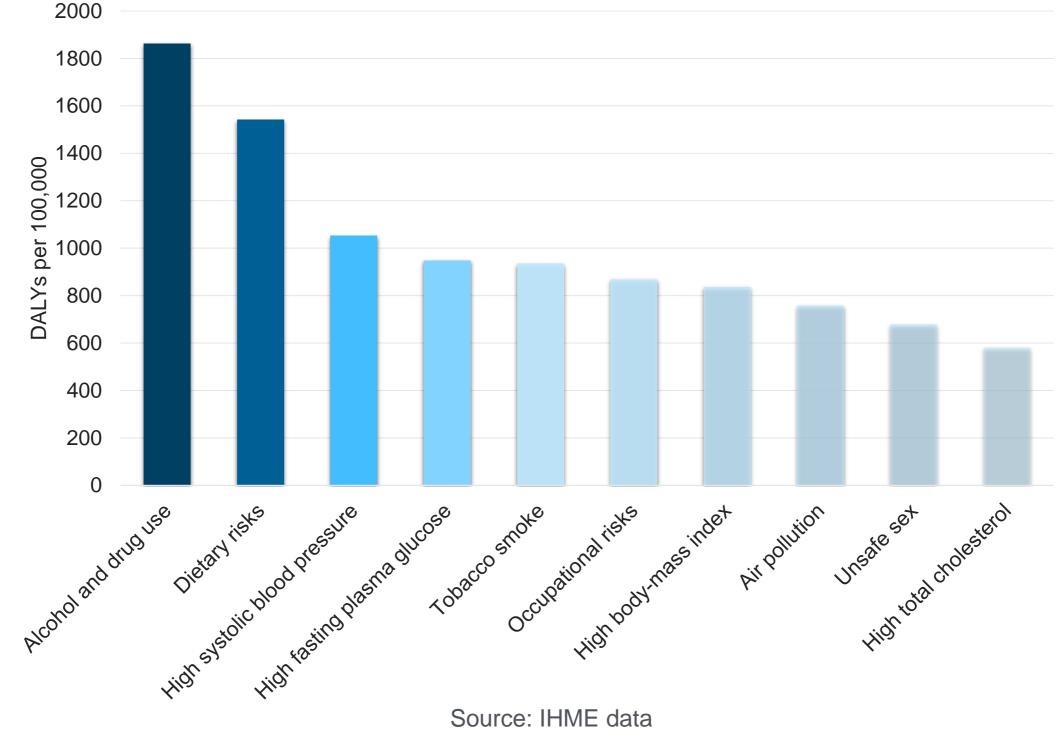
G20, Both sexes, 2015

340M YLDs





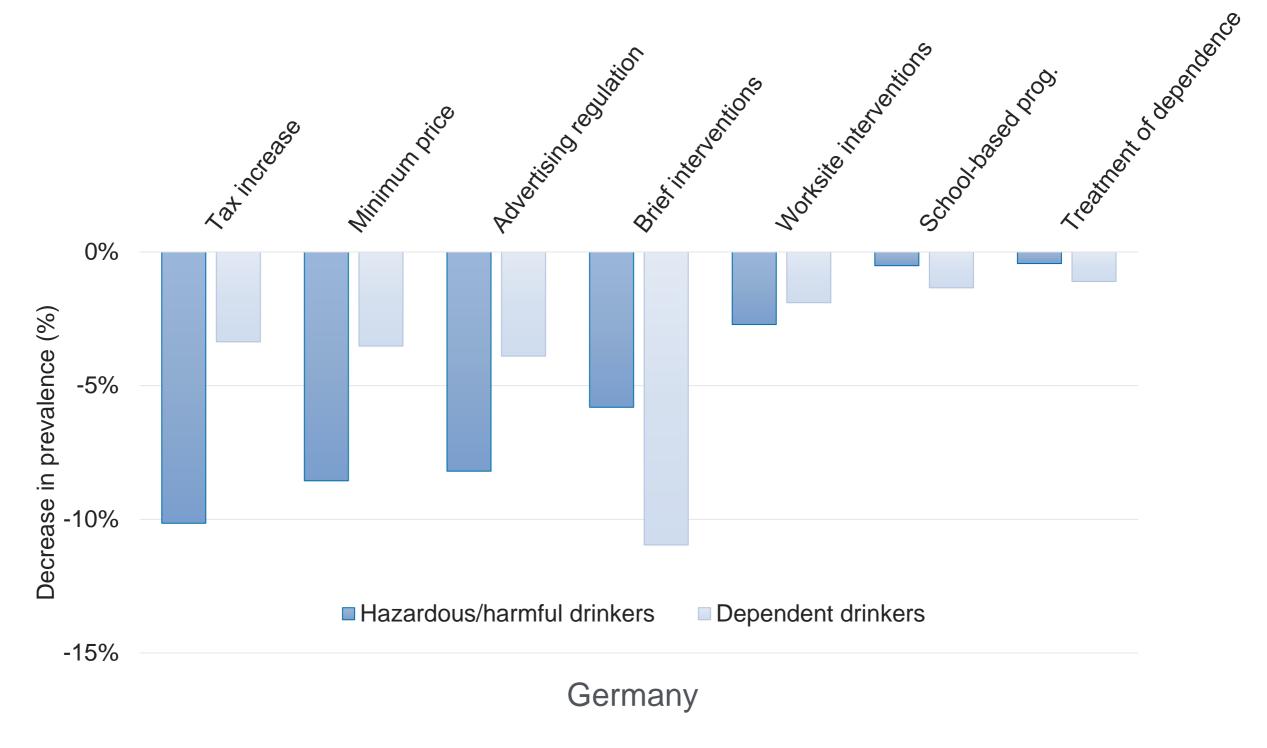
Top Risks for Disease Burden in Young Adults, G20 Countries







Harmful Alcohol Use Can Be Reduced



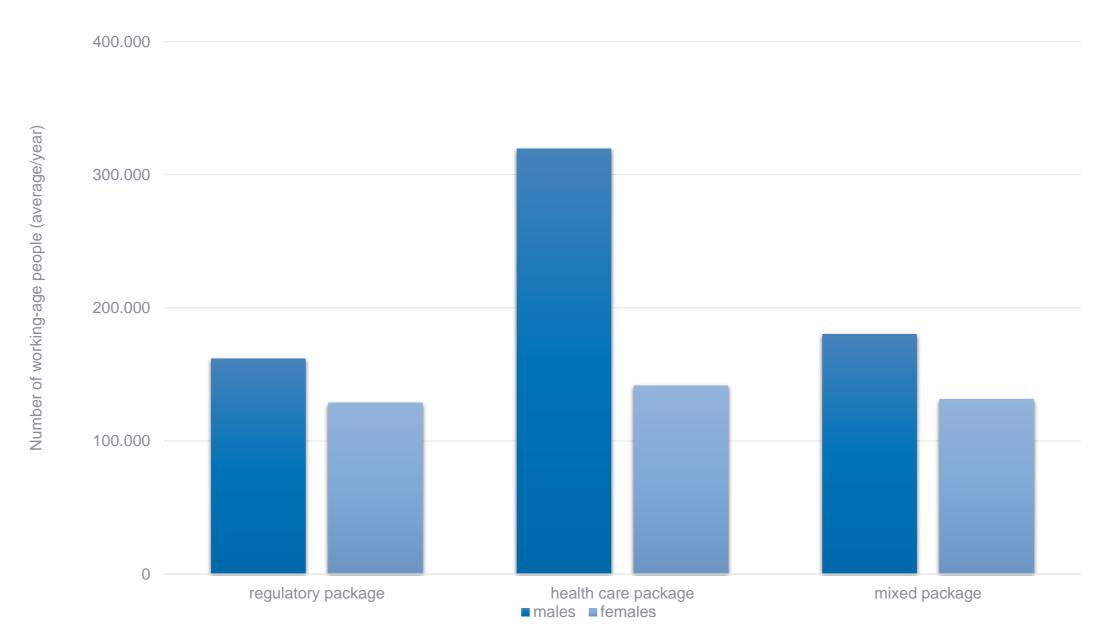
Source: Sassi (Ed.), Tackling Harmful Alcohol Use, 2015





A Healthier Workforce by Preventing Harmful Alcohol Use

Number of working-age people who will not develop alcohol-related diseases (Germany)



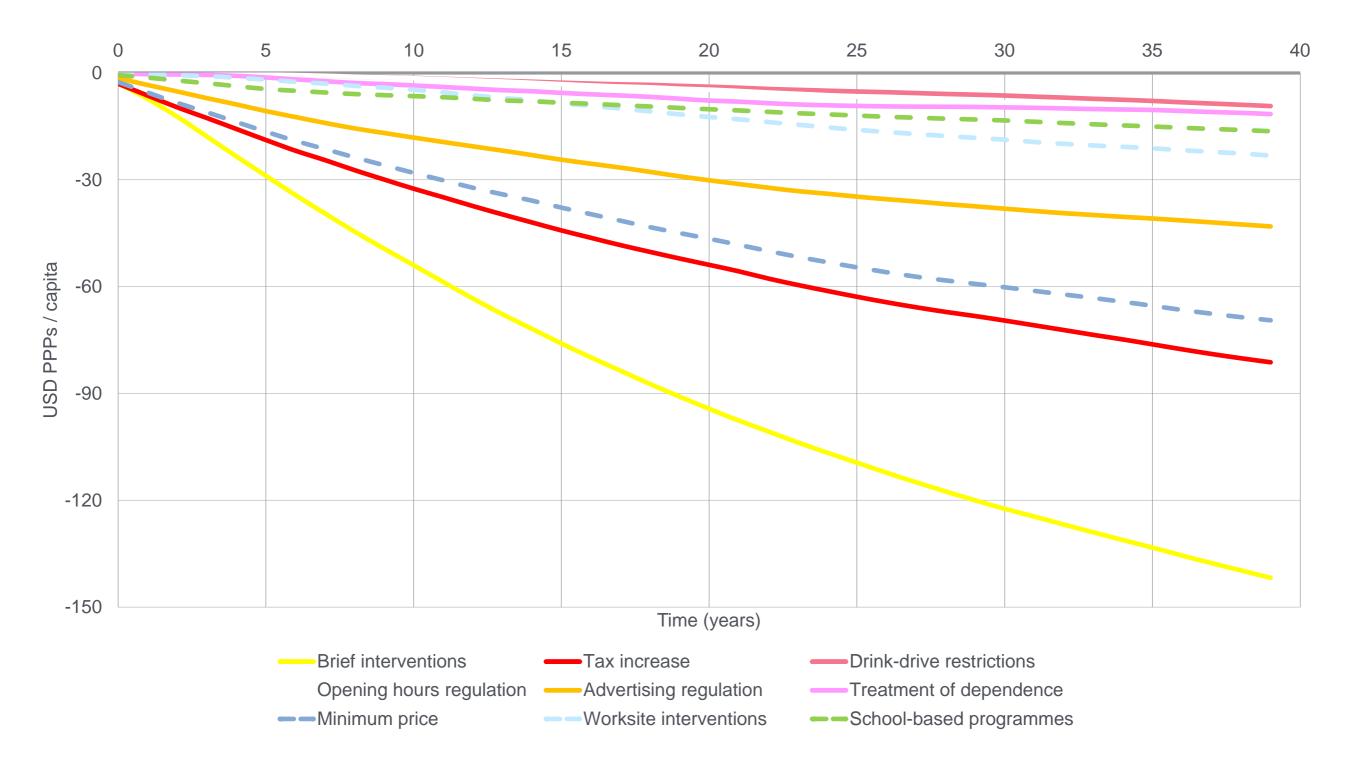
^{* &}quot;Mixed package" includes both regulatory/fiscal policies and health policies



Source: OECD analysis.

Too

Tackling Harmful Alcohol Use Reduces Health Expenditure



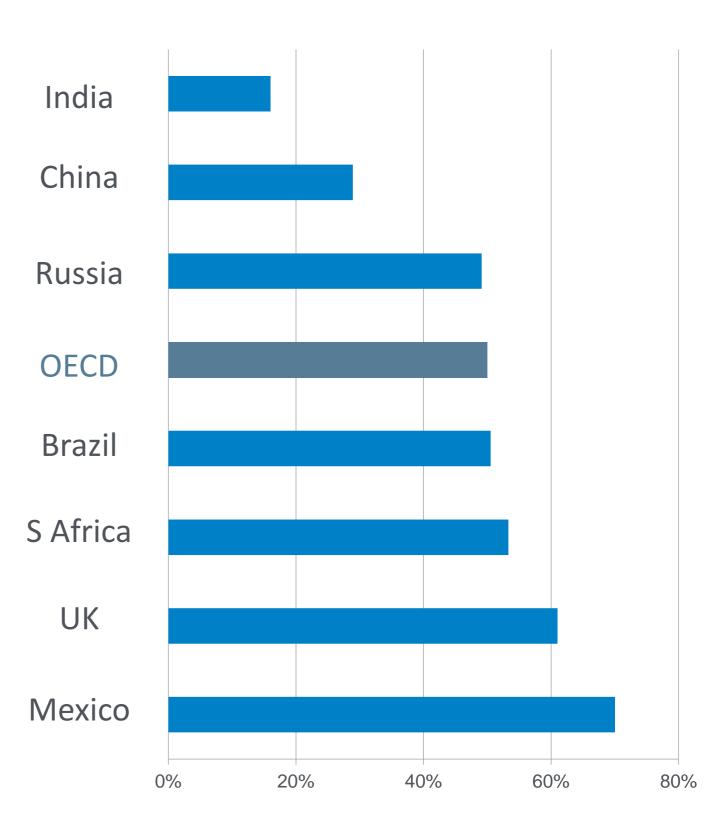
Source: Sassi (Ed.), Tackling Harmful Alcohol Use, 2015





Obesity: a Global Epidemic

- In Brazil, obesity tripled in men and doubled in women in 30 years; in India, up to 40% are overweight in urban areas
- Diabetes in China is now as common as in the US
- Obesity costs are less than 1% of GDP in most OECD countries, over 1% in the US and up to 4% in China

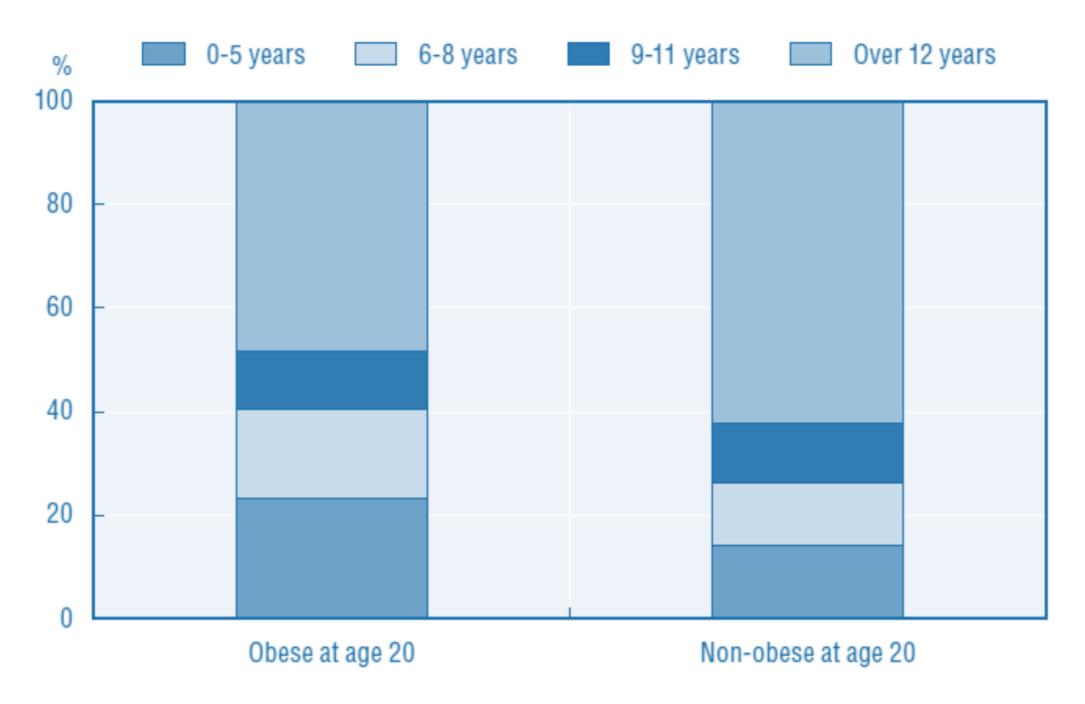




Source: OECD, 2010. % overweight in the of adult population



Obesity is a Hindrance to Human Capital

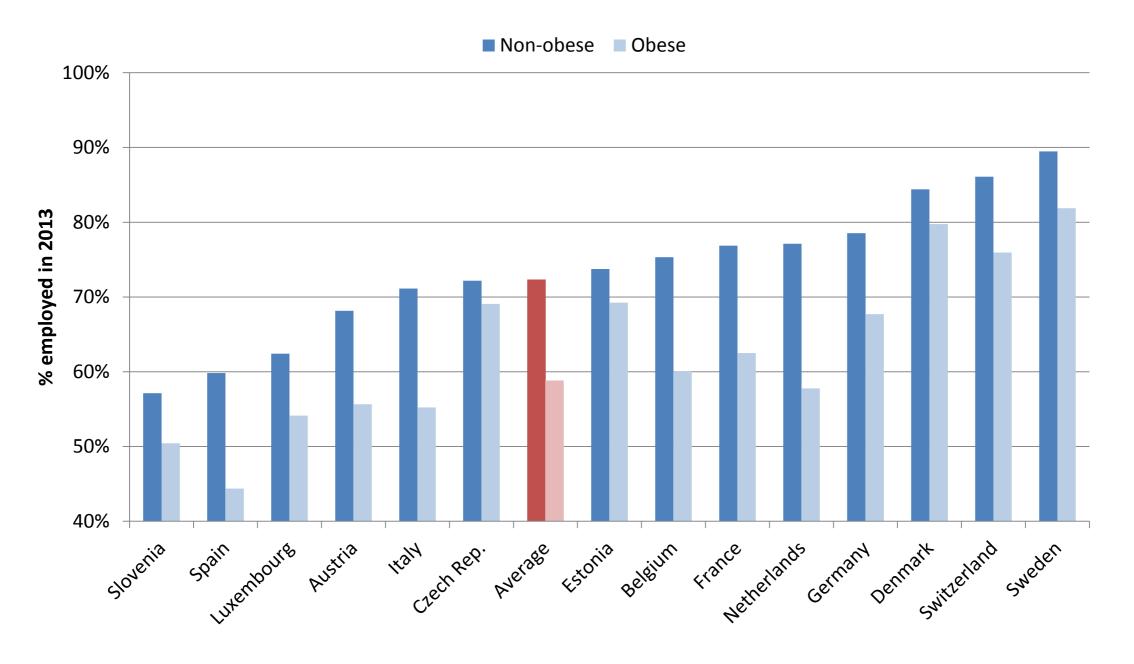


Source: French data from Enquête Décennale Santé 2002-03; OECD analysis.





Obese People are Less Likely to Be Employed



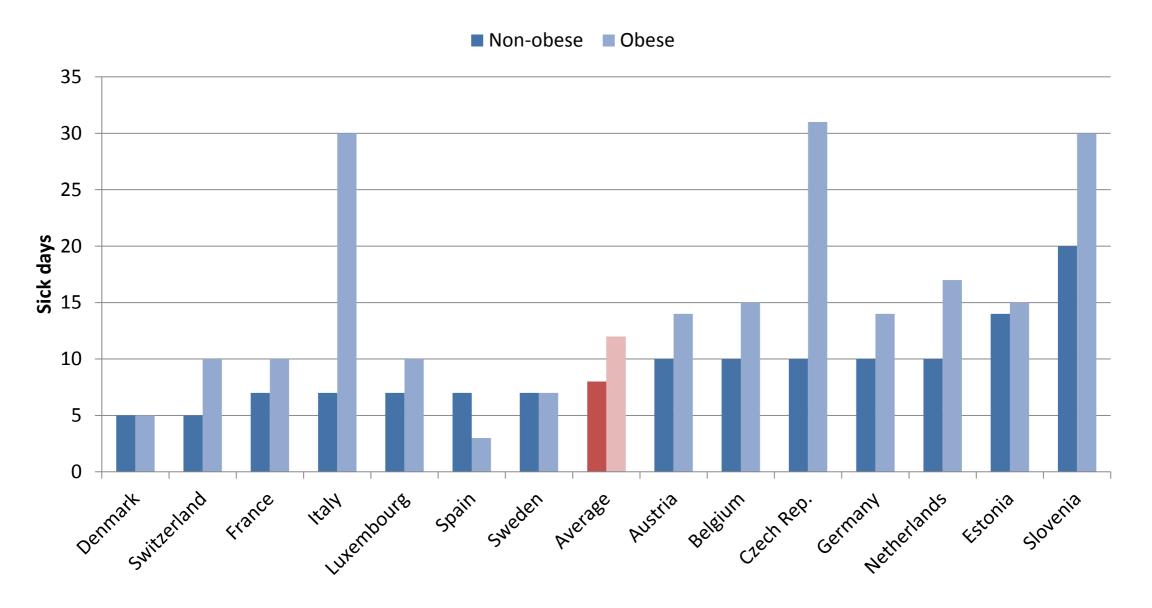
Employment rate, age 50-59, in 2013, SHARE data

Source: OECD/EU Health at a Glance Europe 2016





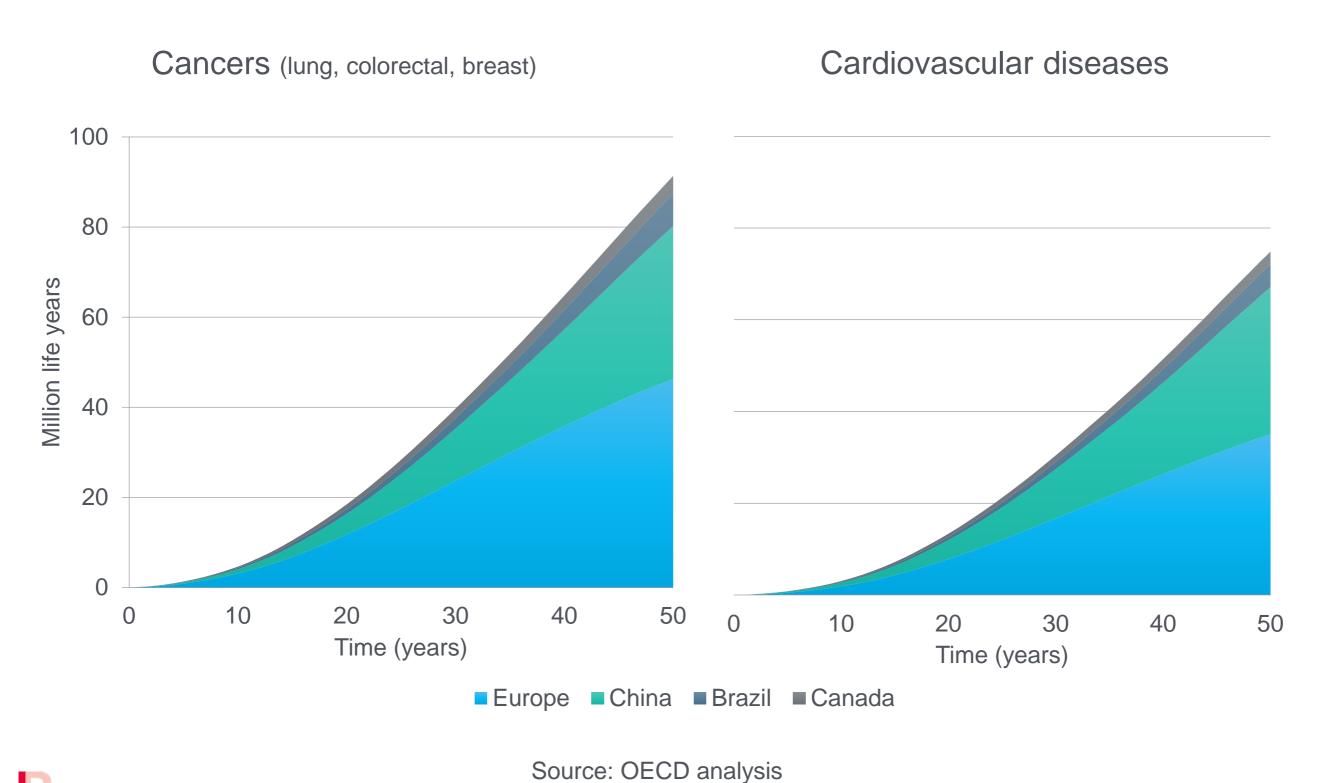
Obese People are More Likely to Be on Sick Leave



Median number of sick days in last 12 months, age 50-59, in 2013, SHARE data Source: OECD/EU Health at a Glance Europe 2016



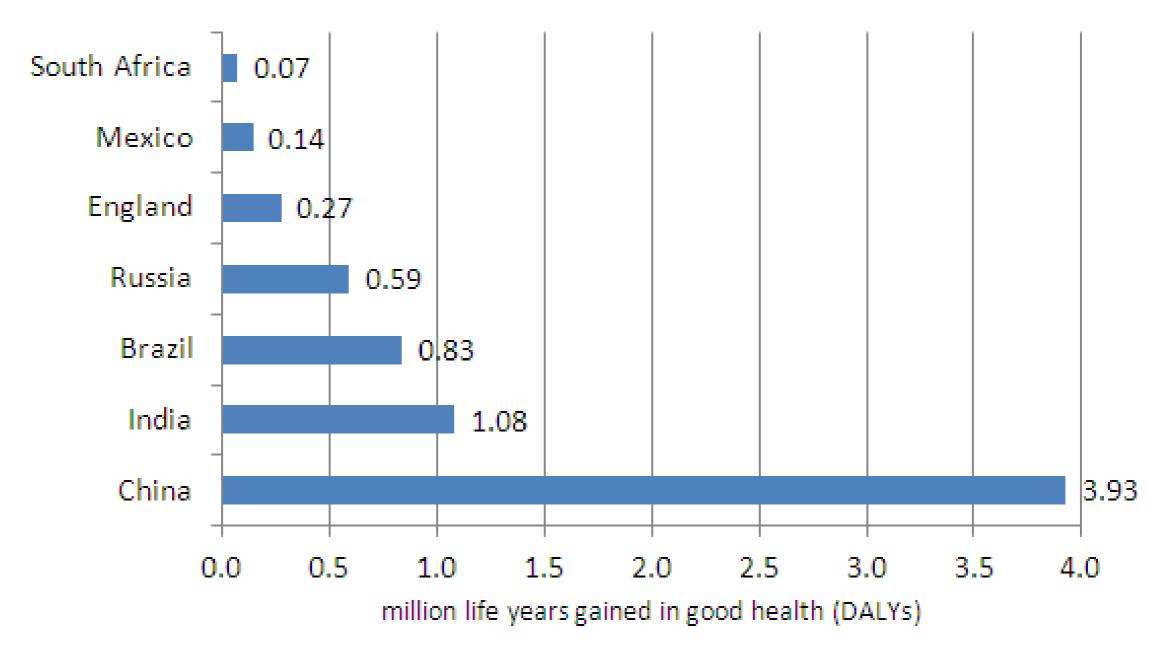
Years of Life Free of NCDs Through Obesity Prevention







What Can Prevention Achieve?

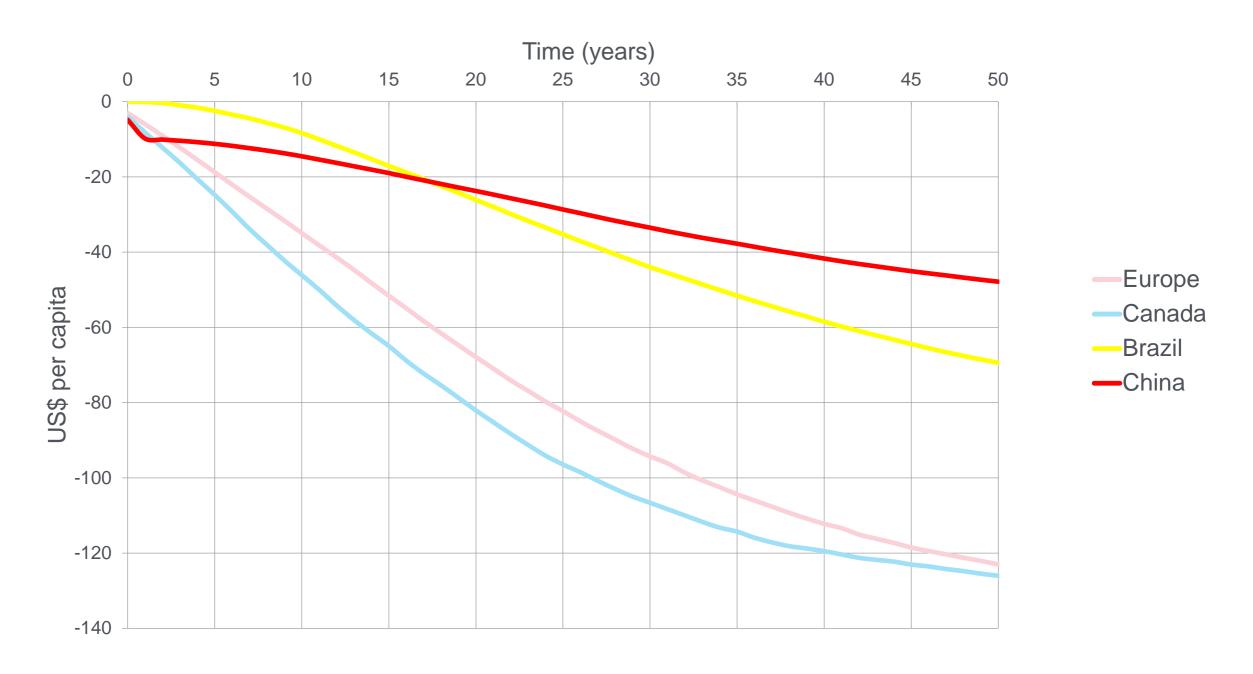


Source: OECD, 2010





Preventing Obesity Reduces Health Care Expenditure

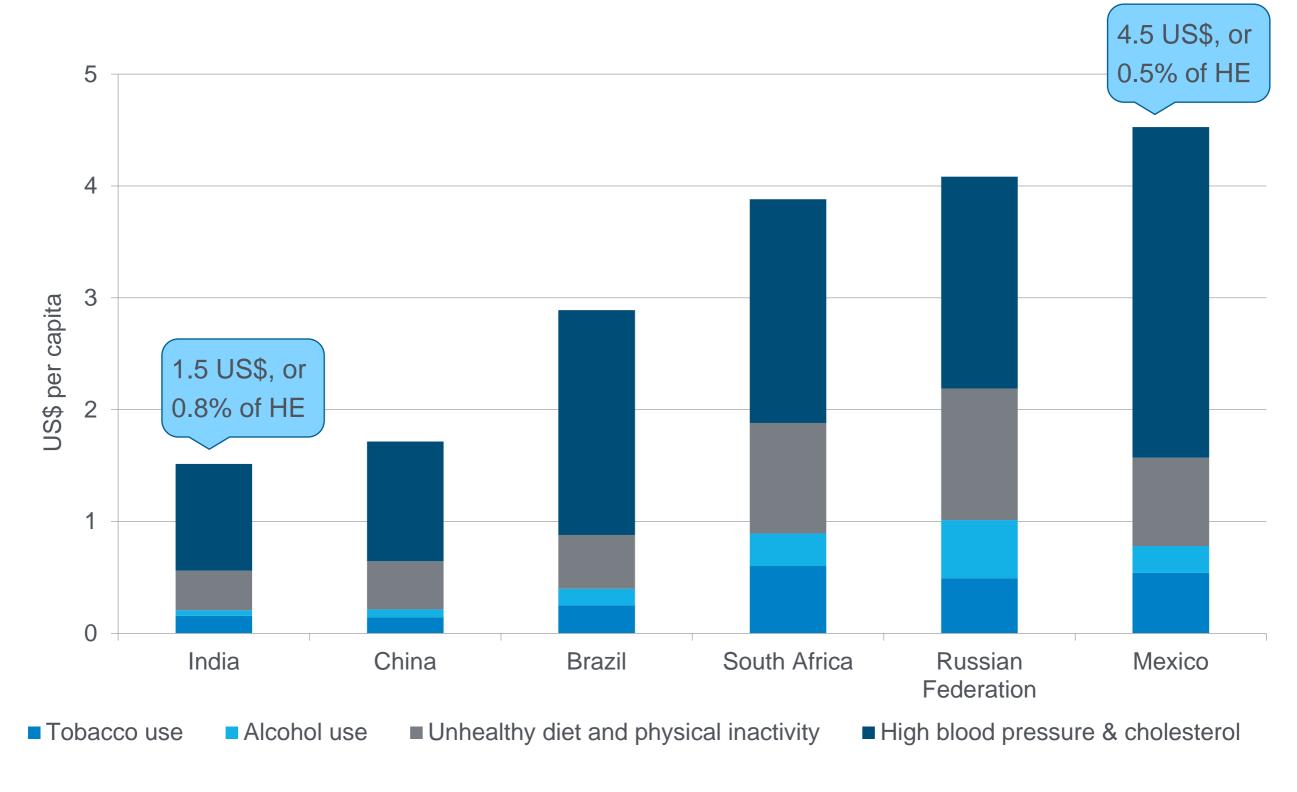


Source: OECD analysis





An Affordable Prevention Package



Source: Cecchini et al., Lancet, 2010



Key Messages

- An economic case is best made by assessing what we can achieve through real policies
- Infectious diseases still an important cause of premature mortality in some G20 countries
- Emerging communicable disease threats, but the most of the burden of disease is from NCDs
- Behaviours are the key driver of NCD burden action is needed beyond health care systems
- Alcohol and obesity are major threats to economic productivity, but effective actions are available
- Are we prepared to spend a fraction of what we spend on health care to prevent unhealthy behaviours?