

where a clear link is established between BMI and oesophageal adenocarcinomas, and a possible inverse association has been shown for oesophageal squamous cell carcinomas.⁹ The authors included in this analysis persons with exceptionally low BMI values (<15 kg/m²), which sometimes hinders interpretation of the data because exceedingly low BMI values probably represent data recording errors or extreme illness.

We have sufficient evidence that obesity is an important cause of unnecessary suffering and death from many forms of cancer,^{6,7,10} in addition to the well recognised increased risks of mortality and morbidity from many other causes. More research is not needed to justify, or even demand, policy changes aimed at curbing overweight and obesity. Some of these policy strategies have been enumerated recently,¹¹ all of which focus on reducing caloric intake or increasing physical activity, and include taxes on calorically dense, nutritionally sparse foods (eg, sugar-sweetened beverages); subsidies for healthier foods, especially in economically disadvantaged groups; agricultural policy changes; and urban planning aimed at encouraging walking and other modes of physical activity. Research strategies that identify population-wide or community-based interventions and policies that effectively reduce overweight and obesity should be particularly encouraged and supported. Moreover, we need a political environment, and politicians with sufficient courage, to implement such policies effectively.

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Reducing the global prevalence of overweight and obesity

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See [Articles](#) page 766

The issues associated with weight gain beyond the proper capacity of human physiology and associated health consequences are well understood.¹ Together with the technological revolution in food science and the sale of junk food, modern lifestyles and increasing disposable income play a part in this problem. Although appetite is necessary for survival, increased exposure to processed food is overwhelming people,² and effective strategies to reduce body-mass index (BMI) in populations are scarce. Understanding this situation, so that acceptable remedial action can be properly discussed and implemented, should be an essential part of public health policy in the next few decades.

Public health efforts are leading to progress in tobacco control and cardioprotective diets in a slow and deliberate way. As a result, deaths caused by smoking-related diseases and cardiovascular diseases are decreasing, at least in developed countries, although rises in BMI threaten these trends.³ Can a similar success with weight ever happen? Does the whole food environment, not just dietary fat and tobacco, need to be changed to reduce exposure to calories, in circumstances in which economic growth, via consumption, is deemed to be of prime importance? An appropriate rebalancing of the primal needs of humans with food availability is essential, which would entail curtailing many aspects of production and marketing for food industries.^{4,5} To prevent unsustainable

health consequences, BMI needs to return to what it was 30 years ago. Lobstein⁶ calculated that to reduce BMI to 1980 levels in the UK would require an 8% reduction in consumption across the country, costing the food industry roughly £8.7 billion per year. Is this possible in a neoliberal competitive world?

A first step to achievement of this reduction in consumption is a better understanding of the changing extent of the problem and the conflicting attempts to address it. Reliable estimates of BMI distribution by country and their long-term trajectories are needed to better understand the problem. Eventually, national strategies can then be assessed in their global context according to local BMI distribution changes with time and policy.⁸ The Global Burden of Disease (GBD) team have done an excellent job reporting the changes and differences between regions and countries. In *The Lancet*, Marie Ng and colleagues⁹ report a brave and successful attempt to make the most of all published survey data worldwide to estimate the changing prevalence of overweight and obesity since 1980. These surveys vary in reliability and completeness; Gaussian process regression was used to impute missing values reliably. The investigators overcame missing years, bias in measurement, and conflicting answers from 1769 country-years of data from 183 countries. These 19244 datapoints from separate surveys would have otherwise simply led to confusion.

Ng and colleagues provide a reliable account of BMI changes since 1980 worldwide, adjusting for changing age distributions. These show only prevalence rates by country and by age, and hints of cohort-specific changes. These data are all heavily modelled so that the real data are inevitably somewhat obscured, but the truth is not. The results show that the greatest gain in overweight and obesity worldwide happened between 1992 and 2002, mainly in people aged between 20 and 40 years. Men have a higher prevalence of overweight and obesity than do women in developed countries, whereas the opposite is true in developing countries; in developing countries, prevalence is about 30% lower for men and 15% lower for women than in developed countries, but rising. However, women are often more obese (BMI>30) than are men in developed countries.

This weight gain seems to have been attenuating during the past 8 years, and investigators point to weak evidence that recent birth cohorts are gaining BMI more



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slowly than are previous ones. This gain varies between countries, suggesting some scope for intervention. No countries have had a significant decrease in obesity prevalence in the past 33 years.

In the USA, about 32% of adult men and 34% of women are obese compared with 21% in both sexes in western Europe, and this prevalence is increasing. In southeast Asia, 5% of women and 8% of men are obese. Although immature, the analyses of changing BMI with age by birth cohort are intriguing.⁹ Are the most recent birth cohorts really gaining weight more slowly than did their predecessors? That would be real intermediate success, before the required reductions in prevalence were to be seen.

Policy needs to solve the problem of rising obesity, and increasing advocacies in this direction are coming from highly authoritative sources.¹⁰ The solution has to be mainly political and the questions remain, as with climate change, where is the international will to act decisively in a way that might restrict economic growth in a competitive world, for the public's health? Nowhere yet, but voluntary salt reduction might be setting a more achievable trend.¹¹ Politicians can no longer hide behind ignorance or confusion.

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Africa's child demographics and the world's future

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In 1950, only about a tenth of the world's children lived in Africa.¹ Within 50 years, that proportion almost doubled, and it is set to double again by the middle of the 21st century, leaving Africa with nearly a billion children younger than 18 years by 2050—37% of the worldwide total. By the end of the century, based on present trends, almost half of all children will live in Africa.

How this unprecedented growth in the continent's child population came about, and its implications for Africa and the rest of the world, is the subject of *Generation 2030 Africa*,¹ a report on child demographics released by UNICEF on Aug 12, 2014. The report is the second in the UNICEF series on child demographics, after *Generation 2025 and beyond*.²

Two main forces are driving this present rise and projected expansion of Africa's child population: rapidly rising numbers of births (figure) and falling rates of child mortality. Currently, around 3·4 million births take place in Africa every month.¹ In the next 15 years, about 700 million will occur, and between now and mid-century 1·8 billion are projected, resulting from high rates of fertility and an increasing number of women of reproductive age. The average fertility rate for Africa currently stands at 4·7 children per woman of reproductive age (15–49 years)—far above the rate in Asia (2·2) and the worldwide average (2·5; figure).

Another factor driving this increase in Africa's births is that the number of women of reproductive age has risen fivefold from 54 million in 1950 to a projected 280 million by 2015. Moreover, the population of Africa's women of reproductive age is set to increase to 407 million by 2030, and to 607 million by 2050.

African women also have among the longest lifetime period for births because of the high rates of adolescent fertility. Africa's present average adolescent fertility rate is 98 births per 1000 adolescent girls aged 15–19 years, more than double the worldwide average of 45 births.¹

Child survival has also contributed to Africa's child population increase. In 1990, almost one in every six children in Africa died before their fifth birthday. This figure has fallen to one in every 11 in 2012,³ thanks to healthy practices such as improved water, sanitation, and hygiene, and to the committed efforts of national and international partners. However, in several countries, mostly in west and central Africa, declining under-five mortality rates have been offset by increasing numbers of births, leaving the absolute number of under-five deaths static or increasing in absolute terms.

Three in ten of Africa's children currently live in countries affected by conflict and fragility.¹ Such countries exhibit higher fertility than those at peace and in stability. High fertility is also associated with poverty, even in stable situations. African countries with average fertility rates greater than six children per woman of reproductive age (Chad, Mali, Niger, and Somali) belong to the group of nations with the lowest income. Women in the poorest households often have more children within countries—eg, in Chad, Mali, Niger, Nigeria, and Tanzania, women in the poorest quintiles have, on average, 2–4 more children than women in the wealthiest quintiles. Similar disparities are observed between rural and urban areas.