A SHIFTING PICTURE OF GLOBAL HEALTH

Life expectancies have shown extraordinary increases in many nations over the past 40 years. This, along with significant declines in communicable, maternal and neonatal diseases, means that many countries must adapt to focus more on the health needs of ageing populations.

Life expectancies have risen in almost every region of the world, but have declined in countries including Haiti, Zimbabwe, Lesotho, Ukraine and Belarus.

— Indicates range of life expectancy in countries within the region.

With the death rate from infectious diseases on the decline, and people living longer, the world is in a 'disease transition'. Non-communicable diseases have supplanted infectious diseases, maternal mortality and infant diseases as the main causes of 'Years of Life Lost' — with the big exception being in sub-Saharan Africa.

Disabilities are becoming an increasingly substantial contributor to the global health burden. People are living longer, but also have to cope with illness in many of those extra years, as seen by an increase in DALYs (Disability-Adjusted Life Years), a composite metric that captures the years of healthy life lost because of illness, disabilities or death.

HEALTH

Global survey reveals impact of disability

Study tracks changes in life expectancy and health burdens.

BY DECLAN BUTLER

People around the world are generally living much longer than before — but many of those extra years are blighted by disability, according to the latest estimates of the global burden of disease, debilitating disorders and injuries.

The estimates, a major revision of a 1990 assessment, were published in *The Lancet* last week by an international collaboration involving 486 scientists from 302 institutions in 50 countries. The project was led by the Institute for Health Metrics and Evaluation at the University of Washington in Seattle (see go.nature.com/iem2sh).

In the 1970s, people in many developing countries could often hope to live only until their forties or fifties. Now they can generally expect the longer lifetimes once enjoyed only by those in the richest countries. The big exception is countries in sub-Saharan Africa, which have made much less progress (see 'A shifting picture of global health').

Factors such as economic growth, better education and improved health technologies have driven the gains by reducing deaths from infectious diseases, malnutrition and maternal and child illness. As people live longer, non-communicable diseases such as heart disease and cancer, and risk factors such as obesity and high blood pressure, have become

the major challenges facing health systems in much of the world.

The findings highlight another group of conditions, such as musculoskeletal ailments and mental illness — as well as injuries — that cause relatively fewer deaths but result in substantial disabilities. These conditions now deprive people of a similar number of years of healthy life to the classical killer non-communicable diseases. Living longer can be a net benefit for individuals, even if they are ill, but at the population level this translates into higher costs and major challenges for health-care systems.

Estimating the burden of death and illness remains an inexact science, however. This is mainly because of the lack of data — particularly from poorer countries that often do not have basic systems for certifying deaths and their causes — and wide disparities in the comparability and quality of data. Nonetheless, such estimates will undoubtedly help to shape health care, priorities for research and international aid, and funding allocations. Researchers and policy experts can thus be expected to pore over, debate and often contest the detailed findings in the coming months. ■ [SEE EDITORIAL P.311](#)