

Global Health Inequalities



This note reviews some trends in global health inequalities in the context of the transition from the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs). It examines measures of health inequalities, determinants of health, data, prioritisation, implementation, the target of universal health coverage and SDG funding.

Global Health Inequality

The World Health Organisation (WHO) defines health inequalities as differences in health status between different population groups such as age or socio-economic status.¹ Differences in the social, economic and environmental determinants of health, along with inequalities in accessing high quality healthcare, affect a significant proportion of the world population. For example the WHO estimates that 400 million people still do not have access to one of seven 'essential health services', such as drugs and vaccines.^{2,3}

Measuring Health Inequalities

There are large health inequalities both between and within countries. In 2015, average life expectancy in the UK was 81.2 years, compared to Japan (the highest at 83.7 years) and Sierra Leone (the lowest at 50.1 years).⁴ National averages are not sensitive to inequalities within countries. For example, *healthy* life expectancy within England varies from 55.0 (Blackpool) to 70.5 (Wokingham) years for men and from 54.4 (Manchester) to 72.2 (Richmond upon Thames) years for women.⁵ The SDGs seek to address these limitations by encouraging greater collection of disaggregated data that includes, for example, details of educational attainment and economic status.

Indicators for Health under the SDGs

Between them, the 17 SDGs (Table 1) cover 169 targets, each of which will need to be assessed using one or more

Overview

- More people have access to essential health services now than at any time in history, but profound inequalities persist.
- Sustainable Development Goal (SDG) 3 aims to “ensure healthy lives and promote wellbeing for all at all ages” and includes 13 targets to tackle health inequalities.
- Implementing SDG3 (and the other 16 SDGs) requires access to good quality data to assess progress towards meeting targets.
- One of the targets is Universal Health Coverage (UHC) to ensure that all people who need health services receive them.
- Funding will be key to improving health and healthcare provision and to achieving UHC.

indicators. An expert group convened by the UN published a list of 230 different SDG indicators in 2016.⁶ Some of these are general measures assessing variables such as life expectancy and the burden of disease, which can be assessed via Disability Adjusted Life Years (DALYs); one DALY can be thought of as one lost year of “healthy” life.⁷ Others are more specific measures that cover one disease or health outcome such as the number of diagnoses of HIV/AIDS. Where the MDGs provided a concise set of measurable indicators, the proliferation of SDG indicators may make them more difficult to manage and interpret.⁸

Global Burden of Disease

The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) is a large-scale effort to measure the burden of premature mortality and disability for major diseases or disease groups, along with trends worldwide. The study covered the time period from 1990 to 2013.⁹ More recently, the World Health Organisation (WHO) has published estimates of deaths by cause, age and sex for the period 2000–2015 covering a total of 183 countries.¹⁰ Such studies use a summary measure of population health, (DALY) to combine estimates of the years of life lost and years lived with disability. These data are broken down by age, sex and region and show that the total number of deaths caused by communicable diseases (such as respiratory diseases, diarrhoea, HIV/AIDS, malaria and TB) has declined while deaths from non-communicable diseases (NCDs, such as

TABLE 1. THE 17 SDGS

Goal	Aim
1	End poverty in all its forms everywhere
2	End hunger, achieve food security improve nutrition and promote sustainable agriculture
3	Ensure healthy lives and promote well-being for all at all ages
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Achieve gender equality and empower all women and girls
6	Ensure availability and sustainable management of water and sanitation for all
7	Ensure access to affordable, reliable, sustainable and modern energy for all
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
10	Reduce inequality within and among countries
11	Make cities and human settlements inclusive, safe, resilient and sustainable
12	Ensure sustainable consumption and production patterns
13	Take urgent action to combat climate change and its impacts*
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17	Strengthen the means of implementation and revitalise the global partnership for sustainable development

diabetes, cardiovascular diseases and cancer) have risen. This shift towards NCDs representing the greater burden of disease is largely due to an ageing population.

Non-Communicable Diseases

While the MDGs focused on health goals for specific population groups (child and maternal mortality) and infectious diseases, the SDGs provide a broader approach that includes neglected diseases such as dengue and Chagas disease, healthcare systems and NCDs. At a global scale, NCDs and the impact of tobacco and alcohol (which are both key risk factors for NCDs) are growing in importance.¹⁰ NCDs account for around 55% of the global disease burden, and an estimated 70% of deaths globally. They kill nearly 40 million people a year and are responsible for 37% of all deaths in low-income countries and 88% in high-income countries.¹⁰ While NCD's are responsible for a larger *proportion* of deaths in high income countries, in terms of *absolute numbers* most (78%) global NCD deaths occurred in low- and middle-income countries, including more than 14 million people who die between the ages of 30 and 70.¹¹ These premature deaths are projected to result in cumulative economic losses of US\$7 trillion over the next 15 years and trap millions of people in poverty.¹¹

Despite their growing importance, NCDs received only limited direct funding (1.23% of all donor assistance for health in 2011).¹² However, this figure does not include funding for strengthening health systems in general, much

of which may have been spent on NCD services. While NCDs now form a greater share of global disease burden, this is likely to be a function of the global population living longer, and thus suffering from diseases that affect older people. In other words the successes in tackling communicable diseases have contributed to the rise in NCDs.

Determinants of Health

There are many pathways through which improvements in health contribute to prosperity and human welfare, both for individuals and for societies. For example, health spending can increase productivity and prosperity and reduce poverty.¹³ Health is influenced by a wide range of socio-cultural, economic and political factors. Understanding and influencing the determinants of health is therefore complex.

Cross-Sectoral Complexity

Health is determined by a range of social, environmental and economic factors that change over time.¹⁴ Social inequalities are a key determinant of health, with the poorest people in both low and middle income countries suffering the most from ill health, and women suffering more than men.¹⁵ Lower educational level, income, or employment status have all been associated with higher mortality and morbidity rates.¹⁶ Conversely, there is an abundance of evidence of a positive correlation between good health and stable per capita income.

However, addressing the wider social and environmental determinants of health cannot rely solely on measures to increase prosperity or to improve health service provision.¹⁷ ¹⁸ For example air pollution causes more premature mortality than HIV/AIDS and malaria combined.¹⁹ Air quality targets may be the best way to address this problem²⁰, but any real change will involve provision of alternatives to normal cooking and heating methods in, for example, India and China.

There is consensus that reducing health inequalities will require action on the social determinants of health across the life course.^{17,18} The SDG approach of including health and wealth as goals (Goals 3 and 8), along with other social factors acknowledges this inter-dependence. Almost every aspect of life affects, and is affected by, health so the development of integrated, cross sectoral policy that 'leaves no-one behind' is a challenge.²¹

Global Health and the MDG/SDG transition

The MDGs represented a concerted international effort to prioritise 8 goals, and there have been many improvements in the prioritised areas over the time of the MDGs.²² For example, child mortality decreased from 90 to 43 deaths per 1,000 live births between 1990 and 2015.²³ Furthermore, these improvements have not been consistent across the socio-economic spectrum within countries, and some countries have made faster improvements than others. Most early childhood deaths can be prevented using inexpensive interventions such as vaccination, oral rehydration, improved nutrition and improved prenatal care.

Unlike the MDGs, the SDGs address not only outcomes but also (in general terms) the means to achieve them. For example, poverty cannot be eliminated (SDG1) without innovation and infrastructure (SDG9) and good health (SDG3), which also requires good water, sanitation and hygiene (SDG6). SDG 3 on health is more comprehensive than the health MDGs, because it seeks to “Ensure healthy lives and promote wellbeing for all at all ages”.²⁴ Targets for SDG3 include, by 2030, ending the epidemics of AIDS, TB, malaria and neglected tropical diseases, ending preventable deaths of newborns and children under 5, and the achievement of universal health coverage (UHC, see page 4).

The SDGs apply to all countries, including developed nations in contrast to MDGs which were applied to low- and middle-income countries.²⁵ They were formulated by a participatory approach and many see them as a ground-breaking aspirational opportunity. However, they have also faced criticism. Some have argued that the SDGs have suffered from ‘mission creep’, or ‘development bloat’ and that their comprehensiveness is not helpful.²⁶ Other criticisms have included the emphasis on connections between aspects of development, sustainability, environment, business and economy, rather than a priority based focus on a few areas (as the MDGs did).²⁷

Implementing the SDGs

Data

Ensuring that every country has the capacity to gather and interpret the right level of data is fundamental to identifying changing needs and assessing impact. The UK, Department for International Development (DFID) funds statistical capacity building, which includes data gathering, data literacy and analysis. A report for the UN²⁸ suggests that the available data still does not cover some groups of people which means that some key issues remain ‘invisible’. For example, data on age and disability are not routinely collected in many countries.²⁹ There is increasing recognition of the importance of collecting data on the social determinants of health as well as health data.

Recent months have seen a number of initiatives to collect systematically health and other types of data.³⁰ For example, the US Institute of Health Metrics and Evaluation has published an SDG index to harmonise data across a range of health indicators. It has also developed a socio demographic index covering income per head of population, education levels and fertility rates to allow countries to assess their progress towards development goals. Other SDG data sets are being collected by the UN Sustainable Development Solutions Network, the WHO Global Health Observatory, the OECD and the World Bank.

Emerging methods of gathering health data include the use of satellites to model the likely spread of disease vectors such as mosquitos, mobile phones (mHealth), and other computer-based (eHealth) service delivery and monitoring. 83% of WHO Member States now offer at least one type of mHealth service, the most common of which is health call

Box 1. Matching funding to disease burden

Many of the countries with the highest disease burden do not receive the most development assistance for health. For instance, of 20 countries with the highest disease burden (as ranked by disability adjusted life years), only 13 are among the top 20 recipients of global health funding. Moreover, where funding is received it may not be proportionate to the burden of disease. For example, sub-Saharan African countries received funding to tackle malaria equating to less than \$60 of malaria funding for every year of healthy life lost to malaria between 2006 and 2010. In comparison, Latin American and Caribbean countries received nearly \$2,000 of malaria funding per year of healthy life lost over the same period. Finally, for NCDs (which account for 55% of global disease burden), the funding per year of healthy life lost was smaller, being around 50 cents in South Asia from 2006 to 2010 and \$2 in Latin America and the Caribbean.”³¹

centres.³² This kind of approach has been shown to make a “modest improvement”³³ in service delivery, increasing adherence to guidelines, providing reminders, enhancing disease surveillance, and decreasing medication errors.³⁴

Prioritisation of targets

Decisions on funding inevitably involve prioritising some targets over others. For example, MDG donors tended to support short-term projects with measurable outcomes. In practice this meant that funding to reduce socioeconomic inequalities was often overlooked in favour of funding for healthcare. Moreover, even with the more focused aims of the MDGs, healthcare funding did not match disease burden or lives lost (see Box 1) and may not have reached those with the greatest need.

The ambitious scope of the SDGs, means that prioritising targets for funding is likely to be an even greater challenge than it was for the MDGs. For example, there is on-going debate about whether health aid should prioritise the worst off countries (in sub-Saharan Africa), or the worst off people, many of whom live in emerging economies such as China and India (which account for 45% of the world’s population living in extreme poverty).³⁵ Funders may have to evaluate and prioritise competing programmes across the full range of social, economic and environmental determinants of health. Aid recipients, particularly those with a specific goal, may resist any shift towards greater cross-sectoral activities if this would result in a cut in their funding. The Institute of Health Equity has been working with the UN Development Programme on the systematic integration of these different determinants of health into development projects at a country level.³⁶

Interventions

There are two main approaches to developing health interventions:

- ‘horizontal’ interventions that provide infrastructure that can address more than one disease or disorder
- ‘vertical’ approaches that target specific diseases such as malaria or HIV/AIDS).

In general, vertical approaches are more amenable to rigorous evaluation.¹³ Recent years have seen a shift from vertical to horizontal approaches along with so-called

diagonal interventions that use a focus on one disease to improve the wider system. This shift reflects the SDG goal of Universal Health Coverage (see below) and also responds to:

- concerns that vertical programs often drain other parts of the health sector of human and financial resources
- concerns that vertically organised systems inefficiently duplicate infrastructure and health delivery mechanisms
- the belief that horizontal programs are better able to evolve as new health threats emerge and can shape the social environment, for example by encouraging healthy lifestyles and adherence to drug regimens.

Progress on the health SDGs will rely on local implementation and sensitivity to local needs, and this will mean funding and fostering local participation. However, in practice, channelling aid towards local decision makers can lead to “entrenched elites, bribery and corruption”.³⁷ Illicit financial flows are a significant concern in the funding of the SDGs more generally.^{37,38,39,40} Progress may also require further trade-offs between potentially competing interests such as using land for biofuel production (for energy security) or agriculture (for food security).

Universal Health Coverage (UHC)

UHC is the “crucially important”³⁹ target, under SDG 3, that ensures all people who need health services receive them, without undue financial hardship. It has three main aims: to extend the range of health services offered, increase the proportion of the population covered and decrease out-of-pocket expenses and fees. According to the WHO and World Bank Group, 17% of people across 37 low- and middle-income countries were impoverished or further impoverished by out-of-pocket health expenses.⁴⁰ Achieving UHC is not a guarantee of health equality; other policies directed at the wider determinants of health will also be needed. For instance, the UK has had UHC, free at the point of care (the NHS) since 1948, but significant health inequalities persist.

There is debate over how the financing and provision of UHC ought to be organised. NGOs such as Oxfam⁴¹ and many academics⁴² suggest that key principles for funding UHC should include mandatory pre-payment of services for those who can afford to contribute (such as those in salaried employment) and the use of general government revenues for those who cannot. They suggest that pooling arrangements should redistribute the prepaid resources to individuals with the greatest health service needs, irrespective of their ability to contribute.

Others see a larger role for the private sector, for voluntary insurance or for employment-based social health insurance (SHI) schemes. On the first of these, there is a consensus that public funding of health services is likely to be the best route to achieving UHC⁴³, and on-going debate over whether health services are best provided by the public or by the private sector.^{41,44} As for voluntary insurance, no country has achieved UHC solely by this route. Finally, SHI

schemes have achieved UHC, but to date this has been confined to high income countries.⁴¹

Funding the SDGs

In 2015, for the third year running, the UK met the UN target of spending 0.7% of gross national income on foreign aid, with the official budget rising to £12.2bn.⁴⁵ DFID administers the majority of aid, and health comprises the largest part of DFID spending.⁴⁶ Funding is key to making improvements in health and healthcare provision, and it is not clear where the funds to achieve the SDGs will come from. The SDGs refer to greater cooperation between private, public and NGO sectors, but this may prove challenging.⁴⁷

Research funding

In the 1990s, just 10% of global spending on health research was directed at health problems of developing countries, where roughly 90% of the world’s preventable mortality occurred. While this “10/90” gap has narrowed, it remains significant because funding research into the neglected diseases that are more prevalent in poorer countries is not a commercially attractive proposition.⁴⁸ There are also wide differences in how much funding diseases receive relative to their disease burden. One way of measuring this is funding (\$) per death caused by a disease. For example, in 2005 the four largest global health donors spent \$1,029-per death on HIV/AIDS compared to \$3.21 for NCDs,⁴⁹ reflecting the fact that HIV/AIDS was a priority of the MDGs.

Research and public private partnerships

Public Private Partnerships (PPPs) are seen by the UN as “the foundation of any large-scale development strategy”.⁵⁰ There are significant differences between global and local PPPs. Global level PPPs include the Global Fund and GAVI: The Vaccine Alliance. The involvement of private sector funding for these funds varies. For example, the private sector accounted for 5% of the Global Fund’s budget, and 23% of GAVI’s funding between 2000 and 2014.⁵¹ Both organisations seek further involvement from the private sector. The incentives for companies participating in such funding typically include corporate social responsibility and the increased corporate visibility.

At a local level, there are greater incentives to PPPs, such as access to local markets, skills and research. For example, the World Intellectual Property Organisation’s Re:Search project aims to broker voluntary cooperation between private and public sector research organisations. It is aiming to share intellectual property, compounds, research facilities and expertise in order to find new treatments for Neglected Tropical Diseases such as Malaria and TB. Such schemes are a potential way of harnessing the resources of the private sector. However PPPs are not without problems of their own. In the UK, Private Finance Initiatives that attempt to share the risk of health service provision between public and private providers have proved controversial, and there is ongoing debate as to whether they offer good value for money.^{52,53}

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