Measuring Progress in SDGs

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The 17 Sustainable Development Goals (SDGs), with their 169 targets, form the core of the 2030 Agenda. They balance the economic, social and ecological dimensions of sustainable development, and place the fight against poverty and sustainable development on the same agenda for the first time.
SDGs reinforce health as a political priority and set an ambitious agenda

- The 2030 Agenda for Sustainable Development has **reinforced global health as a political priority**.
- Healthy populations are **critical to sustainable development**.
- Health is also an **outcome and indicator of progress** that reflects the success of **many goals** and the **2030 Agenda as a whole**.
The Goal addresses all major health priorities, including sexual, reproductive, maternal, newborn, child and adolescent health, communicable, non-communicable and environmentally driven diseases, universal health coverage and access to safe, effective, quality and affordable medicines and vaccines.

It also calls for more research and development, increased and diversified health financing, enhanced health workforce and strengthened capacity of all countries in health risk reduction and management. Universal health coverage (UHC) acts as key driver for achieving all targets.
Since the year 2000, the world has made great progress against several of the leading causes of death and disease.

Life expectancy has increased dramatically and infant and maternal mortality have declined.

However, progress has been uneven, both between and within countries. There remains a 31-year discrepancy between the countries with the shortest and longest life expectancies.
Life expectancy at birth (2017)
SDG 3: measurable targets

**TARGET 3.1**

**REDUCE MATERNAL MORTALITY**

By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

**TARGET 3.3**

**FIGHT COMMUNICABLE DISEASES**

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

**TARGET 3.5**

**PREVENT AND TREAT SUBSTANCE ABUSE**

Strengthen the prevention and treatment of substance abuse including narcotic drug abuse and harmful use of alcohol.
SDG 3: measurable targets

**TARGET 3.2**

**END ALL PREVENTABLE DEATHS UNDER 5 YEARS OF AGE**

By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

**TARGET 3.4**

**REDUCE MORTALITY FROM NON-COMMUNICABLE DISEASES AND PROMOTE MENTAL HEALTH**

By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

**TARGET 3.6**

**REDUCE ROAD INJURIES AND DEATHS**

By 2020, halve the number of global deaths and injuries from road traffic accidents.
SDG 3: global targets

TARGET 3.7

**UNIVERSAL ACCESS TO SEXUAL AND REPRODUCTIVE CARE, FAMILY PLANNING AND EDUCATION**

By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

TARGET 3.9

**REDUCE ILLNESSES AND DEATH FROM HAZARDOUS CHEMICALS AND POLLUTION**

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

TARGET 3.8

**ACHIEVE UNIVERSAL HEALTH COVERAGE**

Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
SDG 3: global targets

**TARGET 3.A**
**IMPLEMENT THE WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL**
Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.

**TARGET 3.B**
**SUPPORT RESEARCH, DEVELOPMENT AND UNIVERSAL ACCESS TO AFFORDABLE VACCINES AND MEDICINES**
Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

**TARGET 3.C**
**INCREASE HEALTH FINANCING AND SUPPORT HEALTH WORKFORCE IN DEVELOPING COUNTRIES**
Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

**TARGET 3.D**
**IMPROVE EARLY WARNING SYSTEMS FOR GLOBAL HEALTH RISKS**
Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.
Ensuring healthy lives for all requires a strong commitment, but the benefits outweigh the cost.

Healthy people are the foundation for healthy economies.

For example, an expense of $1 billion for expanding immunization coverage against influenza, pneumonia and other preventable diseases, would allow to save 1 million children’s lives each year.

The cost of inaction is greater. Millions of children will continue to die from preventable diseases, women will die in pregnancy and childbirth, and health care costs will continue to plunge millions of people into poverty.

Noncommunicable diseases alone will cost low- and middle-income countries more than $7 trillion in the next 15 years.
Measuring progress in SDGs
Quality and timely data are vital for enabling governments, international organisations, civil society, private sector and the general public to make informed decisions and to ensure the accountability of representative bodies.

Effective planning, follow-up and review of the implementation of the 2030 Agenda for Sustainable Development requires the collection, processing, analysis and dissemination of an unprecedented amount of data and statistics at local, national, regional and global levels and by multiple stakeholders.
The 2030 Agenda explicitly calls for enhancing capacity building to support national plans to implement the sustainable development goals.

National statistical systems (NSS) face the urgent need to adapt and develop in order to meet the widening, increasing and evolving needs of data users, including for the full implementation of the 2030 Agenda for Sustainable Development.
There is a wide range of statistical capacity among countries, with individual countries setting their own national priorities.

Some countries are facing steeper challenges than others.

Capacity building is important for all countries, even more so for developing countries, particularly African countries, least developed countries, landlocked developing countries, small island developing States and middle-income countries and other countries in vulnerable situations.
Approaches to track goal progression

• In a view to address challenge to many national and international statistical systems, the first United Nations Data Forum was held in Cape Town, South Africa in January 2017.

• The aim was to put in place a global action plan for sustainable development and it outlined several objectives that were developed together with the private sector, academia and civil society.
Approaches to track goal progression

The main strategic objectives of the Cape Town Global Action Plan are:

- Coordination and strategic leadership on data for sustainable development
- Innovation and modernization of national statistical systems
- Strengthening of basic statistical activities and programmes
- Data dissemination and use
- Multi-stakeholder partnerships
- Resource mobilization and coordination

It was adopted by the UN Statistical Commission and progress from countries is being monitored at regular intervals.
Strategic Area 1: Coordination and strategic leadership on data for sustainable development

Objective 1.1: Strengthen national statistical systems and the coordination role of national statistical offices

Objective 1.2: Strengthen coordination among national statistical systems and regional and international organizations active in the production of data and statistics for sustainable development

Strategic Area 2: Innovation and modernization of national statistical systems

Objective 2.1: Modernize governance and institutional frameworks to allow national statistical systems to meet the demands and opportunities of constantly evolving data ecosystems

Objective 2.2: Modernize statistical standards, particularly those aimed to facilitate data integration and automation of data exchange across different stages of the statistical production process

Objective 2.3: Facilitate the application of new technologies and new data sources into mainstream statistical activities
Strategic Area 3: Strengthening of basic statistical activities and programmes, with particular focus on addressing the monitoring needs of the 2030 Agenda

Objective 3.1: Strengthen and expand household survey programmes, integrated survey systems, business and other economic survey programmes, population and housing census programmes, civil and vital statistics programmes and the International Comparison Programme taking into account the needs posed by the 2030 Agenda

Objective 3.2: Improve the quality of national statistical registers and expand the use of administrative records integrating them with data from surveys and other new data sources, for the compilation of integrated social, economic and environmental statistics and in relation to follow up on the 2030 Agenda

Objective 3.3: Strengthen and expand System of National Accounts and the System of Environmental Economic Accounts

Objective 3.4: Integrate geospatial data into statistical production programmes at all levels.

Objective 3.5: Strengthen and expand data on all groups of population to ensure that no one is left behind

Objective 3.6: Strengthen and expand data on domains that are currently not well developed within the scope of official statistics
**Strategic Area 4: Dissemination and use of sustainable development data**

**Objective 4.1:** Develop and promote innovative strategies to ensure proper dissemination and use of data for sustainable development

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**Strategic Area 5: Multi-stakeholder partnerships for sustainable development data**

**Objective 5.1:** Develop and strengthen partnerships of national and international statistical systems with governments, academia, civil society, private sector and other stakeholders involved in the production and use of data for sustainable development

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**Strategic Area 6: Mobilize resources and coordinate efforts for statistical capacity building**

**Objective 6.1:** Ensure that resources are available to implement the necessary programmes and actions as outlined in this global action plan (both domestic and from international cooperation)
Approaches to track goal progression: World Bank

• The World Bank has taken an active role in monitoring and data visualisation for the SDGs.

• It launched its **2017 Atlas of Sustainable Development Goals**.

• The atlas includes **150 maps and data visualisations** showing trends and country-level comparisons on the progress being made towards the 17 SDGs.
Children are at greatest risk in the first 28 days of life. Birth attendance by skilled health staff helps reduce maternal and neonatal mortality.

Source: UN Inter-agency Group for Child Mortality Estimation, WHO, UNICEF, UNFPA, World Bank, and UN Population Division. World Development Indicators (SH.DYN.NMRT; SP.DYN.IMRT.IN; SH.DYN.MORT; SH.STA.MMRT; SH.STA.BRTC.ZS).
In high-income countries the majority of people who die are old. But in low-income countries children under age 5 account for one in three deaths.

Deaths by sex and age group, 2010–15

**Low income**
- In low-income countries over one-third of deaths are among children under age 5.

**Middle income**
- In high-income countries, two-thirds of deaths are among people over age 70.

**High income**
- Distribution of deaths among population in five-year age bands by sex (%)

Note: Ages 80 and older are combined into a single group.

Demography is closely related to health outcomes: while life expectancy has generally risen, HIV/AIDS caused sharp declines in many countries in the 1990s.

Life expectancy at birth, by country (years)

Each line represents the history of life expectancy in one country.

Health isn’t the only factor: large declines reflect genocides in Cambodia and Rwanda.

In 1997, 16 percent of Zambians ages 15–49 were infected with HIV, and life expectancy was 43 years. Better treatments have allowed life expectancy to recover to 62 years.

Note: The countries highlighted with heavier lines are those where all-time peak HIV prevalence exceeded 10 percent.
Source: UN Population Division and other sources. World Development Indicators (SP.DYN.LE00.IN).
Universal health coverage is about all people having access to the care they need without financial hardship. Service coverage varies widely across countries.

Universal Health Coverage service index, 2015

Countries with a high index value tend to have a longer life expectancy and lower under-five mortality.

The index measures a country’s ability to provide essential health services, including reproductive care and treatment of injuries.

At least half the world’s population lacks access to essential health services.

Not every country has enough health workers to meet the needs of its population. High-income countries have 15 times as many physicians as low-income countries do.

Physicians, nurses, and midwives, by country, most recent value in 2010–15 (per 1,000 people)

High income

Upper middle income

Lower middle income

Low income

WHO estimates 4.5 workers per 1,000 people are needed to meet the SDG target of universal health coverage.

Source: WHO, OECD, and other sources. World Development Indicators (SH.MED.PHYS.ZS; SH.MED.NUMW.P3).

Low-income countries have a severe shortage of specialist surgical workers. All low- and most lower-middle-income countries have fewer than the target number.

Specialist surgical workforce, by country, most recent value in 2011–16 (per 100,000 people)

High income

Upper middle income

Lower middle income

Low income

The Lancet Commission on Global Surgery recommends a target of at least 20 surgical workers per 100,000 people.

Source: The Lancet Commission on Global Surgery. World Development Indicators (SH.MED.SAOP.P5).
The complexities of measuring the success of the SDGs has also prompted many researchers beyond the UN and its affiliated global organisations to develop tools to help.

One such group are researchers at the Institute for Health Metrics and Evaluation (IHME), a global health research centre housed at the University of Washington in Seattle, US.

Here a unique tool has been developed through global research collaboration. Users can employ it to measure advancements from 1990–2017, made by 188 countries towards 33 health-related targets for SDG3. The IHME also developed the related Global Burden of Disease research tool used for the Millennium Goals.
Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017

The Lancet. Vol 392
November 10, 2018
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Monitoring SDGs targets
Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).

Index value (0-100): 97.4 (93.9 — 100.0)
Estimate: 3.9 (3.3 — 4.6) deaths per 100,000 live births
Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).

Index value (0-100): 18.1 (11.7 – 25.7)

Estimate: 265.0 (170.8 – 366.4) deaths per 100,000 live births

Indicator 3.1.1: Maternal mortality ratio (maternal deaths among women aged 10-54 years per 100,000 live births).

Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

Goal 3: Ensure healthy lives and promote well-being for all at all ages.
Health-related index for all indicators.

United States, 2016

SDG 74
Index value
Figure 2: Health-related SDG index by decile, 2017
Deciles are based on the distribution of health-related SDG indices for countries and territories in 2017. ATG=Antigua and Barbuda. FSM=Federated States of Micronesia. Isl=Islands. LCA=Saint Lucia. SDG=Sustainable Development Goal. TLS=Timor-Leste. TTO=Trinidad and Tobago. VCT=Saint Vincent and the Grenadines.
For some targets, where significant progress has been achieved, gains must be protected and accelerated to go the “last mile”.

In other areas, the pace of progress is not sufficient.

In a third set of targets, little or no progress has been made—only with real innovation, new approaches and new sources of leadership will we be able to achieve those targets by 2030.

Progress will need to be accelerated—in some cases, quite significantly—to reach the health-related targets of the SDGs by 2030.
SDG 3: are we on track?


- The reference scenario is not what will happen but simply what is most likely to happen if trends in past drivers of change continue and the relationships between these drivers and the SDG indicators remain the same in the next 12 years as in the past quarter century.
TOWARDS A

GLOBAL ACTION PLAN

FOR HEALTHY LIVES AND WELL-BEING FOR ALL

UNITING TO ACCELERATE PROGRESS TOWARDS THE HEALTH-RELATED SDGS

A JOINT INITIATIVE OF:
Target 3.1: reduce maternal mortality

Maternal Mortality Rate, Global

per 100,000 births

year

Reference  SDG Target
Maternal Mortality, 2015

Maternal mortality ratio is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births.

Source: Gapminder (2010) and World Bank (2015)
Target 3.2: end all preventable deaths under 5 years of age

Child mortality Rate, Global

Neonatal Mortality Rate, Global
Target 3.3: fight communicable diseases

By the end of 2017, 21.7 million people living with HIV were receiving antiretroviral therapy, an immense increase from just 800,000 in 2003. Yet more than 15 million people are still waiting for treatment.

Annual TB deaths have fallen substantially since 2000, from 2.3 to 1.6 million. But there are still 10 million new TB cases each year, and despite the availability of effective curative treatments, TB is the leading killer from a single infectious agent worldwide.
Share of the population infected with HIV, 2016

Share of the population aged between 15 and 49 years old infected with HIV/AIDS. This is based on estimates from the IHME, Global Burden of Disease Study.
Target 3.3: fight communicable diseases (cont.)

After unprecedented global gains in malaria control, progress has stalled owing to a range of challenges, including a lack of sustainable and predictable funding. An estimated 216 million cases of malaria occurred in 2016, six million more cases than in 2013.
Malaria death rates (per 100,000), 2016

Age-standardized death rates from malaria, measured as the number of deaths per 100,000 individuals. Age-standardization assumes a constant population age & structure to allow for comparisons between countries and with time without the effects of a changing age distribution within a population (e.g. aging).

Source: IHME, Global Burden of Disease (GBD)

OurWorldInData.org/malaria/ • CC BY-SA
While the risk of dying prematurely from cardiovascular disease, chronic respiratory disease, diabetes or cancer has decreased since 2000, an estimated 13 million people under the age of 70 still died from these diseases in 2016. Some 71% of all deaths in 2016 were attributable to NCDs.

Nearly 800 000 deaths by suicide occurred in 2016. Men are 75% more likely than women to die from suicide, which is also the second leading cause of death among young adults after road traffic injuries.
Mortality from NCDs (2017)
Target 3.7: universal access to sexual and reproductive care, family planning and education

*Met Need for Family Planning with Modern Methods, Global*
Target 3.8: achieve universal health coverage

At least 400 million people have no access to basic health services, and 40% of the world’s people lack social protection.

More than 1.6 billion people or 22% of the global population currently live in fragile settings where protracted crises, combined with weak national capacity to deliver basic health services, present a significant challenge to global health.
Target 3.8: achieve universal health coverage

- At least **400 million people have no access to basic health services**, and 40% of the world’s people lack social protection.
- **More than 1.6 billion people or 22% of the global population currently live in fragile settings** where protracted crises, combined with weak national capacity to deliver basic health services, present a significant challenge to global health.
Target 3.8: achieve universal health coverage

Health financing

Monitoring Sustainable Development Goals – Indicator 3.8.2

Financial protection is a key dimension of universal health coverage (UHC) and needs to be monitored within the framework of the Sustainable Development Goals (SDGs). SDG Target 3.8 has two indicators.

Indicator 3.8.1: Coverage of essential health services

Indicator 3.8.2: proportion of a country’s population with large household expenditure on health as a share of household total consumption or income (catastrophic spending on health)

Indicator 3.8.2 of the SDGs concerns the financial protection dimension of universal health coverage. It corresponds to one definition of catastrophic spending on health based on the budget share approach. This indicator captures the impact of health spending paid “out-of-pocket” on household’s budget which could imply for some families choosing between health and other essentials like food, and education.
Indicator name and number

(SDG 3.8.2) Proportion of the population with large household expenditure on health as a share of total household expenditure or income. Two thresholds are used to define “large household expenditure on health”: greater than 10% (SDG 3.8.2_10) and greater than 25% of total household expenditure or income (SDG 3.8.2_25).

Population weighted average number of people with large household expenditure on health as a share of total household expenditure or income (e.g. greater than 25%).

\[
\sum_{i} w_{i} 1 \left( \frac{\text{household health expenditure}}{\text{total household expenditure or income}} > \tau \right)
\]
Progress on catastrophic health spending in 133 countries: a retrospective observational study

Adam Wagstaff*, Gabriela Flores*, Justin Hsu, Marc-Francois Smitz, Kateryna Cherpynska, Leander R Buismen, Kim van Wilgenburg, Patrick Ezenou*

Summary

Background The goal of universal health coverage (UHC) requires inter alia that families who get needed health care do not suffer undue financial hardship as a result. This can be measured by the percentage of people in households whose out-of-pocket health expenditures are large relative to their income or consumption. We aimed to estimate the global incidence of catastrophic health spending, trends between 2000 and 2010, and associations between catastrophic health spending and macroeconomic and health system variables at the country level.

Methods We did a retrospective observational study of health spending using data obtained from household surveys. Of 1566 potentially suitable household surveys, 553 passed quality checks, covering 133 countries between 1984 and 2015. We defined health spending as catastrophic when it exceeded 10% or 25% of household consumption. We estimated global incidence by aggregating up from every country, using a survey for the year in question when available, and interpolation and model-based estimates otherwise. We used multiple regression to explore the relation between a country’s incidence of catastrophic spending and gross domestic product (GDP) per person, the Gini coefficient for income inequality, and the share of total health expenditure spent by social security funds, other government agencies, private insurance schemes, and non-profit institutions.

Findings The global incidence of catastrophic spending at the 10% threshold was estimated as 9.7% in 2000, 11.4% in 2005, and 11.7% in 2010. Globally, 808 million people in 2010 incurred catastrophic health spending. Across 94 countries with two or more survey datapoints, the population-weighted median annual rate of change of catastrophic payment incidence was positive whatever catastrophic payment incidence measure was used. Incidence of catastrophic payments was correlated positively with GDP per person and the share of GDP spent on health, and incidence correlated negatively with the share of total health spending channelled through other government agencies.

Interpretation The proportion of the population that is supposed to be covered by national or subnational health services is a poor indicator of financial protection. Incidence on health is not sufficient to reduce catastrophic payment incidence; rather, what is of total health expenditure that is prepaid, particularly through taxes and mandatory c

Catastrophic payments as a measure of financial hardship

We focused on one measure of financial hardship that has been used widely in previous studies, typically referred to as catastrophic health expenditure. Catastrophic spending can be measured in different ways (appendix). The idea is, in effect, to measure the incidence of financial hardship caused by health payments—ie, the number of households with health spending that is large relative to their ability to pay.
Figure 2: Incidence of catastrophic health spending at the 10% (A) and 25% (B) thresholds, latest year.
Out of pocket health expenditure
Interlinks between SDG3 and the other SDGs

HEALTH IN THE SDG ERA

3 GOOD HEALTH AND WELL-BEING
ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

1 NO POVERTY
2 Zero Hunger
3 Good Health and Well-being
4 Quality Education
5 Gender Equality
6 Clean Water and Sanitation
7 Affordable and Clean Energy
8 Decent Work and Economic Growth
9 Industry, Innovation and Infrastructure
10 Reduced Inequalities
11 Sustainable Cities and Communities
12 Responsible Consumption and Production
13 Climate Action
14 Life Below Water
15 Life on Land
16 Peace and Justice
17 Partnerships for the Goals

World Health Organization
WWW.WHO.INT/SDG5
SDG 3 (health) and SDG 1 (poverty)
Goal 3 targets directly interlink to targets in other goals. Among these:

- 2.2 (end all forms of malnutrition)
- 4.1 (free, equitable and good-quality secondary education), 4.2 (good-quality early childhood development), 4.7 (knowledge and skills for sustainable development),
- 5.2 (eliminate all forms of violence against women and girls in the public and private spheres), 5.3 (eliminate all harmful practices, including female genital mutilation), 5.6 (universal access to sexual and reproductive health and reproductive rights)
Women spent almost three times as many hours on unpaid domestic and care work as men

The time spent on unpaid housework and caregiving undermines women’s ability to engage in other activities, such as education and paid labour. The average amount of time women spend on unpaid domestic work and caregiving at home is almost triple that of men, according to survey data from 83 countries and areas.

Data for a subset of countries (mainly from Latin American and European countries) suggest this disparity widens during periods when women are most likely to have young children at home. Women dedicate more time than men caring for family members, especially children. This activity often overlaps with domestic duties, making it difficult to capture accurately in time-use surveys.

Proportion of time spent on unpaid domestic and care work, women and men, 2000-2016 (latest available) (percentage of time spent per day)

Unpaid domestic and care work (83)

Women

Men

Unpaid domestic work (71)

Women

Men

Unpaid care work (71)

Women

Men

Note: The figure reflects available data for 83 countries and areas over the period 2000-2016. Data disaggregated by unpaid domestic work and unpaid care work are only available for 71 countries. The number of countries and areas represented in each type of unpaid work is indicated in parentheses.
Only half of women in selected countries make their own decisions regarding sexual relations, contraceptive use and health care.

Woman and girls’ autonomy in decision-making over sexual relations, contraceptive use and access to sexual and reproductive health services is key to their empowerment and to fully exercising their reproductive rights. In 45 countries with available data, 43 of which are in developing regions, just over half (52 per cent) of women aged 15 to 49 years who are married or in union make their own informed decisions about sexual relations and the use of contraceptives and health services.

Proportion of women aged 15 to 49 years (married or in union) who make their own informed decisions regarding sexual relations, contraceptive use and health care, 2007-2015 (latest available) (percentage)

- Middle Africa (5) 26.8
- Western Africa (13) 29.6
- Eastern Africa (12) 49.0
- Southern Africa (3) 60.9
- Asia (6) 68.5
- Latin America and the Caribbean (4) 70.8
- Europe (2) 71.3

Note: The figure reflects available data from 45 countries (covering 7 per cent of the world’s population) over the period 2007-2015. The number of countries represented in each region is in parentheses.
Interlinks between SDG3 and the other SDGs (cont.)

- 6.1 (access to drinking water),
- 6.2 (access to sanitation),
- 7.1 (access to modern energy services),
- 9.5 (enhance scientific research /increase number of R&D workers),
- 11.6 (air quality and municipal waste),
- 13.1 (resilience to natural disasters),
- 16.1 (reduce violence and related death rates).
Interlink between SDG3 and SDG6

Proportion of the population with basic handwashing facilities, 2015 (percentage)

Note: Based on data for 70 countries.
Interlink between SDG3 and SDG11

Proportion of the urban population living in areas that meet the annual WHO air quality guideline value for particulate matter of a diameter less than 2.5 micrometres (PM2.5), 2014 (percentage)

- Australia and New Zealand: 100%
- Oceania*: 50%
- Europe and Northern America: 40%
- Latin America and the Caribbean: 15%
- Central and Southern Asia: 100%
- Eastern and South-Eastern Asia: 100%
- Sub-Saharan Africa: 100%
- Northern Africa and Western Asia: 100%
- World: 90%

Note: Oceania* refers to Oceania excluding Australia and New Zealand.
Progress in health outcomes will only be achieved with progress in other related sectors

- fiscal policy (e.g. taxing schemes to discourage unhealthy behaviors),
- nutrition,
- water and sanitation,
- air quality,
- road safety,
- education,
- gender equality and empowerment of women and girls,
- migration,
- peace and security.
• **Health employment** plays a critical role in eradicating poverty (SDG 1), achieving better health equity (SDG 3) and promoting decent work and economic growth (SDG 8).

• The Global Strategy on Human Resources for Health and the High-Level Commission on Health Employment and Economic Growth established by the UN Secretary General in 2016 recognizes that:

  *health workers are the backbone of Universal Health Coverage (UHC), strong and resilient health systems and a significant driver to the realization of all the health targets throughout the 2030 agenda.*
Macroeconomics of health
Life expectancy is increasing as more money is spent on health

The arrows show the change for all countries in the world, from 1995 (earliest available data) to 2014 (latest available data). [Not all countries are labelled] Total health expenditure is the sum of public and private health expenditures. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

Data source: World Bank
The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic. Licensed under CC-BY-SA by the author Max Roser.
Fewer children die as more money is spent on health

The arrows show the change for all countries in the world, from 1995 (earliest available data) to 2014 (latest available data). [Not all countries are labelled]

- Child mortality is the share of children that die before their 5th birthday.
- Total health expenditure is the sum of public and private health expenditures. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

**World Region:**
- East Asia & Pacific
- Europe & Central Asia
- Latin America & Caribbean
- Middle East & North Africa
- North America
- South Asia
- Sub-Saharan Africa

**Data source:** World Bank
The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic. Licensed under CC-BY-SA by the author Max Roser.
The Challenge of Financing Universal Health Coverage: competing with emerging priorities

- financial crisis,
- conflict situations,
- migration, security,
- natural and human-made disasters
Health is a fundamental human right, but also an important «engine» for development.
Figure 1. Health as an Input into Economic Development

Economic Policies and Institutions
  Governance
  Provision of Public Goods

Human Capital, including:
  education, on-the-job training, physical and cognitive development

Health

Technology, including:
  scientific knowledge relevant for production
  innovations in the domestic economy
  diffusion of technology from abroad

Enterprise Capital, including:
  fixed investments in plant and equipment
  teamwork and organization of work force
  investment opportunities
  ability to attract labor and capital

Economic Development:
  High Levels of GNP per capita
  Growth of GNP per capita
  Poverty Reduction
Figure 1 – Health inputs and health outputs

Source: Authors.
Human Capital

- **The intangible collective** resources possessed by individuals and groups within a given population. These resources include all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed individually and collectively, the **cumulative** total of which represents a form of wealth available to nations and organizations to accomplish their goals.
THE MAGNITUDE OF SUB-SAHARAN AFRICA'S ECONOMIC GROWTH DEPENDS ON HUMAN-CAPITAL INVESTMENT

HUMAN CAPITAL: A BRIEF EXPLANATION

Economists generally think of three factors that contribute to economic growth:

- Physical capital: Roads, bridges, factories, etc.
- Human capital: The sum total of the health, knowledge, and skills of the population.
- Total factor productivity: A broad category that captures an economy's efficiency, innovation, and level of technology.

In general, political leaders have preferred to invest in physical capital. When they build a piece of infrastructure, the impact is immediate and tangible. On the other hand, when they vaccinate and educate children effectively, the impact from an economic point of view comes decades later, and it's harder to see.

But the evidence is crystal clear: Human capital is a prerequisite for economic development. The data shows that differences in health and education levels explain as much as 30 percent of the variance in per capita GDP between countries.

It may be easier to capture the importance of investments in human capital by analyzing the impact they have on individuals. Consider height, which is a proxy for better health. Studies suggest that every additional centimeter boosts a person's income by 3.4 percent. Similarly, every additional year of schooling boosts it by 8 percent. When these individual effects are added up across a population, they can propel rapid economic growth.
Human Development Report 2016
Human Development for Everyone

components of the human development index

The HDI - three dimensions and four indicators

- Health
  - Life expectancy at birth

- Education
  - Mean years of schooling
  - Expected years of schooling

- Living standards
  - Gross national income per capita

Human development index

Three dimensions

Four indicators
GDP per capita, 2016
Real GDP per capita is measured using US$, inflation adjusted at prices of 2011. Multiple benchmarks allow cross-country income comparisons.

Source: Maddison Project Database (2018)
Dimensions of Human Development

- Directly enhancing human abilities
  - Long and healthy life
  - Knowledge
  - Decent standard of living

- Creating conditions for human development
  - Participation in political and community life
  - Environmental sustainability
  - Human security and rights
  - Gender equality
Human development grew out of global discussions on the links between economic growth and development during the second half of the 20th Century. By the early 1960s there were increasingly loud calls to “dethrone” GDP: economic growth had emerged as both a leading objective, and indicator, of national progress in many countries, even though GDP was never intended to be used as a measure of wellbeing. In the 1970s and 80s development debate considered using alternative focuses to go beyond GDP, including putting greater emphasis on employment, followed by redistribution with growth, and then whether people had their basic needs met.

These ideas helped pave the way for the human development approach, which is about expanding the richness of human life, rather than simply the richness of the economy in which human beings live. It is an approach that is focused on creating fair opportunities and choices for all people. So how do these ideas come together in the human development approach?

- **People:** the human development approach focuses on improving the lives people lead rather than assuming that economic growth will lead, automatically, to greater opportunities for all. Income growth is an important means to development, rather than an end in itself.

- **Opportunities:** human development is about giving people more freedom and opportunities to live lives they value. In effect this means developing people’s abilities and giving them a chance to use them. For example, educating a girl would build her skills, but it is of little use if she is denied access to jobs, or does not have the skills for the local labour market. The diagram below looks at aspects of human development that are foundational (that is they are a fundamental part of human development); and aspects that are more contextual (that is they help to create the conditions that allow people to flourish). Three foundations for human development are to live a healthy and creative life, to be knowledgeable, and to have access to resources needed for a decent standard of living. Many other aspects are important too, especially in helping to create the right conditions for human development, such as environmental sustainability or equality between men and women.
thank you

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