SDGs: Focus on Health Indicators

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ITALIAN CENTER FOR GLOBAL HEALTH

Research And Action To Fight Health Inequalities Worldwide

Basic and Translational Research
Clinical Epidemiology
Clinical Research
Education and Training
Health Systems Research, Innovative Models of Care
International Cooperation

Maternal, Newborn and Child Health (MNCH)
Migration Medicine
Natural Substances, Traditional Medicine, Integrated Medicine
Operational and Implementation Research
Policy and Advocacy
Work with International Organizations and the UN System
1. The concept of Global Health
The Growth of Life Expectancy

Life expectancy globally and by world regions since 1770

Source: Life expectancy – James Riley for data 1990 and earlier; WHO and World Bank for later data (by Max Roser) OurWorldInData.org/life-expectancy/ • CC BY-SA

and its determinants......
Life Expectancy vs. GDP per Capita from 1800 to 2012 – by Max Roser

GDP per capita is measured in International Dollars. This is a currency that would buy a comparable amount of goods and services a U.S. dollar would buy in the United States in 1990. Therefore incomes are comparable across countries and across time.

Data sources: Data on life expectancy are from Gapminder.org; data on GDP per capita are from the ‘New Maddison Project Database’.
The interactive data visualisation is available at OurWorldInData.org. There you find the raw data and more visualisations on this topic.

Licensed under CC-BY-SA by the author Max Roser.
Clean water

Worldwide, 1 out of every 5 deaths of children under 5 is due to a water-related disease.
Social Determinants

- Marketing and advertising
- Changes in gender roles
- Physical activity
- Equality
- Industrialization of food production
- Agriculture
  - Organic farming
  - Chemistry and pesticides
- Social networks
- Education
- Nutrition
- Environment
- Urban development
- Demographic change
- Social innovation
- Innovation in medicine
- Mental well-being
  - Depression
  - Unemployment
  - Unemployment and stress

HEALTH & WELLBEING
Advancements in Health have not been equally distributed
Global inequalities

At least 20 million people die **prematurely** (half of them before the age of 5) in developing countries for lack of adequate access to basic health care. They die for causes that are very often **preventable or treatable**.

Despite the convergence on the concept of health as a human right, there still exist intolerable global inequalities in accessing health and health services and in terms of life expectancy and morbidity and mortality from **communicable and non-communicable diseases**.

The persistence of inequalities in terms of health - **not only between rich and poor countries, but also between different regions in the same country** - is also a contradiction to science, given the growing geographic interdependence of the **biomedical causes and of the social determinants of health and diseases**.
LIFE EXPECTANCY

Global Life Expectancy

Mean life expectancy in years, 2013
- <40
- 40 to 45
- 45 to 50
- 50 to 55
- 55 to 60
- 60 to 65
- 65 to 70
- 70 to 75
- 75 to 80
- >80
- no data

Map created by Tina Gotthardt & Benjamin Hennig
Data Source: UN Human Development Report 2014

Reference Map
Healthy life expectancy (HALE) at birth, both sexes, 2015

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: World Health Statistics 2016, WHO
Note: WHO Member States with a population of less than 90,000 in 2015 were not included in the analysis.

Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization

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MATERNAL MORTALITY RATIO
per 100 000 live births, 2013
HIV Prevalence
Adults living with the human Immunodeficiency virus

HIV prevalence adult (% ages 15-49)
- >15%
- above 10 to 15%
- above 5 to 10%
- above 1 to 5%
- ≤1%

Countries resized according to the number of people aged 15-49 who are living with HIV
Estimated TB incidence rates, 2016

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.


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Estimated TB mortality rates excluding TB deaths among HIV-positive people, 2016

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Prevalenza dell’infezione da HCV nel mondo

130–170 million people world wide are infected with HCV

Prevalence of HCV

- >10%
- 5–10%
- 2–5%
- 1–2%
- <1%
- No data

* Estimated number of chronically infected individuals (2010)

2008 Global HPV-related burden: 607,000 annual cancer cases

- Penile cancer: 11,000
- Oropharyngeal cancer: 17,000
- Anal cancer: 11,000
- Vulva and Vaginal cancer: 21,000 + 4,400 = 25,400
- Genital warts: 30,000,000

* Circles proportional to annual burden

De Martel et al. 2012 Lancet Oncol (cancers) and Dillner et al. 2010 BMJ (genital warts)
Deaths due to noncommunicable diseases: age-standardized death rate (per 100 000 population)
Both sexes, 2015
Immunization coverage with DTP3 vaccines in infants (from <50%), 2016

Map production: Immunization, Vaccines and Biologicals (IVB), World Health Organization; 194 WHO Member States.
Date of slide: 19 July 2017

WHO Diagram 3814: Immunization coverage with DTP3 vaccines in infants (from <50%), 2016.

Legend:
- ≤50% (18 countries or 4%)
- 50-79% (27 countries or 14%)
- 80-89% (122 countries or 55%)
- ≥90% (110 countries or 57%)
- Not available
- Not applicable

Note: The boundaries and names shown and the designations used on the map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its boundaries. Names of scientific organizations are listed for the convenience of users and do not imply any acceptance of responsibility by the World Health Organization for the use of those names.
Education Gender Gap

Population aged 25 and above with at least some secondary education (Ratio Female:Male)

- <0.5
- 0.5 to 0.75
- 0.75 to 1
- 1 to 1.25
- >1.25
- no data

Basemap: Gridded population cartogram giving every person an equal amount of space in the map

Map created by Benjamin Hennig
www.viewsortheworld.net
GENDER INEQUALITY

Gender Inequality

Data Source: Human Development Index (2014)
Main map shows an equal population projection (gridded population cartogram)
Global coverage of surveillance data on drug resistance, 1995–2017

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Prevalence of obesity*, ages 18+, 2016 (age standardized estimate)
Female

Note: For mapping purposes, the map shows identical values for Sudan and South Sudan. These values concern the former Sudan as it existed prior to July 2011.
* Body Mass Index ≥30 kg/m²
Prevalence of overweight*, ages 18+, 2016 (age standardized estimate)
Female

Prevalence (%)
- <20.0
- 20.0–39.9
- 40.0–59.9
- ≥60.0
- Data not available
- Not applicable

Note: For mapping purposes, the map shows identical values for Sudan and South Sudan. These values concern the former Sudan as it existed prior to July 2011.

* Body Mass Index ≥25 kg/m²

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Information Evidence and Research (IER)
World Health Organization
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ROAD TRAFFIC MORTALITY

Road traffic mortality rate, 2013*

Mortality rate
(per 100,000 population)

- <10.0
- 10.0–19.9
- 20.0–24.9
- ≥25.0
- Data not available
- Not applicable

* WHO Member States with a population of less than 90,000 in 2015 who did not participate in the survey for the Global status report on road safety 2015 were not included in the analysis.

Data Source: World Health Organization
Map production: Information Evidence and Research (IER)
World Health Organization
What is Global Health?
Global health is the health of populations in a global context

An area for study, research, and action
That prioritize improving health and achieving equity in health for all people worldwide
Transcending the perspectives and concerns of individual nations
With specific attention to the poor, the marginalized, and the underserved....
Globalization, Poverty and Health

1. The current version of globalization has delivered economic growth
2. But at enormous cost: rising inequalities, massive environmental destruction, and growing lawlessness.
3. Poverty is both a cause and a consequence of poor health.
4. The causes of poor health for millions globally are rooted in political, social and economic injustices.
The causes of poor health for millions globally are rooted in political, social and economic injustices.

Only 1% of people owns 50.4% of the global wealth;
2.4 billion adults own only 1%

Marginalised groups and vulnerable individuals are often worst affected.
1.5 billion people live in slums
“Displaced populations”
REFUGEES/MIGRATION
THE MIGRATION OF ANATOMICALLY MODERN HUMANS

Evidence from fossils, ancient artefacts and genetic analyses combine to tell a compelling story.

Flow of genes around globe
Routes of migration
Alternative/contested routes
Anatomically modern humans 10,000 years ago

Atlantic Crossing

Lagar Velho Boy (Portugal)
~75k

Ibiza (Morocco)
Shell beads ~13k

'Aranjuez torques' (Morocco)
~30k

Denizli (Turkey)
Shell beads ~35k

Kenya (East Africa)
~160k

Combe Capelle (France)
~200k

Krause's Cave (South Africa)
~110k

Lake Mungo (Australia)
~46k

Tannoura (Libya)
~40k

Shiha and Qal'et (Israel)
120-90k
Shell beads ~110k

Spektar Cave (Romania)
~40k

David Djebbana (Algeria)
Shell beads ~35k

Herto (Ethiopia)
~160k

Siwa (Egypt)
~115k

Om ousted (Ethiopia)
~195k

Singa (Sudan)
~155k

Fahien Cave and Bataambara Ujima Cave (Siil Lanka)
Bones and artifacts ~35k

Klasies River (South Africa)
Cultural artifacts ~70k

Blombos Caves (South Africa)
75-65k
2 pieces of engraved ochre ~77k
Shell beads ~75k

Moula (Morocco)

Niah Caves (Sabah)
~45k

Arlington Springs (USA)
Leg bone ~13k

Small blades 20-17k

Cactus Hill (USA)

South-west of Puebla (Mexico)
Ancient footprints ~16k (contested)

Pacifica Crossing

Bali (Indonesia)

Quembusa Jugoya (Kenya)
Human settlement ~15k
EXPLOITED YOUNG WOMEN

High rates of HIV among key populations: young women in Africa


Young women have up to 8 times more HIV than men

Source: Adapted from UNAIDS 2012

HIV prevalence in young pregnant women in rural Vulindlela, South Africa (2005-2008)

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>HIV Prevalence (N=1237)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤16</td>
<td>10.6%</td>
</tr>
<tr>
<td>17-18</td>
<td>21.3%</td>
</tr>
<tr>
<td>19-20</td>
<td>33.0%</td>
</tr>
<tr>
<td>21-22</td>
<td>44.3%</td>
</tr>
<tr>
<td>23-24</td>
<td>51.1%</td>
</tr>
</tbody>
</table>
2. Investing in Health
Investing in Health is very cost-effective

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.
The Challenge of Financing Global Health: competing with emerging new priorities

financial crisis, conflict situations, migration, security, climate change, natural and human-made disasters
YEAR 2000: difference in mortality between the rich and the poor
HIV/AIDS: life-expectancy impact
World AIDS Conference
DURBAN, 2000
INNOVATIVE FINANCING TO FIGHT AIDS, TB & MALARIA

ENDING AIDS, TB AND MALARIA AS EPIDEMICS
The rise of antiretroviral treatment coverage

Source: UNAIDS/WHO estimates.
MORTALITY IMPACT

Antiretroviral therapy coverage and number of AIDS-related deaths, global, 2000–2015

Sources: GARPR 2016; UNAIDS 2016 estimates.
HIV/AIDS: life-expectancy impact

Source: World Bank life expectancy data
Development assistance for health (DAH)

Growth is stagnant, but the needs haven’t gone away

DAH by health focus area, 1990-2016

Total DAH amounted to $37.6 billion in 2016

Continued improvements in maternal, newborn, and child health may depend on increased funding in those areas.¹

HIV/AIDS remains an epidemic, but DAH for HIV/AIDS has declined by $100 million per year since 2010. With access to treatment, HIV/AIDS is a chronic condition requiring ongoing management.

*2015 and 2016 are preliminary estimates.

¹The majority of countries did not reach their goals for MDGs 4 and 5 (reducing child and maternal mortality).

Note: Health assistance for which we have no health focus area information is designated as “unidentified.” “Other” captures DAH for which we have project-level information but which is not identified as funding any of the health focus areas tracked.
3. The Global Burden of Diseases

Institute for Health Metrics and Evaluation

http://www.healthdata.org
What is the Global Burden of Disease (GBD)?

Everyone, all over the world, deserves to live a long life in full health. The Global Burden of Disease study measures what prevents us from achieving that goal.

The study identifies the biggest health problems in 195 countries and territories.

<table>
<thead>
<tr>
<th>GBD includes</th>
<th>2 billion+ results</th>
<th>300+ diseases, injuries, and risk factors</th>
<th>Results by sex</th>
<th>Over 20 age groups</th>
</tr>
</thead>
</table>

What questions can it answer?

- What are my country’s biggest health problems?
- What causes more ill health in my country, depression or breast cancer?
- What contributes to more death and disability in my country – smoking, obesity/overweight, or unsafe water?
- What is the leading cause of death among children under the age of 5 in the world?
- I’m designing an intervention to improve the health of young women – which diseases, injuries, and risk factors should I target to make the greatest impact?
- Which countries have the highest death rates from drug use? Leukemia? Cardiovascular diseases?

GBD is a worldwide effort

Published in *The Lancet*, the study uses more than 80,000 data sources, drawing from the world’s largest global health database. Governments in Australia, Brazil, Kenya, Norway, the UK, and the US, as well as the Bill & Melinda Gates Foundation and the World Bank, are using GBD findings to inform decision-making.
Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015

Summary
Background Healthy life expectancy (HALE) and disability-adjusted life-years (DALYs) provide summary measures of health across geographies and time that can inform assessments of epidemiological patterns and health system performance, help to prioritize investments in research and development, and monitor progress toward the Sustainable Development Goals (SDGs). We aimed to produce updated HALE and DALYs for geographies worldwide and evaluate how disease burden changes with development.

Methods We used results from the Global Burden of Diseases, Injuries, and Risk Factors Study 2015 (GBD 2015) for all-cause mortality, cause-specific mortality, and non-fatal disease burden to derive HALE and DALYs by sex for 195 countries and territories from 1990 to 2015. We calculated DALYs by summing years of life lost (YLLs) and years of life lived with disability (YLDs) for each geography, age group, sex, and year. We estimated HALE using the Sullivan method, which draws from age-specific death rates and YLDs per capita. We then assessed how observed levels of DALYs and HALE differed from expected trends calculated with the Socio-demographic index (SDI), a composite indicator constructed from measures of income per capita, average years of schooling, and total fertility rate.

Findings Total global DALYs rose largely unchanged from 1990 to 2015, with decreases in communicable, neonatal, maternal, and nutritional (Group 1) disease DALYs offset by increased DALYs due to non-communicable diseases (NCDs). Much of this epidemiological transition was caused by changes in population growth and aging, but it was accelerated by widespread improvements in SDI that also correlated strongly with the increasing importance of NCDs. Both total DALYs and age-standardised DALY rates due to Group 1 causes significantly decreased by 2015, and although overall burden climbed for the majority of NCDs, age-standardised DALY rates due to NCDs declined. Nonetheless, age-standardised DALY rates due to several high-burden NCDs (including osteoarthritis, drug use disorders, depression, diabetes, congenital birth defects, and skin, oral, and sense-organ diseases) either increased or remained unchanged, leading to increases in their relative ranking in many geographies. From 2005 to 2015, HALE at birth increased by an average of 2.5 years (95% uncertainty interval 2.5–3.0) for men and 3.5 years (1.4–3.7) for women, while HALE in age 65 years improved by 0.45 years (0.78–0.92) and 1.2 years (0.8–1.3), respectively. Rising SDI was associated with consistently higher HALE and a country’s smaller proportion of life spent with functional health loss; however, rising SDI was released to increases in total disability. Many countries and territories in Central America and eastern sub-Saharan Africa had increasingly lower rates of disease burden than expected given their SDI. At the same time, a subset of geographies recorded a growing gap between observed and expected levels of DALYs, a trend driven mainly by rising burden due to war, interpersonal violence, and various NCDs.

Interpretation Health is improving globally, but this means more populations are spending more time with functional health loss, an absolute expansion of morbidity. The proportion of life spent in ill health decreases somewhat with increasing SDI, a relative compression of morbidity, which supports continued efforts to decrease personal income, improve education, and boost fertility. Our analysis of DALYs and HALE and their relationship to SDI represents a robust framework on which to benchmark geography-specific health performance and SDG progress. Geography-specific drivers of disease burden, particularly for causes with higher than expected DALYs, should inform financial and research in-cumens, pro-poor efforts, health policies, and health system improvements initiatives for all countries along the development continuum.

Funding Bill & Melinda Gates Foundation.

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### Figure 2

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<td>1 Ischaemic heart disease</td>
<td>26 -3</td>
<td>2 -7</td>
<td>-12 -2</td>
<td>1 Ischaemic heart disease</td>
<td>11 -0</td>
<td>-1 -8</td>
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<td>-32 -6</td>
<td>-31 -0</td>
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<td>4 Low back and neck pain</td>
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<td>584 8</td>
<td>445 2</td>
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<td>-24 -4</td>
<td>-33 -1</td>
<td>-28 -6</td>
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<td>-37 -3</td>
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<td>7 Malaria</td>
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<td>-1 -4</td>
<td>18 -3</td>
<td>7 Sense organ diseases</td>
<td>25 -2</td>
<td>9 -9</td>
<td>0 -6</td>
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<td>8 Low back and neck pain</td>
<td>34 -5</td>
<td>9 -4</td>
<td>-1 -8</td>
<td>8 Neonatal encephalopathy</td>
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<td>-24 -2</td>
<td>-19 -2</td>
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<td>-20 -4</td>
<td>0 -3</td>
<td>9 Road injuries</td>
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<td>-27 -7</td>
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<td>-40 -4</td>
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<td>-1 -1</td>
<td>-19 -6</td>
<td>-27 -7</td>
<td>11 Diabetes</td>
<td>-29 -0</td>
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<td>0 -1</td>
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<td>11 -7</td>
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<td>1 -3</td>
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<td>-5 -5</td>
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<td>16 Diabetes</td>
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<td>-3 -3</td>
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<td>-11 -3</td>
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<td>17 Drowning</td>
<td>17 Depressive disorders</td>
<td>32 -9</td>
<td>8 -1</td>
<td>0 -6</td>
<td>17 Skin diseases</td>
<td>12 -3</td>
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<td>0 -6</td>
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<td>18 Skin diseases</td>
<td>22 -7</td>
<td>-0 -2</td>
<td>1 -2</td>
<td>18 Tuberculosis</td>
<td>-19 -0</td>
<td>-28 -2</td>
<td>-32 -4</td>
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<td>19 Self-harm</td>
<td>14 -8</td>
<td>-6 -8</td>
<td>-10 -9</td>
<td>19 Lung cancer</td>
<td>-14 -5</td>
<td>1 -1</td>
<td>-11 -3</td>
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<tr>
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<td>20 Lung cancer</td>
<td>31 -7</td>
<td>7 -4</td>
<td>-6 -1</td>
<td>20 Chronic kidney disease</td>
<td>19 -6</td>
<td>4 -8</td>
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<td>21 Neonatal sepsis</td>
<td>7 0</td>
<td>-12 -9</td>
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<td>21 Self-harm</td>
<td>-4 -4</td>
<td>-15 -4</td>
<td>-17 -0</td>
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<tr>
<td>22 Other neonatal</td>
<td>22 Chronic kidney disease</td>
<td>36 -6</td>
<td>10 -0</td>
<td>3 -5</td>
<td>22 Other musculoskeletal</td>
<td>19 -9</td>
<td>6 -0</td>
<td>0 -8</td>
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<td>23 Asthma</td>
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<td>29 -7</td>
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<tr>
<td>25 Neonatal sepsis</td>
<td>25 Other musculoskeletal</td>
<td>5 5 -1</td>
<td>23 -3</td>
<td>13 -4</td>
<td>25 Asthma</td>
<td>-2 -6</td>
<td>-13 -9</td>
<td>-16 -9</td>
</tr>
<tr>
<td>26 Tetanus</td>
<td>26 Asthma</td>
<td>-12 -3</td>
<td>-28 -7</td>
<td>-31 -2</td>
<td>26 Falls</td>
<td>9 -2</td>
<td>-3 -3</td>
<td>-8 -7</td>
</tr>
<tr>
<td>27 Lung cancer</td>
<td>27 Protein-energy malnutrition</td>
<td>-36 -1</td>
<td>-48 -0</td>
<td>-36 -2</td>
<td>27 Meningitis</td>
<td>-10 -6</td>
<td>-21 -4</td>
<td>-17 -8</td>
</tr>
<tr>
<td>28 Falls</td>
<td>28 Measles</td>
<td>-65 -1</td>
<td>-71 -8</td>
<td>-64 -6</td>
<td>28 Anxiety disorders</td>
<td>14 -8</td>
<td>1 -5</td>
<td>1 -0</td>
</tr>
<tr>
<td>29 Migraine</td>
<td>29 Drowning</td>
<td>-38 -0</td>
<td>-49 -6</td>
<td>-42 -8</td>
<td>29 Alzheimer’s disease</td>
<td>32 -8</td>
<td>17 -4</td>
<td>3 -4</td>
</tr>
<tr>
<td>30 Chronic kidney disease</td>
<td>30 Falls</td>
<td>6 0</td>
<td>-13 -7</td>
<td>-15 -4</td>
<td>30 Intercostal violence</td>
<td>-5 -9</td>
<td>-16 -8</td>
<td>-16 -1</td>
</tr>
</tbody>
</table>

- Communicable, maternal, neonatal, and nutritional
- Non-communicable
- Injuries
Disability-adjusted life years (DALYs) are years of healthy life lost to premature death and disability. This figure shows that communicable diseases declined between 1990 and 2015.
| Age Group | Early Neonatal (0–6 days) | Late Neonatal (7–27 days) | Post-neonatal (28–364 days) | 1–4 years | 5–9 years | 10–14 years | 15–19 years | 20–24 years | 25–29 years | 30–34 years | 35–39 years | 40–44 years | 45–49 years | 50–54 years | 55–59 years | 60–64 years | 65–69 years | 70–74 years | 75–79 years | ≥80 years |
|-----------|--------------------------|--------------------------|-----------------------------|-----------|-----------|-------------|------------|------------|------------|-----------|-----------|-----------|------------|-------------|-------------|------------|-------------|-------------|-----------|-----------|-----------|
| Event     | NN Preterm               | NN Sepsis                | NN Sepsis                   | Congenital| Other NN  | LRI         | NN Haemol   | STD        | Diarrhoea  | Meningitis | Malaria   | NN Haemol | Diarrhoea   | Congenital  | Malaria    | NN Haemol   | Diarrhoea  | Meningitis | Malaria   | NN Haemol |
|           |                         |                         |                             |           |           |             |             |            |            |           |           |           |             |             |            |             |             |           |           |           |           |
|           |                         |                         |                             |           |           |             |             |            |            |           |           |           |             |             |            |             |             |           |           |           |           |

**Rate of change 2005–15 (%)**

-0.56 to -0.31  -0.31 to -0.19  -0.19 to -0.09  -0.09 to -0.04  -0.04 to 0.01  0.01 to 0.08  0.08 to 0.15  0.15 to 0.23  0.23 to 0.32  0.32 to 0.57

*The Lancet* 2016 388, 1603-1658 DOI: (10.1016/S0140-6736(16)31460-X) Copyright © 2016 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY license Terms and Conditions
What are GBD’s main findings?

• The world is in the midst of an “epidemiological transition,” which means that as countries increase their levels of development, early death and disability from communicable diseases are declining and life expectancies are rising.

• While more developed countries tend to be healthier than less developed ones, some countries are much healthier than expected given their level of development, such as Ethiopia and Spain.

• People’s exposure to poor sanitation, indoor air pollution, and childhood undernutrition has dropped, resulting in dramatic declines in the burden of diarrhea and pneumonia in children.

• Several risk factors linked to development increased markedly from 1990 to 2015. These include obesity/overweight, high blood sugar, ambient air pollution, and drug use.
The disease burden by country
CENTRAL AFRICAN REPUBLIC
MOZAMBIQUE

All risk factors
Both sexes, All ages, 2016, DALYs per 100,000

Mozambique
Both sexes, All ages, 2016, DALYs attributable to All risk factors

LRI
Diarrhea
NN Preterm
NN Enceph
Meningitis
Whooping Measles
Oth NN
NN Sepsis
HIV
TB
Iron
PEM
STD
Malaria

DALYs attributable to risk

DALYs not attributable to risk
SOUTH AFRICA
4. The Sustainable Development Goals
Figure 1. The 17 Sustainable Development Goals

SDGs INTERLINKAGE
SDG # 3

**SDG 3:** Ensure healthy lives and promote well-being for all at all ages

**Target 3.8:** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, medicines and vaccines for all

**MDG unfinished and expanded agenda**

- **3.1:** Reduce maternal mortality
- **3.2:** End preventable newborn and child deaths
- **3.3:** End the epidemics of AIDS, TB, malaria and NTDs and combat hepatitis, waterborne and other communicable diseases
- **3.7:** Ensure universal access to sexual and reproductive health-care services

**New SDG 3 targets**

- **3.4:** Reduce mortality from NCDs and promote mental health
- **3.5:** Strengthen prevention and treatment of substance abuse
- **3.6:** Halve global deaths and injuries from road traffic accidents
- **3.9:** Reduce deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

**SDG 3 means of implementation targets**

- **3.a:** Strengthen implementation of framework convention on tobacco control
- **3.b:** Provide access to medicines and vaccines for all, support R&D of vaccines and medicines for all
- **3.c:** Increase health financing and health workforce in developing countries
- **3.d:** Strengthen capacity for early warning, risk reduction and management of health risks

Interactions with economic, other social and environmental SDGs and SDG 17 on means of implementation
SDG # 3 - Targets

• By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
• 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
• By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
• By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
• Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
• By 2020, halve the number of global deaths and injuries from road traffic accidents
• 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 from hazardous chemicals and air, water and soil pollution and contamination
• Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
SDG # 3 - Targets

• Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicine
• 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
• By 2030, substantially reduce the number of deaths and illnesses 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
• 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
• Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks
Goal 3: Ensure healthy lives and promote well-being for all at all ages

3.1 Reduce maternal mortality
3.2 End preventable deaths
3.3 End AIDS, TB, etc.
3.4 Mortality from non-communicable diseases
3.5 Substance abuse
3.6 Road traffic accidents
3.7 Access to sexual & reproductive health
3.8 Universal health coverage
3.9 Hazardous chemicals & pollution
3.10 Universal health coverage

Goal 3: Ensure healthy lives and promote well-being for all at all ages

11.2 Improving road safety for all
1.3 Soil protection systems & measures
2.5 Maintain ecosystems
1.1 Sustainable management of water & sanitation

Goal 6: Sustainably manage water & sanitation

2.5 Maintain ecosystems
2.6 Ensure availability & sustainable management of water & sanitation
2.7 Conserve marine resources

Goal 10: Reduce Inequality Within and Among Countries

5.1 Achieve sustained, 3.8 Universal health coverage, inclusive economic growth
5.2 Eliminate all forms of violence against women & girls
5.3 Eliminate harmful practices such as child marriage & FGM
5.4 Reduce maternal mortality
5.5 Improve maternal health

Goal 13: Ensure environmental protection

13.1 Adapting to climate-related hazards
13.2 Promoting sustainable development
13.3 Subsistence agriculture & food security
13.4 Sustainable use of natural resources
13.5 Mitigate & adapt to climate change
13.6 Promote industrial development
13.7 Build climate resilience
13.8 Promote sustainable development

Goal 5: Achieve gender equality & empower women & girls

5.1 Achieve gender equality
5.2 End all forms of violence against women
5.3 Eliminate harmful practices such as child marriage & FGM
5.4 Reduce maternal mortality
5.5 Improve maternal health

Intersectios between SDG #3 and other SDGs
MEASURING THE DISTANCE TO TARGETS
MEASURING DISTANCE TO THE SDG TARGETS

An assessment of where OECD countries stand

June 2017
### Goal 3. Ensure healthy lives and promote well-being for all at all ages

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Measurement</th>
<th>Target</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births</td>
<td>Maternal mortality ratio</td>
<td>Maternal mortality</td>
<td>70.00</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td>3.2 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</td>
<td>Under-five mortality rate</td>
<td>UN-STAT</td>
<td>25.00</td>
<td>UN-STAT</td>
</tr>
<tr>
<td></td>
<td>Neonatal mortality rate</td>
<td>Neonatal mortality</td>
<td>12.00</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td></td>
<td>Estimated HIV Incidence rate</td>
<td>AIDS incidence</td>
<td>0.00</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td>3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases</td>
<td>Tuberculosis incidence per 100,000 population</td>
<td>UN-STAT</td>
<td>0.00</td>
<td>UN-STAT</td>
</tr>
<tr>
<td></td>
<td>Number of people requiring interventions against neglected tropical diseases</td>
<td>Hepatitis B Incidence</td>
<td>0.00</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td>3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</td>
<td>Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease</td>
<td>Premature mortality</td>
<td>2004.40</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td></td>
<td>Suicide mortality rate</td>
<td>Death due to intentional self-harm</td>
<td>0.00</td>
<td>OECD based on Gallup World Poll</td>
</tr>
<tr>
<td>3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</td>
<td>Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol</td>
<td>Alcohol consumption</td>
<td>6.20</td>
<td>OECD Health Database</td>
</tr>
<tr>
<td>3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents</td>
<td>Death rate due to road traffic injuries</td>
<td>Mortality from transport accidents</td>
<td>3.25</td>
<td>OECD Health Data</td>
</tr>
<tr>
<td>3.7 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</td>
<td>Adolescent birth rate per 1,000 adolescent women aged 15-19</td>
<td>Adolescent fertility rate</td>
<td>0.00</td>
<td>OECD Family Database</td>
</tr>
<tr>
<td>3.8 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</td>
<td>Coverage for health care</td>
<td>100.00</td>
<td>OECD Health Data</td>
<td></td>
</tr>
<tr>
<td>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</td>
<td>Mortality rate attributed to household and ambient air pollution</td>
<td>UN-STAT</td>
<td>0.00</td>
<td>UN-STAT</td>
</tr>
<tr>
<td></td>
<td>Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene</td>
<td>UN-STAT</td>
<td>0.00</td>
<td>UN-STAT</td>
</tr>
<tr>
<td></td>
<td>Mortality rate attributed to unintentional poisonings</td>
<td>Mortality from accidental poisoning</td>
<td>0.00</td>
<td>OECD Health</td>
</tr>
</tbody>
</table>

**Additional Objectives:**

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect the world’s population

3.c 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

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

3.d.1 International Health Regulations (IHR) core capacity index | UN-STAT | 100.00 | UN-STAT |
Figure 6. How OECD countries vary in their distance to targets, by SDG Goal

Note: The distribution of OECD countries' distances on the 17 Goals in standard deviation units. Central black bars: OECD median country score. Box boundaries: first and third quartiles of the country distribution. Whiskers: 10th and 90th percentiles of this distribution.
Measuring progress and projecting attainment on the basis of past trends of the health-related Sustainable Development Goals in 188 countries: an analysis from the Global Burden of Disease Study 2016

http://www.healthdata.org/data-visualization/health-related-sdgs
• Globally, the median health-related SDG index was 56.7 (IQR 31.9–66.8) in 2016 and country-level performance markedly varied, with Singapore (86.8, 95% uncertainty interval 84.6–88.9), Iceland (86.0, 84.1–87.6), and Sweden (85.6, 81.8–87.8) having the highest levels in 2016 and Afghanistan (10.9, 9.6–11.9), the Central African Republic (11.0, 8.8–13.8), and Somalia (11.3, 9.5–13.1) recording the lowest.
• Between 2000 and 2016, notable improvements in the UHC index were achieved by several countries, including Cambodia, Rwanda, Equatorial Guinea, Laos, Turkey, and China; however, a number of countries, such as Lesotho and the Central African Republic, but also high-income countries, such as the US, showed minimal gains.

• Based on projections of past trends, the median number of SDG targets attained in 2030 was five (IQR 2–8) of the 24 defined targets currently measured.
Ethiopia, 2016

SDG Index, Ethiopia

Health-related index for all indicators.
India, 2016

SDG 39
Index value

Health-related index for all indicators.
Health-related SDGs | Viz Hub

Location: Italy
Year: 2016
Indicator: SDG index

SDG index, Italy

Index value

Health-related index for all indicators.
Health-related SDGs | Viz Hub

Location: Sweden
Indicator: SDG index
Year: 2016

Sweden, 2016

SDG index, Sweden

Index value

Health-related index for all indicators.
Mali, 2016

SDG 22
Index value

Health-related index for all indicators.
5. Universal Health Coverage
TARGET 3.8: ACHIEVE UNIVERSAL HEALTH COVERAGE, INCLUDING FINANCIAL RISK PROTECTION, ACCESS TO QUALITY ESSENTIAL HEALTH-CARE SERVICES, MEDICINES AND VACCINES FOR ALL

MDG UNFINISHED AND EXPANDED AGENDA
3.1: Reduce maternal mortality
3.2: End preventable newborn and child deaths
3.3: End the epidemics of AIDS, TB, malaria and NTDs and combat hepatitis, waterborne and other communicable diseases
3.7: Ensure universal access to sexual and reproductive health-care services

NEW SDG 3 TARGETS
3.4: Reduce mortality from NCDs and promote mental health
3.5: Strengthen prevention and treatment of substance abuse
3.6: Halve global deaths and injuries from road traffic accidents
3.9: Reduce deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

SDG 3 MEANS OF IMPLEMENTATION TARGETS
3.a: Strengthen implementation of framework convention on tobacco control
3.b: Provide access to medicines and vaccines for all, support R&D of vaccines and medicines for all
3.c: Increase health financing and health workforce in developing countries
3.d: Strengthen capacity for early warning, risk reduction and management of health risks

INTERACTIONS WITH ECONOMIC, OTHER SOCIAL AND ENVIRONMENTAL SDGs AND SDG 17 ON MEANS OF IMPLEMENTATION
Universal health coverage and intersectoral action for health: key messages from Disease Control Priorities, 3rd edition


The World Bank is publishing nine volumes of Disease Control Priorities (DCP3) between 2015 and 2018. Volume 9, Improving Health and Reducing Poverty, summarises the main messages from all nine volumes and contains cross-cutting analyses. This Review draws on all nine volumes to convey the conclusions. DCP3 is based upon a major professional community that addresses the concerns of professionals who develop and implement health policies and plans, and health professionals who work in the field. DCP3 identifies the essential action for health interventions to improve health outcomes and reduce mortality and morbidity. DCP3 is a model of concept of essential health interventions to improve health outcomes and reduce mortality and morbidity. DCP3 is intended to be a model of concept of essential health interventions to improve health outcomes and reduce mortality and morbidity. DCP3 is intended to be a model of concept of essential health interventions to improve health outcomes and reduce mortality and morbidity. DCP3 is intended to be a model of concept of essential health interventions to improve health outcomes and reduce mortality and morbidity.

Introduction
In 1993, the World Bank published Disease Control Priorities in Developing Countries (DCP1), an attempt to systematically assess value for money (cost-effectiveness) of interventions that would address the major sources of disease burden in low-income and middle-income countries (LMICs). One motivation for DCP1 was to identify reasonable responses in highly resource-constrained environments to the growing burden of non-communicable diseases and of HIV/AIDS in LMICs. The World Bank had highlighted the already substantial problem of non-communicable diseases in countries where tobacco use and self-medication were highly prevalent. Tobacco use and self-medication are major contributors to non-communicable diseases in Mexico and introduced the concept of a protracted epidemiological transition involving a dual burden of non-communicable diseases combined with significant lingering problems of infectious disease. The dual burden paradigm remains valid to this day. The World Bank’s first (and only) Disease Control Development Report about health provided the first assessment of the global burden of disease, an assessment that underestimated the impact of non-communicable diseases, which was consistent with subsequent assessments of global burden of disease. It then drew heavily on findings from DCP1 to conclude that a number of specific interventions against non-communicable diseases (including tobacco control and multi-drug resistance treatment) were essential.
Figure 1

Intersectoral policies

Health sector policies (including financial protection policies)

- Access to and uptake of health interventions
- Quality of delivery of health interventions

To reduce behavioural and environmental risk factors

To reduce physiological factors. Examples include:
- Stunting
- Overweight
- Anaemia
- Hypertension
- Dyslipidaemia
- High blood glucose

To improve health outcomes. Examples include:
- Child deaths
- Premature adult deaths
- Short-term and long-term disability
- Pain and distress

To provide financial protection from health-care costs
Panel 3: Clusters of essential packages

Age-related cluster (packages 1–5)
1. Maternal and newborn health
2. Child health
3. School-age health and development
4. Adolescent health and development
5. Reproductive health and contraception

Infectious diseases cluster (packages 6–10)
6. HIV and sexually transmitted infections
7. Tuberculosis
8. Malaria and adult febrile illness
9. Neglected tropical diseases
10. Pandemic and emergency preparedness

Non-communicable disease and injury cluster (packages 11–17)
11. Cardiovascular, respiratory, and related disorders
12. Cancer
13. Mental, neurological, and substance use disorders
14. Musculoskeletal disorders
15. Congenital and genetic disorders
16. Injury prevention
17. Environmental improvements

Health services cluster (packages 18–21)
18. Surgery
19. Rehabilitation
20. Palliative care and pain control
21. Pathology

*Country applications will define packages in a way relevant to local policy. For example, the structure here distributes urgent interventions across packages, but in many contexts defining an emergency care package might prove more relevant.
<table>
<thead>
<tr>
<th>Countries Included</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income and three (large) lower-middle-income countries*</td>
<td>34 low-income and 49 lower-middle-income countries*</td>
<td>67 low-income, lower-middle, and upper-middle-income countries individually estimated and then aggregated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key definitions and intervention range covered</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand convergence interventions lead to every substantial cross-country convergence in under-5 maternal, tuberculosis, malaria, and HIV/AIDS mortality and in the prevalence of neglected tropical diseases</td>
<td>21 packages (table 1) identified in terms that include intersectoral and health sector interventions (73 distinct intersectoral interventions and 244 distinct health sector interventions); EUHC are health sector interventions in the 21 packages (covered in national health accounts and potentially included in benefits packages); a highest priority subset of EUHC (HPP) includes a limited range of interventions against non-communicable diseases, injuries, and cross-cutting areas such as rehabilitation and palliative care, in addition to the grand convergence interventions</td>
<td>Investments were modelled for 16 SDGs, including 187 health interventions and a range of health-system strengthening strategies (the latter of which included investments required to achieve target levels of health workforce, facilities, and other health-system building blocks); two scenarios were modelled, a progress scenario (in which coverage is limited by the absorptive capacity of current systems to incorporate new interventions), and an ambitious scenario (in which most countries achieve high levels of intervention coverage and hence SDG targets)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intersectoral action for health</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive discussion of intersectoral actions for health but not included in modelling grand convergence</td>
<td>Intersectoral interventions defined as those typically managed and financed outside the health sector; each of the 21 packages contains the intersectoral interventions deemed relevant; the costs and effects of intersectoral action on mortality reduction are not explicitly modelled</td>
<td>WHO 2017 scenarios include some finance of intersectoral interventions from the health-sector perspective, as well as their effects on mortality</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intervention coverage</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full coverage defined at 85%; rates of scale-up defined using historical data on so-called best performers among similar groups of countries</td>
<td>Full coverage defined as 80%; the HPP differs from EUHC not in coverage level but in the scope of interventions included</td>
<td>Full coverage defined as 95% for most interventions in the ambitious scenario, with a range from 53% to 99% depending on intervention</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated additional costs (including requisite investment in health system capacity)</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Estimated deaths averted&lt;sup&gt;15&lt;/sup&gt;</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income countries</td>
<td>4.5 million deaths averted per year between 2016 and 2030</td>
<td>2.9 million deaths averted in 2030</td>
</tr>
<tr>
<td>Lower-middle-income countries</td>
<td>5.8 million deaths averted per year between 2016 and 2030</td>
<td>6.1 million deaths averted in 2030</td>
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</table>

<table>
<thead>
<tr>
<th>Benefit cost analysis undertaken</th>
<th>DCP3&lt;sup&gt;23a&lt;/sup&gt;</th>
<th>WHO 2017&lt;sup&gt;25&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

EUHC = essential universal health coverage. HPP = highest priority package. SDG = Sustainable Development Goal. Separate estimates for the low-income and lower-middle-income country group are provided. Reported results are for all included countries combined. DCP3 report the number of premature deaths averted (i.e., deaths younger than 70 years). *Averted deaths include stillbirths averted in the reports by the Lancet Commission on Investing in Health™ and WHO™ but not in DCP3.** In the Lancet Commission report™ and DCP3, the reported deaths averted included only deaths averted in children actually born and women actually giving birth. Family planning averts unwanted pregnancies and hence potential deaths of women and children that would have occurred as a result of those unwanted pregnancies. The difference is large. For low-income countries, results of a sensitivity analysis in Global Health 2035™ showed that the more comprehensive estimate was 7.5 million deaths averted rather than the 4.5 million deaths averted shown in this table. WHO’s 2017 estimates’ of deaths averted are based on the larger and more inclusive number. Ambitious scale-up of family planning services accounted for 50% of averted child and maternal deaths and more than 55% of averted stillbirths in the WHO analysis. Stenberg K., Department of Health Systems Governance and Financing, WHO, personal communication. Sources: Jamison et al. (2013), Boyle et al. (2015), Watkins & al. (2017), Watkins et al. (2017), and Stenberg et al. (2017).” |
A key element of universal health coverage:

access to essential medicines
• “Each member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted” and
• “to determine what constitutes a national emergency or other circumstances of extreme urgency”.

• Public health crises include “those relating to HIV/AIDS, tuberculosis, malaria and other epidemics” and “other circumstances of extreme urgency”.
Box 4: Access to medicines and the Doha Declaration on TRIPS and Public Health

Measuring access to medicines is a complex task, but price is one key factor among others. The Doha Declaration on TRIPS and Public Health recognized concerns about effects on prices while noting the need for innovation. Since the Declaration was adopted in 2001, prices for many treatments have fallen significantly, in part due to generic competition and tiered pricing schemes (see graph below). Surveys also show a marked increase in the use of TRIPS flexibilities to promote access to medicines.

Falling prices of first-line combinations of some first-line anti-retroviral therapies for HIV-AIDS since 2000

The Lancet Commissions

Essential medicines for universal health coverage

Essential medicines address the primary health-care needs of the population. Essential medicines policies are crucial to promoting health and achieving sustainable development. Sustainable Development Goal 3.8 specifies the importance of "access to safe, effective, quality, and affordable essential medicines and vaccines for all" as a central component of Universal Health Coverage (UHC) and Sustainable Development Goal 13.1 specifies the need to develop medicines to address present and emerging threats.

Executive summary

Essential medicines address the primary health-care needs of the population. Essential medicines policies are crucial to promoting health and achieving sustainable development. Sustainable Development Goal 3.8 specifies the importance of "access to safe, effective, quality, and affordable essential medicines and vaccines for all" as a central component of Universal Health Coverage (UHC) and Sustainable Development Goal 13.1 specifies the need to develop medicines to address present and emerging threats.

For this report, the Commission developed a new model-based global estimate of the annual spending that would be needed to achieve universal access to a basic package of essential medicines to low- and middle-income countries (LMICs). A costing model was developed on the basis of disease prevalence, current or projected consumption of medicines, and international reference prices. Using two consumption scenarios, the Commission estimated that between US$77-4 and US$371.9 billion (euros 58 to 285 per capita) is needed to finance a basic package of 201 essential medicines and 176 disease-specific targets in all LMICs. Yet in 2016, the majority of low-income countries, and 42 middle-income countries, spent less than US$13 per capita on pharmaceuticals. Thus, the Commission confirmed that many people worldwide do not have access to a basic package of essential medicines. Countries should adopt the Commission's model to do a national census to cross a sales database, to assess their market for performance on essential medicines. The Commission's recommendations on financing the global health agenda for essential medicines are:

- Governments and national health systems must provide adequate financing to ensure inclusion of essential medicines in the list of products procured by the public sector and all health insurance schemes.
- Governments and national health systems must implement policies that reduce the amount of one or two medicines on the market globally. For medicines that are not available, it must be cleared, and countries must review their recommendations on essential medicines as a central pillar of the global health and development agenda.

Making essential medicines affordable is necessary to achieve UHC. The affordability of essential medicines is a core challenge for any health system working to achieve UHC, and in many countries, financing for medicines is directly paid by the individual and households. This means that high unaffordable medicines may not be affordable to all.

Towards access 2030

The Lancet Commission on Essential Medicines Policy's recommendations are crucial to ensuring access to essential medicines at affordable prices. More specifically, the recommendations focus on ensuring that medicines are available at affordable prices, which is essential for achieving UHC. The recommendations include:

- Setting global pricing targets and encouraging the use of generic medicines.
- Ensuring that countries have access to essential medicines at affordable prices.
- Encouraging the use of innovative pricing models, such as value-based pricing.
- Strengthening national health insurance programs to ensure that essential medicines are covered.

These recommendations are crucial to achieving global UHC goals, as they address the issue of access to essential medicines at affordable prices.
Access to medicines: lessons from the HIV response

Just two decades ago, HIV/AIDS treatments were prohibitively expensive and accessible in only a few affluent countries. But remarkable reductions in costs have enabled treatment expansion that has reduced mortality and transmission. Today, first-line HIV drugs cost less than US$100 per person per year, a 99% reduction from more than $10 000 in 2000. The number of people receiving HIV treatment doubled in just 5 years, from 9 million in 2011 to more than 18 million today.1

In a world facing growing inequalities, the HIV response has lessons for low and middle-income countries (LMIC)—but also for high-income countries—on access to care and treatment for communicable diseases and for non-communicable chronic diseases, a global pandemic that dwarfs the HIV epidemic in scale.2

The transformative power of the HIV response was underpinned by moral rather than technical arguments. A unique coalition of activists, scientists, celebrities, and religious and community leaders from all over the world argued that no one should be denied life-saving treatment because of area of residence or income. The moral imperative was operationalised by activism for more urgent drug discovery, regulatory approval, and voluntary and compulsory licensing, followed by shifts towards large-scale generic production. Economies of scale underpinned a drive towards more efficient, cheaper production, and drove prices down. Major donors such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the US President’s Emergency Plan for AIDS Relief bought generic drugs. The Clinton Health Access Initiative negotiated price-volume discounts

The concept of “public goods”

non exclusive: anyone can use them
non competitive: their use do not limit others to use them
Progress of medicine and essential drugs shall be considered as global public goods and be accessible to all human beings living on our planet.
ITALIAN CENTER FOR GLOBAL HEALTH
FIGHTING HEALTH INEQUALITIES

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