Social determinants of health and health inequalities

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OUTLINE

- Definition of health
- Determinants of health
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- Health inequalities
- Health inequity
- Social gradient of health

"It is health that is real wealth and not pieces of gold and silver."

~ Mahatma Gandhi

Definition of Health

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1948) and the extent to which an individual or group is able to realize aspirations and satisfy needs, and to change or cope with the environment.

Health is a resource for everyday life, not the objective of living; it is a positive concept, emphasizing social and personal resources as well as physical capabilities" (WHO, 1984).

Complexity define health

Everyone considers health differently

Things which are important to your health will vary over time and is context dependent; if a member of your family is ill your view of what it means to be healthy will be different to the time when this person is not ill.

- We now understand that good health does not lie solely with medical interventions but also with living conditions and personal choices.

- Determinants of health are lifestyle-based properties affected by broader social, economic, and political forces that influence quality of personal health.

- These attributes partially include education level, employment, income level, and distribution, housing, childhood development, food security, and nutrition, race, gender, and stress.

- Such factors have been shown to have marked associations with risks for different illnesses, life expectancy, and life-time morbidity.

- In recent decades, **increasing health disparities among developed countries** and **between developing and developed countries** have been associated with these social factors.

- Public health workers and policymakers are seeking to reduce this divide. At the same time, they face challenges in designing and implementing programs to address complex, long-term problems and causal relationships with specific disease pathways.

- However, both the motivation and action to develop effective research and intervention methods continue to grow in this field of public health.

Determinants of Health

Factors that contribute to a person's current state of health.

Scientists generally recognize **five determinants of health** of a population:

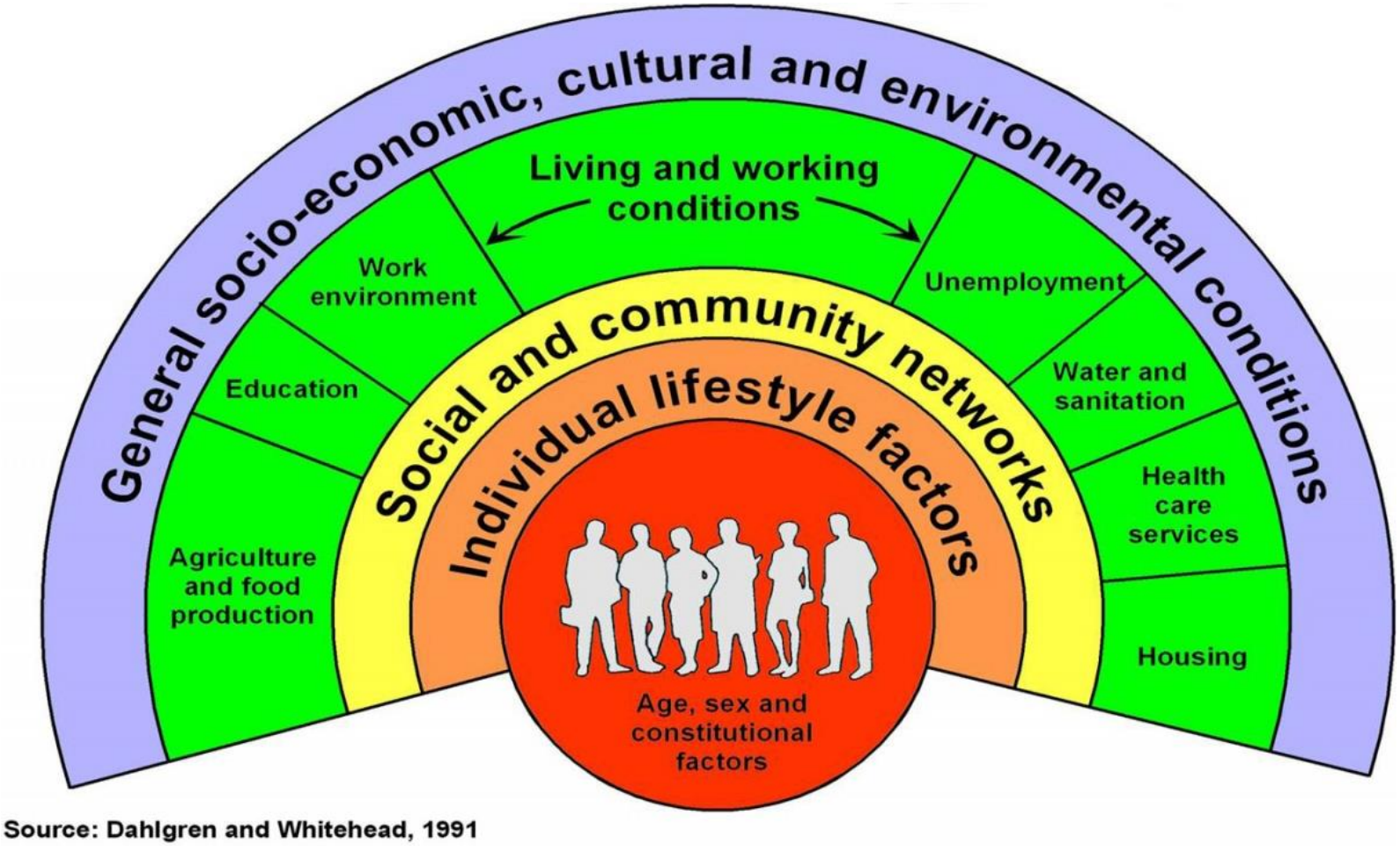
- **Biology and genetics**. Examples: sex and age
- **Individual behavior**. Examples: alcohol use, injection drug use, unprotected sex, and smoking
- **Social environment**. Examples: discrimination, income and gender
- **Physical environment**. Examples: where a person lives in crowding conditions
- **Health services**. Examples: Access to quality health care and having or not having health insurance


poor
environment
access
land
gender
control of resources
SOCIAL DETERMINANTS OF HEALTH
culture
family
Jobs
racism
housing
School
Colonization
Home
early childhood education
Abc
Justice
languages
self determination
and much more
away from home

The Social Determinants of Health

- The **social determinants of health can** loosely **be defined as how the circumstances in which people develop and live affect their mental and physical well-being and life expectancy**, and have been characterised as the **causes of the causes of health** (or ill health).
- As well as age, sex and biological characteristics that are largely fixed, individuals are part of society and therefore the debates around health policy and healthcare provision must reflect the influence of societal, economic, environmental and cultural factors on a person's lifestyle, as well as their interactions with familial, social and community networks.
- These interactions and layers of influence affecting health are represented in the well-known diagram devised by Dahlgren and Whitehead in the early 1990s

Rainbow model of health



Source: Dahlgren and Whitehead, 1991

What causes health inequalities?

https://youtu.be/t_eWESXTnic?si=HJ8PhKDXPDhnQDj6

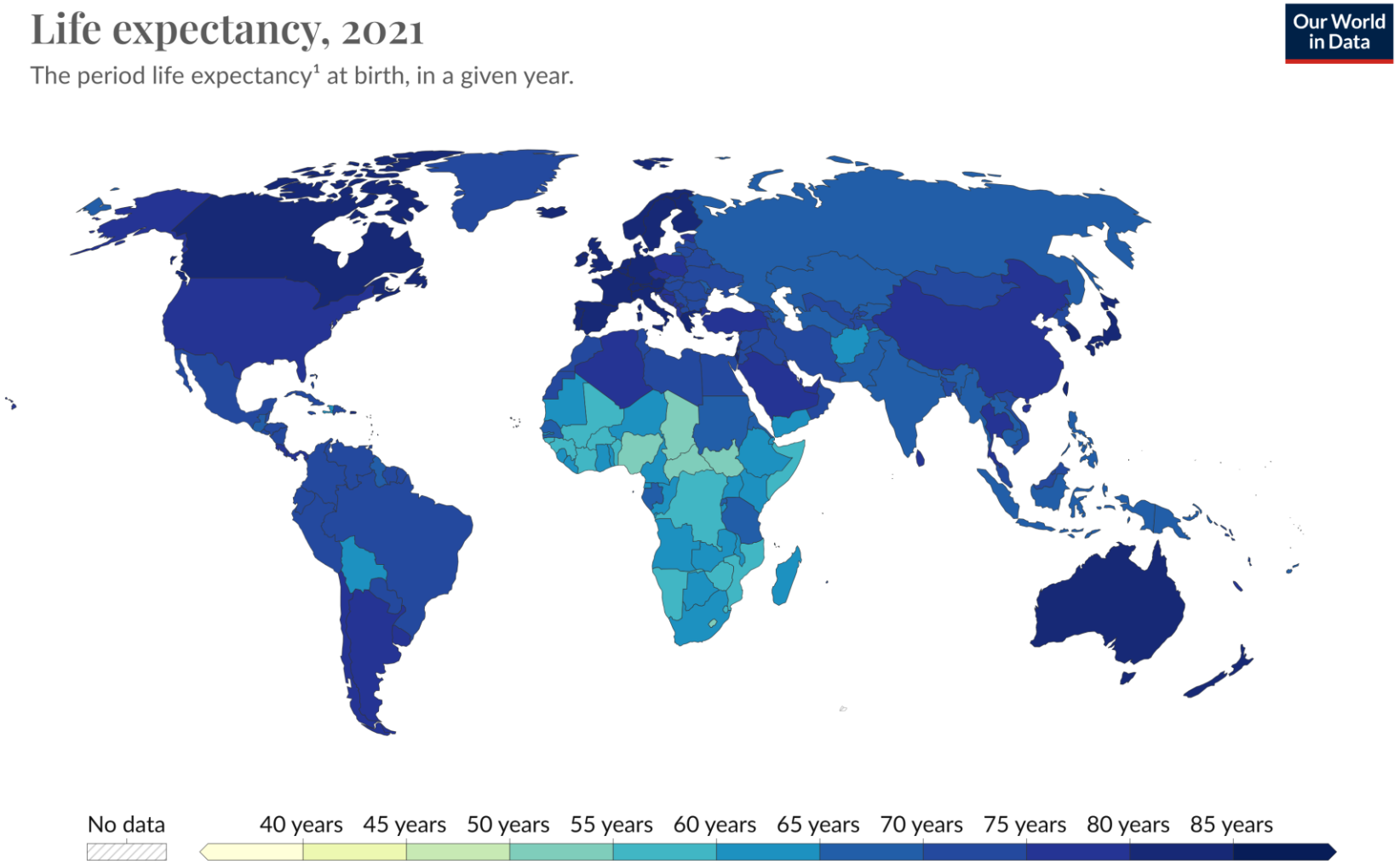
The core problem

Throughout the world, people who are vulnerable and socially disadvantaged have less access to health resources, get sicker, and die earlier than people in more privileged social positions…

Health gaps are growing

Irwin A. et al. The Commission on Social Determinants of Health:Tackling the social roots of health inequities. *PLoS Medicine* 2006; 3(6), e 106.

Differences in life expectancy across the world



1. Period life expectancy: Period life expectancy is a metric that summarizes death rates across all age groups in one particular year. For a given year, it represents the average lifespan for a hypothetical group of people, if they experienced the same age-specific death rates throughout their whole lives as the age-specific death rates seen in that particular year. Learn more in our articles: "Life expectancy" – What does this actually mean? and Period versus cohort measures: what's the difference?

Differences in life expectancy across the world

The world map shows the latest data published by the United Nations for life expectancy.

Life expectancy is a measure of premature death and it shows large differences in health across the world.

Life expectancy at birth is defined as how long, on average, a newborn can expect to live, if current death rates do not change

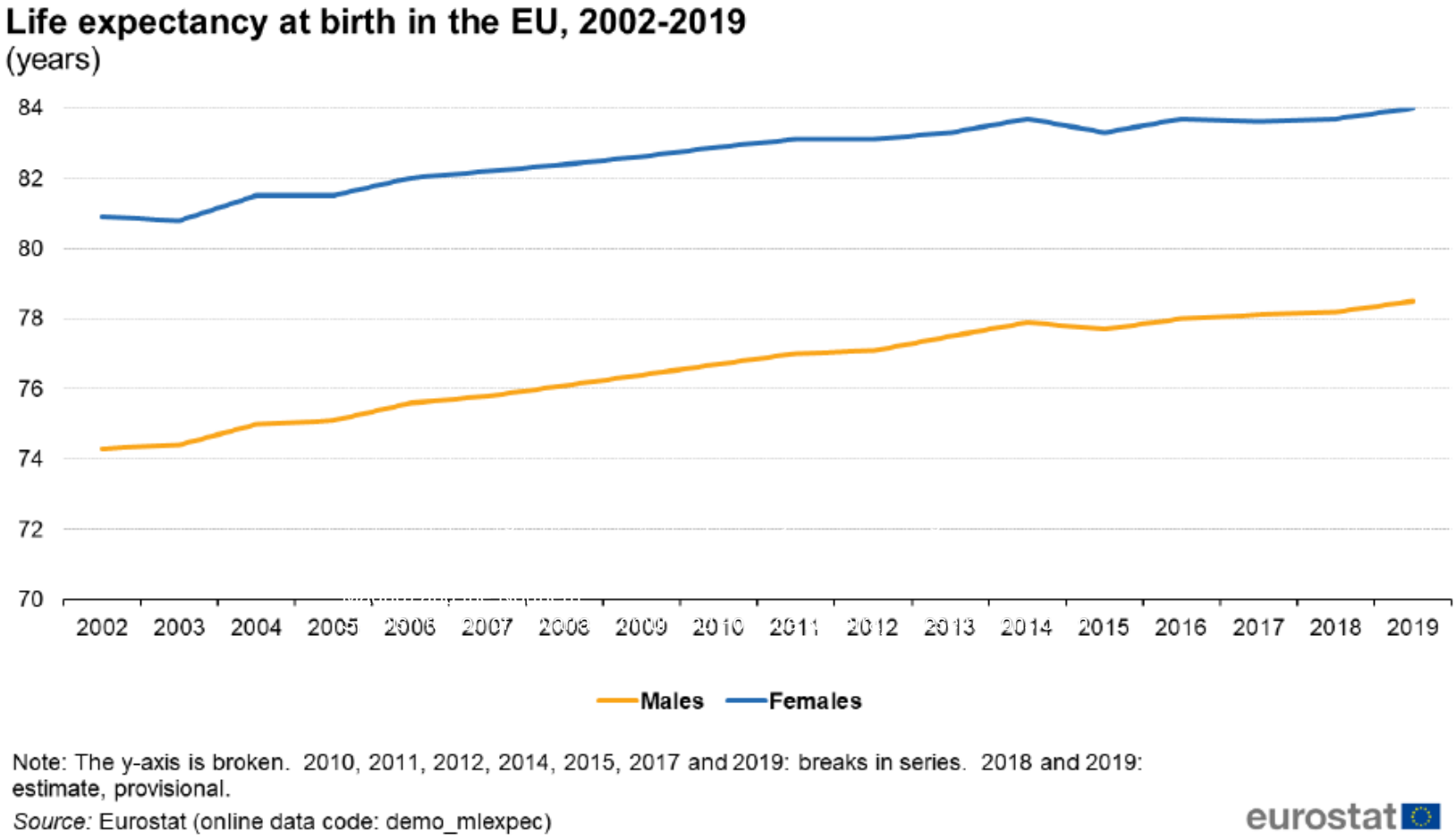
The population of many of the richest countries in the world have life expectancies of over 80 years. In 2021 the life expectancy in Spain, Switzerland, Italy, and Australia was over 83 years. In Japan it was the highest with close to 85 years.

In the countries with the worst health life expectancy is between 50 and 60 years. The population of the Central African Republic has the lowest life expectancy in 2021 with 53 years.

- Life expectancy at birth is the average number of years that a newborn child would live if subjected to current mortality conditions (the death rates observed for the current period) throughout the rest of their life.
- It should be kept in mind, however, that the life expectancy is a period indicator of mortality, indicating the average life span in a population subject to the mortality rates of the selected period of time. This means that the values estimated above for the life expectancies in the year 2020 would apply if the mortality conditions observed in 2020, including the COVID-19 pandemic, will last for all the following years until the extinction of the cohort born in 2020.
- These life expectancies are provisional estimates from weekly deaths data.

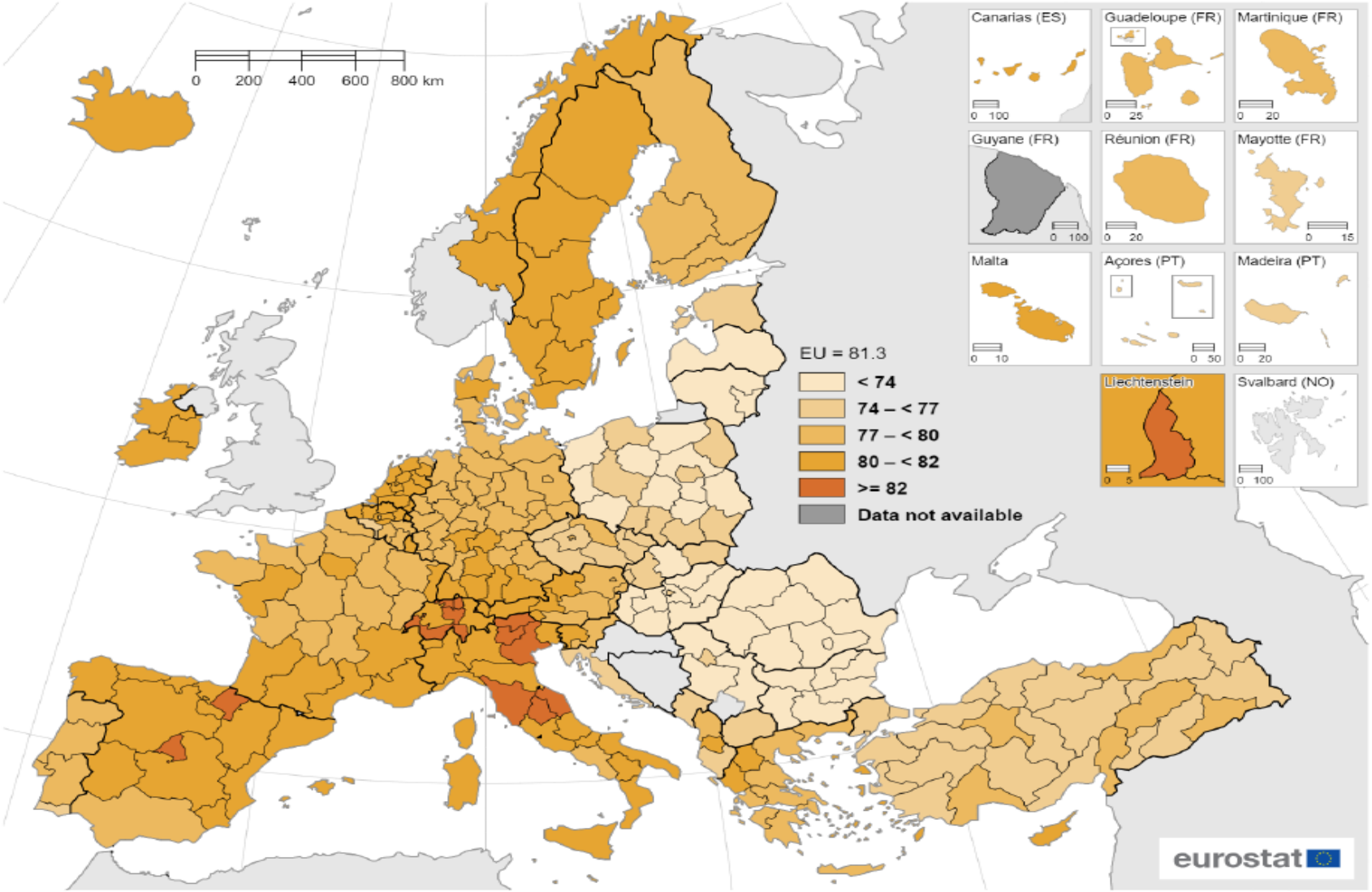
Over the last 150 yrs globally the life expectancy increased from less than 30 years to over 72 years; after two centuries of progress we can expect to live much more than twice as long as our ancestors. And this progress was not achieved in a few places. In every world region people today can expect to live more than twice as long.

The global inequalities in health that we see today also show that we can do much better. The almost unbelievable progress the entire world has achieved over the last two centuries should be encouragement enough for us to realize what is possible.



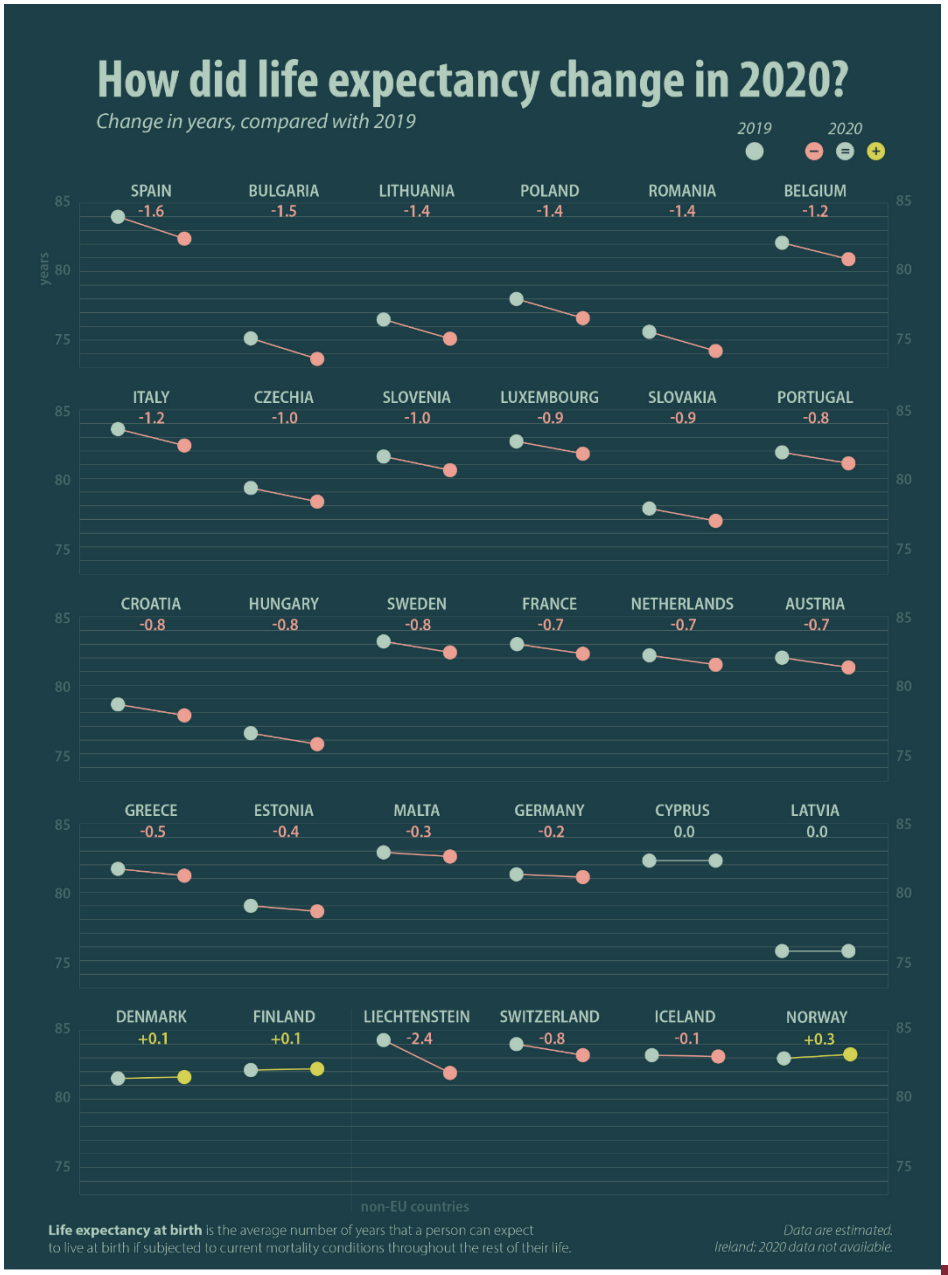
Across the EU regions, in 2019, life expectancy at birth was highest in central and northern Italy (Trento, Bolzano,Umbria, Marche), as well as in the Central Spanish region of Madrid (Comunidad de Madrid) and the Northern Spanish region of Navarra (Comunidad Foral de Navarra). These regions often recorded among the highest life expectancy estimates.

Life expectancy at birth, 2019
(years)



Source: Eurostat (online data code demo_r_mlexpec)

Administrative boundaries: © EuroGeographics © UN–FAO © Turkstat
Cartography: Eurostat – IMAGE, 05/2021



Life expectancy at birth has been increasing over the past decade in the EU: official statistics reveal that life expectancy has risen, on average, by more than two years per decade since the 1960s. However, the latest available data suggest that life expectancy stagnated or even declined in recent years in several EU Member States. Moreover, following the outbreak of the COVID-19 pandemic last year, life expectancy at birth fell in the vast majority of the EU Member States with available 2020 data. The largest decreases were recorded in Spain (-1.6 years compared with 2019) and Bulgaria (-1.5), followed by Lithuania, Poland and Romania (all -1.4)

Life expectancy at birth

Sub-Saharan Africa	2020	62	
Sub-Saharan Africa (excluding high income)	2020	62	
High income	2020	80	
Low & middle income	2020	71	
Low income	2020	64	
Lower middle income	2020	69	
Middle income	2020	72	
Upper middle income	2020	76	

Life expectancy at age 65

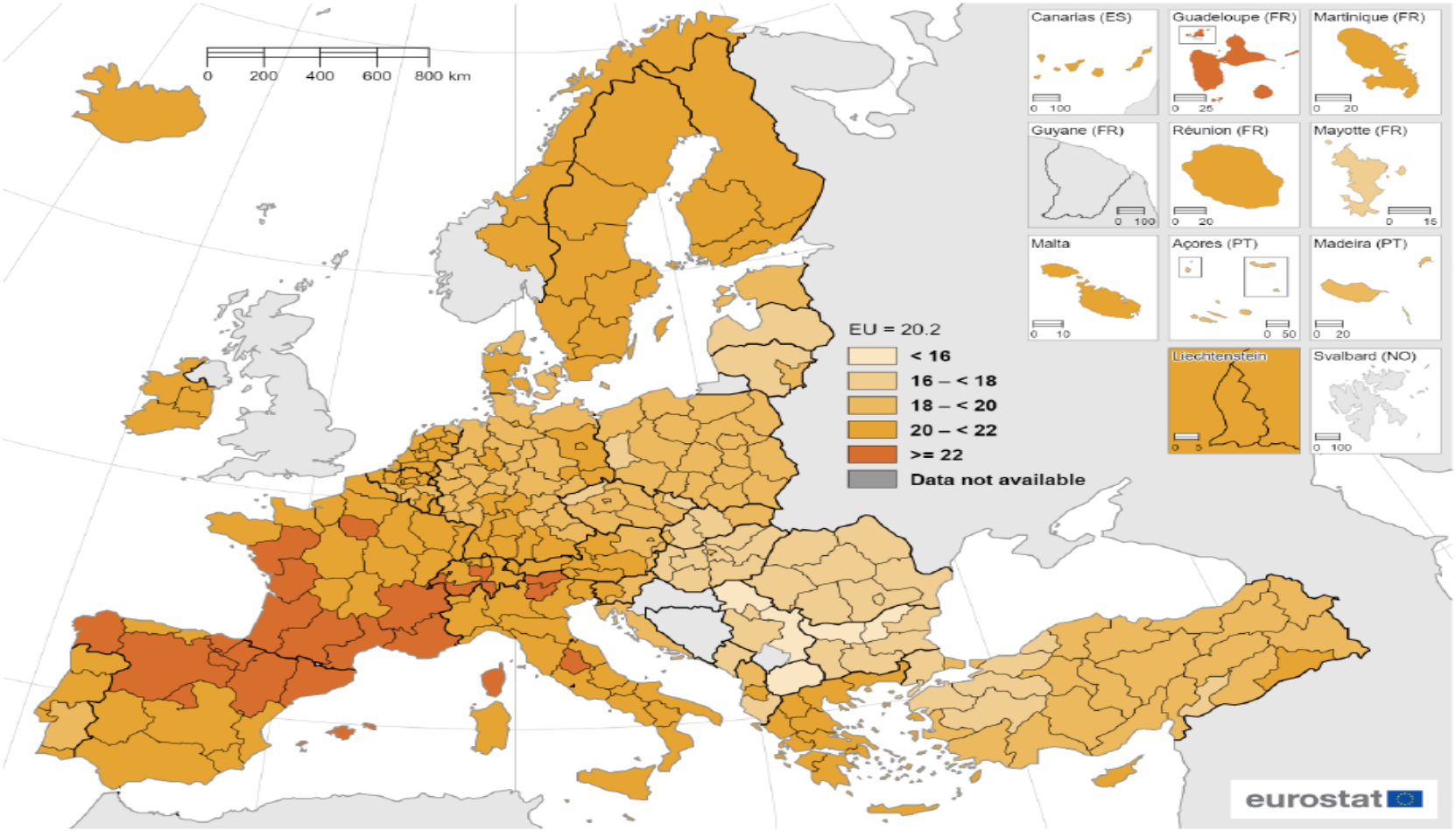
Life expectancy showed a small increase in 2019 compared to 2018 also at age 65.

In 2019, life expectancy at 65 was estimated at 20.2 years (0.2 years higher than in the year before), reaching 21.8 years for women (0.2 years higher than 2018) and 18.3 years for men (0.2 years higher than 2018).

In 2020 life expectancy at age 65 recorded a significant drop in most EU Member States.

There was a decrease of -1.5 years in Poland and Spain, -1.3 years in Belgium, -1.2 years in Italy, Romania and Slovenia and -1.1 years in Bulgaria, Czechia, Lithuania

Life expectancy at age 65, 2019
(years)



Source: Eurostat (online data code demo_r_mlexpec)

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Cartography: Eurostat – IMAGE, 05/2021

Life expectancy at age 65

Among the EFTA (European Free Trade Association) countries, in 2020 Switzerland and Liechtenstein also recorded a drop in life expectancy at age 65, however Iceland and Norway registered a small increase.

In 2020, life expectancy of men at age 65 ranged from 18.2 years in Liechtenstein to 20.2 years in Iceland, while the life expectancy for women aged 65 varied from a minimum of 21.6 years in Liechtenstein to a maximum of 22.3 years in Switzerland.

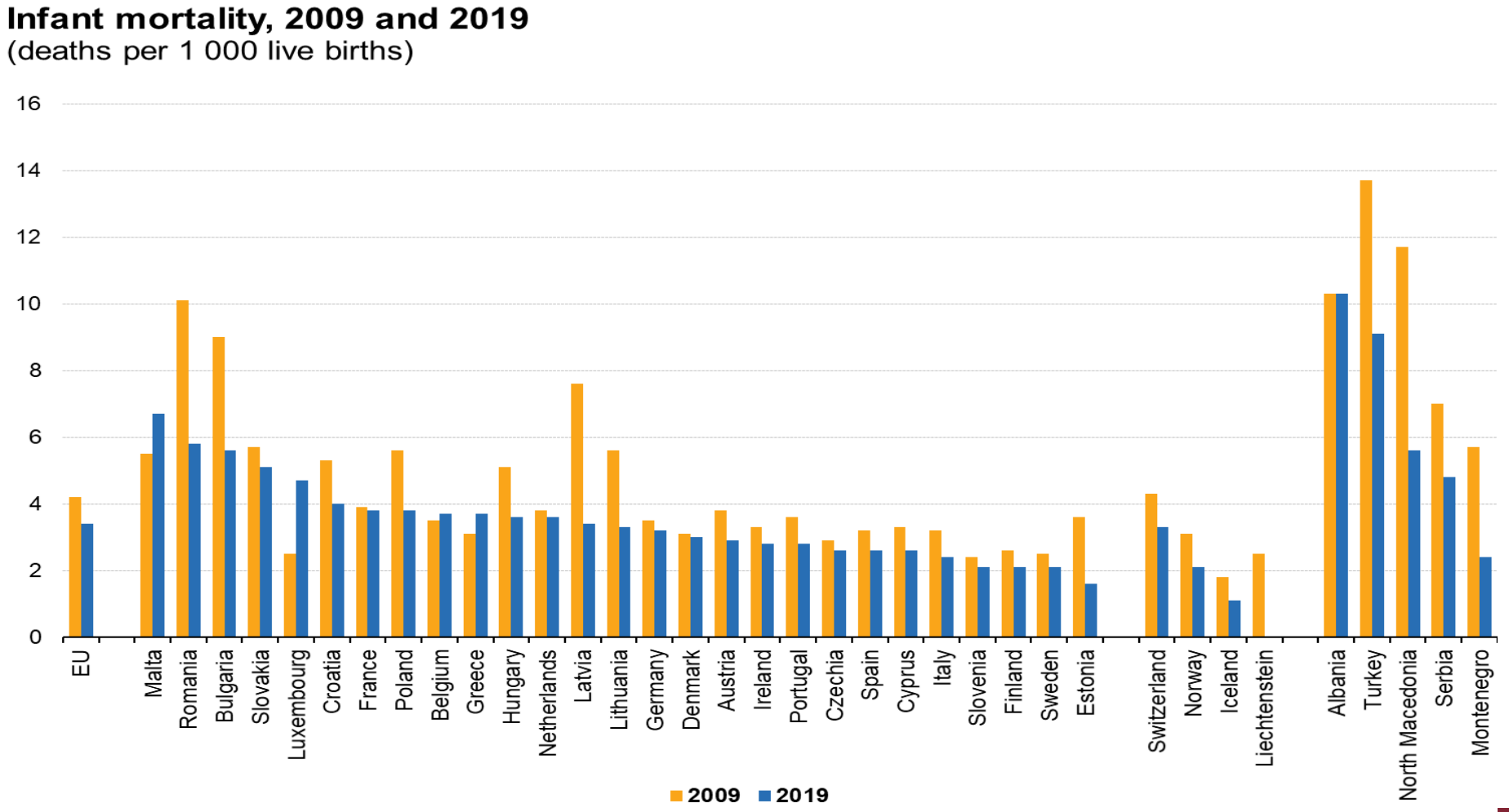
Looking at the regional level, in 2019 the regions in Southern France and North of Spain recorded the highest life expectancy at age 65. (Data is not available yet for 2020.)

One of the most significant changes that has led to increases in life expectancy at birth has been the decrease in infant mortality rates. During the 10 years from 2009 to 2019, the infant mortality rate in the EU fell from 4.2 deaths per 1 000 live births to 3.4 deaths per 1 000 live births; extending the analysis to the last 20 years, the infant mortality rate was almost halved (6.2 deaths per 1 000 in 1999). The most significant reductions in infant mortality were generally recorded within those EU Member States which tended to record higher levels of infant mortality in earlier years, compared with the EU average.

In 2019, the highest infant mortality rates in the EU were registered in Malta (6.7 deaths per 1 000 live births), Romania (5.8 deaths per 1 000 live births) and Bulgaria (5.6 deaths per 1 000 live births), and the lowest were recorded in Estonia (1.6 deaths per 1 000 live births) and Slovenia, Finland and Sweden (each 2.1 deaths per 1 000 live births).

Infant mortality

Around 14 100 children died before reaching one year of age in the EU in 2019 (524 less than in the previous year); this was equivalent to an infant mortality rate of 3.4 deaths per 1 000 live births.



Source: Eurostat (online data code: demo_minfind)

eurostat

Gender

- Gender differences in health and mortality are complex and not yet fully understood.
- The social determinants of health have both similar and different effects on men and women.
- Women seem to have a biological advantage over men in terms of life expectancy.
- Men tend to die younger than women, and research suggests that the work they do and issues like job security and unemployment often affect men's health.

Gender gap in life expectancy

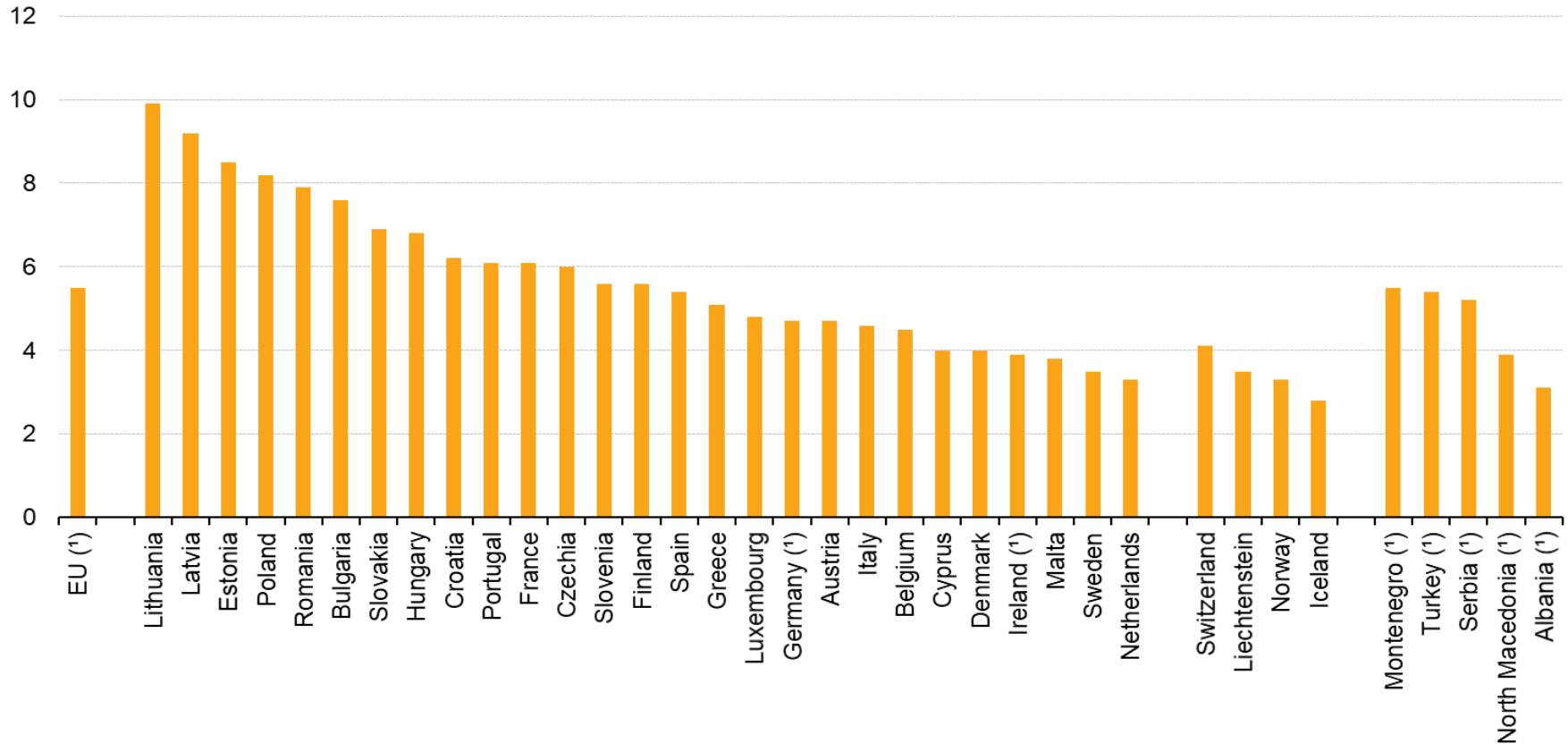
There are still major differences between countries when looking at men and women's life expectancies.

In 2020, life expectancy for women is still higher than the life expectancy for men. With a gender gap of 5.5 years in 2019, newly born females in the EU should generally expect to outlive men. Furthermore, this gap varied substantially between EU Member States.

In 2020, the largest difference between the sexes was found in Lithuania (9.9 years) and the smallest in the Netherlands (3.3 years)

Life expectancy at birth, gender gap, 2020

(years, female life expectancy - male life expectancy)



All 2020 figures are estimated and provisional.

(1) 2019 instead of 2020

Source: Eurostat (online data code: demo_mlexpec)

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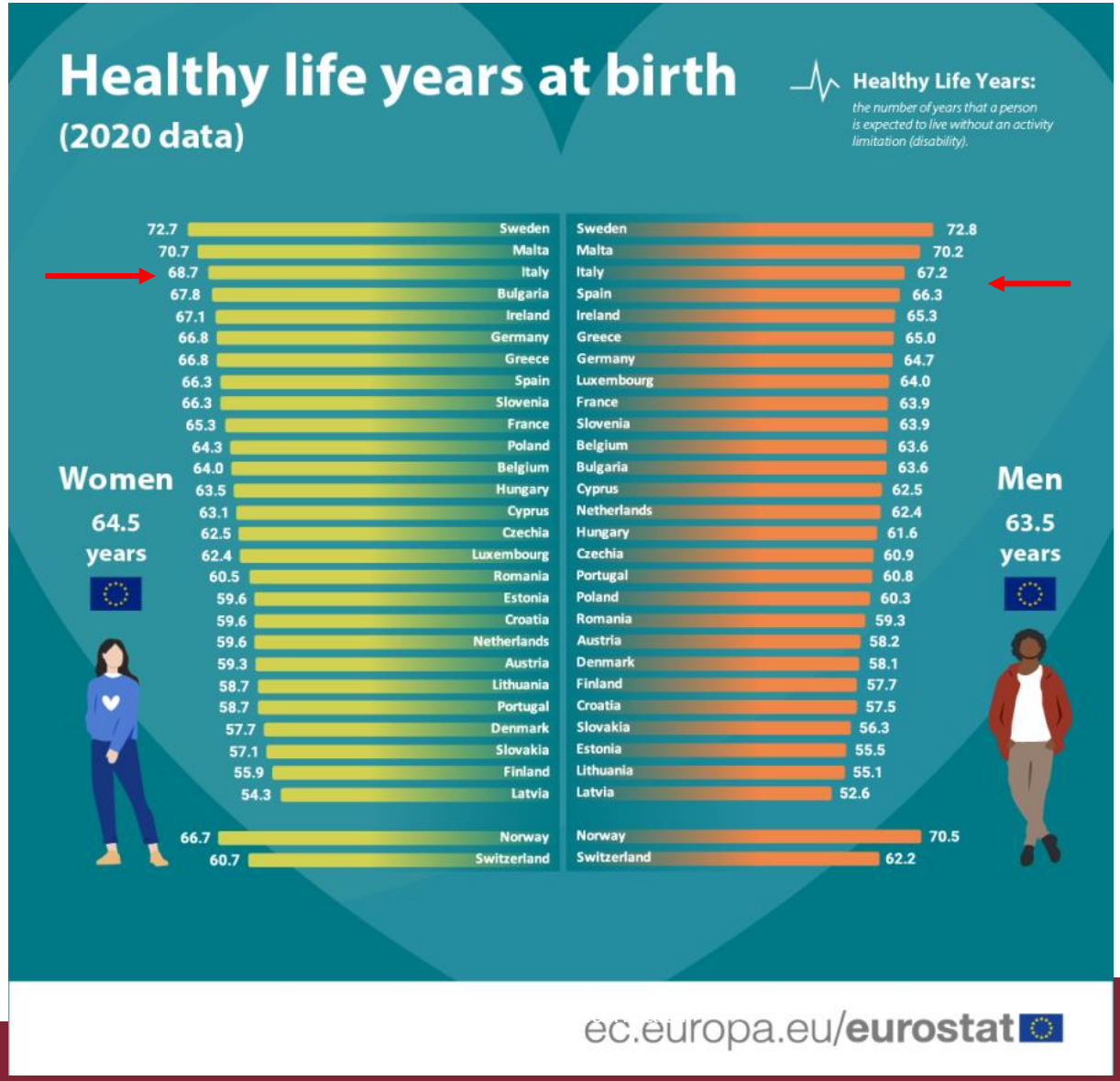
In 2020, the number of healthy life years at birth was estimated at 64.5 years for women and 63.5 years for men in the EU, this represented approximately 77.6 % and 81.9 % of the total life expectancy for women and men.



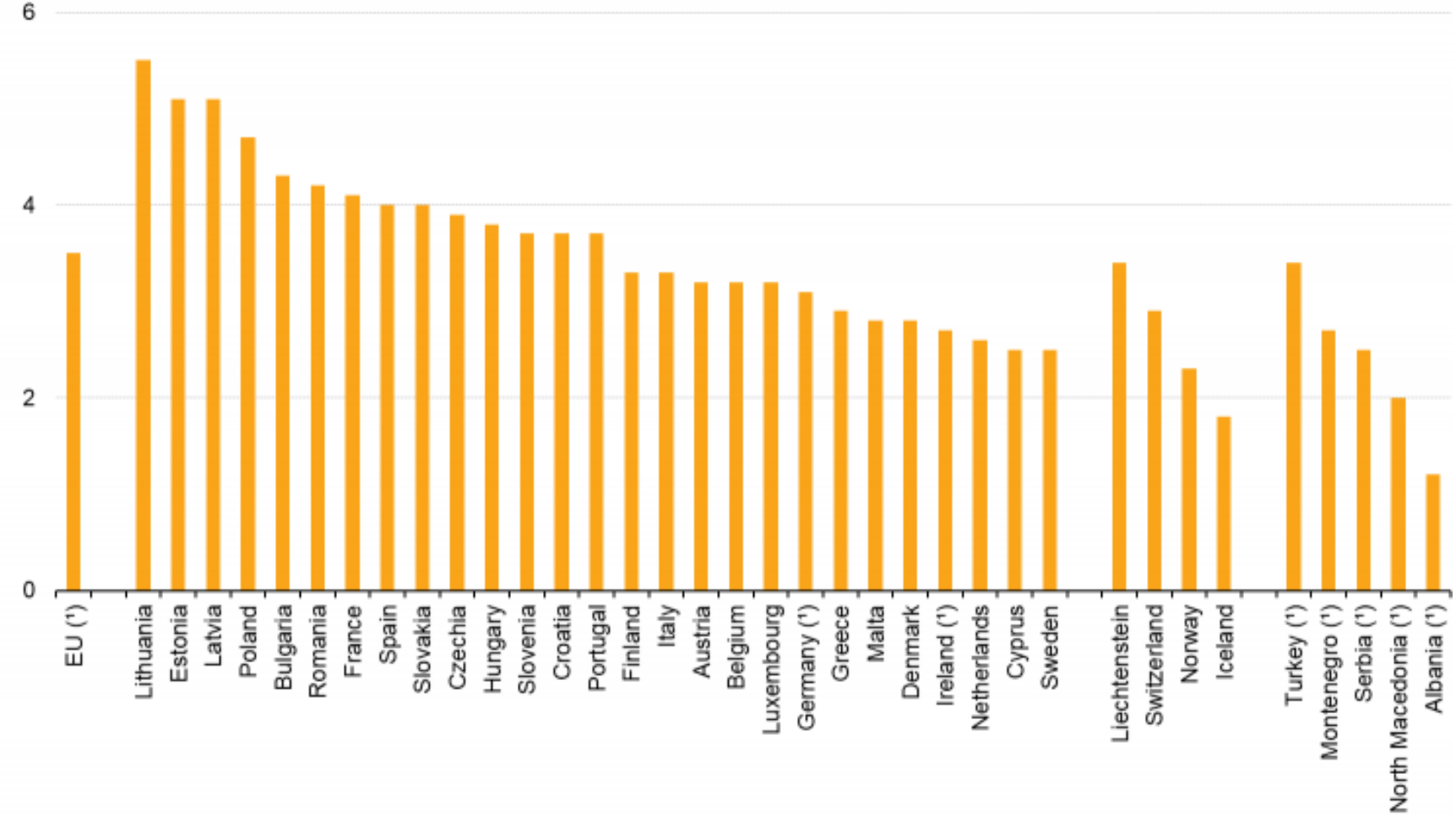
Whether extra years of life gained through increased longevity are spent in good or bad health is a crucial question. Since life expectancy at birth is not able to fully answer this question, indicators of health expectancies, such as **healthy life years (also called disability-free life expectancy**) have been developed. These focus on the quality of life spent in a healthy state, rather than the quantity of life, as measured by life expectancy.

When looking at life expectancy at age 65 it can be observed that the gap between the sexes is smaller than the gap at birth. In 2019 women aged 65 in the EU should generally expect to outlive men by 3.5 years. The largest difference between the sexes in 2020 was found in Lithuania (5.5 years) and the smallest in both Cyprus and Sweden (2.5 years).

Figure shows that in 2020 women aged 65 in the EFTA (European Free Trade Association) countries expected to outlive men from a minimum of 1.8 years in Iceland to a maximum of 3.4 years in Liechtenstein. Within the candidate countries, in 2019 (the latest available data) the highest gap in life expectancy at age 65 between sexes was registered in Turkey (3.4 years) and the lowest was in Albania (1.2 years).

Life expectancy at age 65, gender gap, 2020

(years, female life expectancy - male life expectancy)



All 2020 figures are estimated and provisional.

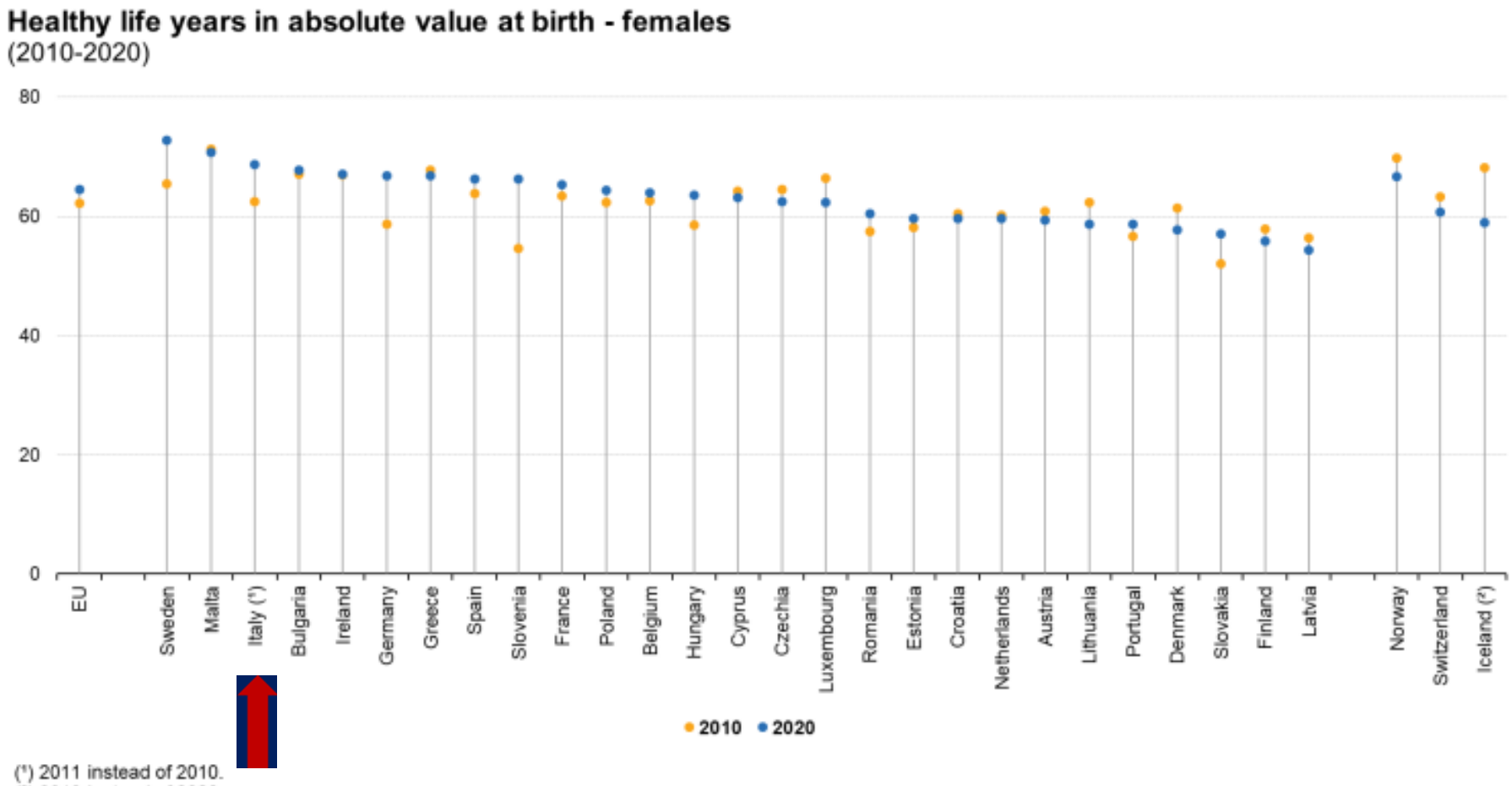
(¹) 2019 instead of 2020

Source: Eurostat (online data code: demo_mlexpec)

eurostat

Healthy life years at age 65

The expected number of healthy life years at birth was higher for women than for men in 20 of the Member States, with the difference between the sexes generally relatively small, as there were only four Member States where the gap rose to more than 3.0 years in favour of women — Lithuania, Poland, Estonia, and Bulgaria.



(1) 2011 instead of 2010.
(2) 2018 instead of 2020.

Source: Eurostat (online data code: hlth_hlye)

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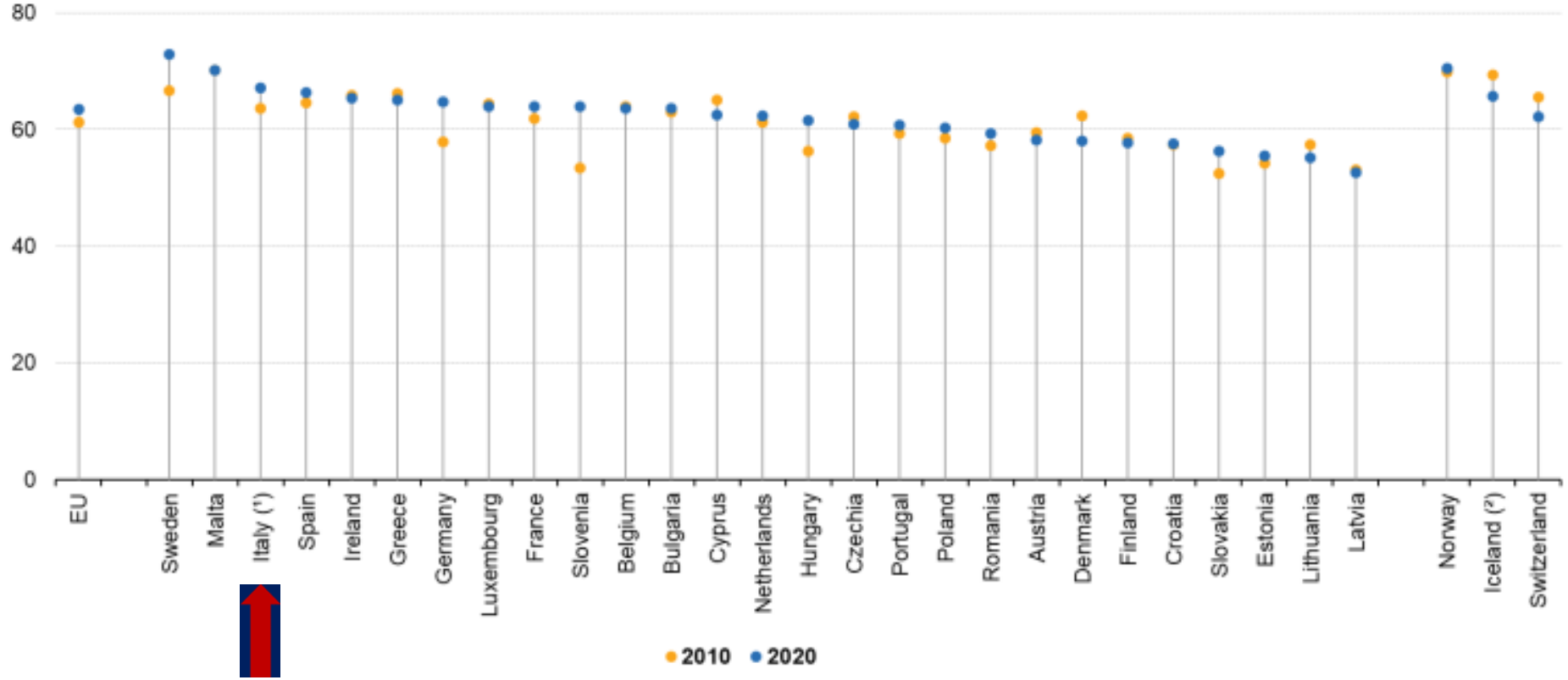
Healthy life years in absolute value at birth - males
(2010-2020)



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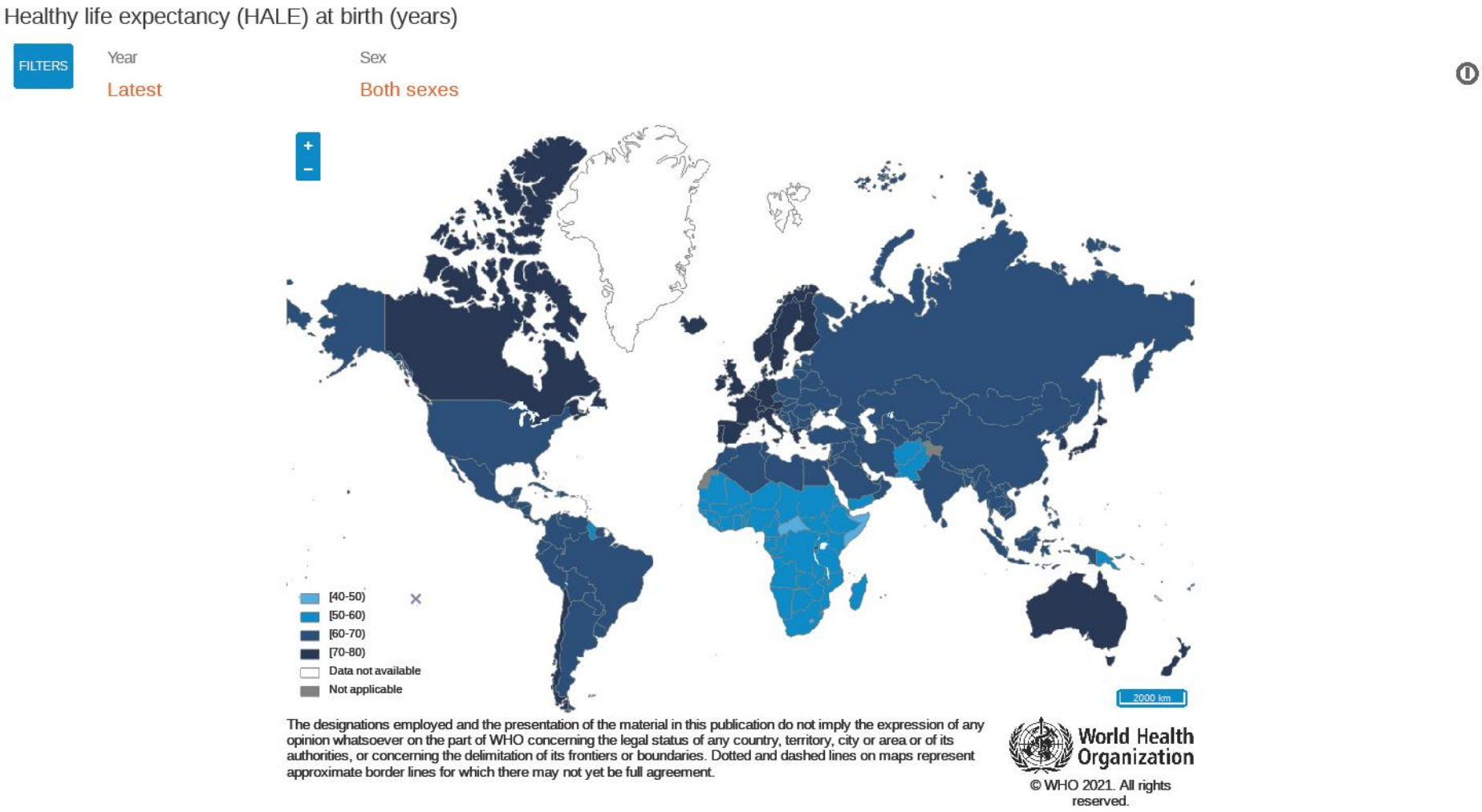


There are relevant marked differences in health experience among continents and countries. Light blue countries on the map have remarkably lower health life expectancy than dark blue countries.

Focusing on the social determinants of health is crucial in order to understand the cause of such differences, as well as to contrast them.

Much of epidemiology seeks to ***identify individual risk factors for disease.***

- Smokers have higher risk of several diseases than people who never smoked
- Raise plasma cholesterol or blood pressure are associated to the increased risk of vascular disease.
- Newer risk factors such as C Reactive Protein have been identified. One of their use in screening is to identify individuals at high risk of subsequent disease who may be suitable for special interventions.

The approach we take is different

- Among risk factors we distinguish those that are behaviours from those that are biological markers, such as cholesterol or blood pressure.

- A low level of biological markers may be usefull to reduce the risk of subsequent disease.

It is important to seek the determinants of these biological markers if we are to find effective ways of improving public health

- This leads, in the case of cholesterol and blood pressure, to considerate diet, obesity, and alcohol.

- In public health, it might usefull more to think of the behaviour (diet) as the cause of the disease rather then labelling plasma cholesterol (the biological effects of diet) as causal.

We go further to examine **the causes of these causes**.

- It is not an accident that people consume *diets high in saturated fat and salt*. It represents the nature of the food supply, culture, affordability and availability among other influences. (the causes of the cause).

- For example, given the *smoking* is an important cause of premature disease and death, we need to understand the social determinants of smoking.

- In particular, in many rich countries there is a social gradient in smoking: the lower the socio-economic position, the higher the rate of smoking.

Governments of developed nations are increasingly embracing the concept of the ***social determinants of health and wellbeing***.

Moreover, they play an important role to remove the social impediments contributing to social inequity.

Defining the social determinants of health (SDH)

A definition used by WHO for several years since the Commission on Social Determinants of Health comprehensively has been:

“The social determinants of health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.”

This was reinterpreted in another definitional formulation to explain that social determinants of health include reference to what some refer to as economic, commercial, cultural and environmental determinants with a focus on how any factor in the material, physical and psychosocial environment influences health outcomes and why these processes result in different health outcomes for different social groups.

Defining the social determinants of health (SDH)

"The social determinants of health are the social, economic and environmental conditions in which people are born, grow, live, work and age that impact health and well-being across the life course, and the inequities in access to power, decision-making, money and resources that give rise to these conditions."

-World Health Organization, 2023.

These definitions recognizes two concepts within the SDH:

the **structural determinants** (forces and systems shaping the conditions of daily life)

and the **intermediary determinants** (conditions of daily life).

Another definition used provides a simpler expression of the basic concept that health is created beyond the health sector:

the factors beyond medical interventions that influence physical, mental and social wellbeing are broadly referred to as the SDH.

The two fundamental ideas behind these definitions of SDH are that:

the health system is not enough to create or repair health;

And health inequities arise in a large part through the influence of structural factors on the conditions of daily life.

What are the *social determinants* of health?

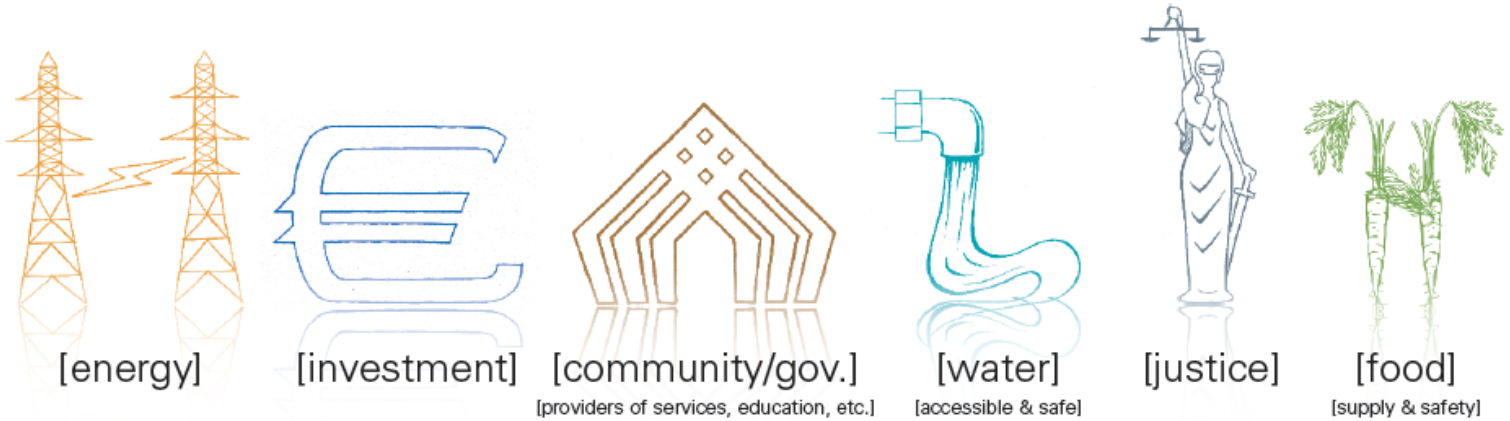
- The social determinants of health are **the conditions in which people are born, grow, live, work and age**.

- Health is not just the outcome of genetic or biological processes, but is also influenced by the social and economic conditions in which we live.

- These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.
- **The social determinants of health are mostly responsible for health inequalities within and among countries.**
- Inequalities in social conditions give rise to unequal and unjust health outcomes for different social groups.

SOCIAL DETERMINANTS OF HEALTH

ACCESS TO POWER, MONEY AND RESOURCES AND THE CONDITIONS OF DAILY LIFE —
THE CIRCUMSTANCES IN WHICH PEOPLE ARE BORN, GROW, LIVE, WORK, AND AGE



KEY DEFINITIONS

Social determinants of health

These refer to the social, economic, and political situations that affect the health of individuals, communities, and populations.

Absolute and relative inequalities in health

Inequality in health is an empirical notion and refers to **differences in health status between different groups**. It is a multidimensional concept, consisting of technical and normative judgments in the choice of appropriate metrics.

KEY DEFINITIONS

- **Health Equity**

  “The opportunity for everyone to 'attain their full health potential' and no one is 'disadvantaged from achieving this potential because of their social position or other socially determined circumstance‘”

- **Inequity in health**

  It is a normative concept and **refers to those inequalities that are judged to be unjust or unfair because they result from socially derived processes**. Equity in health care requires active engagement in planning, implementation, and regulation of health systems to make unbiased and accountable arrangements that address the needs of all members of society.

Health inequities

WHO defines health inequities as:

“The unfair and avoidable or remediable systematic differences in health among population groups defined socially, economically, demographically, or geographically. Health inequities arise fundamentally from the unequal allocation of power, money and resources, which manifest in the unequal distribution of health determinants.”

-World Health Organization, 2023.

KEY DEFINITIONS

- **Health system and health-systems performance**

  The health system as defined by WHO describes “all the activities whose primary purpose is to promote, restore, or maintain health”.

Inequity versus *inequality*

- Health **inequity** = Unjust differences in health between people of different social groups; a normative concept.

- Health **inequality** = Observable health differences between subgroups within a population; differences, variations, and disparities in the health achievements of individuals and groups of people. It can be measured and monitored. Health inequities can be linked to forms of disadvantage such as poverty, discrimination and lack of access to services or goods.

Monitoring health inequalities serves as an indirect means of evaluating health inequity.

Inequalities

- Inequalities exist in many areas and can be measured using various indicators (death, illness, health and health service use).
- Often, inequalities are quantified by comparing the national average value of an indicator across countries. Such national figures, however, do not account for inequalities that exist within countries, that is, between the different subgroups that comprise the national population.
- In addition to cross-country inequality, it is important to consider within-country inequality, which captures the different experiences of men and women, rural and urban residents, the rich and the poor, the young and the old, the educated and the non-educated, etc…

Inequalities

- Health inequalities are observable differences in health among subgroups of a population.
- Subgroups can be defined by demographic, geographic or socioeconomic factors such as age, economic status, education, place of residence and sex.
- Inequalities exist wherever there are differences in health indicators between subgroups.
- When health data are disaggregated – broken down by subgroups – they reveal differences between social groups that might have otherwise remained hidden behind the overall average.

EXTRA INFORMATION

Making comparisons on a global level

- **Within-country inequality** exists between subgroups within a country, based on disaggregated data and summary measures of inequality
  - For example, comparing the difference between infant mortality rates among urban and rural subgroups

- **Cross-country inequality** shows variability between countries based on national averages
  - For example, comparing countries on the basis of national infant mortality rates

- **Cross-country comparisons of within-country inequality** are possible
  - For example, countries may be compared based on the level of rural–urban inequality in infant mortality rate within each country

Equity and equality

The diagram below, while not perfect, is often shown to illustrate the differences between the concepts of equity and equality. It shows how different social groups relative to others may struggle to achieve good health (if viewing the sport event is considered to be "health"), and that differential assistance may be needed if everyone's right to view the game is to be respected.

On the negative side, the diagram points to targeted approaches to address health equity rather than the more fundamental and comprehensive action needed to create fairer societies (e.g., a see-through fence or affordable tickets!).

The health of the world's population is in a state of inequality.

That is to say, there are vastly different stories to tell about people's health depending on where they live, their level of education, and whether they are rich or poor, etc.

Describing the state of inequality in health compares the experiences of population subgroups of different social classes, ages and sex.

It sheds light on questions such as:

- How do mortality rates differ between rural and urban areas?
- Do the richest members of a population have better access to skilled health personnel than the poorest?
- Is there a difference, in terms of malnutrition levels, among children born to women with higher versus lower levels of education?

- Finding answers to these – and similar – questions helps to identify those differences in health that are unjust, and is an important first step towards promoting health equity and the right to health.

- Calling attention to the importance of health equity is neither a new, nor novel practice.

- **The right to health is a fundamental human right**, as affirmed in the **WHO 1946 constitution** and in numerous legally binding human rights conventions.

- Ensuring that all individuals of a population have the opportunity to realize the right to health sets nations on a course to develop and thrive.

- The **Declaration of Alma-Ata**, adopted in 1978, was one of the first major international proclamations that identified the need for urgent action **"to protect and promote the health of all people of the world"** and **recognize the inequalities in health that exist**, both between countries and within them.

- The **Global Strategy for Health for All** was subsequently adopted by the World Health Assembly in 1981, **prioritizing the achievement of equity in the way that health resources and health care are distributed and accessed**.

- More recently, this call to promote health among disadvantaged populations has been echoed through other important global initiatives, notably the **Commission on Social Determinants of Health (CSDH)**, and the **Rio Political Declaration on Social Determinants of Health**.

- Increasingly, global initiatives are orienting towards establishing health inequality monitoring practices and recommending tangible actions to reduce health inequalities, with a focus on accountability and results.

All documents share principles of nondiscrimination and equal opportunity, outline the right to health, **link health outcomes with SDH** and other social goals that enhance population well-being, and address responsibilities of duty-bearers, primarily member states (e.g., governments) and those who act on their behalf, such as intergovernmental organizations.

- The inclusion of universal health coverage as part of the health-related post-2015 sustainable development agenda puts equity at the forefront of a major global movement.

- The concept of **universal health coverage** encompasses two components: **all people should be able to obtain high-quality**, **essential health interventions**, which **they should be able to access** without experiencing undue financial hardship.

- Proposed **targets for universal health coverage** are that all populations achieve a **minimum of 80% coverage of essential health interventions and 100% financial protection**.

- The reduction of inequalities in both components – coverage of health interventions and financial protection – is key for the progressive realization of universal health coverage.

- From the initial implementation of universal health coverage through to its realization, ongoing monitoring of the state of inequality is vital to ensure that disadvantaged populations are identified and prioritized.

Commission on Social Determinants of Health conceptual framework

The framework shows how social, economic and political mechanisms give rise to a set of socio-economic positions, whereby populations are stratified according to income, education, occupation, gender, race/ethnicity and other factors.

These socioeconomic positions in turn shape specific determinants of health status (intermediary determinants) reflective of people's place within social hierarchies.

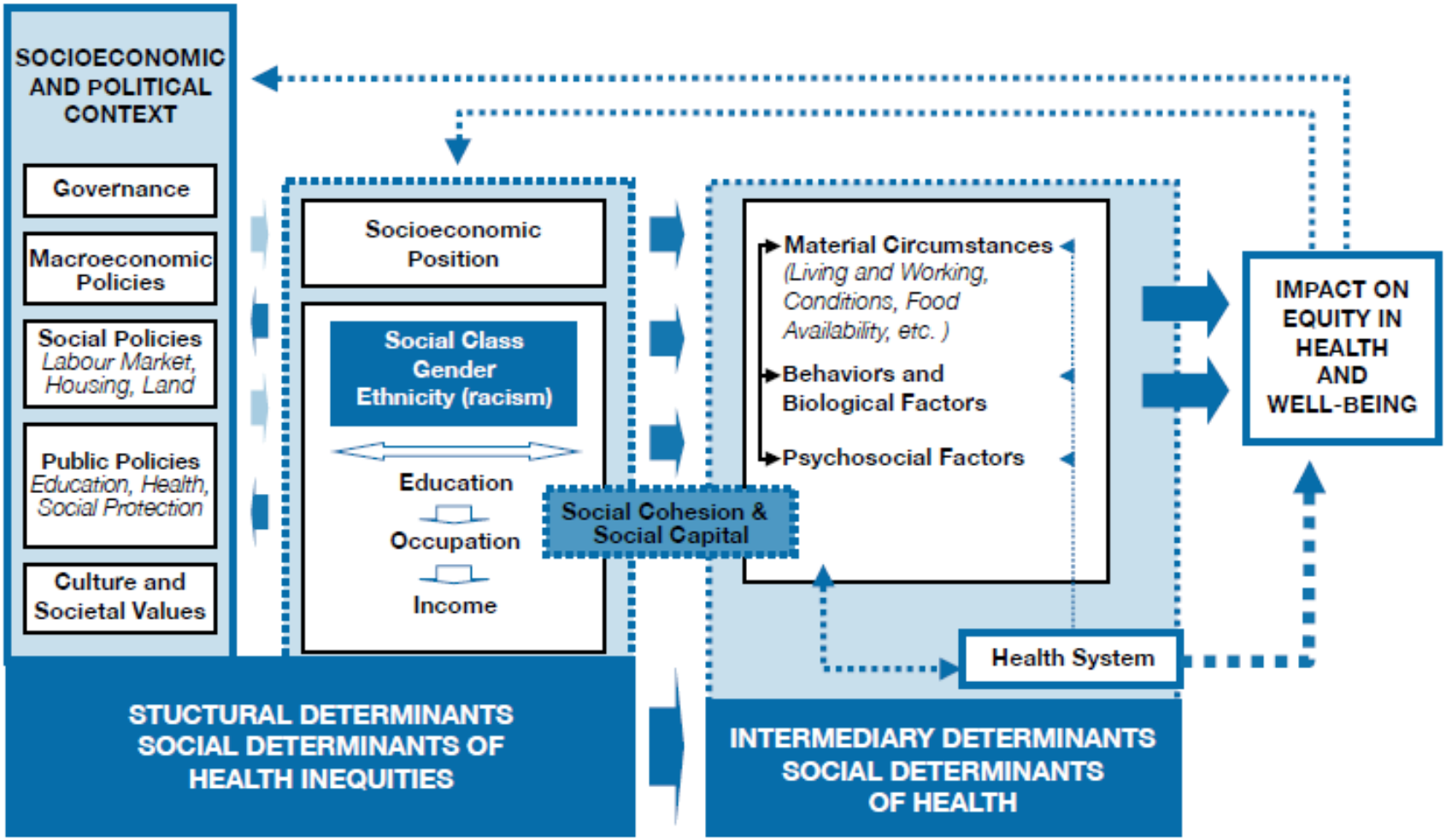
Based on their respective social status, individuals experience differences in exposure and vulnerability to health-compromising conditions.

Commission on Social Determinants of Health conceptual framework

Illness can “feed back” on a given individual’s social position, e.g. by compromising employment opportunities and reducing income; certain epidemic diseases can similarly “feed back” to affect the functioning of social, economic and political institutions.

The CSDH framework explain the concept of social determinants to policy-makers in ways that clarify the distinction between the social causes of health and the factors determining the distribution of these causes between more and less advantaged groups.

World Health Organization Commission on Social Determinants of Health conceptual framework linking social determinants of health and distribution of health



CSDH framework

This classic framework also summarises the pathways for the social determinants of health equity: from socioeconomic and political context to social / socioeconomic position (the structural determinants) to the impacts these have on intermediary determinants and ultimately impacting on equity in health and wellbeing.

The by-now familiar Dahlgren and Whitehead concept of the “living and working conditions” or the “conditions in which people are born, grow, play, work, live and age” are referenced in the CSDH framework under the intermediary determinants.

Social Determinants/Health

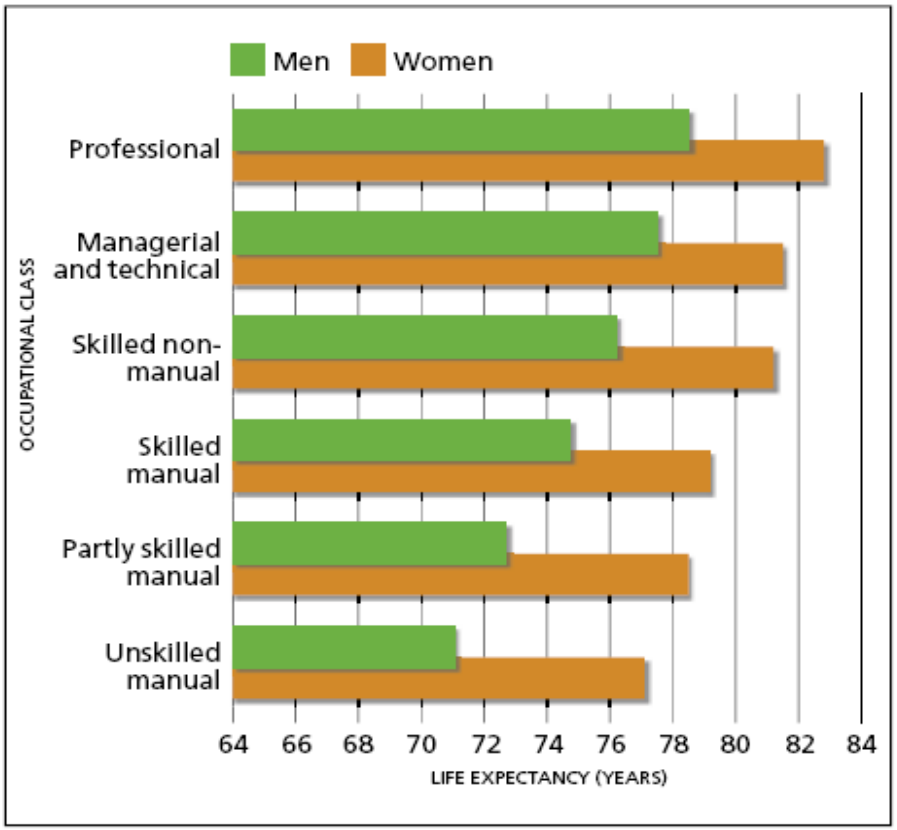
1. Social determinants contribute to health inequalities among social groups because they are not distributed equally or fairly across society
2. Social determinants can influence health both directly and indirectly. For example, educational disadvantage can limit access to employment, raising the risk of poverty and its adverse impact on health
3. Social determinants of health are interconnected e.g poverty is linked to poor housing, access to health services or diet, all of which are in turn linked to health
4. Social determinants operate at different levels

Because **the causes of the causes** are not obvious, the **WHO Regional Office for Europe** asked a group at University College London to summarise the evidence on the social determinants of health, published as **The Solid Facts**.

It has 10 messages on the social determinants of health based on:

1. **Social gradient**
2. **Stress**
3. **Early life**
4. **Social exclusion**
5. **Work**
6. **Unemployment**
7. **Social support**
8. **Addiction**
9. **Food**
10. **Transport**

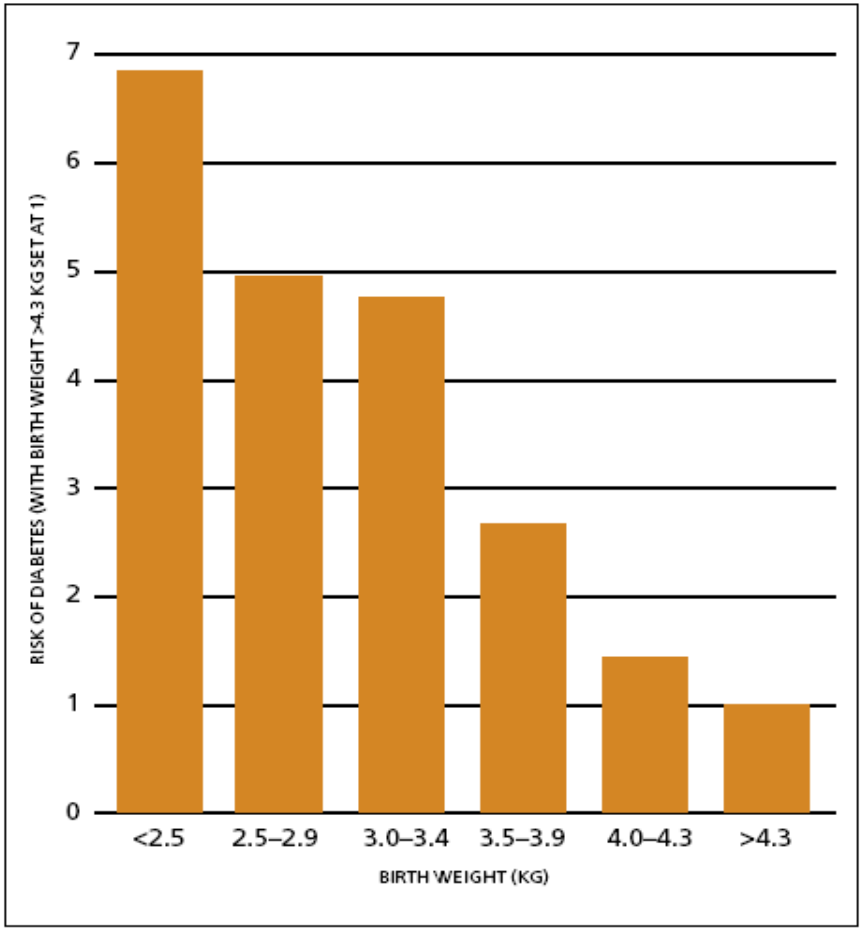
Fig. 1. Occupational class differences in life expectancy, England and Wales, 1997–1999



Life expectancy is shorter and most diseases are more common further down the social ladder in each society

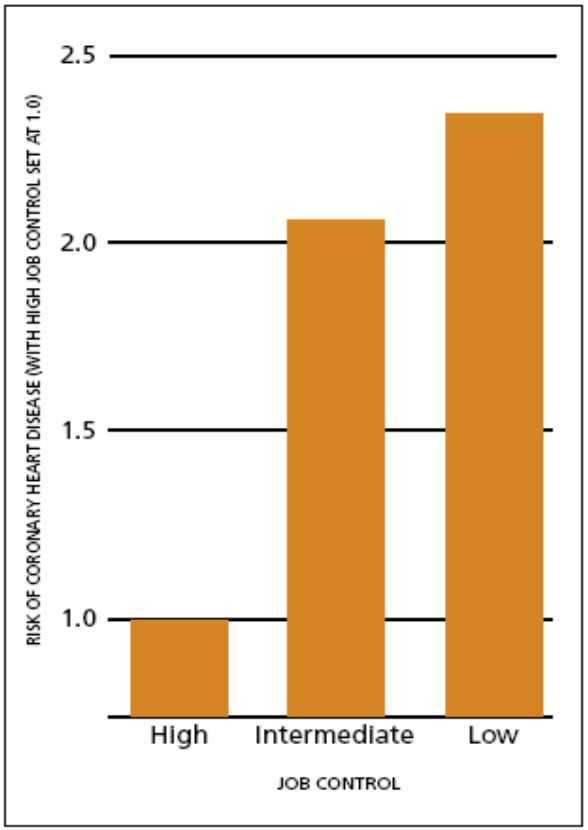
Fig. 2. Risk of diabetes in men aged 64 years by birth weight

Adjusted for body mass index



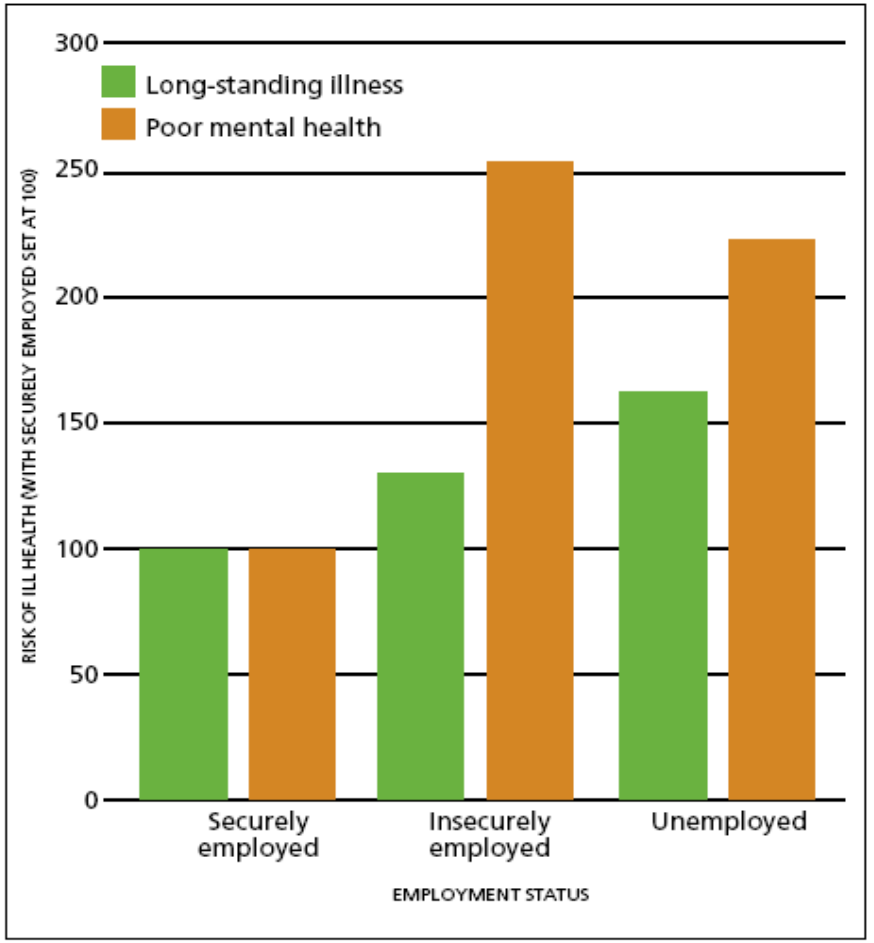
A good start in life means supporting mothers and young children: the health impact of early development and education lasts a lifetime

Fig. 4. Self-reported level of job control and incidence of coronary heart disease in men and women



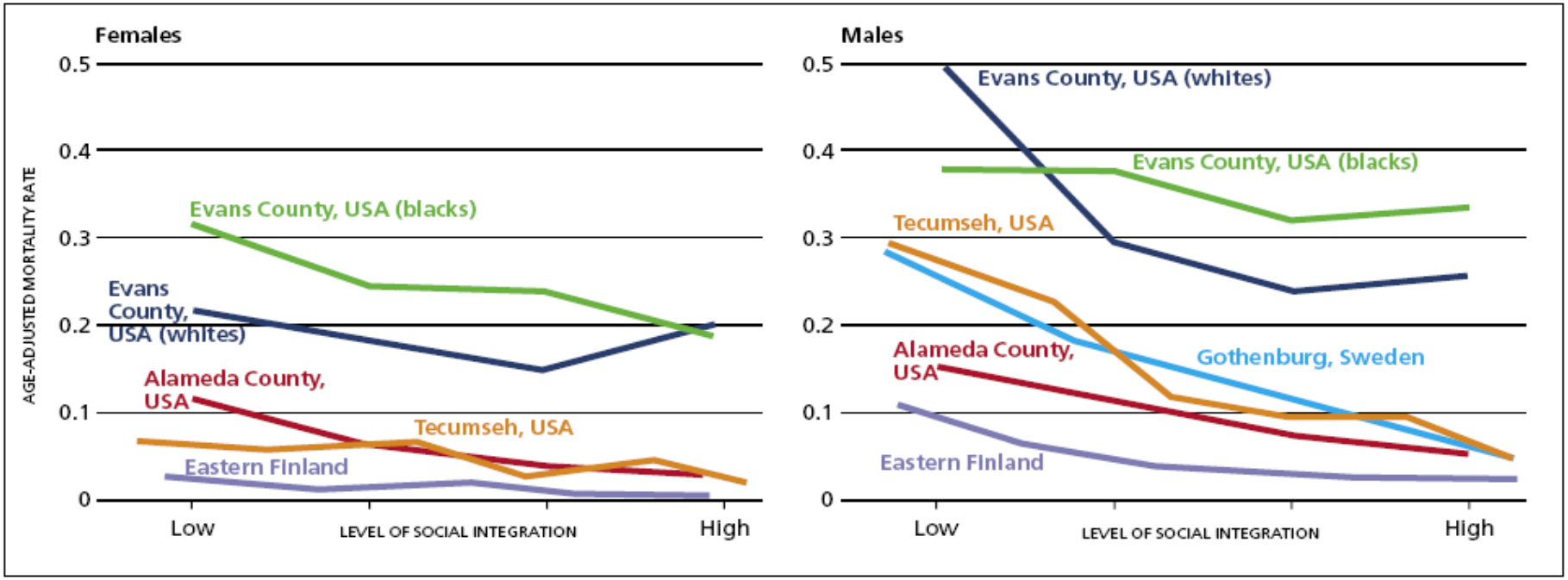
Adjusted for age, sex, length of follow-up, effort/reward imbalance, employment grade, coronary risk factors and negative psychological disposition

Fig. 5. Effect of job insecurity and unemployment on health



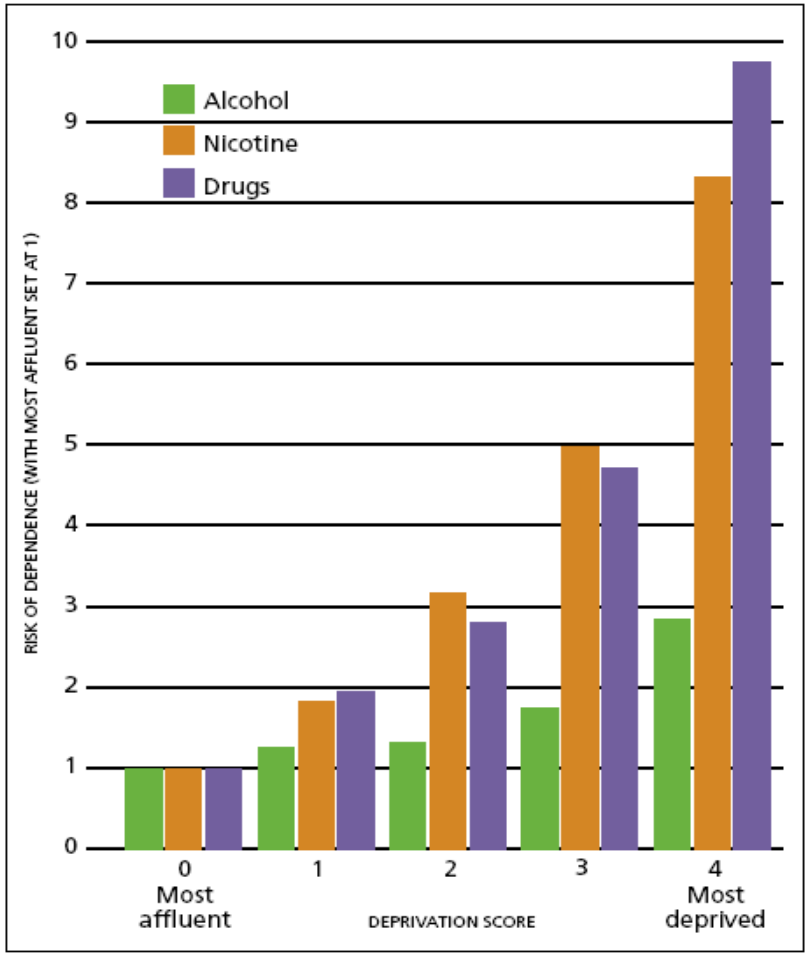
Stress in the workplace increases the risk of disease. People who have more control over their work have better health

Fig.6 Level of social integration and mortality in five prospective studies



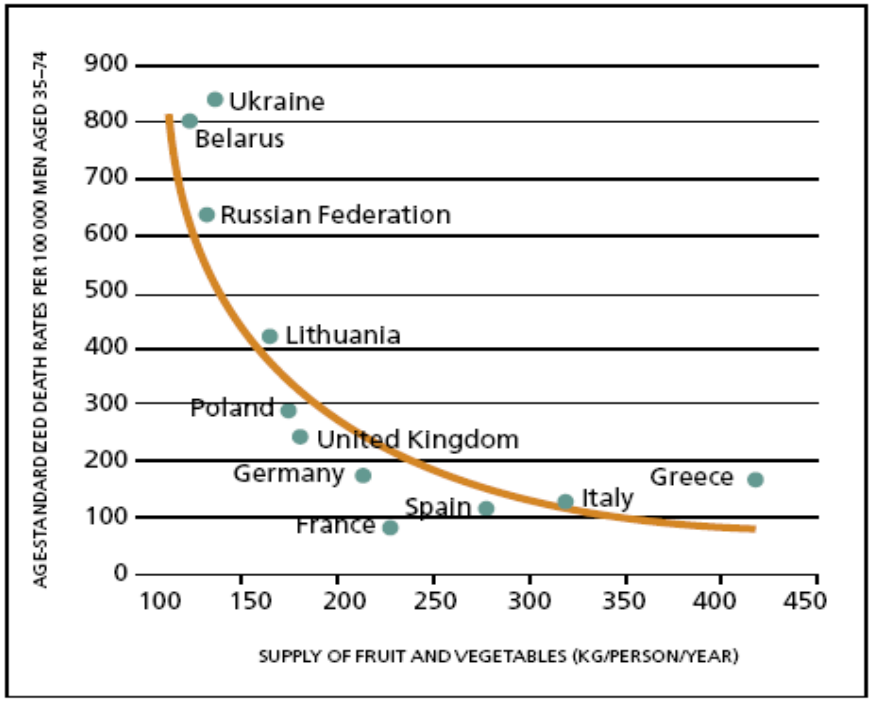
Friendship, good social relations, and strong supportive networks improve health at home, at work and in the community

Fig. 7. Socioeconomic deprivation and risk of dependence on alcohol, nicotine and drugs, Great Britain, 1993



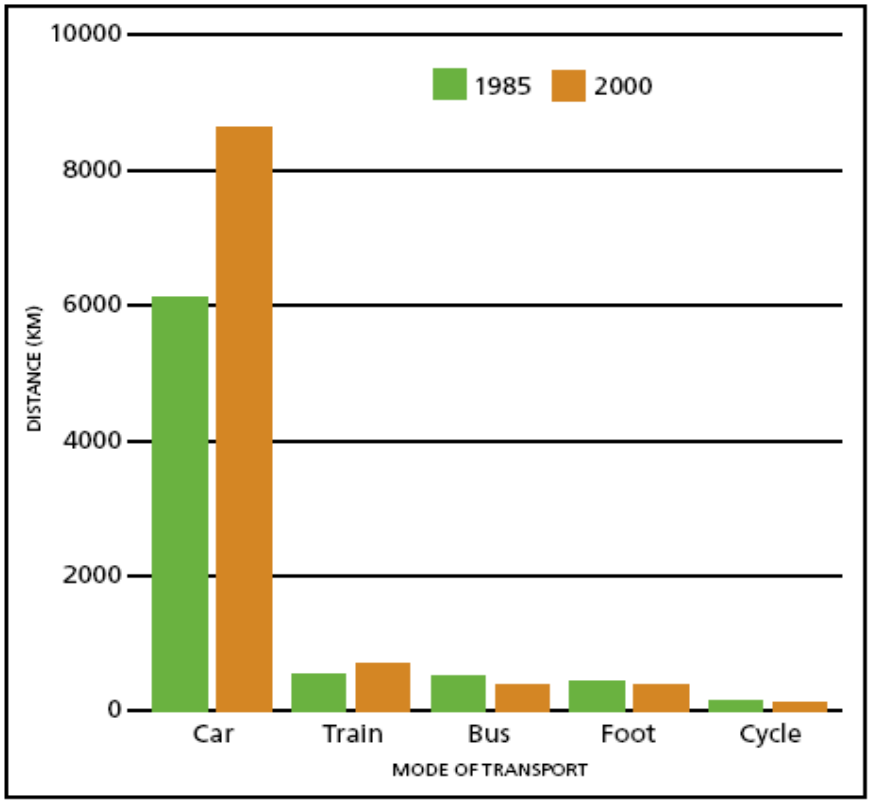
Individuals turn to alcohol, drugs and tobacco. They suffer for their use, but it is influenced by the wider social setting

Fig. 8. Mortality from coronary heart disease in relation to fruit and vegetable supply in selected European countries



A good diet and an adequate food supply are central for promoting health and well-being

Fig. 9. Distance travelled per person by mode of transport, Great Britain, 1985 and 2000



Roads should give precedence to cycling.

Healthy transport means less driving and more walking and cycling, backed up by better public transport

Cycling, walking and the use of public transport promote health in four way. They provide exercise, reduce fatal accidents, increase social contact and reduce air pollution

THE DISTINCTION BETWEEN HEALTH INEQUALITY AND HEALTH INEQUITY

Inequality and equality are dimensional concepts, simply referring to measurable quantities.

Inequity and equity, on the other hand, are political concepts, expressing a moral commitment to social justice.

Health inequality is the generic term used to designate differences, variations, and disparities in the health achievements of individuals and groups.

A straightforward example of health inequality is higher incidence of disease X in group A as compared with group B of population P.

If disease X is randomly or equally distributed among all groups of population P, then there is no presence of health inequality in that population.

In other words, health inequality is a descriptive term that need not imply moral judgment.

Further illustrating this point, imagine individual A who dies at age 40 during a sky diving accident.

His identical twin, B, who does not enjoy this hobby, lives to age 80.

In this case, the unequal life spans of A and B (and for that matter, the unequal life expectancies of recreational sky divers and non-divers) reflects a personal choice that would not necessarily evoke moral concern.

As well as voluntarily assumed risks, other examples of health inequality that we would not normally consider unjust include pure chance (a random genetic mutation—unlucky but not unjust) and life stage differences (a 20 year old having better health than a 60 year old, but expected to succumb to the same health problem 40 years on).

That said, many forms of health inequalities are also undoubtedly inequitable.

Health inequity refers to those inequalities in health that are deemed to be unfair or stemming from some form of injustice.

Whitehead and Dahlgren proposed additional considerations such as whether the inequalities are avoidable or unnecessary.

There are some difficulties in adopting preventability and necessity as criteria for the definition of health inequity.

In principle, even risk taking behaviour such as sky diving is avoidable or preventable.

However, this does not make its tragic outcome more or less inequitable.

The identification of health inequities entails normative judgment premised upon (a) one's theories of justice; (b) one's theories of society; and (c) one's reasoning underlying the genesis of health inequalities.

This is a crux of the distinction between equality and equity.

Science alone cannot determine which inequalities are also inequitable, nor what proportion of an observed inequality is unjust or unfair.

On one account, most of the health inequalities across social groups (such as class and race) are unjust because they reflect an unfair distribution of the underlying social determinants of health (for example, access to educational opportunities, safe jobs, health care, and the social bases of self respect).

On the other hand, some extreme views would deny any role of social injustice in the creation of health inequalities.

Much of this debate revolves around the issues of free will and individual responsibility for self care.

People who emphasise individual responsibility tend to view health inequalities as the outcome of differences in how people make choices.

- The decision to start smoking, or to adhere to a risk taking hobby

Social determinists view the same choices as arising out of constrained and unfair circumstances.

- Targeting of tobacco advertising to low income children

The existence of a social gradient in health behaviours demands an explanation.

The weight of the empirical evidence in the health inequalities literature supports the social determinist's position.

That is, the decision to invest in personal health is not freely chosen to the extent that (a) there are early life course influences on adult health (when, presumably, most individuals are not competent to make informed choices); and (b) to the extent that one's life chances depend upon contextual factors (that is, ambient risks that are imposed on individuals through their micro and macro environment or the behavior of others).

The conditions that need to be met for regarding health inequalities as fair are, in fact, extremely stringent.

Thus, many genetic differences, exposure to different childhood conditions, differences in most health behaviours, as well as most environmental exposures are unfair.

https://www.youtube.com/watch?v=BHYBHKma3x8

Well established inequalities

- Income
- Poverty
- Education
- Health

This figure depicts the way income, education and employment factors interact to determine health and health inequity.

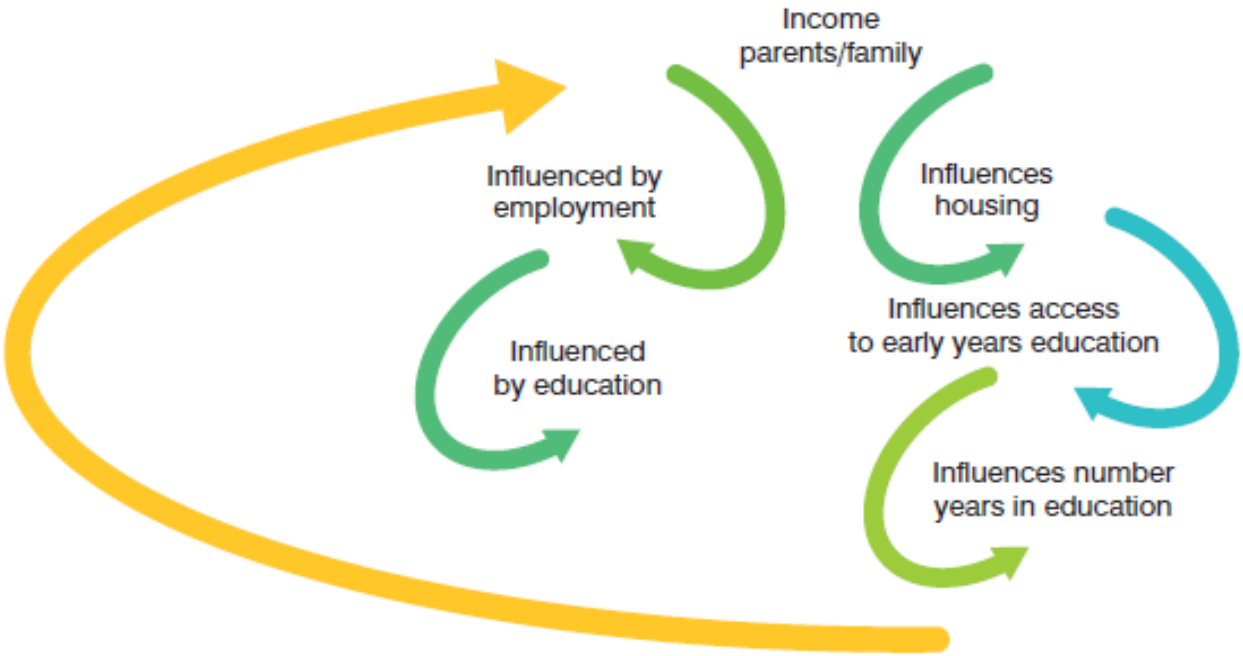


Figure. Cumulative effects of health inequalities

Poverty and Inequality

Both poverty and economic inequality are bad for health.

Poverty is an important risk factor for illness and premature death.

It affects health directly and indirectly, in many ways, e.g. financial strain, poor housing, poorer living environments and poorer diet, and limited access to employment, other resources, services and opportunities.

Poor health can also cause poverty.

Poverty definition

When a person or group of people lack human needs because they cannot afford them. Human needs include clean water, nutrition, health care, education, clothing, and shelter.

Poverty, social exclusion, poor housing and poor health systems are among the main social causes of ill health

Differences in the quality of life within and among countries affect how long people live

7.5% 5% 2.5% 2.5% 5% 7.5% 7.5% 5% 2.5% 2.5% 5% 7.5%

LIFE EXPECTANCY HISTORY

GOOD POOR

JAPAN

	M	F	All	World Rank M	World Rank F	World Rank All
1960	65.3	70.1	67.7	31	35	35
1970	69.4	74.7	72.0	9	13	10
1980	73.6	78.8	76.1	1	5	1
1990	75.9	81.9	78.8	1	1	1
2000	77.6	84.5	81.1	2	1	1
2010	79.5	86.3	83.0	5	1	1
2019	81.5	86.9	84.3	2	1	1

LESOTHO

	M	F	All	World Rank M	World Rank F	World Rank All
1960	44.9	48.3	46.6	115	111	114
1970	47.5	50.8	49.1	126	122	127
1980	52.2	55.5	53.8	130	128	131
1990	56.7	60.5	58.6	135	131	134
2000	48.2	50.3	49.3	167	167	166
2010	49.4	52.6	51.1	179	178	179
2019	47.7	54.2	50.7	183	183	183

LIFE EXPECTANCY BY AGE

GOOD POOR

A child born in Japan, today, has a chance of living 34 years longer than a child born in Lesotho.

Probability of death between the age of 15 and 60 is:

- 8.2% in Sweden
- 48.5% in the Russian Federation
- 84.5% in Lesotho

In Australia, there is about 14-year gap in life expectancy between Australian Aboriginal peoples and the Australian average

Social Exclusion and Discrimination

Social exclusion is the process by which groups and individuals are prevented from participating fully in society as a result of a range of factors including poverty, unemployment, caring/responsibilities, poor education or lack of skills, women, older people, people with disabilities or homeless people, for example, may experience social exclusion.

Social exclusion therefore is about more than poverty.

It is about isolation from participation in social life, and from power and decision-making.

Social Exclusion and Discrimination

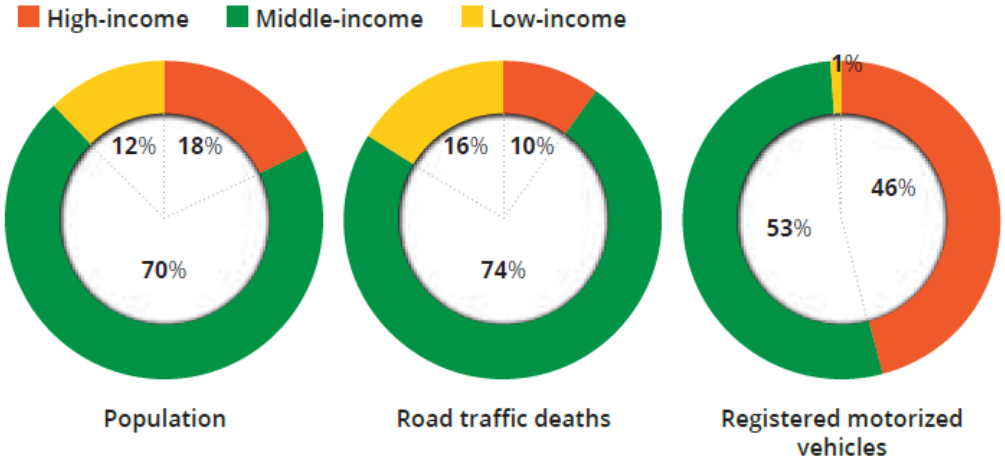
Social exclusion is often compounded by discrimination, which can arise on the basis of a person's gender, race or ethnicity, disability, marital, family or caring status, age, religion.

Equality legislation has an important role to play in tackling these forms of discrimination and promoting greater equality, inclusion, and diversity.

Road safety in the Sustainable Development Goals Ensure healthy lives and promote well-being for all at all ages. By 2020, halve the number of global deaths and injuries from road traffic accidents.

Ninety-percent of road traffic deaths occur in low- and middle-income countries, and while these countries also account for 82% of the world's population, they nevertheless bear a disproportionate number of deaths relative to their level of motorization, as they account for only 54% of the world's registered vehicles.

Population, road traffic deaths and registered motorized vehicles[a], by country income status



The world has made substantial progress in child survival since 1990, but 5.6 million children under the age of 5 years died in 2016.

This translates into 15 000 under-five deaths per day.

More than half of these early child deaths are due to conditions that could be prevented or treated with access to simple, affordable interventions.

Leading causes of death in children under-5 years are preterm birth complications, pneumonia, birth asphyxia, diarrhoea and malaria.

Children in sub-Saharan Africa are more than 15 times more likely to die before the age of 5 than children in high income countries.

A child's risk of dying is highest in the first 28 days of life (the neonatal period).

Improving the quality of antenatal care, care at the time of childbirth, and postnatal care for mothers and their newborns are all essential to prevent these deaths.

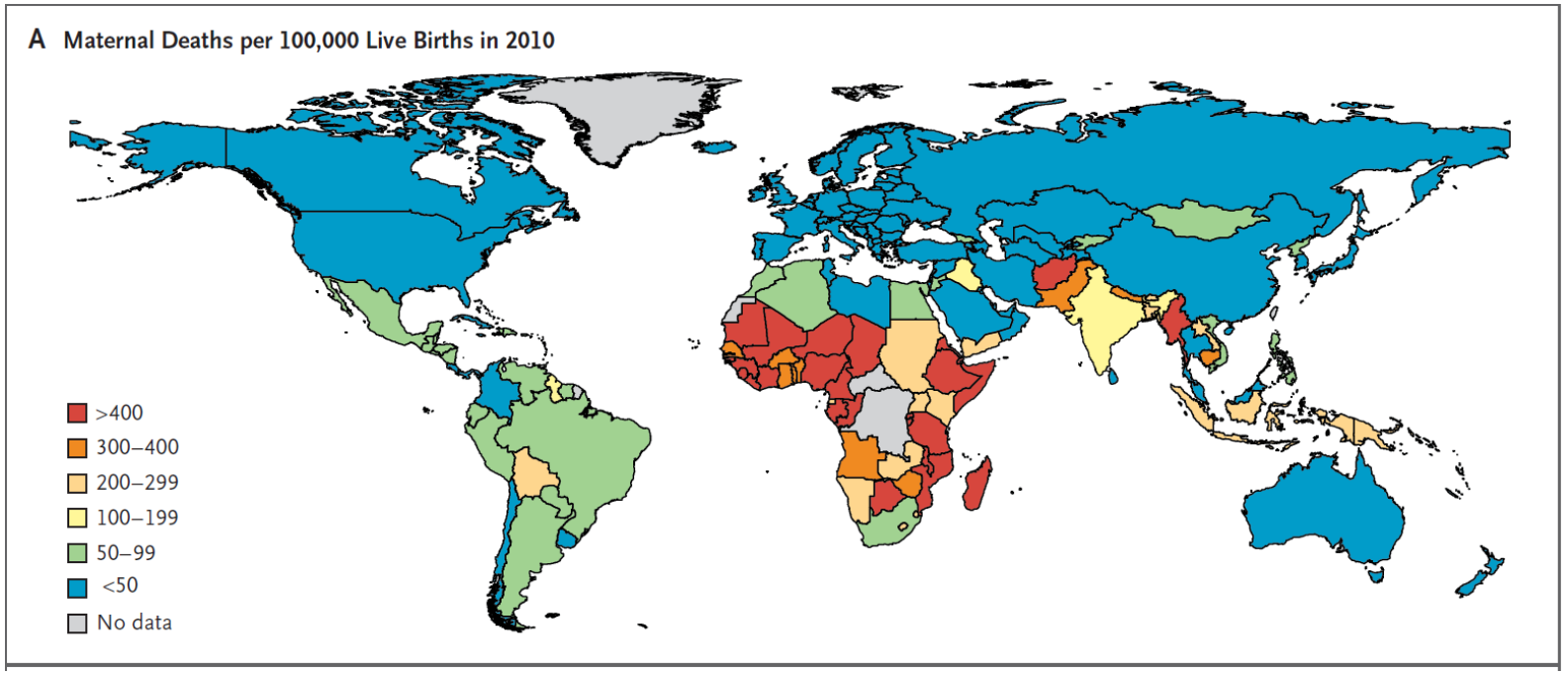
Globally 2.6 million children died in the first month of life in 2016. There are approximately 7 000 newborn deaths every day, amounting to 46% of all child deaths under the age of 5-years.

The leading under-5 causes were preterm birth complications (1·055 million), pneumonia (0·921 million), and intrapartum-related events (0·691 million). In the two MDG regions with the most under-5 deaths, the leading cause was pneumonia in sub-Saharan Africa and preterm birth complications in southern Asia.

Focused efforts are still needed in Sub-Saharan Africa and South East Asia to prevent 80 per cent of these deaths.

Figure 1. Maternal, Neonatal, and Child Mortality Worldwide.

Maps were generated with data from Lozano et al.,[3] the United Nations Children's Fund,[4] and the United Nations Population Fund.



The largest numbers and highest rates of maternal, neonatal, and child deaths are in countries of sub-Saharan Africa and South Asia (Fig. 1).

A total of 10 countries have almost two thirds of the global burden of maternal and newborn deaths, as well as stillbirths

Maternal deaths have dropped from 427 000 in the year 2000 to 289 000 in 2013, but are still unacceptably high: nearly 800 women die due to complications of pregnancy and childbirth every day.

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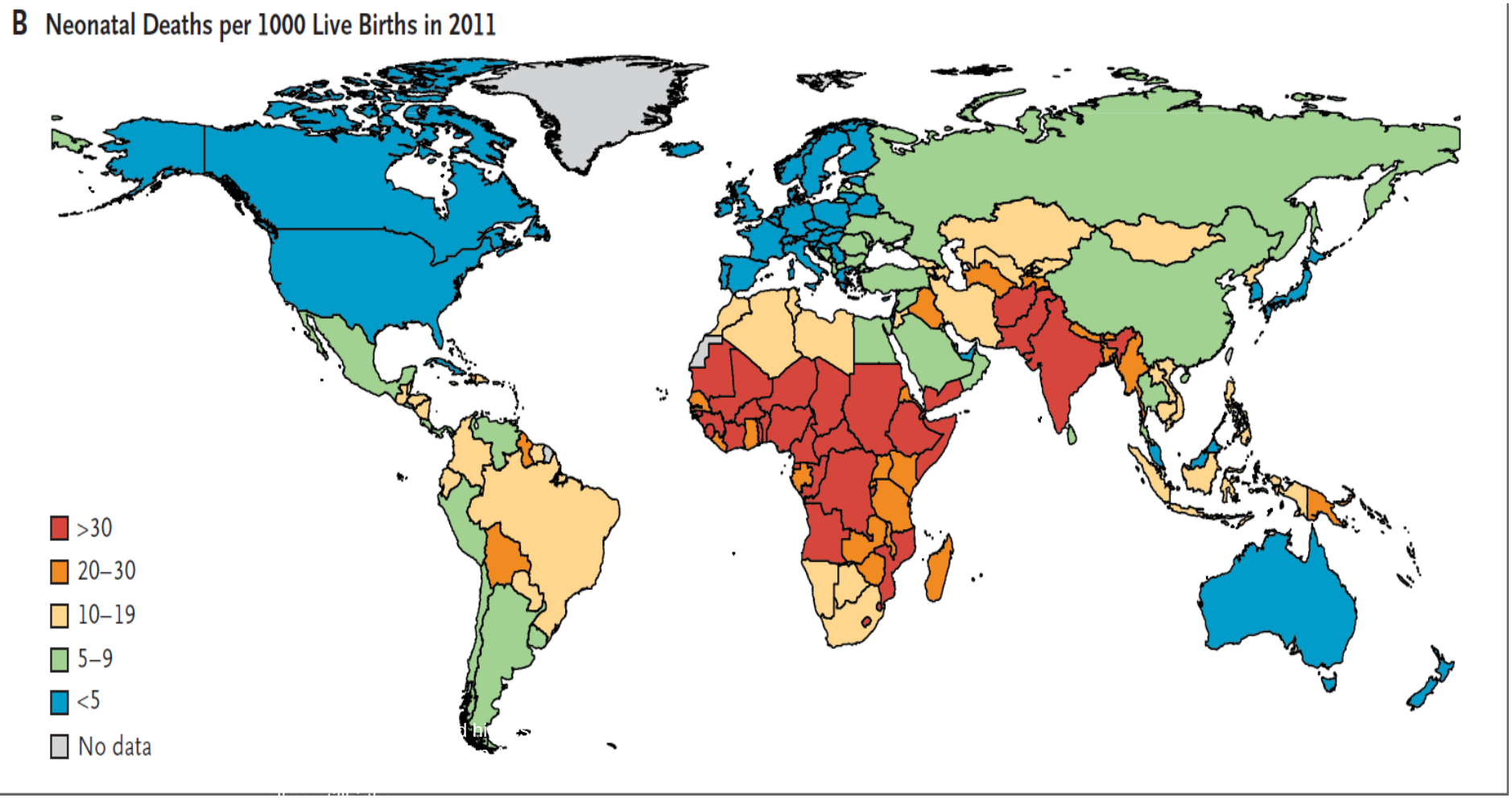
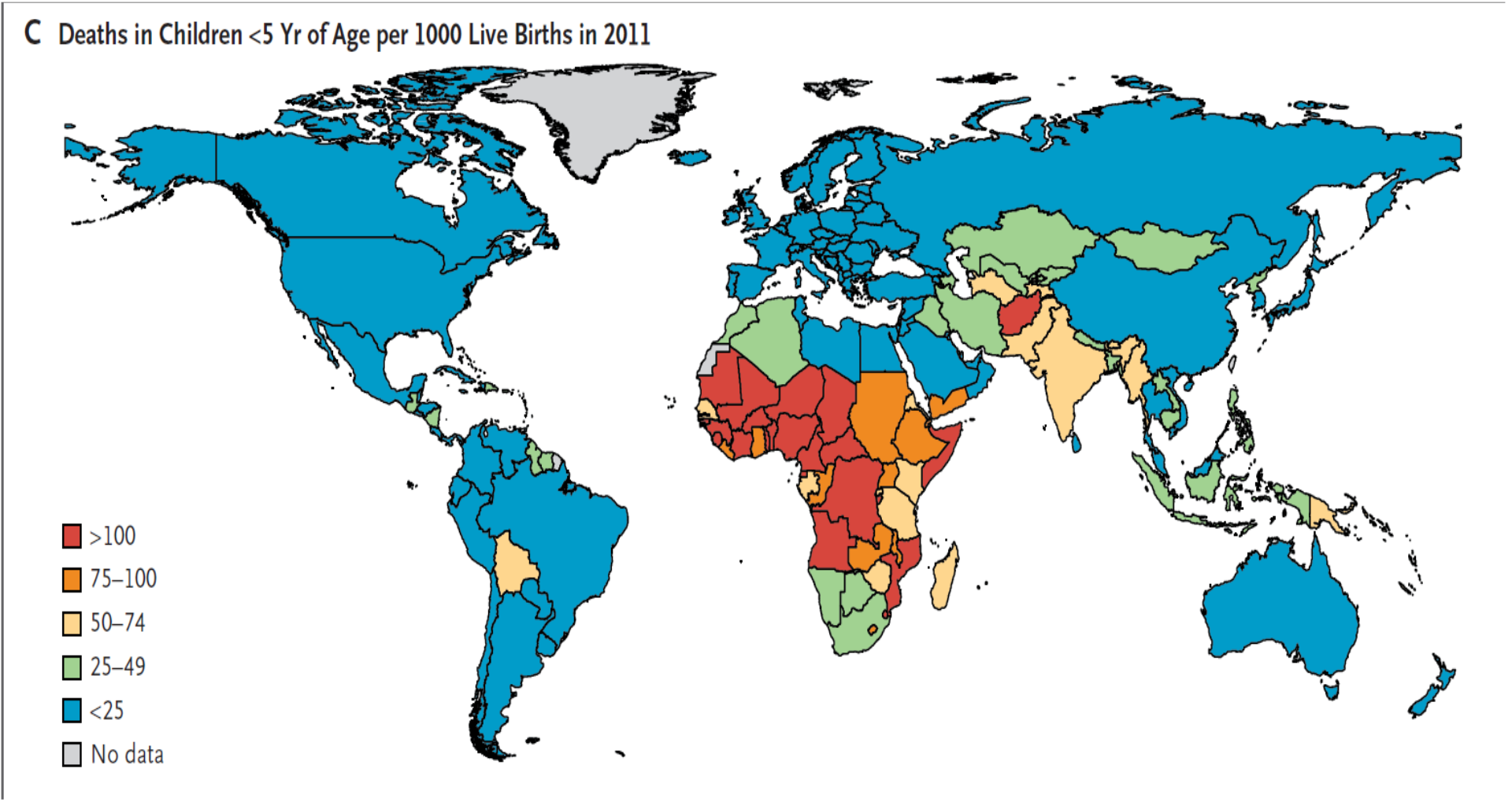
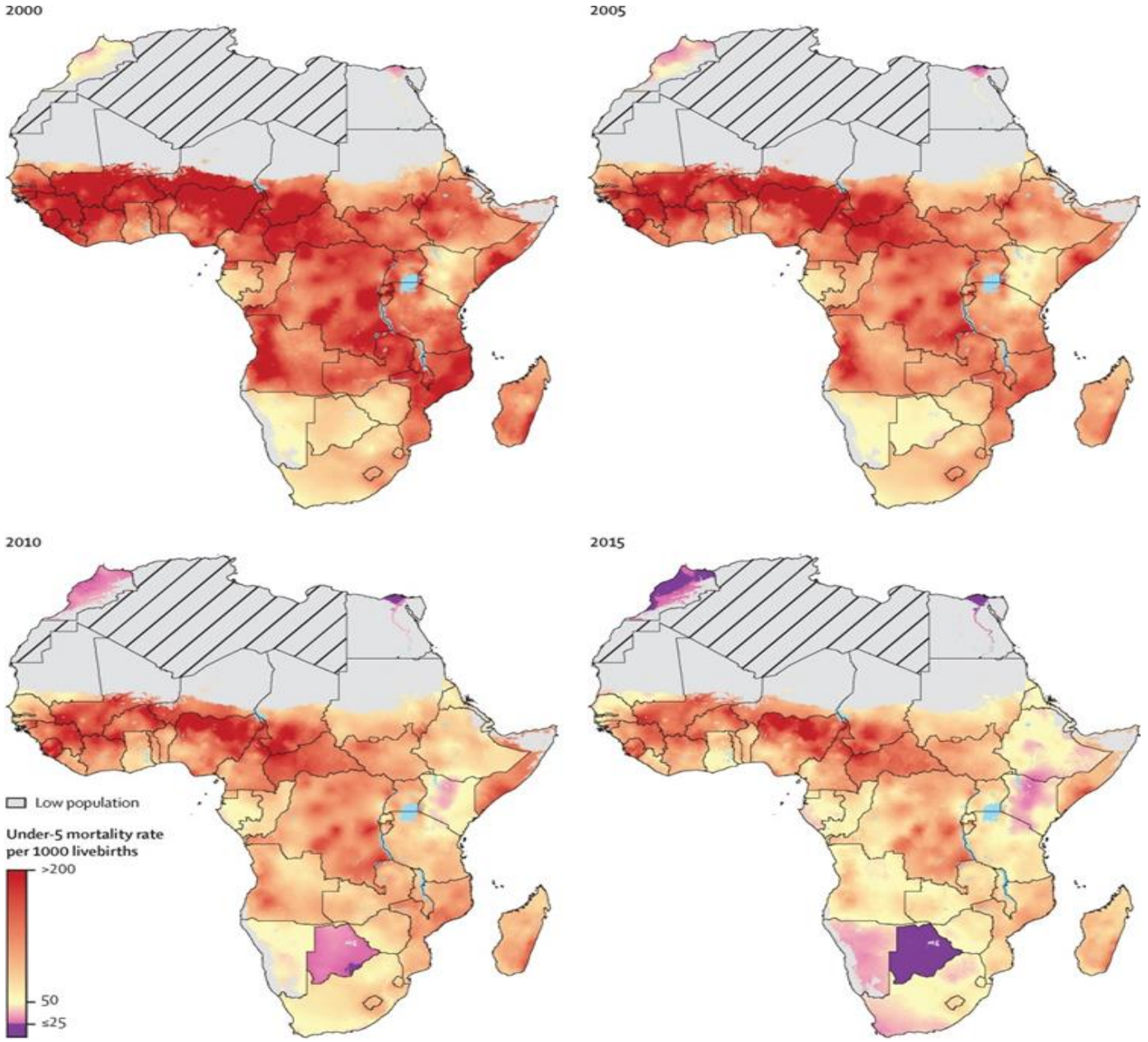

B Neonatal Deaths per 1000 Live Births in 2011
>30
20–30
10–19
5–9
<5
No data


C Deaths in Children <5 Yr of Age per 1000 Live Births in 2011
>100
75–100
50–74
25–49
<25
No data


2000
2005
2010
2015
Low population
Under-5 mortality rate
per 1000 livebirths
>200
50
≤25

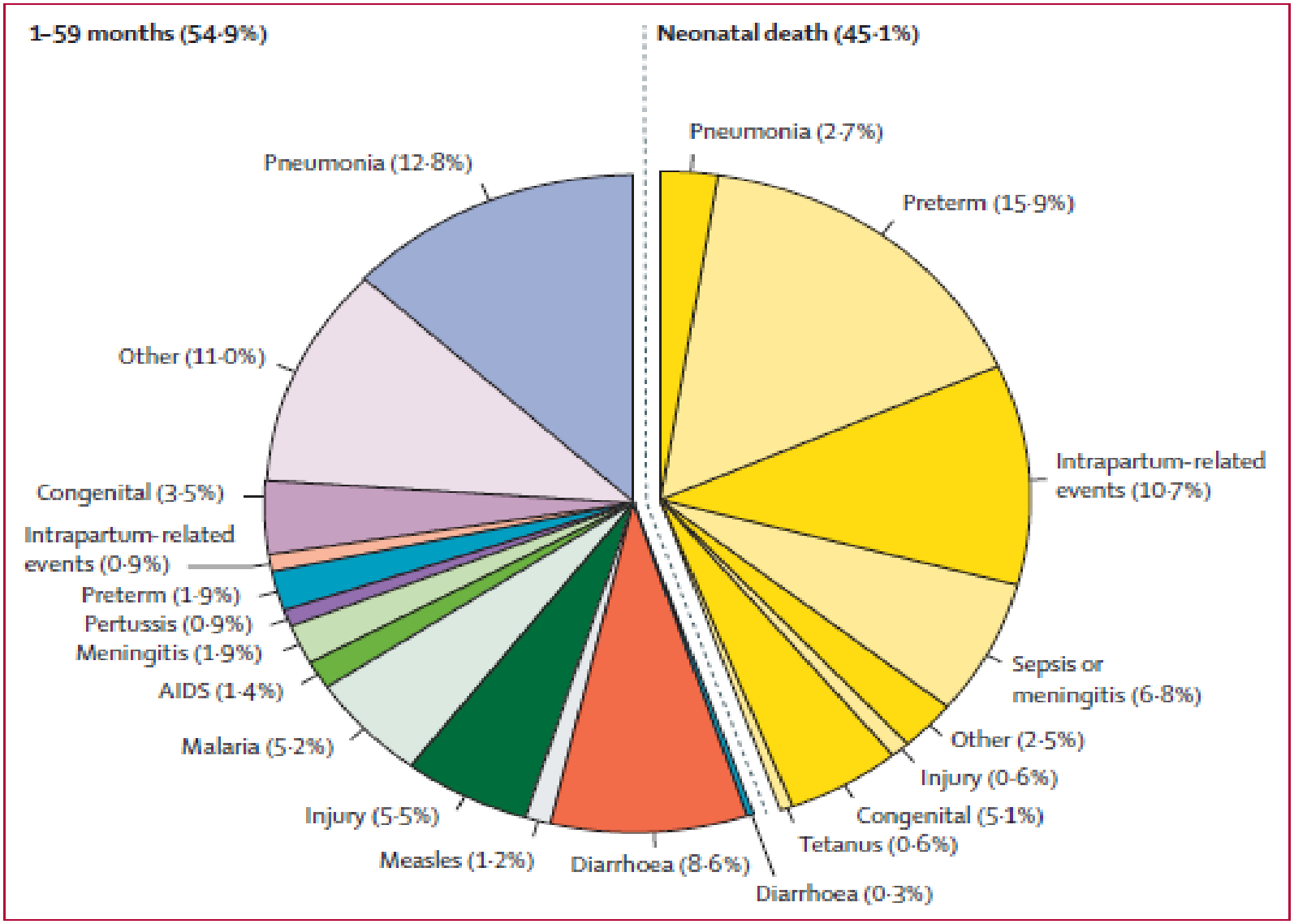


Figure 1: **Global causes of under-5 deaths in 2015**

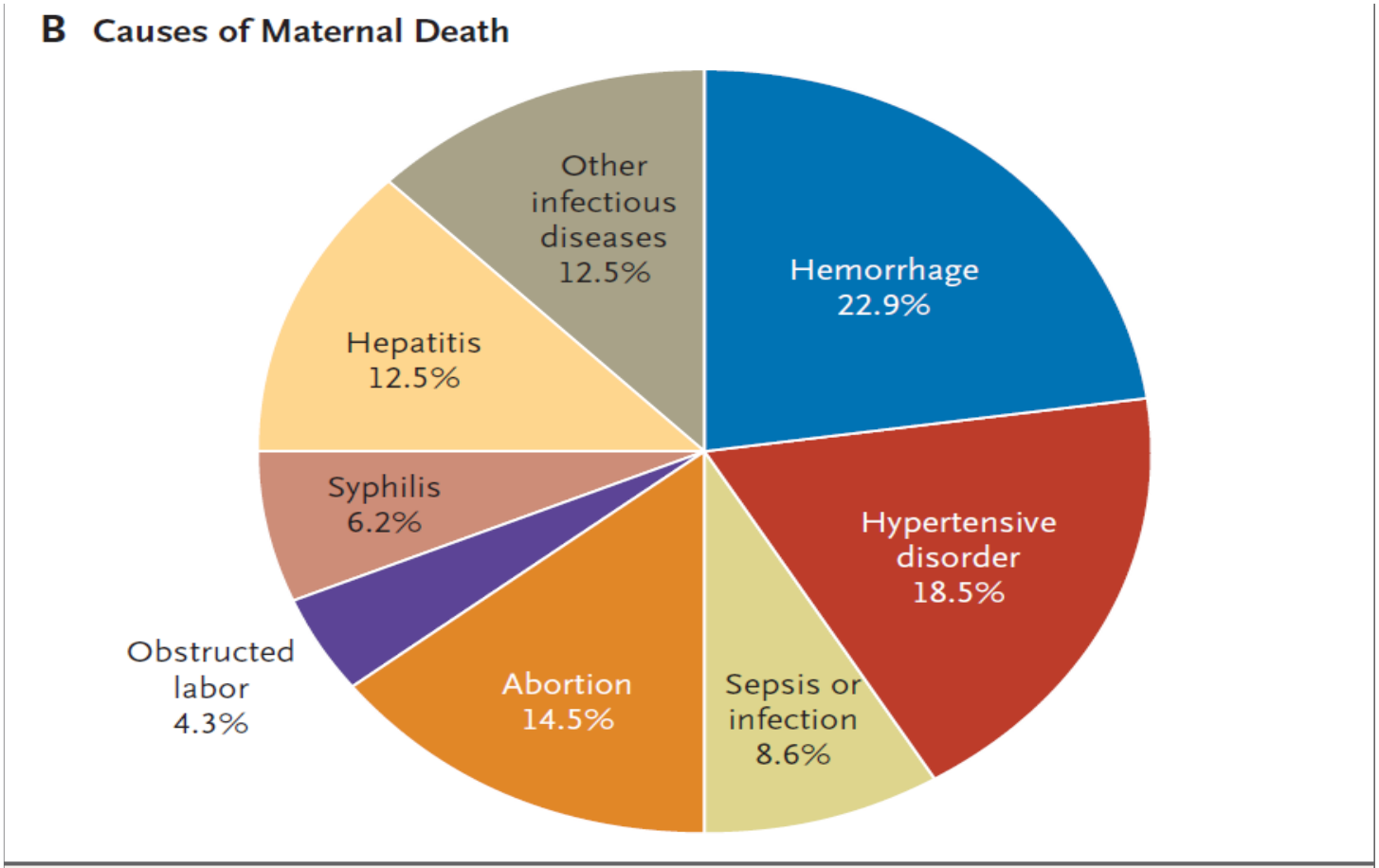


Figure 2. Causes of Death in Children Younger Than 5 Years of Age and Causes of Maternal Death.

The causes of death in children younger than 5 years of age are shown separately for neonates and for children 1 to 4 years of age. Data for causes of death in children younger than 5 years of age are from Liu et al.[8] Data for causes of maternal death are from Lozano et al.[9] Percentages do not sum to 100 owing to rounding.

The close link between poverty and under nutrition

is also well recognized.

It has been estimated that 45% of all deaths among children younger than 5 years of age may be associated with undernutrition, as manifested by fetal growth

restriction, stunting, wasting, deficiencies of vitamin A and zinc, and suboptimal breast -feeding

(e.g., partial or no breast-feeding and early weaning)

Leading causes of death in post-neonatal children: risk factors and response

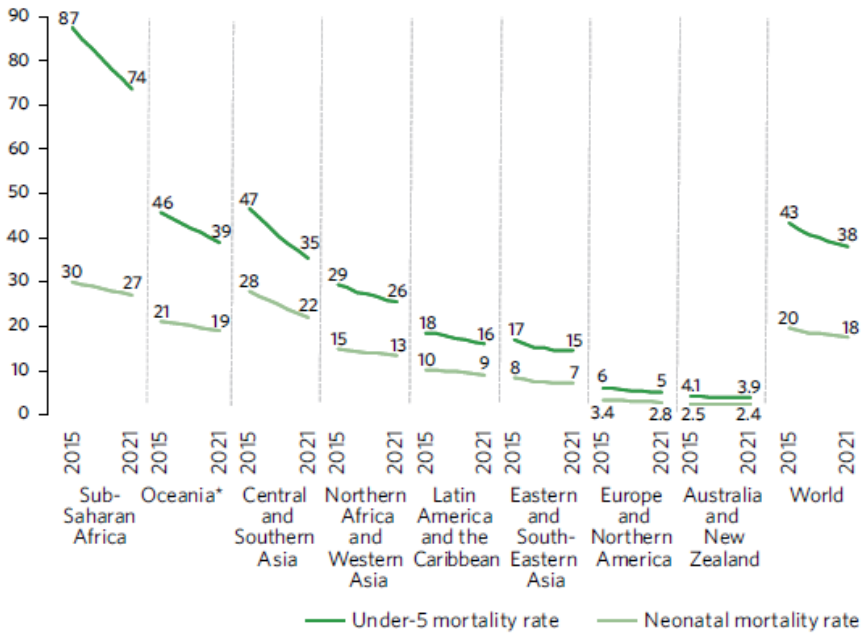
Cause of death	Risk factors	Prevention	Treatment
Pneumonia, or other acute respiratory infections	Low birth weight Malnutrition Non-breastfed children Overcrowded conditions	Vaccination Adequate nutrition Exclusive breastfeeding Reduction of household air pollution	Appropriate care by a trained health provider Antibiotics Oxygen for severe illness
Childhood diarrhoea	Non-breastfed children Unsafe drinking water and food Poor hygiene practices Malnutrition	Exclusive breastfeeding Safe water and food Adequate sanitation and hygiene Adequate nutrition Vaccination	Low-osmolarity oral rehydration salts (ORS) Zinc supplements

Global child mortality rates show significant decline, but challenges remain

A significant reduction in child mortality has been achieved over the past two decades. Between 2015 and 2021, the global under-5 mortality rate fell by 12 per cent, from 43 deaths per 1,000 live births to 38. Additionally, the global neonatal mortality rate fell by about 10 per cent, from 20 deaths per 1,000 live births to 18. Despite this progress, 5 million children still lost their lives before their fifth birthday in 2021, down from 6.1 million in 2015. Nearly half of those deaths (2.3 million) occured in the first 28 days of life. While child mortality has declined in all regions, sub-Saharan Africa continues to face the highest rates. In 2021, 1 child in 14 died before reaching age 5 (74 deaths per 1,000 live births) in this region, the same as the global average rate achieved two decades ago in 2001.

By 2021, 133 countries had already met the SDG target on under-5 mortality, and an additional 13 are expected to do so by 2030, if current trends continue. But to achieve the target by 2030, progress needs to accelerate in 54 countries, nearly 75 per cent of which are in sub-Saharan Africa. If these countries were to achieve the under-5 target, nearly 10 million under-5 deaths could be averted between 2022 and 2030. Meanwhile, more than 60 countries need to accelerate progress to meet the neonatal target.

Under-5 and neonatal mortality rate, 2015–2021 (deaths per 1,000 live births)



* Excluding Australia and New Zealand.

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Zero hunger

- The number of people facing hunger and food insecurity has been rising since 2015, with the pandemic, conflict, climate change and growing inequalities exacerbating the situation. In 2022, about 9.2 per cent of the world population was facing chronic hunger, equivalent to about 735 million people – 122 million more than in 2019. An estimated 29.6 per cent of the global population – 2.4 billion people – were moderately or severely food insecure, meaning they did not have access to adequate food. This figure reflects an alarming 391 million more people than in 2019.
- Despite global efforts, in 2022, an estimated 45 million children under the age of 5 suffered from wasting, 148 million had stunted growth and 37 million were overweight. A fundamental shift in trajectory is needed to achieve the 2030 nutrition targets.
- To achieve zero hunger by 2030, urgent coordinated action and policy solutions are imperative to address entrenched inequalities, transform food systems, invest in sustainable agricultural practices, and reduce and mitigate the impact of conflict and the pandemic on global nutrition and food security.

Children in the Santeng community of Tongo District, Ghana, enjoy porridge made from *fonio*, an ancient indigenous drought-resistant crop cultivated by rural women.

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2 ZERO HUNGER

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

ZERO HUNGER GOAL

AT RISK

MORE THAN **600 MILLION** PEOPLE WORLDWIDE

ARE PROJECTED TO **FACE HUNGER IN 2030**

MALNUTRITION PERSISTS WORLDWIDE, JEOPARDIZING CHILDREN'S WELL-BEING AND FUTURE DEVELOPMENT

CHILDREN UNDER AGE-5 AFFECTED BY:

(2022)

STUNTING

148 MILLION

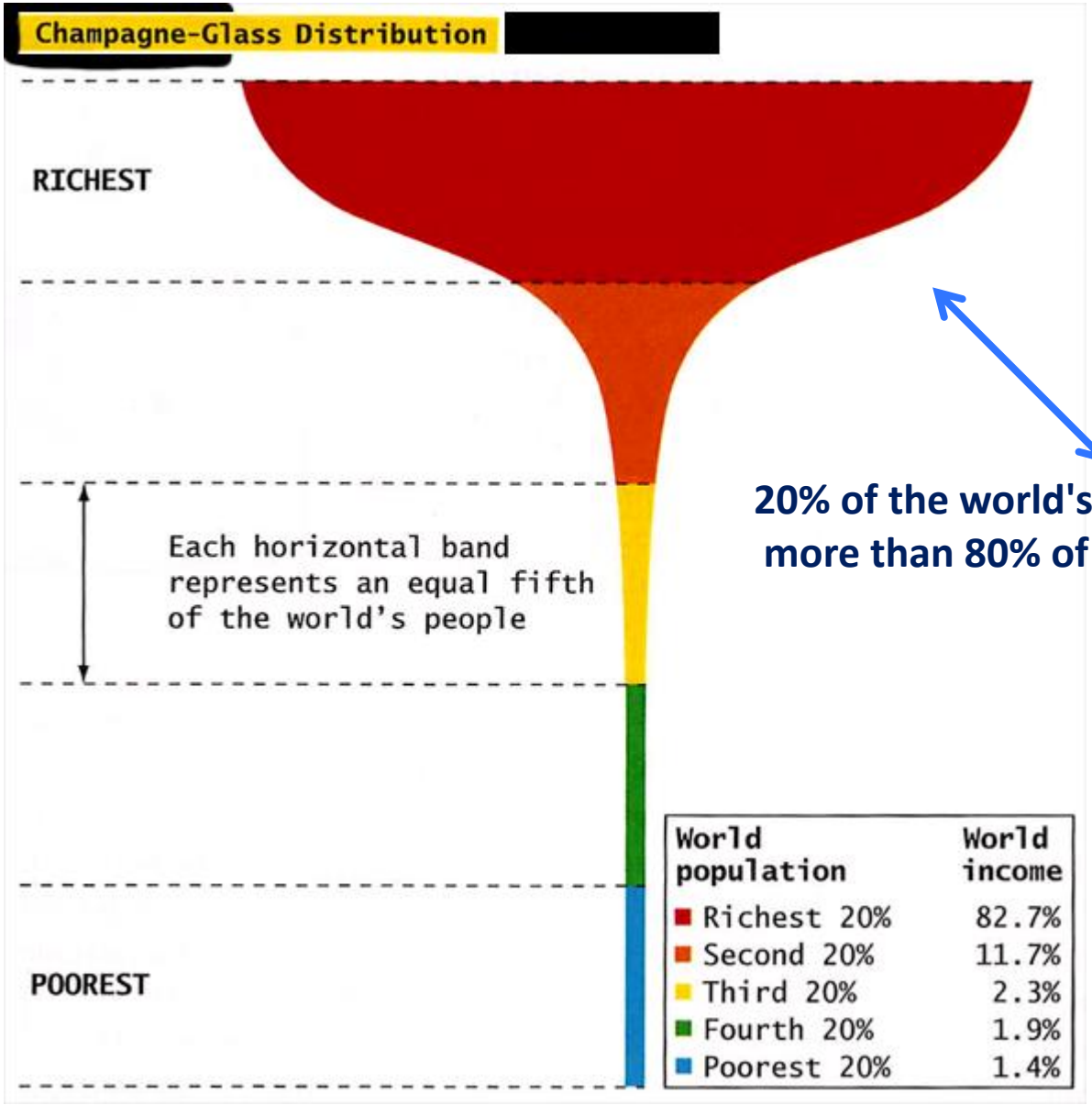
WASTING

45 MILLION

OVERWEIGHT

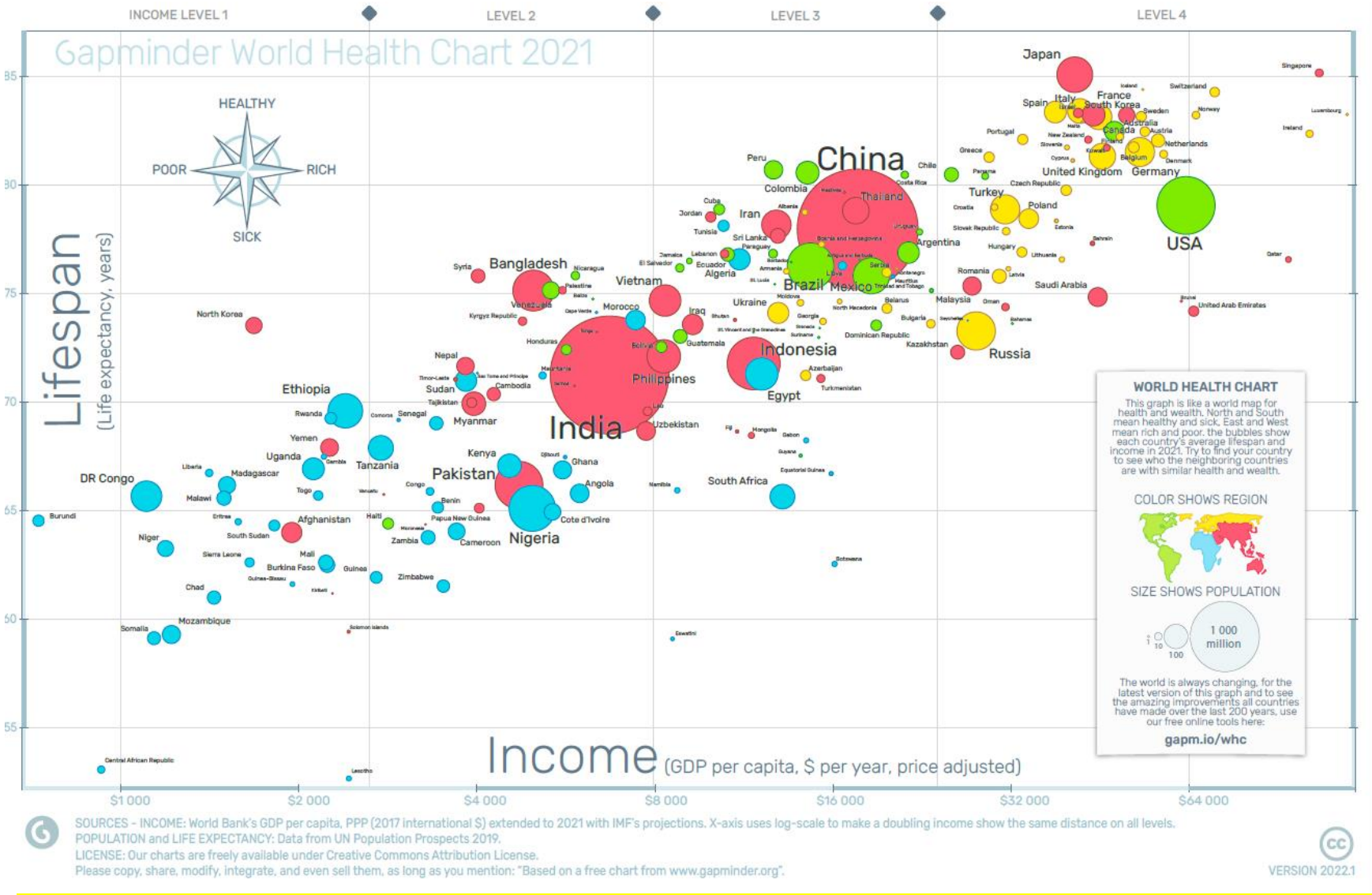
37 MILLION

Inequality in income is increasing in countries that account for more than 80% of the world's population.



20% of the world's population holds more than 80% of the world wealth

Today, 2022, inequality has increased only 1% of the world's population owns about 80% of the wealth



How Does Income Relate to Life Expectancy? Short answer — Rich people live longer

Few governments have explicit policies for tackling socially determined health inequalities

No poverty

- If current trends continue, 575 million people will still be living in extreme poverty and only one-third of countries will have halved their national poverty levels by 2030.
- Despite the expansion of social protection during the COVID-19 crisis, over 4 billion people remain entirely unprotected. Many of the world's vulnerable population groups, including the young and the elderly, remain uncovered by statutory social protection programmes.
- The share of government spending on essential services, such as education, health and social protection, is significantly higher in advanced economies than in emerging and developing economies.
- A surge in action and investment to enhance economic opportunities, improve education and extend social protection to all, particularly the most excluded, is crucial to delivering on the central commitment to end poverty and leave no one behind.

Daily life of residents living in the Sujat Nagar slum in Dhaka, Bangladesh.

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1 NO POVERTY

END POVERTY IN ALL ITS FORMS EVERYWHERE

IF CURRENT TRENDS CONTINUE,

BY 2030

575 MILLION

PEOPLE WILL STILL BE LIVING IN EXTREME POVERTY

ONLY ONE THIRD

OF COUNTRIES WILL HAVE HALVED THEIR NATIONAL POVERTY LEVELS

10 FACTS ON HEALTH INEQUITIES AND THEIR CAUSES

1. Health inequities are systematic differences in health outcomes

Health inequities are differences in health status or in the distribution of health resources between different population groups, arising from the social conditions in which people are born, grow, live, work and age.

Health inequities are unfair and could be reduced by the right mix of government policies.

2. Every day 16 000 children die before their fifth birthday

They die of pneumonia, malaria, diarrhoea and other diseases. Children from rural and poorer households remain disproportionately affected.

Children from the poorest 20% of households are nearly twice as likely to die before their fifth birthday as children in the richest 20%.

3. Maternal mortality is a key indicator of health inequity

Maternal mortality is a health indicator that shows the wide gaps between rich and poor, both between and within countries. Developing countries account for 99% of annual maternal deaths in the world.

Women in Afghanistan have a lifetime risk of maternal death of 1 in 11, while a woman in Ireland has a risk of 1 in 17 800.

4. Tuberculosis is a disease of poverty

Around 95% of TB deaths are in the developing world.

These deaths affect mainly young adults in their most productive years.

Contracting the disease makes it even harder for these adults to improve their personal economic condition and that of their families.

5. About 87% of non-communicable diseases (chronic diseases) are in low- and middle-income countries.

NCDs already disproportionately affect low- and middle-income countries where nearly three quarters of NCD deaths – 28 million – occur.

The 4 main types of non-communicable diseases are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.

In low-resource settings, health-care costs for non-communicable diseases (NCDs) can quickly drain household resources, driving families into poverty. The exorbitant costs of NCDs are forcing 100 million people into poverty annually, stifling development.

6.Life expectancy varies by 36 years between countries

In **low-income countries**, the average life expectancy is **62**, while in **high-income countries**, it is **81**.

A child born in Nigeria can expect to live for 53 years while a child born in Japan can expect to live about 85 years.

7. There are alarming health inequities within countries

For example, in the United States of America, African Americans represent only 13% of the population but account for almost half of all new HIV infections.

There is no biological or genetic reason for these alarming differences in health.

8. Health disparities are huge in cities

In Glasgow, male life expectancy ranges from 66.2 years in Ruchill and Possilpark to 81.7 years in Cathcart and Simshill – a difference of 15.5 years. In London, when travelling east from Westminster, each tube stop represents nearly one year of life expectancy lost according to the findings of the London Health

9. Health inequities have a significant financial cost to societies

The European Parliament has estimated that losses linked to health inequities cost around 1.4% of gross domestic product (GDP) within the European Union – a figure almost as high as the EU's defense spending (1.6% of GDP).

This arises from loses in productivity and tax payments, and from higher welfare payments and health care costs.

10.Persistent inequities slow development

Close 1 billion people in the world live in slum conditions, representing about one quarter of the world's urban population. The likelihood of meeting the health-related Millennium Development Goals is lowered by poor health service delivery to hard-to-reach populations such as these.

Health inequities are ***avoidable*** **inequalities** in health among groups of people within and between countries.

These inequities arise from inequalities within and between societies.

Social and economic conditions and their effects on people's lives determine their risk of illness and the actions taken to prevent them becoming ill or treat illness when it occurs.

What are inequities?

"… differences which are unnecessary and avoidable, but in addition are considered unfair and unjust. So, in order to describe a certain situation as inequitable the cause has to be examined and judged to be unfair in the context of what is going on in the rest of society."

Whitehead (1992)

Examples of health inequities between countries

- the *infant mortality rate* (the risk of a baby dying between birth and one year of age) is **2 per 1000** live births in Iceland and over **53 per 1000** live births in Mozambique.

- in Afghanistan the *maternal mortality ratio (per 100.000 live births)* is **211**; In Italy is **2**.

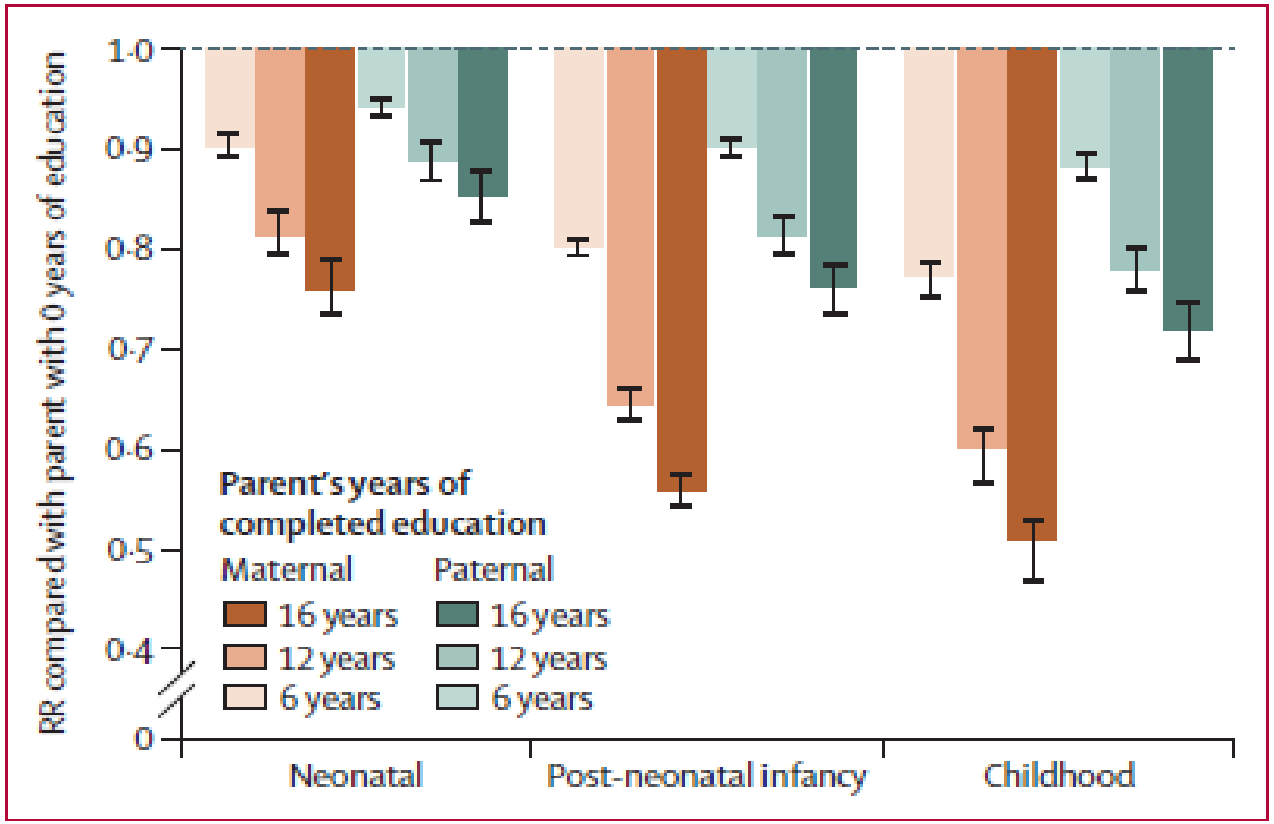


***Figure 3*: Summary of RRs of child mortality by parental education**

Error bars are 95% CIs. RRs of child mortality are shown for three age intervals: neonatal (1–27 days), post-neonatal infancy (1–11 months), and under-5 childhood (1–4 years). Maternal education and paternal education are shown by completed years of schooling (colours darken with increasing years of education). All levels of parental education were compared with 0 years of education as reference level. RR=relative risk.

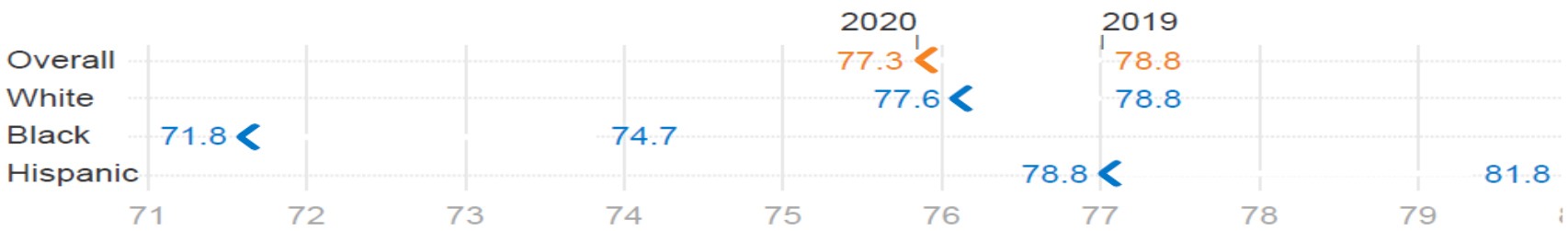
Examples of health inequities within countries

- in Bolivia, babies born to women with no education have *infant mortality* greater than **100 per 1000** live births, while the infant mortality rate of babies born to mothers with at least secondary education is **under 40 per 1000**;
- *life expectancy at birth* in Australian aboriginals is substantially lower (**59.4** for males and **64.8** for females) than Australian non aboriginal (**76.6** and **82.0**, respectively);
- *Male life expectancy at birth* in Calton neighbourhood of Glasgow is **28 years lower** than in Lenzie, a few kilometres away;
- the *prevalence of long-term disabilities in European men* aged 80+ years is **58.8%** for the lower educated versus **40.2%** for the higher educated.

Examples of health inequities within countries

- At birth, Black people have a shorter life expectancy compared to White people. Life expectancy for **Black people was only 71.8 years compared to 77.6 years for White people** and 78.8 years for Hispanic people.
- Overall life expectancy declined by 1.5 years in 2020, with larger decreases for the Hispanic (3.0 years) and Black (2.9 years) population compared to the White population (1.2 years), largely reflecting the disproportionate impacts of COVID-19 for these groups

Figure 13



NOTE: Estimates based on provisional data for 2020 for life expectancy at birth. Persons of Hispanic origin may be of any race but are categorized as Hispanic for this analysis; other groups are non-Hispanic.
SOURCE: Arias E, Tejada-Vera B, Ahmad F, Kochanek KD. Provisional life expectancy estimates for 2020. Vital Statistics Rapid Release; no 15. Hyattsville, MD: National Center for Health Statistics. July 2021. DOI: https://dx.doi.org/10.15620/cdc:107201. • PNG

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Reduced inequalities

- The incomes of the poorest 40 per cent of the population had been growing faster than the national average in most countries. But emerging yet inconclusive evidence suggests that COVID-19 may have put a dent in this positive trend of falling within-country inequality. The pandemic has also caused the largest rise in between-country inequality in three decades.
- One in six people worldwide has experienced discrimination in some form, with women and people with disabilities disproportionately affected.
- The year 2022 witnessed the highest number of refugees (34.6 million people) ever documented. This year is also a deadly one for migrants, with nearly 7,000 deaths recorded globally.
- Reducing both within- and between-country inequality requires equitable resource distribution, investing in education and skills development, implementing social protection measures, combating discrimination, supporting marginalized groups and fostering international cooperation for fair trade and financial systems.

Migrants cross the dangerous Darien jungle between Colombia and Panama, which saw a seven-fold increase in the number of children going through the jungle in the first two months of 2023 compared with 2022.

The Sustainable Development Goals Report 2023

Health inequalities are often observed along a ***social gradient***.

This means that the more favorable your social circumstances such as income or education, the better your chance of enjoying good health and a longer life. While there is a significant gap between the wealthy and the poor, the relationship between social circumstances in health is in fact a graded one.

Socioeconomic Gradient in Health

A stepwise fashion health outcomes improve as socioeconomic position improves.

This gradient can be measured by people's income, occupation or level of education.

What is mean by social gradient?

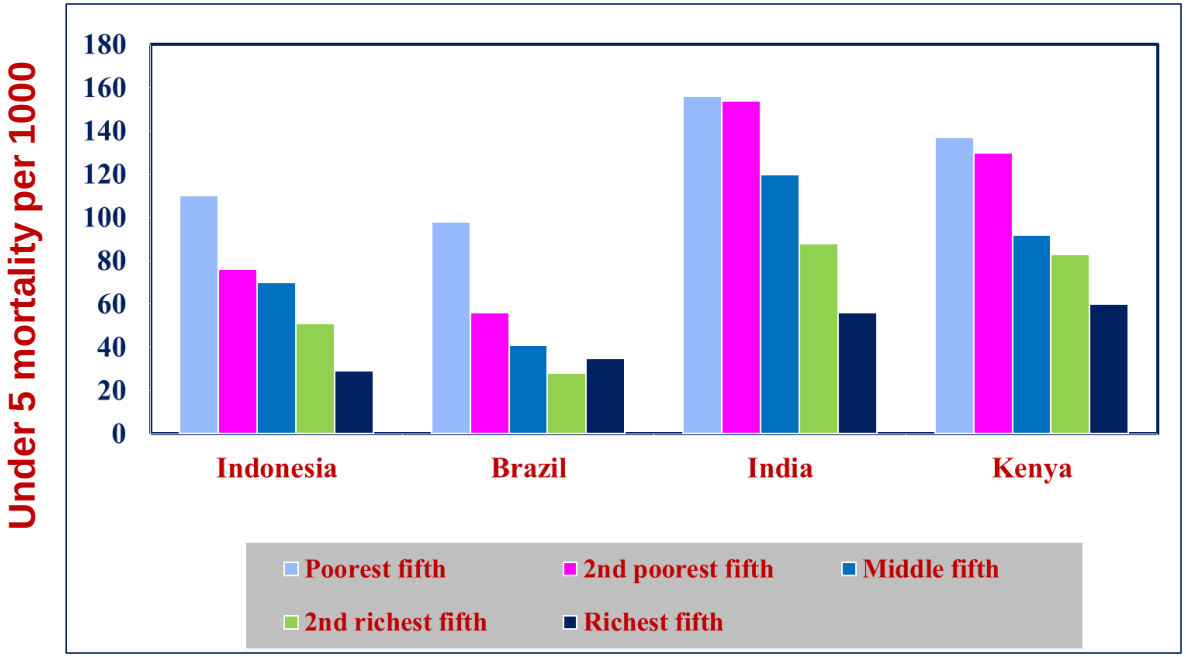
The poorest of the poor, around the world, have the worst health.

The evidence shows that, within countries, who has the lowest socio-economic position have the worse health.

There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries.

- The social gradient in health means that health inequities affect everyone

Under 5 mortality rates, select countries, by household wealth



Victora et al, 2003

For example, if you look at under-5 mortality rates by levels of household wealth you see that within countries the relation between socioeconomic level and health is graded. The poorest have the highest under-5 mortality rates, and people in the second highest quintile of household wealth have higher mortality in their offspring than those in the highest quintile. **This is the social gradient in health**.

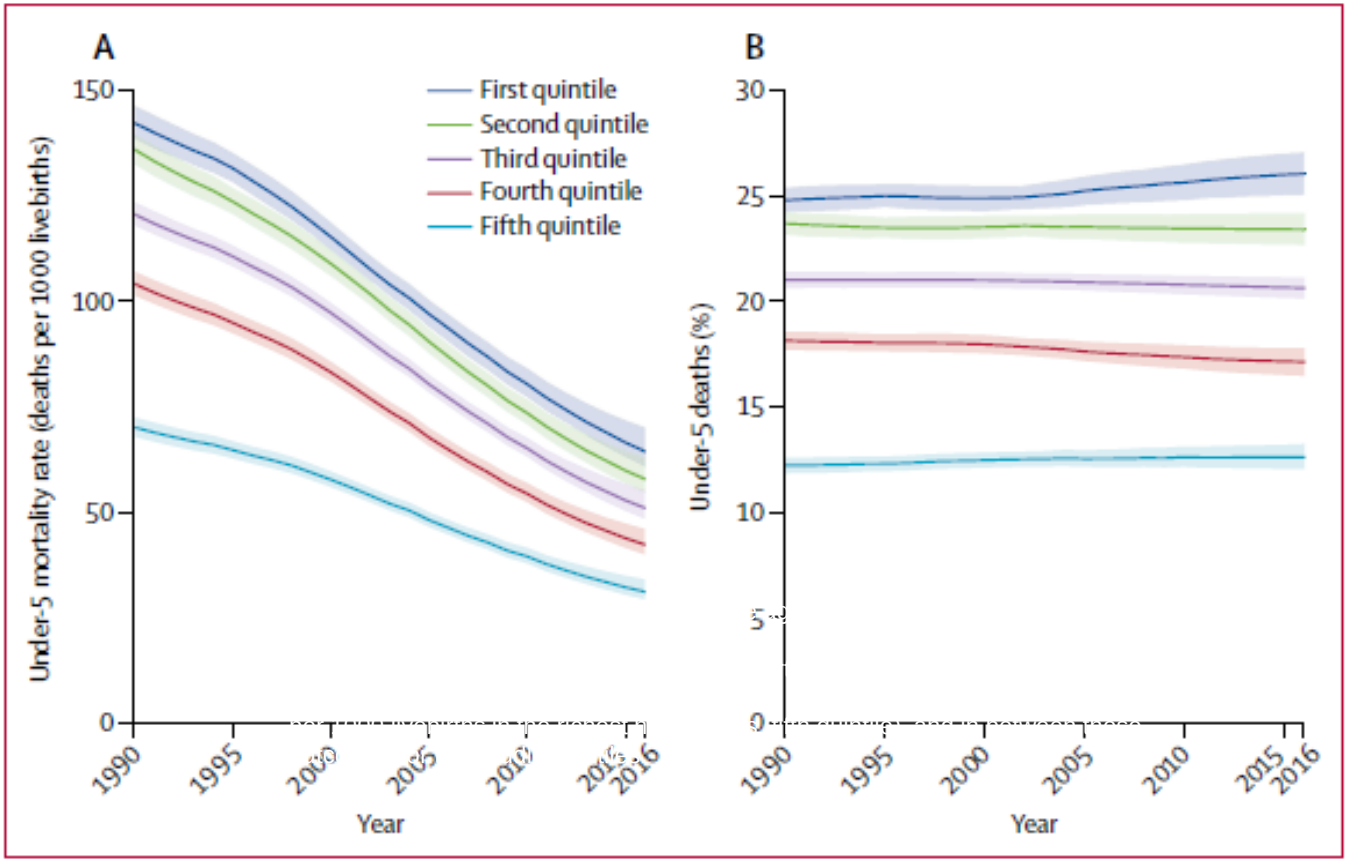


Figure 2: **Quintile-specific under-5 mortality rate from 1990 to 2016, for all low-income and middle-income countries (excluding China) combined**

(A) Under-5 mortality rate and (B) percentage of under-5 deaths by year. Curves are point estimates. Shaded areas are 90% uncertainty intervals. The first quintile is the 20% poorest quintile and the fifth quintile is the 20% richest.

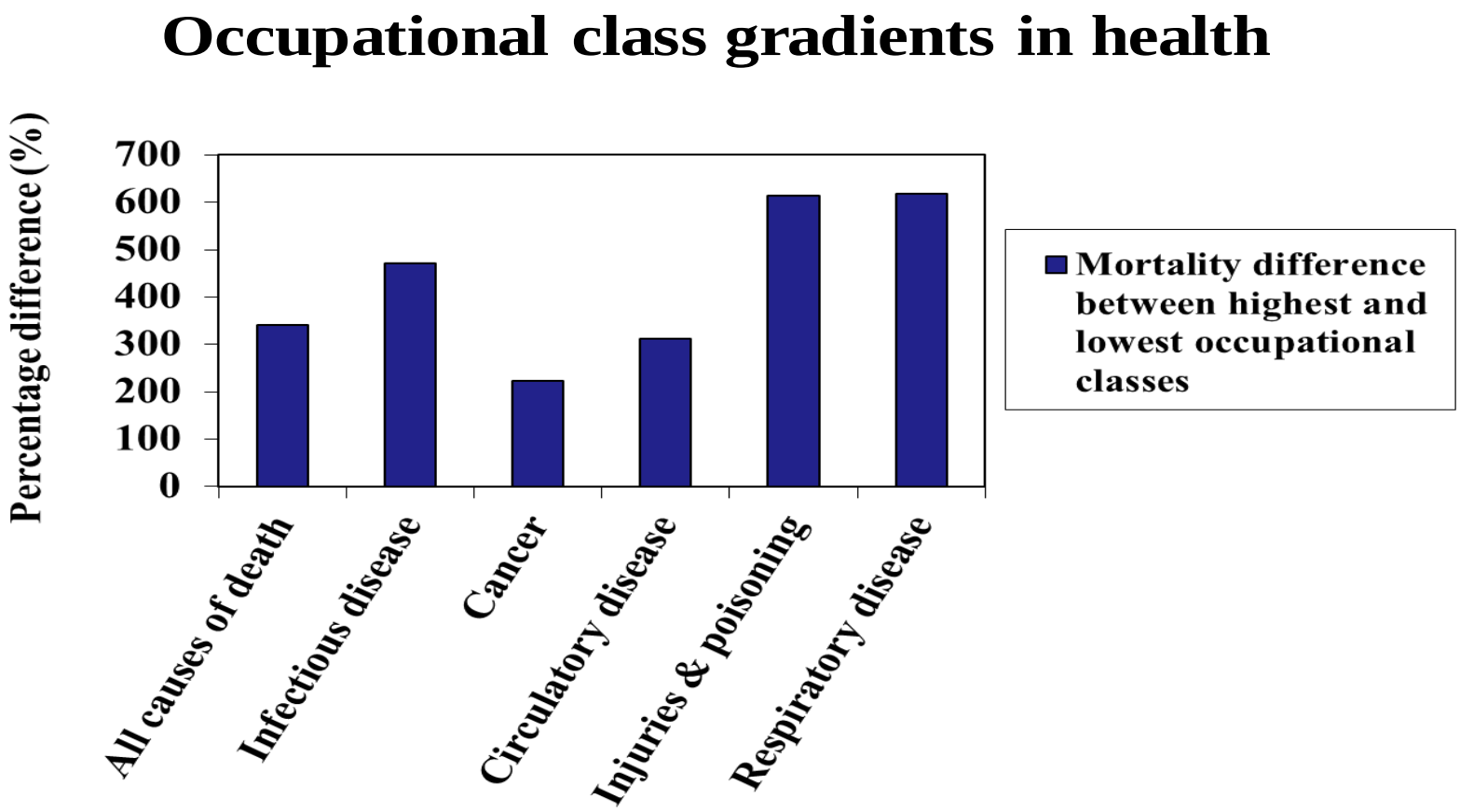
In 2016, for all LMICs (excluding China), the aggregated under-5 mortality rate was **64·6** (90% uncertainty interval [UI] 61·1–70·1) **deaths per 1000 livebirths in the poorest households (first quintile), 31·3** (29·5–34·2) **deaths per 1000 livebirths in the richest households (fifth quintile)**

In Western society, the ‘social gradient’ is particularly significant in determining health and wellbeing.

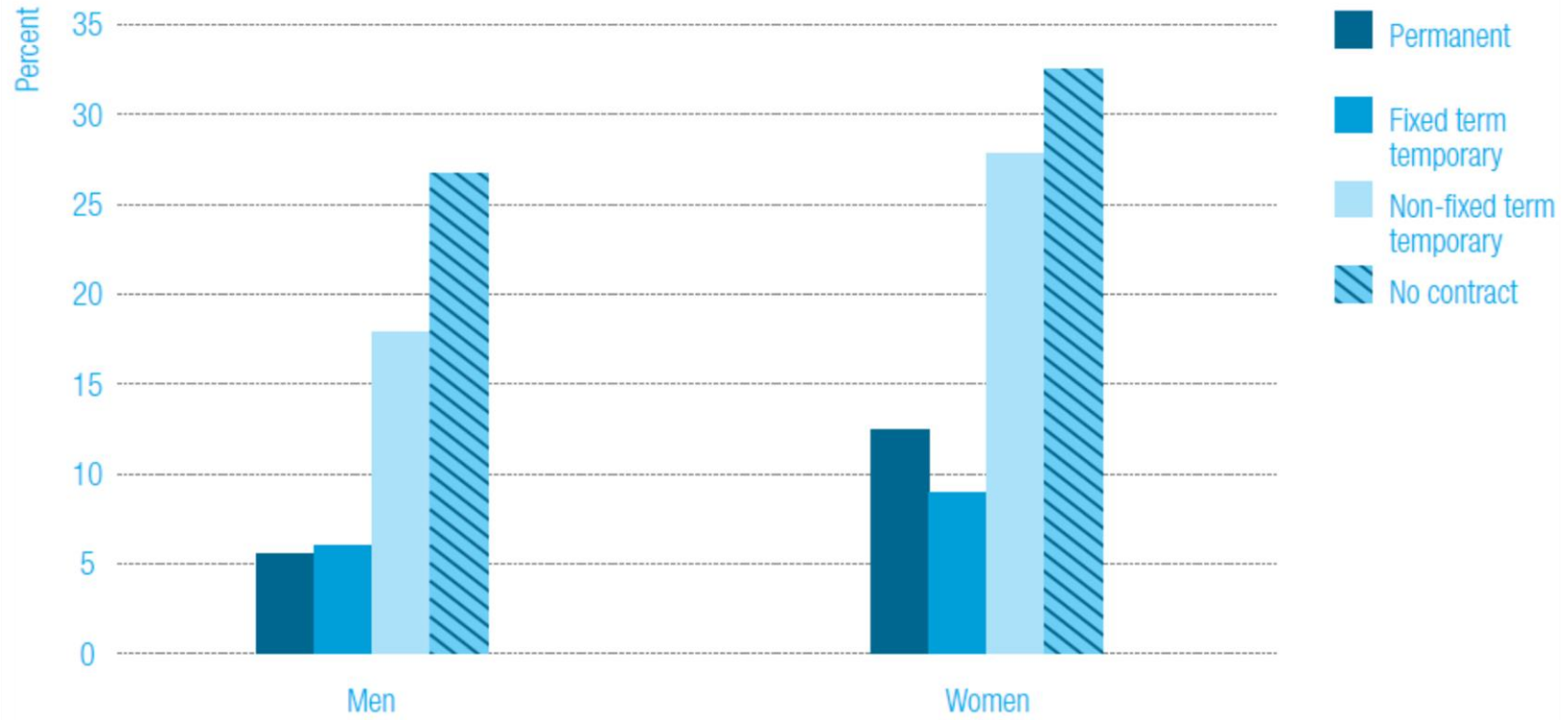
Social and environmental influences impact notably on the disadvantaged and vulnerable

A social gradient in health exists within countries

All Ireland Health Inequalities

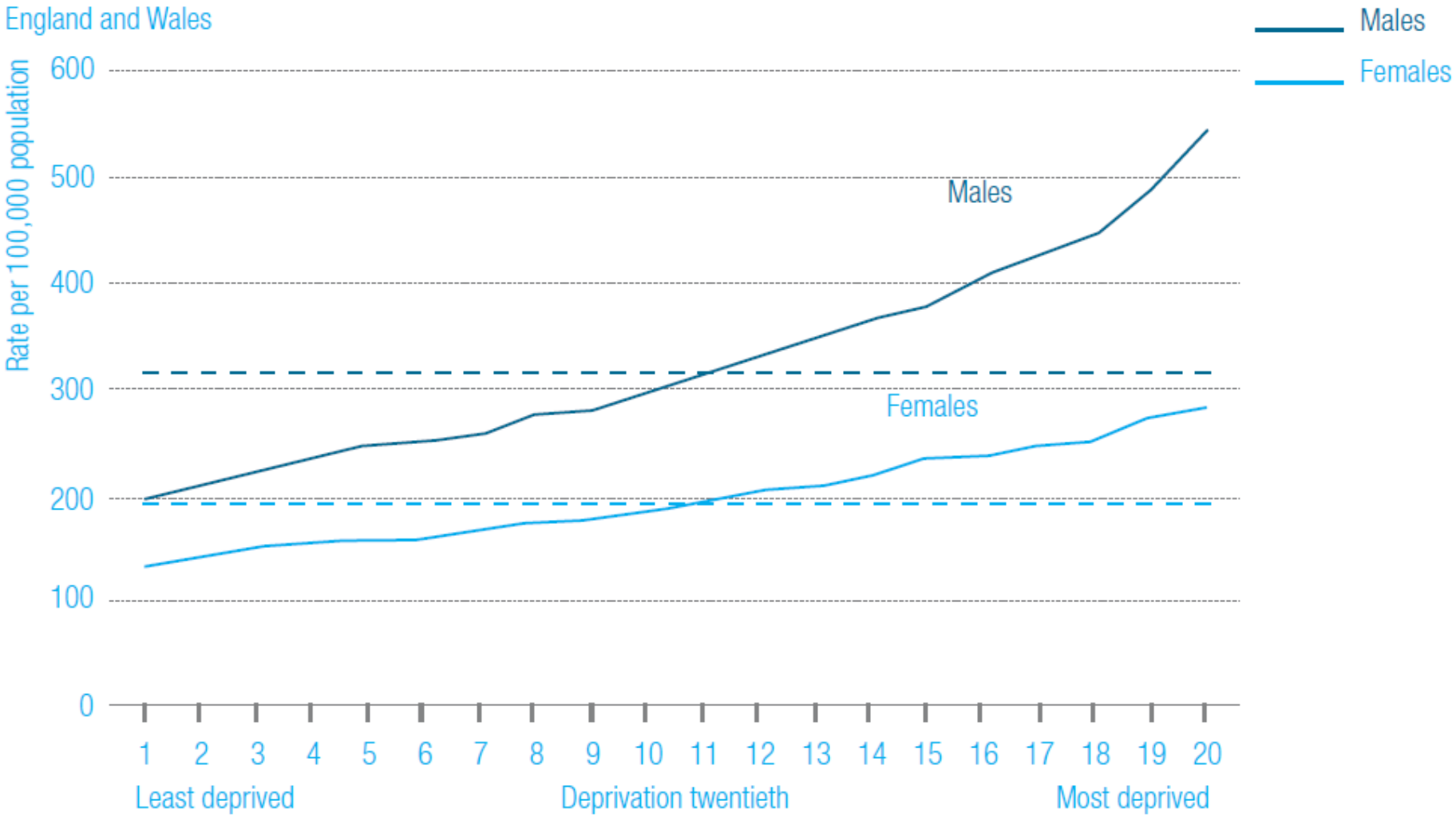


Prevalence of poor mental health among manual workers in Spain by type of contract.

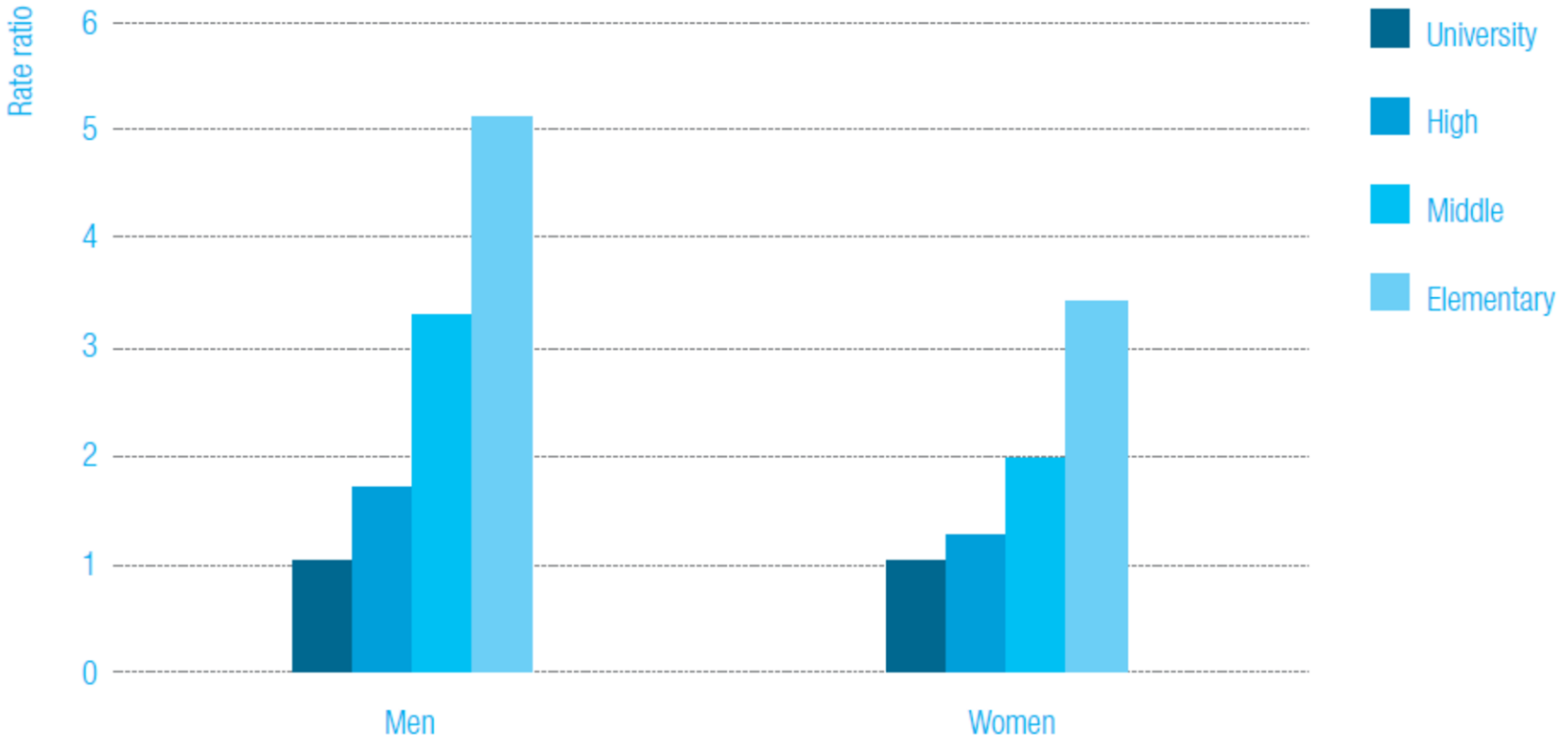


Source: Artazcoz et al., 2005

Age standardised all cause mortality, 15-64 years 1999-2003, England and Wales



Age-adjusted mortality among men and women of the Republic of Korea by educational attainment, 1993–1997.



Source: Son et al., 2002

Health inequalities in Italy

According to data from national and local studies, mortality increases linearly with social disadvantage for a wide range of indicators at both the individual (education, social class, income, quality of housing) and the geographical level (deprivation indexes computed at different levels of aggregation).

This positive correlation is evident for both genders, with the steepest gradient observed among adults of working age, although differences persist also among the elderly.

Health inequalities in Italy

The causes of death found to be most highly correlated with social inequality, and largely responsible for the increasing inequality over the last decade, are those associated with addiction and exclusion (drug, alcohol and violence related deaths), with smoking (lung cancer) and with safety in the workplace and on the roads (accidents).

Similar gradients and trends have been observed with different outcomes, such as self-reported morbidity, disability and cancer incidence.

Health inequalities in Italy

Reproductive outcomes confirm this picture: compared to

women belonging to the upper classes, those women in low socioeconomic conditions experience more spontaneous abortions and their children suffer from higher infant mortality and low birth weight.

This is a critical issue since poor infant health, particularly for metabolic and respiratory pathologies, affects health in adult life.

Health inequalities in Italy

With respect to the health care system, various studies are in agreement in demonstrating that poor and less educated people have inadequate access both to primary prevention and early diagnosis, and to early and appropriate care.

They also experience higher rates of hospitalization, particularly in emergencies and with advanced levels of severity.

Mortality due to low-quality health systems in the universal health coverage era: a systematic analysis of amenable deaths in 137 countries *Kruk ME et al.* ***Lancet*** **2018; 392: 2203–12**

Universal health coverage has been proposed as a strategy to improve health in low-income and middle income countries (LMICs). However, this is contingent on the provision of good-quality health care.

We estimate the excess mortality for conditions targeted in the Sustainable Development Goals (SDG) that are amenable to health care and the portion of this excess mortality due to poor-quality care in 137 LMICs, in which excess mortality refers to deaths that could have been averted in settings with strong health systems.

Methods Using data from the 2016 Global Burden of Disease study, we calculated mortality amenable to personal health care for 61 SDG conditions by comparing case fatality between each LMIC with corresponding numbers from 23 high-income reference countries with strong health systems.

We used data on health-care utilisation from population surveys to separately estimate the portion of amenable mortality attributable to non-utilisation of health care versus that attributable to receipt of poor-quality care.

Findings 15·6 million excess deaths from 61 conditions occurred in LMICs in 2016.

After excluding deaths that could be prevented through public health measures, 8·6 million excess deaths were amenable to health care of which 5·0 million were estimated to be due to receipt of poor-quality care and 3·6 million were due to non-utilisation of health care.

Poor quality of health care was a major driver of excess mortality across conditions, from cardiovascular disease and injuries to neonatal and communicable disorders.

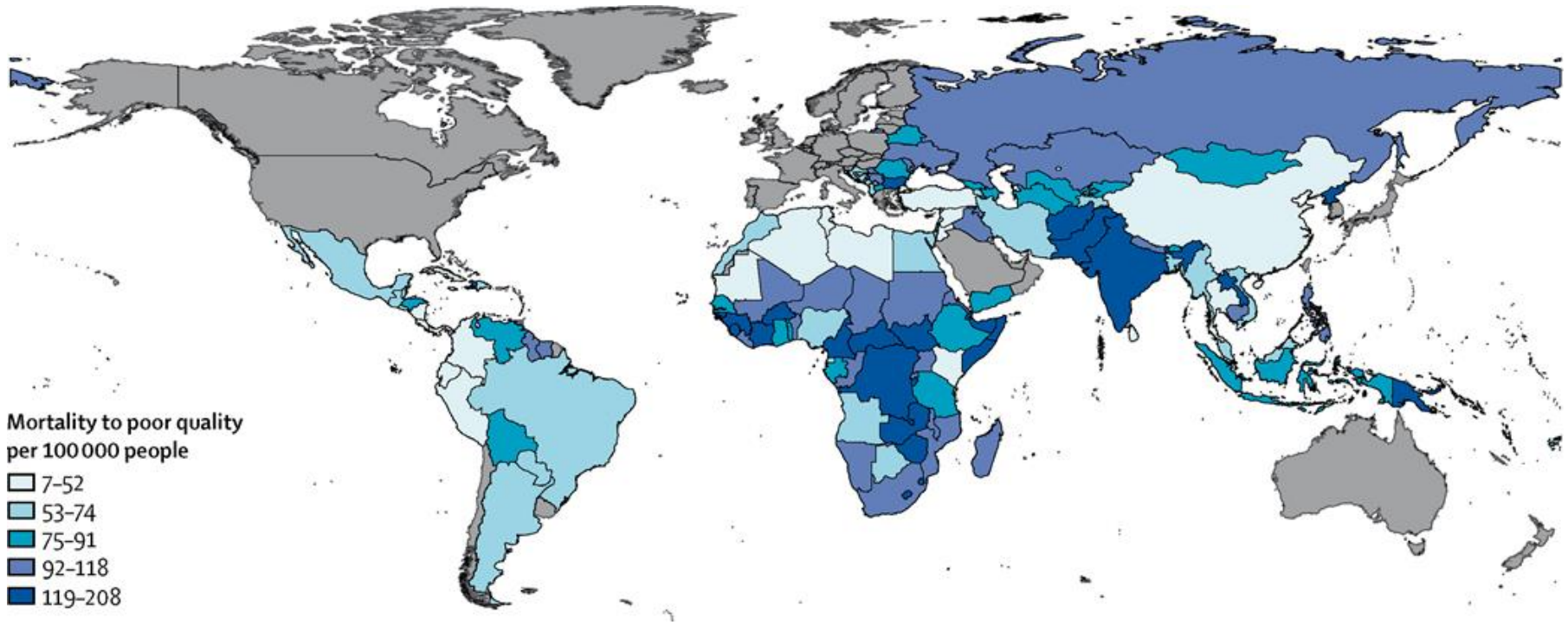


Figure 1 maps mortality due to poor quality per 100 000 population. Poor-quality health care contributed to the most deaths per unit population in South Asia and central and west Africa. The total LMIC poor-quality mortality was 82 deaths per 100 000 population.

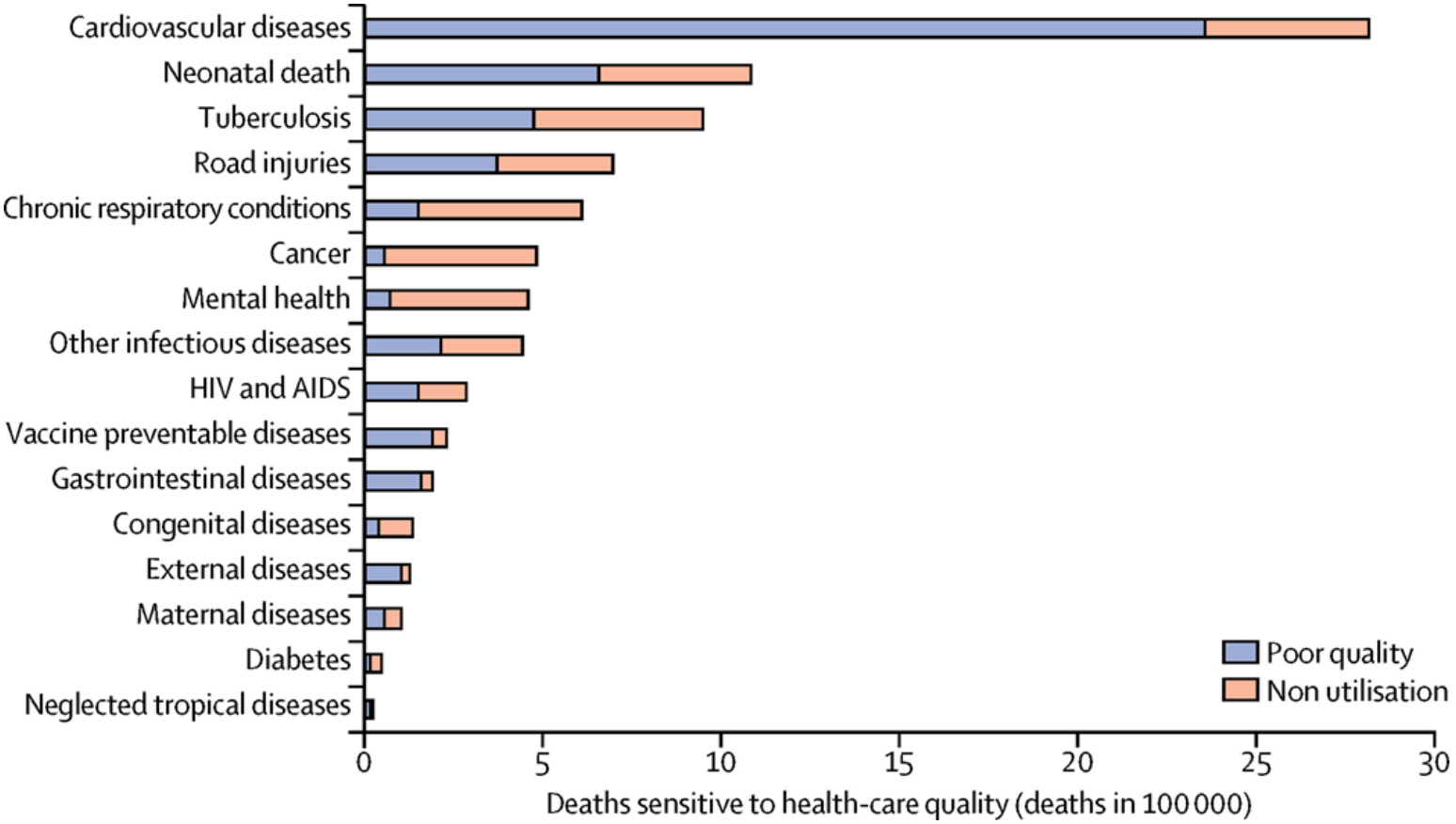


Figure 2 presents the mortality due to access to poor quality services and non-utilisation of health services by condition type. Cardiovascular disease deaths made up 33% (2 817 000) of the amenable deaths in the total health system, of which 84% (2 358 000) were caused by use of poor-quality health services.

What are the drivers of health inequities?

The Commission on Social Determinants of Health (CSDH) also implicates the structural determinants or structural drivers in health inequalities and inequities. It proposes that social, economic, and political mechanisms within a particular society give rise to a set of sociopolitical positions whereby populations are stratified according to income, gender, education, occupation, race, ethnicity, and other factors.

In turn, these socioeconomic positions shape specific determinants of health status reflective of people's place within social hierarchies.

According to the Commission, the unequal distribution of power, income, goods, and services in each society gives rise to fundamental inequalities in the distribution of the social determinants of health.

In turn, these differentials translate into inequitable social policies and programs and unfair economic arrangements that perpetuate inequalities.

Structural drivers of health inequities

Many countries spend more on the military than on health. Eritrea, an extreme example, spends 24% of GDP on the military and only 2% on health. Pakistan spends less on health and education combined than on the military (UNDP, 2007).

- Health equity depends vitally on the empowerment of individuals to challenge and change the unfair and steeply graded distribution of social resources to which everyone has equal claims and rights.
- Inequity in power interacts across four main dimensions – political, economic, social, and cultural – together constituting a continuum along which groups are, to varying degrees, excluded or included.

What is health equity in all policies?

- Every aspect of government and the economy has the potential to affect health and health equity – finance, education, housing, employment, transport, and health, to name just six. While health may not be the main aim of policies in these sectors, they have strong bearing on health and health equity.

- Policy coherence is crucial – different government departments' policies must complement rather than contradict each other in relation to health equity. For example, trade policy that actively encourages the production, trade, and consumption of foods high in fats and sugars to the detriment of fruit and vegetable production is contradictory to health policy.

- **Obesity** is becoming a real public health challenge in transitioning countries, as it already is in high-income nations.

- **Obesity prevention** requires approaches that ensure a sustainable, adequate, and nutritious food supply; a habitat that lends itself to easy uptake of healthier food; participation in physical activity; and a family, educational, and work environment that positively reinforces healthy living. Very little of this action sits within the capabilities or responsibilities of the health sector.

- Positive advances have been made – for example, bans on advertisements for foods high in fats, sugars, and salt during television programmes aimed at children.
- However, a significant challenge remains: to engage with the multiple sectors outside health in areas such as trade, agriculture, employment, and education, if we are to redress the global obesity epidemic.

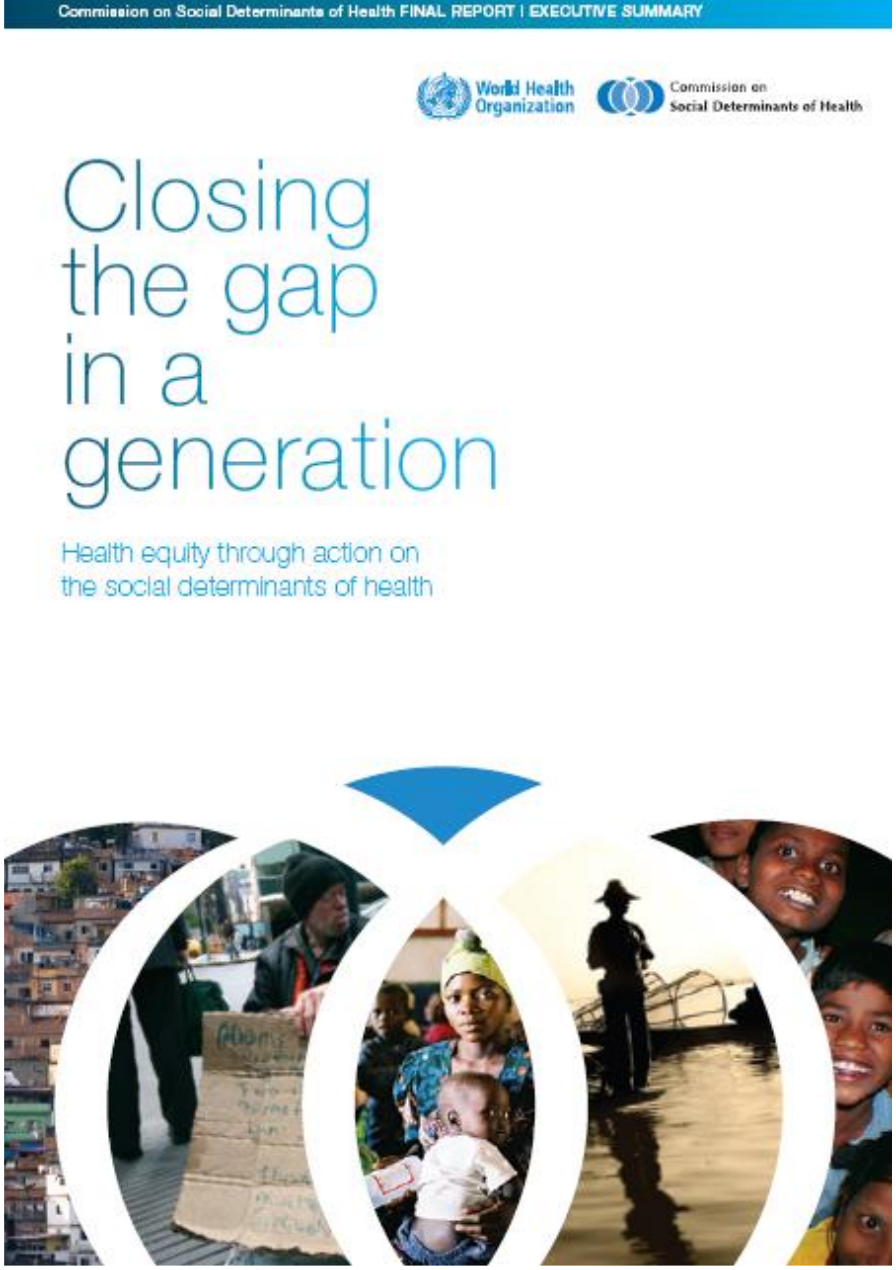
Figure 17.1 Cracking the nut of health equity.

Cartoon by Simon Kneebone. Reprinted, with permission of the publisher, from Baum (2007).

Table 17.1: Milestones towards health equity

Date	Milestone
November 2008	Global conference: "Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health".
2008–09	Creation of post-Commission global alliance to take forward the social determinants of health agenda in partnership with WHO.
2008–09	Economic and social costing of Commission recommendations and costs of not taking action.
2009	Meetings of Commissioners and social determinants of health champions to advance global plan for dissemination and implementation of Commission recommendations.
2009	World Health Assembly resolution on social determinants of health and health equity.
2008–13	Research funders progressively dedicate more resources to research on social determinants of health, especially in areas highlighted by the Commission.
2008–13	Increasing numbers of countries adopt a social determinants of health approach to health equity and develop and implement social determinants of health policies, so that by 2013 at least 50% of all low-, middle-, and high-income countries have a committed plan for action to reduce health inequity through action on the social determinants of health, with evidence that they are implementing the plan.
2009–10	The Economic and Social Council, supported by WHO, set up a UN interagency mechanism for social determinants of health with working groups dedicated to specific thematic areas, initially on ECD, gender equity, employment and working conditions, health-care systems, and participatory governance, including all relevant multilateral agencies and civil society stakeholders.
2010	The Economic and Social Council, supported by WHO, prepare for consideration by the UN the adoption of health equity as a core global development goal, with appropriate indicators to monitor progress both within and between countries.
2010	1st Report on Health Equity (report on global and national health equity surveillance framework indicators and targets) to 1st Global Forum of UN Member States on social determinants of health and health equity.
2013	Review of progress on WHO social determinants of health targets.
2015	MDG target date; review of progress from health equity perspective: second 5-yearly global health equity report and Global Forum.
2020–2040	5-yearly reviews of progress on reducing health inequities within and between countries.

Social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death…



The Sustainable Development Goals (SDGs) and Health 2020 provide frameworks and motives to develop whole of government policies and approaches to create healthier societies and reduce health inequalities. Both the SDGS and Health 2020 state the entire population has the right to the highest attainable standard of health.

Key concepts in the Health 2020 policy framework are to improve health for all, reduce health inequities and improve leadership and participatory governance for health. Therefore an approach that considers health in all policies is needed.

Evidence and resources to act on health inequities, social determinants and meet the SDGs

The resources provide evidence on the key social determinants of health. They can help Ministries of Health, other government departments and partner organizations to ensure:

- Health is well integrated across the SDGs
- Health is seen as a contributing sector to the attainment of the 2030 Agenda for Sustainable Development
- SDG policies and actions do not have a negative impact on health or worsen inequalities.

The SDGs are powerful mechanisms to improve health and to reduce health inequities.

Specific sustainable development goals are also recognised social determinants of health. By making the links between health and these determinants across the SDGs countries can strengthen policy coordination for better health and to reduce inequities.

Primary SDGs linked to determinants of health and health equity

Primary SDGs linked to determinants of health and health equity

National and sub-national SDG processes are an important opportunity to clearly express:

- The health of the population is related to *inclusive* development and growth.
- There is a strong connection between sustainable development, health equity and well-being.

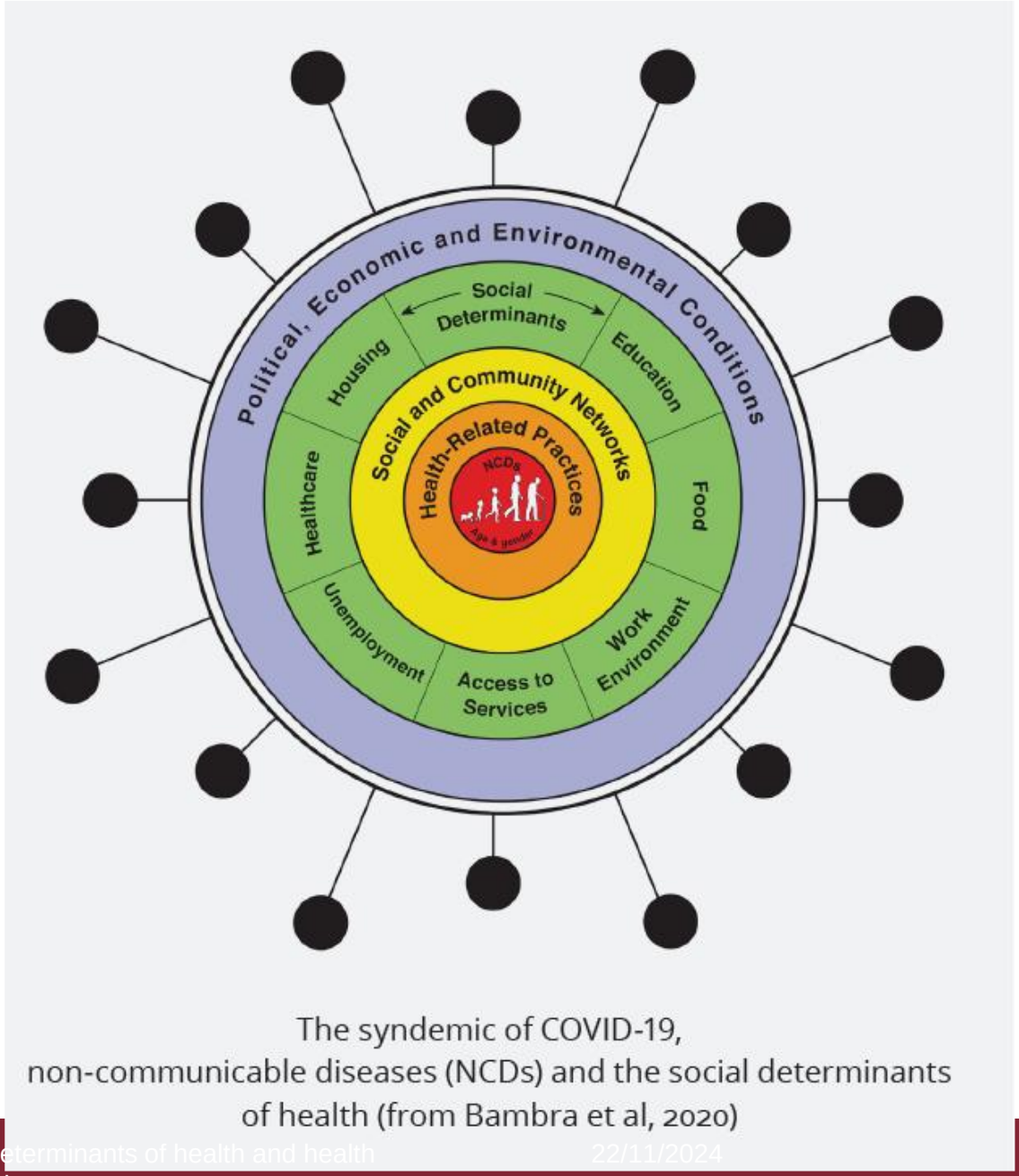
inequalities

The COVID-19 pandemic and health inequalities: we are not all in it together

Emerging evidence suggests that COVID-19 is experienced unequally, with higher rates of infection and mortality among the most disadvantaged communities: it is not a socially neutral disease.

COVID-19 is a syndemic pandemic: it interacts with and exacerbates existing inequalities in chronic diseases and the social determinants of health.

What is a syndemic? A syndemic occurs when risk factors for illness are intertwined, cumulative, and interactive – thereby increasing the disease burden and its negative effects. It was first defined by Merrill Singer to understand relationships between hiv/aids, substance abuse and violence in the USA in the 1990s.



The syndemic of COVID-19, non-communicable diseases (NCDs) and the social determinants of health (from Bambra et al, 2020)

The 1918 Spanish influenza pandemic and the H1N1 outbreak of 2009 were also experienced unequally.

Prevalence and mortality rates differed between high- and

low-income countries, neighbourhoods, lower and higher socioeconomic groups, and between urban and rural areas. In the 1918 pandemic, for example, India had a mortality rate 40 times higher than Denmark.

Who is COVID-19 likely to affect more?

- minority ethnic groups
- people living in areas of higher socioeconomic deprivation
- people living in poverty or working in low income (often key) jobs
- marginalised groups such as homeless people, prisoners and street-based sex workers

Why?

Inequalities in chronic diseases: These groups are more likely to present underlying clinical risk factors such as hypertension, diabetes, asthma, chronic obstructive pulmonary disease (COPD), heart disease, liver disease, renal disease, cancer, cardiovascular disease, obesity and smoking.

Inequalities in exposure to the social determinants of health: These groups are more likely to face adverse working conditions, unemployment, less access to essential goods and services (water, sanitation and food), poor quality or insecure housing, chronic stress and anxiety, and greater difficulties in accessing healthcare.

Why?

Working conditions:

People in lower-skilled and lower-paid jobs are more likely to be exposed to adverse and unsafe working conditions. These in turn are associated with increased risks of respiratory diseases, certain cancers, musculoskeletal disease, hypertension, stress and anxiety.

During this pandemic, they are also more likely to be designated “key workers” (e.g., cashiers and delivery service workers), meaning they are required to go to work, even as others work from home. They often need to rely on public transport to do so. All these factors increase their exposure to the virus.

Why?

Living conditions:

Lower socio-economic groups more often live in poor quality or unaffordable, insecure housing. They are more likely to experience overcrowding, lack of outdoor and green space, greater exposure to psychosocial stressors (e.g., crime), and increased risk factors for chronic conditions (e.g., damp conditions leading to respiratory illnesses).

This is particularly the case for people living in deprived urban areas. They therefore have a higher rate of negative health consequences, which may contribute to inequalities in COVID-19 outcomes.

These factors can also increase transmission rates.

COVID-19
is experienced more severely in disadvantaged neighbourhoods

The rate of COVID-19 **infection is three times higher** in the most deprived areas of Catalonia (Spain) compared to the least deprived.

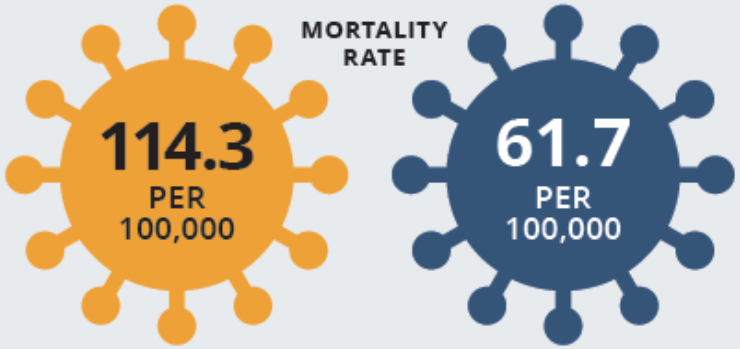
A dramatically **increased risk of deaths** was observed among residents of the most disadvantaged areas the USA.

COVID-19 **mortality is twice as high** in the most deprived neighbourhoods in England and Wales.

COVID-19
highlights existing race and socio-economic inequalities: Multiple aspects of disadvantage are coming together.

Black, Asian and **minority ethnic people** accounted for 34% of 10,917 **critically ill** COVID-19 patients in England and Wales (in the period ending August 31, 2020), but only 14% of the **total population**.

In the USA (in the period ending November 10, 2020), the COVID-19 mortality rate for **Black Americans** was 114.3 per 100,000 population compared to 61.7 per 100,000 among **White Americans**. If they had died of COVID-19 at the same rate as White Americans, 21,200 Black Americans would still be alive.



*Source: APM Research Lab

The impact of the 'great lockdown' and economic recession on health inequalities

The policy responses undertaken to curb the spread of the virus, such as lockdowns, are also connected to inequalities.

Lockdowns are experienced unequally. They can have immediate impacts on health inequalities, due to:

Housing conditions: overcrowding, little access to outside or green space

Working conditions: job and income loss, inability to work from home resulting in higher exposure to the virus

Physical health: reduced access to healthcare services for non-COVID-19 reasons

Strain on **mental health** and an increased risk of experiencing **gender-based violence**

The health consequences of the COVID-19 economic crisis are likely to be similarly unequally distributed — exacerbating existing health inequalities.

What can be done?

COVID-19 is likely to lead to a global economic recession. The effects of recessions on health inequalities vary by public policy response. Countries such as the UK, Greece, Italy and Spain who imposed austerity (significant cuts in health and social protection budgets) after the 2008 financial crisis experienced worse population health effects than countries such as Germany, Iceland and Sweden, who opted to maintain public spending and social safety nets.

A global recession could increase health inequalities, particularly if health-damaging policies of austerity are implemented.

It is vital that the right public policy responses are undertaken so that the COVID-19 pandemic does not increase health inequalities for future generations.

These include:

- expanding social protection
- expanding public services
- pursuing green inclusive growth strategies.

CONCLUSION

- The health status of a given population is the results of a complex interaction of a wide range of factors.
- Addressing social determinants of health is a primary approach to achieving health equity.
- Inequality matters for achieving goals of global public health, numerical targets can be mechanically met while many are left behind, the less privileged members of society can be often bypassed.
- Inequality within a country get worse overall health.

CONCLUSION

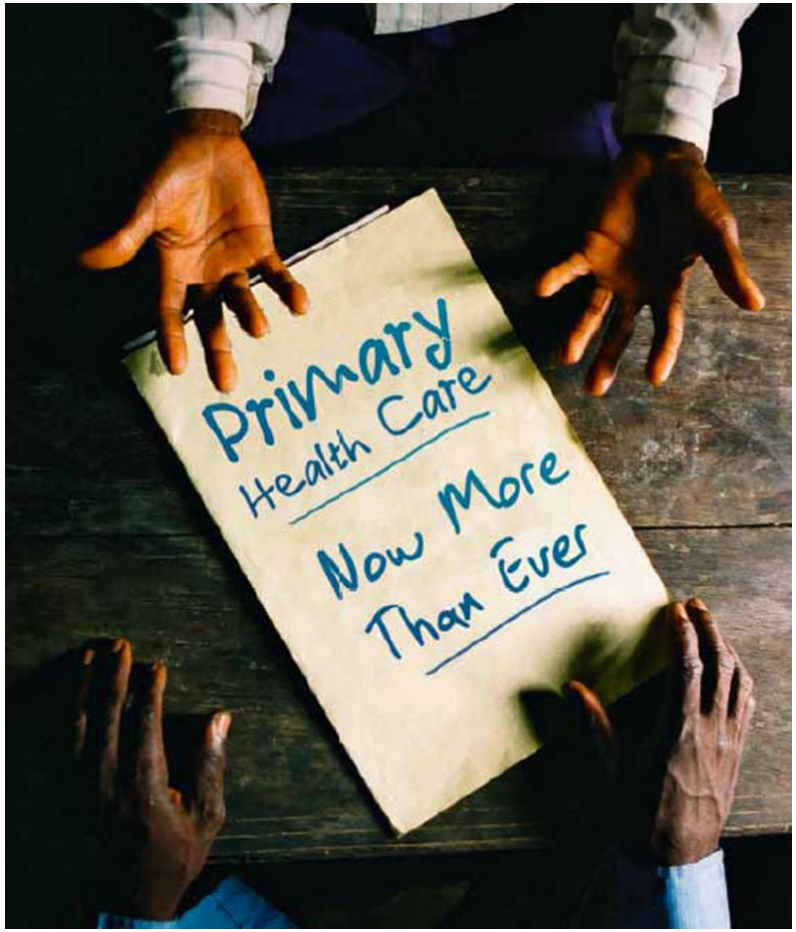
- Equality of access to health services, appropriately designed to meet the needs of the disvantaged, is critical.
- The majority of factors that contribute to ill health and health inequities lie outside the traditional mandate of the health sector.
- The social determinants of health must be considered within health programmes and across government policies in order to reach broader societal.

Health inequalities and policy strategies

- Health inequalities are not inevitable
- Not just a responsibility of the health care sector
- There is no ‘magic bullet’
- Whole of society, whole of government

How doctors can close the gap?

Tackling the social determinants of health through culture change, advocacy and education



Over the past two decades, while significant advances in medical, diagnostic, and therapeutic innovations have been made in key areas, such as infectious disease, cardiovascular health, and oncology, significant inequities remain in health outcomes according to factors such as race and ethnicity, sexual and gender orientation, income, and education.

The social environment in which individuals live, as well as their lifestyles and behaviors, can influence the incidence of illness in populations.

Having an understanding of these inequities and being equipped to address modifiable determinants of health disparities provides the physician-in-training with the necessary foundation to effectively practice medicine in the 21st century and to address important public health needs.

Thus, the training of the modern physician must weave the development of traditional skills such as communication and physical examination with the cost-effective use of novel biomolecular information in complex systems to deliver culturally competent care.

The promise of this training is the development of individuals who are at the forefront of using translational medicine to address disparities in health.

“Whoever wishes to investigate medicine properly should ... consider ... the mode in which inhabitants live, and what are their pursuits, whether they are fond of drinking and eating to excess, and given to indolence, or are fond of exercise and labour.”

HIPPOCRATES (5TH CENTURY BC)

Equity is a core value in public health. Mindful of human rights, doctors should aim to respect, protect, and fulfil the right of all groups to best possible health

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Thank you for your attention!