Priority health conditions and life expectancy deficits by cause of death: a life table decomposition

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Abstract

Background: Identifying which conditions account for health disparities between regions and countries can guide policy emphasis, health system planning, and financing to battle the most urgent health problems. This study examined the varying extent to which 145 causes of death accounted for life expectancy deficits in countries and regions 2000–2019, focusing on the impact of two sets of priority conditions: eight infections and maternal health conditions (IMH-8) and seven noncommunicable diseases and injuries (NCDI-7). Disparities in the probability of premature death (ie, before age 70) were also decomposed.

Methods: Western Europe and Canada were used as a benchmark for life expectancy achievable with advanced universal health coverage and high living standards. The impact of 145 causes of death on life expectancy deficits was estimated using life table decomposition on data from the World Health Organization Global Health Estimates. The study highlighted results for six global regions and three large countries and provides summary results and a dataset with results for 169 countries with lower life expectancy than the benchmark.

Findings: The IMH-8 and NCDI-7 together accounted for over 80% of the life expectancy deficit in most of the regions and countries highlighted in this paper. Outside sub-Saharan Africa, the NCDI-7 accounted for the largest share of the deficit (eg, 84% in China and 49% in India). The IMH-8 accounted for a particularly large share of the total deficit in sub-Saharan Africa. However, reduced mortality from IMH-8 underlies enormous improvements in sub-Saharan Africa, accounting for 21 of a 32-year deficit in 2000 and 11 of a 21-year deficit in 2019. India transitioned from having majority of the life expectancy deficit accounted for by the IMH-8 in 2000 to having a larger share accounted for by the NCDI-7 in 2019.

Interpretation: These findings suggest that a limited number of causes accounted for most of the life expectancy deficits. The varying impact of these causes can help guide interventions to reduce risk factors and treat conditions; together with current information on risk factors, interventions, and morbidity, not yet reflected in life expectancy.

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Keywords: Life expectancy decomposition; causes of death; progressive universalism; priority setting

Research in context

Evidence before this study: Achieving universal health coverage and adequate public health infrastructure remains an ongoing global challenge, with many still without essential services. Life expectancy is a composite health measure reflecting acute and life course exposures to adversity and is impacted by lack of health care coverage and poor living standards.

Added value of this study: This research quantified the contribution of 145 causes of death to life expectancy deficits across global regions and countries using Western Europe and Canada as benchmarks for the life expectancy achievable with high living standards and advanced healthcare. By focusing on two sets of priority health conditions—eight infectious diseases and maternal conditions (IMH-8) and seven noncommunicable diseases and injuries (NCDI-7)—the study demonstrates how a limited number of causes affect life expectancy deficits worldwide.

Implications of all the available evidence: Our findings underscore the prominent role these conditions play in life expectancy deficits. A notable decline in the impact of IMH-8 and a rising relative impact of NCDI-7 was observed. However, the contribution of IMH-8 to life expectancy deficits remains particularly severe in sub-Saharan Africa. The findings from this study underscore the importance of focusing limited healthcare resources on high-impact areas, prioritizing interventions that control risk factors and providing medical interventions for the conditions that contribute the most to life expectancy deficits. The findings should be complemented with current prevalence estimates of risk factors that are not yet reflected in life expectancy.

Introduction

Advances in public health and medicine together with rising living standards have greatly improved health, for example, reflected in the largely uninterrupted gain in human life expectancy over the past two centuries.[1,2] However, large health disparities are evidence that rising living standards and access to vital medical services were unequal across countries. For example, while the probability of dying before age 70 was 15% in Western Europe and Canada it was 52% in sub-Saharan Africa in 2019.[3]

Universal health coverage is far from complete in most countries.[1–3] Provision of even the most essential health care is absent for many. For example, UNICEF estimated that 45% of pregnant women received too few antenatal care visits, 18% of births were not attended by any skilled professional, and 44% of children under five did not receive treatment for acute lower respiratory infections globally in 2016–2021.[4] Meanwhile, neonatal conditions and acute lower respiratory infections killed an estimated 2 million and 700 thousand children under five, respectively, in 2019.[5] Further, hypertension is a primary risk factor for cardiovascular diseases (CVD), a leading cause of death: yet estimates suggest that almost half of all cases were not diagnosed and 58% not treated globally in 2019.[6]

Further, living standards are often inadequate. For example, 43% of the world's population does not have safely managed sanitation services and 27% does not have safely managed drinking water,[7] increasing the risk for infections causing diarrhea, which kills an estimated 400 thousand children under five annually.[8] Also, half of diarrhea cases were not treated with oral rehydration salts—a lifesaving intervention.[9] Over three million deaths annually are attributed to harmful cooking fuels—which contribute to ischemic heart disease, stroke, lower respiratory infection, chronic obstructive pulmonary disease, and lung cancer—and are

still used by over two billion people globally.[10] UNICEF and WHO suggest that almost half of all deaths in children under five are attributable to undernutrition[11,12] (directly and indirectly by increasing the susceptibility and mortality from infections) while estimated 82% of children 6–23 months do not receive minimum acceptable diets globally.[9]

Limited capacity to finance and mobilize resources leaves universal health coverage out of reach in many countries.[13] Further, much health financing in low- and middle-income countries relies on donor funding, which is neither efficient nor sustainable.[14,15] Some global health researchers advocate for pragmatic approaches to healthcare. One such approach suggests reserving publicly financed healthcare to a limited number of highly cost-effective interventions targeted at conditions with a large or rising impact on health—particularly maternal and child health, important infectious diseases, and critical noncommunicable diseases (NCD) and injuries.[16–19]

Here, we quantified how much the cause-specific mortality rates provided in the WHO Global Health Estimates contributed to the life expectancy deficits for global regions and countries compared to Western Europe and Canada (referred to here as the North Atlantic)—which serve as a benchmark for a life expectancy that is achievable with high living standards and advanced universal health coverage. Out of a total of 145 causes decomposed, we highlight the impact of two sets of causes which are suggested "priority conditions" by the third Lancet Commission on Investing in Health: 1) eight infections and maternal health conditions (neonatal conditions, maternal conditions, diarrheal diseases, HIV/AIDS, tuberculosis, and malaria), and 2) seven important NCDs and injuries (atherosclerotic CVDs, hemorrhagic stroke, NCDs that are strongly linked infections and tobacco use, diabetes, road injury, and suicide). These causes are prominent or rising health concerns with known determinants and cost-effective interventions.[16–19]

Life expectancy serves as a summary health indicator that is reliable and easy to measure. Further, it reflects the composite impact of most adverse health exposures and morbidities for population health, both acute exposures, such as deadly infections and injuries, and an accumulation of adverse exposures over the life course, such as morbidities, health behaviors, and even early life exposures to infections and undernutrition.[20] Studying the impact of specific causes of death with known risk factors and cost-effective solutions helps identify the most severe health problems and can guide planning and financing of health interventions. The findings should be supplemented with current measures of health risks that have a lagged effect on life expectancy.

Data and methods

Data

Data came from the WHO's Global Health Estimates, which provide age, sex, and cause-specific deaths for 183 countries from 2000–2019.[5] The number of deaths by cause was obtained from vital registration systems and death registers when available but otherwise estimated using various data and methods.[21] Five-year age groups were used between ages 5–84, with an open-ended group for 85 and older. Deaths under five were estimated for two age groups: 0–11 months and 1–4 years.

Deaths in the Global Health Estimates are disaggregated into Level 2, 3, and 4 causes (with Level 2 causes disaggregated into Level 3 causes and Level 3 causes into Level 4 causes).[21] This paper mainly used Level 3 causes. Exceptions were Level 2 causes which were not disaggregated further—maternal conditions, an "other" category for neoplasms, diabetes mellitus, and sudden infant death syndrome—and Level 4 causes that were a part of the priority conditions—malaria (Level 4) from "parasitic and vector diseases" (Level 3), liver

cancer secondary to hepatitis B and C from "liver cancer," cirrhosis due to hepatitis B and C from "cirrhosis of the liver," and chronic kidney disease due to diabetes from "kidney diseases." Deaths from all causes added up to the total number of deaths. An estimated mid-year population within each age group was also provided in the same data.

Some causes of death in the GHE data were aggregated further in the main results according to underlying risk factors and treatment. Therefore, the 15 priority conditions reflect 30 underlying causes of death as defined in the WHO GHE data. The first eight groups form a set of infectious diseases, maternal deaths, and conditions that cause the most child deaths, referred to here as the "IHM-8".[16] These were:

1) Neonatal conditions
2) Lower respiratory infections
3) Diarrheal diseases
4) HIV/AIDS
5) Tuberculosis
6) Malaria
7) Vaccine-preventable childhood diseases (childhood-cluster diseases)
8) Maternal conditions

(These have also been termed "convergence conditions" since they were suggested by the first Lancet Commission for Investing in Health to be key conditions to achieve a "grand convergence" in health: that is, for all countries to achieve mortality observed in the best performing middle-income countries.[16])

Seven noncommunicable diseases and injuries, referred to here as NCDI-7, were highlighted:

1) Atherosclerotic cardiovascular diseases (ischemic heart disease, ischemic stroke)

2) Hemorrhagic stroke

3) NCDs strongly linked to infections (stomach cancer, liver cancer secondary to hepatitis B, liver cancer secondary to hepatitis C, cervical cancer, rheumatic heart disease, cirrhosis due to hepatitis B, cirrhosis due to hepatitis C)

4) NCDs strongly linked to tobacco use (mouth and oropharynx cancer; trachea, bronchus, and lung cancer; larynx cancer; chronic obstructive pulmonary disease)

5) Diabetes (diabetes mellitus, chronic kidney disease due to diabetes)

6) Road injury

7) Suicide (self-harm)

(Items in parentheses above show causes as defined in the Global Health Estimates data.) The other 115 causes of death are referred to as "all other causes."

Methods

Decomposition of life expectancy

We decomposed the difference in life expectancy between the North Atlantic in 2019 and target locations (ie, other regions and countries of interest) into components (in terms of years) attributable to the 145 causes of death. Note that all comparisons were made to the North Atlantic in 2019, even when analyzing other years in the target locations, to keep the benchmark constant, facilitating comparisons across time. The North Atlantic was chosen as a benchmark since it has enjoyed high living standards and advanced health coverage for several decades. Further, the North Atlantic had the greatest life expectancy among the six

regions and three countries highlighted here and in the third Lancet Commission on Investing in Health. Life expectancy in the North Atlantic in 2019 was 82 years.[22]

First, we adjusted the age-specific all-cause mortality rates m_x (where *x* stands for age) for each cause of death. For example, for tuberculosis mortality TBm_x in India (*I)*:

$$m_{x,I|TBm_{x,N}} = m_{x,I} + \left(TBm_{x,N} - TBm_{x,I}\right)\left[1 - \frac{\left(m_{x,I} - TBm_{x,I}\right)}{2}\right]$$

$m_{x,\mathrm{I}|TBm_{x,N}}$ is the age-specific all-cause mortality rate in India if India had the same tuberculosis mortality rate as the North Atlantic (*N)*. India had a greater tuberculosis mortality rate than the North Atlantic; therefore, the term in the first parentheses ($TBm_{x,N} - TBm_{x,I}$) is negative (as it will be for most causes considered). Those not dying from tuberculosis, in a hypothetical situation where India had the same tuberculosis death rate as the North Atlantic, were then exposed to the observed non-tuberculosis survival rate ($1 - \frac{\left(m_{x,I} - TBm_{x,I}\right)}{2}$) in India for the remainder of the age interval. (If India had a lower tuberculosis mortality rate, the additional survivors refer to the North Atlantic, who were then exposed to the non-tuberculosis mortality rate in India before being subtracted from India's age-specific mortality rate.) Then, we constructed a life table using the adjusted mortality rates and calculated the adjusted life expectancy ($e_{0,\mathrm{I}|TB_E}$), using a standard life table method, and compared to the observed non-adjusted life expectancy ($e_{0,\mathrm{I}}$).

$$Component_{\mathrm{I}|TB_E} = e_{0,\mathrm{I}|TB_E} - e_{0,\mathrm{I}}$$

$Component_{\mathrm{I}|TB_E}$shows the years of life expectancy that would be gained if India had the same tuberculosis mortality rate as the North Atlantic; or the extent to which tuberculosis

accounts for (or explains or impacts) the total gap in life expectancy between India and the North Atlantic. In other words, it shows the life expectancy gap attributable to tuberculosis. We also refer to the total gap as a life expectancy deficit. This procedure was done for the 145 causes of death.

Adjustments to the decomposition

Adjustments were made to the decomposition results to facilitate presentation and interpretation. The impact on the life expectancy gap was usually positive since, for most causes, the North Atlantic had a lower mortality rate than the target location. However, in some cases, the impact was negative: that is, life expectancy would be lower if the target location had the same mortality rates as the North Atlantic. The first adjustment removes causes for which the overall impact was negative (ie, causes for which the target location had already achieved mortality rates observed in the North Atlantic). This transformation only changes the interaction term (see below) and total impact of all causes, in addition to setting negative impact to zero.

Since the impact of mortality rates on life expectancy is non-linear, decomposing all causes simultaneously (ie, the total gap in life expectancy when all causes increase the life expectancy gap) yields a higher impact than the total impact of all causes decomposed individually. We estimated an interaction term showing the added impact from decomposing all causes simultaneously compared to the total impact of all causes decomposed individually. For the second adjustment, this interaction term was added to the impact of the 145 different causes. The interaction component added to the impact of each cause was proportional to the impact of that cause to the sum of the impact of all causes decomposed individually.

After removing causes with a negative impact, adding the impact of all causes (and the interaction term) together may result in a total impact greater than the actual life expectancy gap. Therefore, a third adjustment projects the estimated proportional impact of each cause on the total life expectancy gap. We projected the proportional impact on the life expectancy gap observed in the United Nations World Population Prospects (UN WPP) 2022 data,[22] which differs somewhat from the life expectancy gaps in the WHO Global Health Estimates data.

Regions and countries

We followed the regional classification of the third Lancet Commission for Investing in Health. The regions highlighted in the main paper were Central Asia, Central & Eastern Europe, Middle East & North Africa, sub-Saharan Africa, Latin America & the Caribbean, and Western Pacific & Southeast Asia (excluding China), in addition to three large countries, United States, India, and China (Supplementary Table S1 for a list of countries by region).

In the main paper, we provide summary statistics on the extent to which life expectancy deficits were accounted for by IMH-8, NCDI-7, and both combined across 169 countries that had lower life expectancy than the North Atlantic in 2019. We show summary statistics overall and by World Income Group. We provide a dataset with full decomposition results for all countries and for each year from 2000 to 2019, for men, women, and both combined.

Supplementary analyses

The main paper focused on results from the six global regions and three large countries for men and women combined. In the Supplement, we show results separately for men and women. Men were compared to North Atlantic men and women to North Atlantic women.

We also decomposed the impact of IMH-8 and NCDI-7 mortality on the percentage point gap in the probability of premature death, defined as the percentage probability of dying before age 70 years: The same adjustments were made to the age-specific all-cause mortality rates as in the life expectancy decomposition. The adjusted mortality rates were converted into age-specific mortality probabilities, which were used to calculate the adjusted probability of premature death and compare it to the observed probability of premature death. A child's death weights as much as an adult's death in increasing the gap in the probability of premature death, while a child's death contributes more to the life expectancy gap.

Compliance with ethical standards

This project used publicly accessible secondary aggregate data from the WHO. These activities do not meet the regulatory definition of human subject research. As such, an Institutional Review Board review was not required.

Role of the funding source

No funding source played a role in the data collection and analysis, reporting and interpretation of results, or the decision to submit the manuscript for publication. Karlsson had full access to all data used in the study. # made the decision to submit it for publication.

Results

Country-level analysis

The percentage share of life expectancy gap (compared to the North Atlantic in 2019) attributable to higher mortality from IMH-8 ranged from 0 to 62% of the total gap across the 169 countries with lower life expectancy than the North Atlantic (Figure 1 and

Supplementary Table S2 for tabulated estimates). The median country had 17% of the life expectancy gap accounted for by IMH-8, with an interquartile range of 9% to 40%. The percentage share accounted for by higher mortality from the NCDI-7 ranged from 9% to 91% across countries. In the median country, 47% of the life expectancy gap was accounted for by NCDI-7, with an interquartile range of 31% to 67%. The percentage share accounted for by both IMH-8 and NCDI-7 combined ranged from 27% to 97% across countries and was 76% in the median country, with an interquartile range of 64% to 80%.

Only in low-income countries was the median percentage share accounted for by IMH-8 greater than the median share accounted for by the NCDI-7. There was a large positive correlation (r = 0.85) between the share accounted for by IMH-8 and the total gap in life expectancy across countries (Supplementary Figure S1). There was a moderate negative correlation (r = -0.5) between the share accounted for by NCDI-7 and the total gap in life expectancy.

Regions and selected countries

In 2000, sub-Saharan Africa had a 32-year life expectancy gap compared to the (2019) North Atlantic benchmark (Figure 2 and Tables 1A and 1B). Higher mortality from IMH-8 in sub-Saharan Africa accounted for 21 of those years (66% of the total gap). Meanwhile, higher mortality from the NCDI-7 accounted for 4.6 years (15%). In 2019, the life expectancy gap for sub-Saharan Africa had declined to 21 years, 11 (51%) of which were attributable to IMH-8 and 5.5 (26%) to NCDI-7. Central Asia had 8.2 years (40%) of a 20-year gap explained by IMH-8 and 8.6 years (42%) explained by the NCDI-7 in 2000. In 2019, the life expectancy gap in Central Asia had declined to 15 years, of which 4.1 (28%) were explained by IMH-8 and 7.9 (53%) by the NCDI-7. In 2000, India had a life expectancy gap of 20

years, 10 (52%) explained by IMH-8 and 5.7 (29%) attributable to mortality from NCDI-7. In 2019, the life expectancy gap in India had declined to 11 years, of which 3.9 (34%) were attributable to IMH-8 and 5.6 (49%) to NCDI-7.

In Western Pacific & Southeast Asia, 5.2 years (42%) of a 12-year life expectancy gap were attributable to IMH-8 and 4.8 (39%) to NCDI-7 in 2000. In 2019, the life expectancy gap was down to 7 years, 2.2 years (31%) explained by IMH-8 and 3.6 (51%) by NCDI-7. In Latin America & the Caribbean, the life expectancy gap was 11 years in 2000, 2.6 years (23%) accounted for by IMH-8 and 4.9 (43%) by NCDI-7. The overall gap declined to 7.3 years in 2019, 1.4 years (20%) due to IMH-8, and 3.1 (43%) due to NCDI-7. In the Middle East & North Africa, the life expectancy gap was 13 years in 2000, of which 2.5 years (20%) were attributable to IMH-8 and 7.7 years (61%) to NCDI-7. That gap had declined to 7.9 years in 2019, of which 1 year (13%) was attributable to IMH-8 and 5.3 years (67%) to the NCDI-7.

In Central & Eastern Europe, IMH-8 accounted for 0.9 years (7%) of a 14-year gap in 2000, while the NCDI-7 accounted for 9.8 years (71%). In 2019, the gap was down to 7.1 years, of which 0.4 years (5%) were accounted for by IMH-8 and 5.3 years (74%) by the NCDI-7. In China, the IMH-8 explained 1.4 years (13%) of a 10-year life expectancy gap in 2000, while the NCDI-7 accounted for 7.4 years (71%). In 2019, the life expectancy gap in China had declined to 4.4 years, with 0.1 years (3%) attributable to IMH-8 and 3.7 years (84%) to NCDI-7. The United States had a 5.6-year gap in 2000, of which 0.3 years (6%) were explained by IMH-8 and 3.7 years (67%) by NCDI-7. In 2019, the life expectancy gap for the United States had declined to 3.2 years, 0.1 years (3%) due to IMH-8, and 1.5 years (47%) due to NCDI-7.

A more detailed look at the causes behind the life expectancy gaps

In sub-Saharan Africa, lower respiratory infections accounted for 2.3 years (11%) of the life expectancy gap (Figure 3 and Tables 1A and B). Neonatal conditions accounted for 2.1 years (10%), diarrheal diseases for 1.6 years (7%), HIV/AIDS for 1.5 years (7%), and tuberculosis for 1.4 (6%). Maternal conditions accounted for 0.9 years (4%) for women in sub-Saharan Africa (Supplementary Table S3A).

In India, neonatal conditions accounted for 1.1 years (10%) of the life expectancy gap. Diarrheal diseases accounted for 1.1 years (10%), tuberculosis for 0.8 years (7%), and lower respiratory infections for 0.6 years (5%). Further, in India, atherosclerotic CVDs accounted for 2.2 years (19%) of the life expectancy gap (Figure 4 and Tables 1A and 1B). Tobacco-related NCDs accounted for 1.5 years (13%), hemorrhagic strokes for 0.6 years (5%), and infection-related NCDs for 0.6 years (5%). In China, atherosclerotic CVDs explained 1.4 years (32%) of the life expectancy gap. Hemorrhagic stroke accounted for 0.8 years (18%), tobacco-related NCDs for 0.7 years (17%), and infection-related NCDs for 0.5 years (11%).

All IMH-8 (except for a few cases with low impact) had a reduced impact between 2000 and 2019 (Tables 1A and 1B). There was a particularly large decline in the impact of HIV/AIDS, diarrheal diseases, malaria, and vaccine-preventable childhood diseases in sub-Saharan Africa. In India, diarrheal diseases, neonatal conditions, and lower respiratory infections had the most significant decline in impact.

For NCDI-7, the change in impact varied across locations and causes of death, with the impact of most causes decreasing. In general, there were no substantial increases in the impact of individual NCDI-7, although the impact of atherosclerotic CVDs and diabetes rose somewhat in a few regions, for example, sub-Saharan Africa. Meanwhile, there were dramatic declines in the impact of atherosclerotic CVDs in Central & Eastern Europe, Middle

East & North Africa, and Latin America & the Caribbean. China had a substantial decline in the impact of tobacco-related NCDs, hemorrhagic stroke, and infection-related NCDs.

Sex-specific results, other important conditions, and probability of premature death

The impact of IMH-8 was substantially greater for women in India, primarily due to a much larger impact from diarrheal diseases (0.7 years for men and 1.5 for women) and to a lesser extent due to lower respiratory infections and neonatal conditions (Supplementary Figure S2 and Tables S3A and S3B). The impact of NCDI-7 was somewhat greater for women in sub-Saharan Africa (5.1 vs 5.9 years), primarily due to Atherosclerotic CVDs (1.3 vs 2.1) and infection-related NCDs (0.6 vs 1.1).

The impact of IMH-8 was somewhat greater for men in Central Asia, primarily due to neonatal infections (2.1 vs 1.6 years). The impact of NCDI-7 was substantially greater for men in Central & Eastern Europe, somewhat due to atherosclerotic CVDs (4.3 vs 3.7 years) and tobacco-related NCDs (0.5 vs 0 years). Overall, the life expectancy gap was also much greater for men than women in Central & Eastern Europe (9.3 vs 5-year gap). In addition, there was a greater impact of road injuries for men in sub-Saharan Africa (1.3 vs 0.7 years) and Latin America & the Caribbean (0.7 vs 0.2 years), and tobacco-related NCDs in Central Asia (1.1 vs 0.5 years). Suicide was not a prominent explanatory factor in any region except somewhat for men in Central & Eastern Europe, 0.4 years (4%), and in the United States, 0.3 years (8%).

Here, we note all causes that had an impact greater than 10% of the total gap in life expectancy in the six regions and three countries highlighted in this paper but were not among the causes included in the IMH-8 or NCDI-7 (Supplementary Tables S4 and S5). Interpersonal violence accounted for 1.7 years (20%) of the total deficit in life expectancy for

men in Latin America & the Caribbean. In the United States, drug use disorders accounted for 0.6 (18%) and 0.3 years (11%) for men and women, respectively.

In most cases, the relative impact of NCDI-7 mortality was greater when decomposing probability for premature death rather than life expectancy, for example, in India and sub-Saharan Africa (Supplementary Tables S6A and S6B).

Discussion

This paper estimated the impact of 145 causes of death on the life expectancy deficits for regions and countries compared to Western Europe and Canada (referred to here as North Atlantic) in 2019—which serve as a benchmark for life expectancy achievable with high living standards and advanced universal health coverage.[23] Two sets of priority conditions were highlighted: eight infections and maternal health conditions (IHM-8)—neonatal conditions, maternal conditions, diarrheal diseases, HIV/AIDS, tuberculosis, and malaria—and seven noncommunicable diseases (NCDs) and injuries (NCDI-7)—atherosclerotic cardiovascular diseases (CVDs), hemorrhagic stroke, infection-related NCDs, tobacco-related NCDs, diabetes, road injury, and suicide. The third Lancet Commission on Investing in Health considers these as "priority conditions" that are important or rising health concerns that nonetheless have known determinants and cost-effective interventions.

In the six regions and three large countries highlighted in this paper, mortality from the IMH-8 and NCDI-7 together accounted for more than half of the life expectancy deficit and, in most cases, over 80%. The IMH-8 accounted for a particularly large share of the total deficit in sub-Saharan Africa. However, we observed an impressive decline in deaths from IMH-8 in sub-Saharan Africa from 2000–2019, which drove a large overall decline in the life expectancy deficit. Elsewhere, the NCDI-7 accounted for a larger share of the life expectancy

deficit than the IMH-8 and, in most cases, more than half the total gap. Further, as the impact of IMH-8 declined over time in sub-Saharan Africa, the impact of NCDI-7 rose. Further, India transitioned from having most of the life expectancy deficit attributable to deaths from IMH-8 in 2000 to having a larger share explained by NCDI-7 in 2019. The NCDI-7 and IMH-8 together accounted for more than three-fourths of the life expectancy deficit in most countries, ranging from 27% to 97%.

Among all other causes, that is, the 115 causes not among the IMH-8 and NCDI-7, hardly any had a large impact (or more than 10% of the total life expectancy deficit) in the six regions and three large countries highlighted here, which underscores the importance of relatively few priority conditions. However, we found that interpersonal violence had a significant impact for men in Latin America & the Caribbean, and drug use disorder had a considerable impact in the United States.

Some limitations and caveats should be kept in mind when interpreting these results. First, there are caveats related to using life expectancy to identify current shortcomings in health. Since (period) life expectancy gives a snapshot of current age-specific mortality, this decomposition will not capture the impact of recent health interventions and changes in underlying risk factors that take time to become reflected in mortality rates. Mortality often results from repeated or an extended period of adverse exposures involving many interlinked factors. This is particularly a concern for mortality at older ages. Measures to reduce smoking and improve diets are clear examples where the exposure occurs over an extended period before contributing to earlier deaths. But the time gap between exposures and death can also apply to reduced adverse early life exposures, which has been shown to improve human development in terms of both health and human capital and will, therefore, eventually improve life expectancy by reducing adult and old age mortality (in addition to the immediate

impact from reduced child deaths). For example, the underlying improvements driving the impressive decline in mortality from conditions that primarily affect young children—such as diarrhea, lower respiratory infections, and neonatal conditions—can also reduce adult and old age mortality of the survivors and consequently improve life expectancy with a considerable lag. Therefore, the prevalence of risk factors and morbidities should also be considered to better understand current shortcomings.

Second, there are limitations related to data quality. Data in countries without well-functioning vital registration systems relied on censuses, survey data (eg, sibling survival), and model life tables for estimating all-cause mortality.[21] Using various data sources and methods, cause-specific deaths had to be estimated for many countries without death registration systems. Such cause of death estimation relied on verbal autopsy studies, which lack thorough validation. Even in countries with good death registration, many "garbage codes" needed to be reassigned. Miscoding and misinterpretation of the underlying cause of death also occur, particularly for causes that are difficult to determine (eg, diabetes and Alzheimer's disease vs heart disease) or stigmatized (eg, HIV and suicide).

Our results highlight the importance of ensuring coverage of the most essential health interventions aimed at the priority conditions for improving population health. The WHO suggested that in 2021, 4.5 billion people were not covered by essential health services (based on an index including measures related to family planning, antenatal care, DPT immunization, acute respiratory infections, tuberculosis, HIV/AIDS, Malaria, basic sanitation, hypertension, diabetes, tobacco use, hospital access, health workforce, and health emergency preparedness).[24,25] The WHO further estimated that the provision of essential health services required 112 USD per capita in low-income countries and 146 USD per capita in lower-middle-income countries,[13,26] while total spending was at 34 USD and 95 USD,[27]

thereof only 24% and 41% from domestic public spending,[28] respectively.[29] Similarly, the third edition of the Disease Control Priorities (DCP3) estimated that 218 interventions constituting essential universal health coverage would reduce premature deaths by 4.2 million annually but at a cost of 9% of gross national income in low-income countries and 5% in lower-middle income countries by 2030.[30] Although there is room for improvements, the World Bank estimated that even with the recommended tax- and health-spending-increases, together with projected economic growth, the financing gap in low- and lower-middle-income countries would only be reduced by about a third by 2030, from 176 billion USD to around 118 billion.[13]

In settings with severely constrained finances, researchers have suggested covering a limited number of critical interventions for the whole population using public funds. Incidentally, this approach also leads to pro-poor improvements since these conditions disproportionately affect lower-income people. Limiting interventions—rather than, for example, restricting public financing of a more comprehensive set of interventions to poorer people—has the benefit of reducing the administrative burden of means testing and being more likely to yield broader support among the population since all benefit, making it more politically feasible.[16]

Previous studies have used the measures of amenable mortality—or deaths that could have been avoided with timely and effective care—to measure health systems performance.[23,31] Amenable mortality evidences a similar geographic distribution as the total life expectancy deficit in this study and also suggests greater importance of mortality due to infectious diseases and maternal and child deaths at lower levels of development.[23] This study takes a more general approach using a more straightforward metric and benchmarks shortcomings to an outcome (ie, life expectancy) that has been achieved. However, studies using amenable

mortality remind us that further improvements can be expected even in our benchmark—the North Atlantic—by reducing avoidable deaths.

The priority conditions are prominent or rising health concerns with known determinants and cost-effective solutions. The relative impact of each cause on the life expectancy deficits can guide policy emphasis, planning, and the allocation of additional health spending. For example, the significant effect of tobacco-related NCDs in China and India suggests that gains can be made through tobacco control, for instance, by legislation restricting smoking in public spaces[32] and taxation.[18] However, tobacco use is an adverse exposure occurring over an extended period with a lagged impact on (period) life expectancy: Recent dramatic declines in tobacco use in India are likely to reduce the impact of tobacco-related NCDs in the future. Conversely, the persistently high prevalence of tobacco use among men in China is likely to continue having a large negative impact.[33] However, in both China and India, cigarette smoking is much more prevalent among men (while both smoking prevalence and the sex difference in smoking tend to be much smaller in the North Atlantic). Still, the impact of tobacco-related NCDs (in particular chronic obstructive pulmonary disease) does not vary much by sex, which may suggest that other factors, such as outdoor[34] and indoor[35] air pollution, may also play a role.

Similarly, preventative interventions for diabetes, such as taxation of sugary drinks,[36] and improved diagnosis and treatment,[37] can be implemented to combat the considerable and rising relative impact of diabetes in some locations. Of the causes highlighted in this paper, atherosclerotic CVDs accounted for the largest share of the life expectancy deficit in all regions except sub-Saharan Africa (where it also accounts for a substantial and increasing part). The enormous and rising relative importance of atherosclerotic CVDs highlights the need for medical interventions—such as diagnosis and use of statins—and behavioral

interventions—such as reduced smoking, improved diet, and increased physical activity—to delay mortality from these causes.[38]

While NCDs were increasingly important everywhere, an expansion of maternal and child health interventions (especially prevention of diarrhea, neonatal conditions, and lower respiratory infections) and tuberculosis interventions remains essential in sub-Saharan Africa, India, Central Asia, and Western Pacific & Southeast Asia. Since childhood deaths often result from repeated adverse exposures, an intervention aimed at reducing deaths from one condition can also indirectly reduce mortality from other causes. For example, many children are exposed to infections causing diarrhea; some die while the survivors will also suffer from weakened immune systems, which will increase the risk of getting and dying from other diseases, for example, lower respiratory infections.[39] Preventing adverse exposures in early life is further particularly important as it can reduce mortality from other causes in adulthood and old age, since poor health in childhood can have compounding effects on human development in terms of health,[40,41] physiological[42] and cognitive development[43] and schooling and income,[44] which in turn are linked life expectancy.[45]

Some of the causes highlighted here contributed little to the life expectancy deficits. The impact of vaccine-preventable childhood diseases was small in 2019. This relatively small impact does not mean these causes are unimportant but highlights the success of the widespread (although still incomplete) distribution of vaccines.[46,47] For example, the impact of vaccine-preventable diseases was large in 2000 in sub-Saharan Africa but had declined substantially by 2019. Further, suicide had little (or, in many cases, no) impact on the overall life expectancy deficit since suicide rates in the North Atlantic were not particularly low in a global context.[48] Suicide is only the most extreme consequence of poor mental health, which is a rising health concern in many contexts and is associated with heightened mortality from a

range of conditions, likely stemming from many factors, such as health behaviors, access to care, and socioeconomic factors.[49,50]

There were a few apparent sex differences. In India, the impact of IMH-8 was considerably greater for women, especially diarrheal diseases. Maternal conditions accounted for a considerable share of the deficit for women in sub-Saharan Africa. The life expectancy deficit for women in sub-Saharan Africa was also impacted considerably more by atherosclerotic CVDs and somewhat more by infection-related NCDs. Men in Central & Eastern Europe had a substantially greater life expectancy deficit than women, which was partially accounted for by tobacco-related NCDs, suicide, and atherosclerotic CVDs, but primarily small contributions of different causes. The life expectancy deficit for men was impacted more by tobacco-related NCDs in Central Asia and road injuries in sub-Saharan Africa and Latin America & the Caribbean.

Conclusions

This study underscores the significant impact of a limited number of important infections, maternal health and neonatal conditions, noncommunicable diseases, and injuries on global life expectancy deficits, with notable regional variations and transitions over time. The decline in deaths from IMH-8, particularly in sub-Saharan Africa, contrasts with the rising importance of NCDI-7, highlighting the evolving nature of global health challenges. These findings emphasize the critical importance of tailoring intervention to local needs.

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Contributions

Omar Karlsson did data management, analysis, reporting, and wrote the manuscript. # devised the conceptual idea of the paper. # provided critical feedback on the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

Declarations of interest

None.

Data availability

Global Health Estimates are available at https://#.

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Supplementary information

Supplement.

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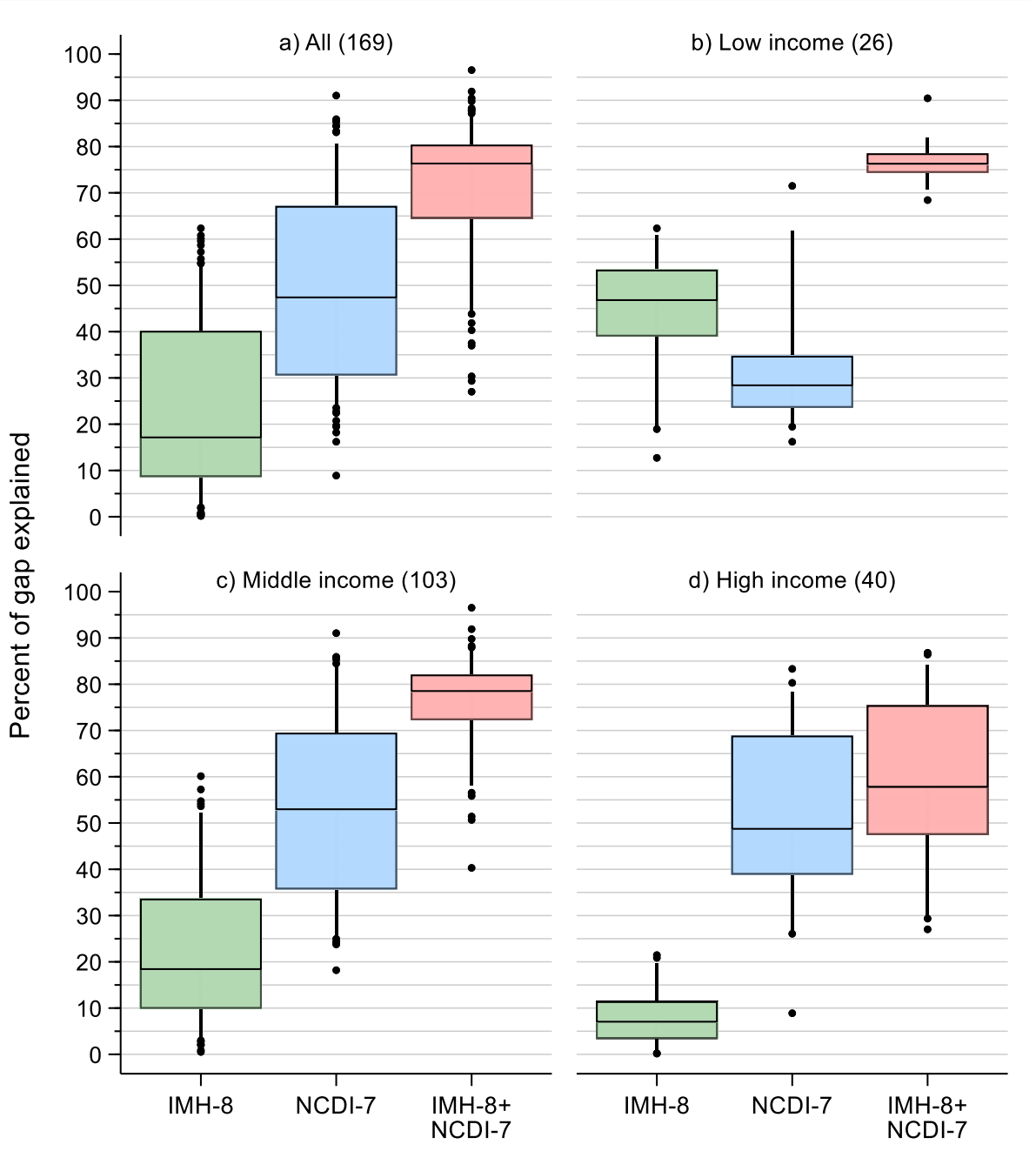
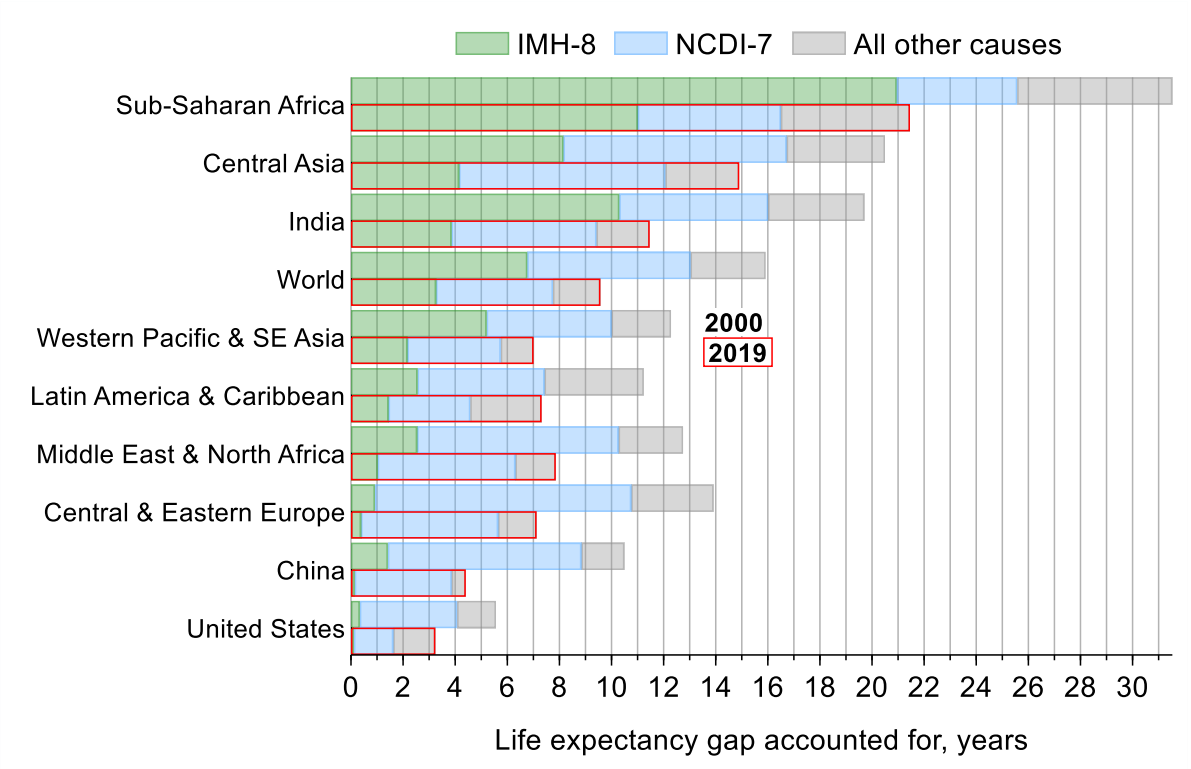
Figure 1. Percentage of life expectancy gap compared to the North Atlantic attributable to IMH-8 and NCDI-7: Distribution across countries, 2019



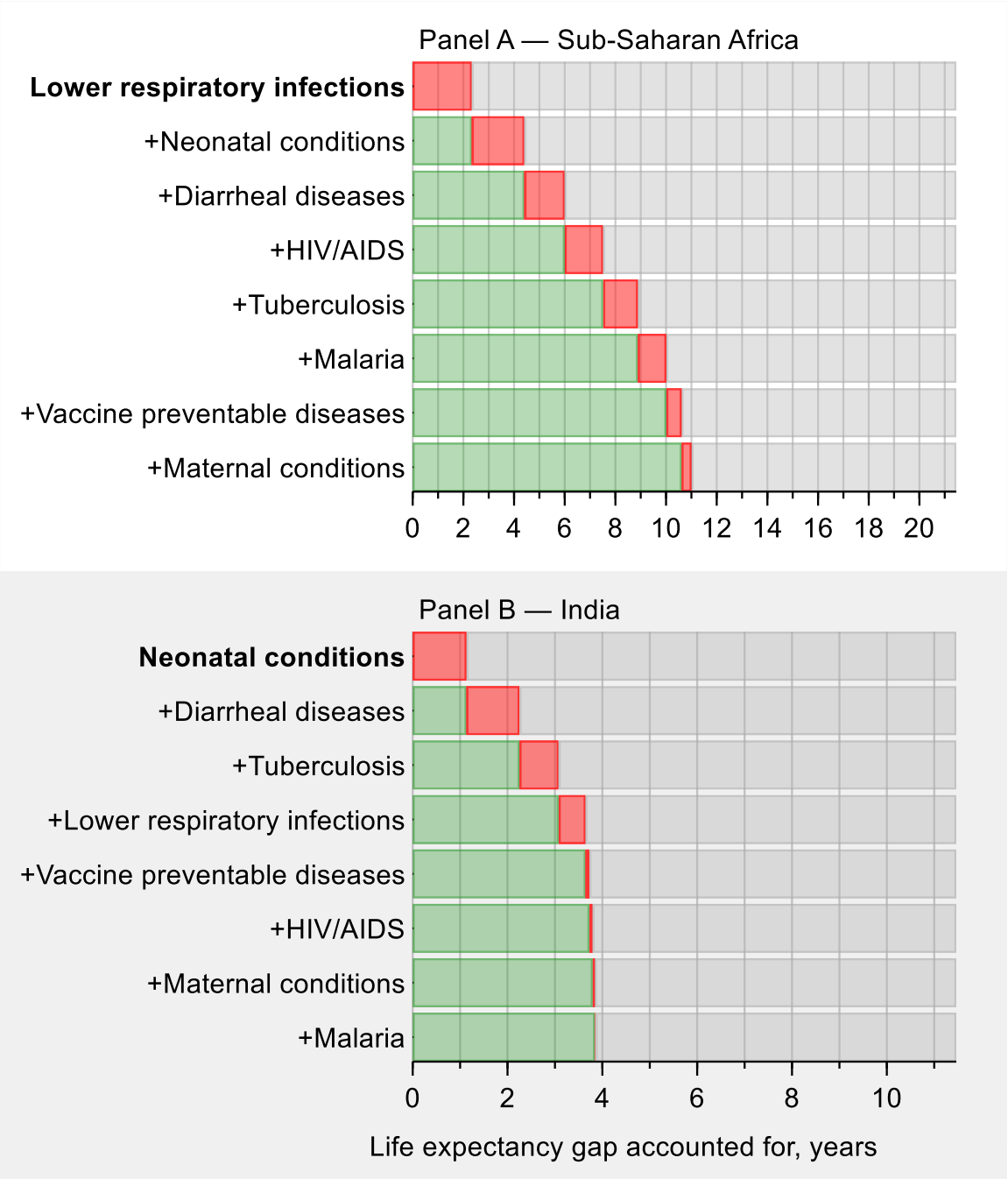
Note: Number of countries is shown in parentheses. Percentiles 5 and 95 (line) and 25, 50, and 75 (box) are shown. Dots indicate country estimates below percentile 5 and above percentile 95. Countries were equally weighted for descriptive statistics. See Supplementary Table S2 for tabulated estimates. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Figure 2. Life expectancy gap compared to the North Atlantic 2019 attributable to sets of causes, 2000 and 2019



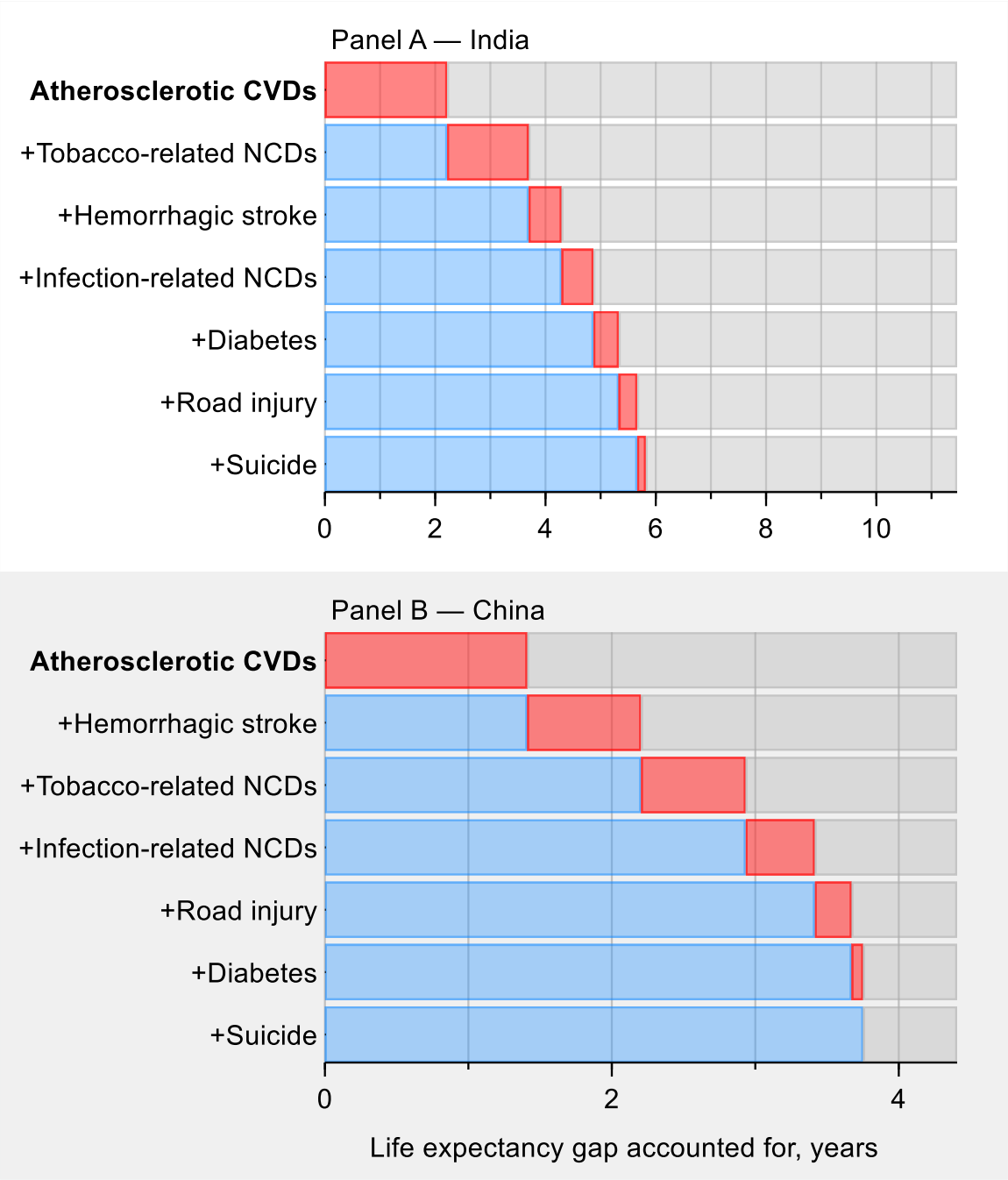
Note: Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Southeast (SE). Data: WHO GHE 2022 and UN WPP 2022.

Figure 3. Life expectancy gap compared to the North Atlantic attributable to specific IMH-8, 2019



Note: Red parts show gap accounted for by the cause indicated on the y-axis. Green+red parts show the cumulative contribution of the causes indicated at and above each bar on the y-axis to the life expectancy gap. Gray part shows the proportion not accounted for. Data: WHO GHE 2022 and UN WPP 2022.

Figure 4. Life expectancy gap compared to the North Atlantic attributable to specific NCDI-7, 2019



Note: Red parts show gap accounted for by the cause indicated on the y-axis. Blue+red parts show the cumulative contribution of the causes indicated at and above each bar on the y-axis to the life expectancy gap. Gray part shows the proportion not accounted for. Data: WHO GHE 2022 and UN WPP 2022.

Table 1A. Life expectancy gaps compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, 2000 and 2019

	China		India		Sub-Saharan Africa		United States		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Total gap	10	4.4	20	11	32	21	5.6	3.2	16	9.6
Total impact of-	8.8	3.9	16	9.4	26	17	4.1	1.6	13	7.8
NCDI-7 and IMH-8	(84)	(88)	(81)	(82)	(81)	(77)	(73)	(50)	(82)	(81)
Total impact of NCDI-7	7.4	3.7	5.7	5.6	4.6	5.5	3.7	1.5	6.3	4.5
	(71)	(84)	(29)	(49)	(15)	(26)	(67)	(47)	(39)	(47)
Atherosclerotic CVDs	1.3	1.4	2.0	2.2	1.2	1.7	2.3	0.7	2.5	2.0
	(12)	(32)	(9.9)	(19)	(3.9)	(7.8)	(41)	(21)	(16)	(21)
Hemorrhagic stroke	1.9	0.8	0.7	0.6	1.0	1.1	0.1	<0.1	1.0	0.7
	(18)	(18)	(3.8)	(5.2)	(3.3)	(5.2)	(2.7)	(0)	(6.6)	(7.3)
Tobacco-related NCDs	2.1	0.7	1.4	1.5	0.3	0.3	0.7	0.3	0.9	0.6
	(20)	(17)	(7.0)	(13)	(0.8)	(1.2)	(12)	(9.5)	(5.5)	(5.9)
Infection-related NCDs	1.3	0.5	0.7	0.6	0.8	0.8	<0.1	<0.1	0.8	0.5
	(12)	(11)	(3.7)	(5.0)	(2.5)	(3.9)	(0)	(0)	(5.0)	(5.1)
Road injury	0.6	0.3	0.4	0.3	0.8	1.0	0.4	0.2	0.5	0.4
	(5.4)	(5.8)	(2.2)	(2.9)	(2.5)	(4.8)	(6.4)	(5.7)	(3.3)	(4.2)
Diabetes	0.1	<0.1	0.3	0.5	0.6	0.8	0.2	0.1	0.3	0.4
	(1.3)	(0)	(1.7)	(4.0)	(1.8)	(3.8)	(3.7)	(4.6)	(2.0)	(3.9)
Suicide	0.2	0	0.3	0.2	0.1	<0.1	<0.1	0.2	0.2	<0.1
	(1.6)	(0)	(1.7)	(1.4)	(0.4)	(0)	(0)	(5.3)	(1.1)	(0)
Total impact of IMH-8	1.4	0.1	10	3.9	21	11	0.3	0.1	6.8	3.3
	(13)	(3.2)	(52)	(34)	(66)	(51)	(6.0)	(3.4)	(43)	(34)
Neonatal conditions	0.6	<0.1	2.8	1.1	2.7	2.1	0.1	<0.1	1.7	1.0
	(5.7)	(0)	(14)	(9.9)	(8.6)	(9.7)	(2.6)	(0)	(11)	(10)
Lower respiratory infections	0.5	<0.1	1.7	0.6	3.3	2.3	<0.1	0	1.3	0.7
	(4.5)	(0)	(8.7)	(5.0)	(10)	(11)	(0)	(0)	(8.1)	(6.9)
Diarrheal diseases	0.1	<0.1	2.9	1.1	3.2	1.6	0	<0.1	1.2	0.5
	(1.0)	(0)	(15)	(9.8)	(10)	(7.4)	(0)	(0)	(7.7)	(5.4)
Tuberculosis	0.1	<0.1	1.6	0.8	1.7	1.4	<0.1	0	0.8	0.4
	(1.4)	(0)	(8.2)	(7.2)	(5.3)	(6.4)	(0)	(0)	(4.9)	(4.6)
HIV/AIDS	<0.1	<0.1	0.3	<0.1	5.2	1.5	0.1	<0.1	0.7	0.2
	(0)	(0)	(1.4)	(0)	(17)	(7.1)	(2.1)	(0)	(4.1)	(2.5)
Malaria	<0.1	0	<0.1	<0.1	2.3	1.1	0	<0.1	0.4	0.2
	(0)	(0)	(0)	(0)	(7.4)	(5.2)	(0)	(0)	(2.6)	(2.1)
Vaccine preventable diseases	<0.1	<0.1	0.6	<0.1	1.7	0.6	<0.1	<0.1	0.5	0.2
	(0)	(0)	(2.9)	(0)	(5.3)	(2.8)	(0)	(0)	(3.3)	(1.8)
Maternal conditions	<0.1	<0.1	0.3	<0.1	0.9	0.4	<0.1	<0.1	0.2	<0.1
	(0)	(0)	(1.5)	(0)	(2.7)	(1.8)	(0)	(0)	(1.1)	(0)

Note: Number of years are shown with percentage of total gap in parentheses below. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table 1B. Life expectancy gaps compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, 2000 and 2019

	Central & Eastern Europe		Central Asia		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Western Pacific & SE Asia	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Total gap	14	7.1	20	15	11	7.3	13	7.9	12	7.0
Total impact of-	11	5.6	17	12	7.4	4.6	10	6.3	10	5.7
NCDI-7 and IMH-8	(77)	(79)	(82)	(81)	(66)	(63)	(81)	(80)	(81)	(82)
Total impact of NCDI-7	9.8	5.3	8.6	7.9	4.9	3.1	7.7	5.3	4.8	3.6
	(71)	(74)	(42)	(53)	(43)	(43)	(61)	(67)	(39)	(51)
Atherosclerotic CVDs	6.7	4.2	4.4	4.3	2.1	1.2	5.4	3.7	1.5	1.2
	(48)	(58)	(21)	(29)	(18)	(16)	(42)	(48)	(12)	(17)
Hemorrhagic stroke	0.8	0.3	1.3	1.1	0.7	0.3	0.6	0.3	1.2	0.9
	(5.6)	(4.7)	(6.6)	(7.3)	(6.1)	(4.7)	(4.4)	(3.3)	(9.4)	(13)
Tobacco-related NCDs	0.5	0.1	0.9	0.8	0.5	0.2	0.2	0.1	0.5	0.4
	(3.7)	(1.5)	(4.5)	(5.4)	(4.1)	(3.3)	(1.3)	(1.5)	(4.1)	(5.3)
Infection-related NCDs	0.6	0.3	1.0	0.8	0.5	0.3	0.7	0.5	0.8	0.5
	(4.2)	(4.0)	(5.0)	(5.1)	(4.8)	(4.0)	(5.7)	(6.0)	(6.7)	(6.5)
Road injury	0.5	0.1	0.3	0.3	0.5	0.5	0.6	0.4	0.4	0.3
	(3.5)	(2.1)	(1.7)	(2.2)	(4.8)	(6.2)	(4.5)	(5.4)	(3.4)	(4.3)
Diabetes	<0.1	<0.1	0.5	0.8	0.8	0.9	0.5	0.5	0.4	0.5
	(0)	(0)	(2.4)	(5.3)	(7.2)	(13)	(4.0)	(6.1)	(3.3)	(7.0)
Suicide	0.7	0.2	0.2	<0.1	0	0	0	0	<0.1	0
	(5.3)	(2.8)	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total impact of IMH-8	0.9	0.4	8.2	4.1	2.6	1.4	2.5	1.0	5.2	2.2
	(6.6)	(5.4)	(40)	(28)	(23)	(20)	(20)	(13)	(42)	(31)
Neonatal conditions	0.3	<0.1	2.7	1.8	0.9	0.4	1.2	0.5	1.3	0.5
	(1.9)	(0)	(13)	(12)	(8.2)	(5.7)	(9.4)	(6.4)	(11)	(7.7)
Lower respiratory infections	0.3	0.1	1.7	0.7	0.7	0.7	0.7	0.3	1.0	0.5
	(2.4)	(1.9)	(8.3)	(4.9)	(6.7)	(9.1)	(5.3)	(3.7)	(8.5)	(7.7)
Diarrheal diseases	<0.1	0	1.7	0.8	0.3	<0.1	0.3	<0.1	0.7	0.3
	(0)	(0)	(8.3)	(5.2)	(2.6)	(0)	(2.4)	(0)	(5.9)	(3.7)
Tuberculosis	0.2	<0.1	0.9	0.4	0.2	<0.1	0.1	<0.1	1.4	0.5
	(1.5)	(0)	(4.4)	(2.8)	(1.4)	(0)	(1.0)	(0)	(11)	(7.6)
HIV/AIDS	<0.1	0.2	0	<0.1	0.3	0.2	<0.1	<0.1	0.2	0.1
	(0)	(2.2)	(0)	(0)	(3.0)	(2.3)	(0)	(0)	(1.8)	(2.0)
Malaria	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Vaccine preventable diseases	<0.1	<0.1	0.7	0.2	<0.1	<0.1	0.2	<0.1	0.4	0.1
	(0)	(0)	(3.5)	(1.1)	(0)	(0)	(1.4)	(0)	(2.9)	(1.5)
Maternal conditions	<0.1	<0.1	0.4	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	(0)	(0)	(1.8)	(1.0)	(0)	(0)	(0)	(0)	(0.9)	(0)

Note: Number of years are shown with percentage of total gap in parentheses below. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Supplement

Priority health conditions and life expectancy deficits by cause of death: a life table decomposition

Table S1: Regions

Central & Eastern Europe	Central Asia	Latin America & the Caribbean	Middle East & North Africa	North Atlantic	Sub-Saharan Africa	Western Pacific & Southeast Asia
Albania	Afghanistan	Antigua & Barbuda	Algeria	Austria	Angola	Australia
Armenia	Azerbaijan	Argentina	Bahrain	Belgium	Benin	Bangladesh
Belarus	Kazakhstan	Bahamas, The	Egypt, Arab Rep.	Canada	Botswana	Bhutan
Bosnia & Herzegovina	Kyrgyz Republic	Barbados	Iran, Islamic Rep.	Cyprus	Burkina Faso	Brunei Darussalam
Bulgaria	Mongolia	Belize	Iraq	Denmark	Burundi	Cambodia
Central & Eastern Europe	Pakistan	Bolivia	Israel	Finland	Cabo Verde	Fiji
Croatia	Tajikistan	Brazil	Jordan	France	Cameroon	Indonesia
Czechia	Turkmenistan	Chile	Kuwait	Germany	Central African Republic	Japan
Estonia	Uzbekistan	Colombia	Lebanon	Greece	Chad	Kiribati
Georgia		Costa Rica	Libya	Iceland	Comoros	Korea, Dem. People's Rep.
Hungary		Cuba	Middle East & North Africa	Ireland	Congo, Dem. Rep.	Korea, Rep.
Latvia		Dominican Republic	Morocco	Italy	Congo, Rep.	Lao PDR
Lithuania		Ecuador	Oman	Luxembourg	Côte d'Ivoire	Malaysia
Moldova		El Salvador	Qatar	Malta	Djibouti	Maldives
Montenegro		Grenada	Saudi Arabia	Netherlands	Equatorial Guinea	Micronesia, Fed. Sts.
North Macedonia		Guatemala	Syria	Norway	Eritrea	Myanmar
Poland		Guyana	Tunisia	Portugal	Eswatini	Nepal
Romania		Haiti	Türkiye	Spain	Ethiopia	New Zealand
Russia		Honduras	United Arab Emirates	Sweden	Gabon	Papua New Guinea
Serbia		Jamaica	Yemen, Rep.	Switzerland	Gambia, The	Philippines
Slovak Republic		Latin America & Caribbean		United Kingdom	Ghana	Samoa
Slovenia		Mexico			Guinea	Singapore
Ukraine		Nicaragua			Guinea-Bissau	Solomon Islands
		Panama			Kenya	Sri Lanka
		Paraguay			Lesotho	Thailand
		Peru			Liberia	Timor-Leste
		St. Lucia			Madagascar	Tonga
		St. Vincent & the Grenadines			Malawi	Vanuatu
		Suriname			Mali	Vietnam
		Trinidad & Tobago			Mauritania	Western Pacific & Southeast Asia
		Uruguay			Mauritius	
		Venezuela, RB			Mozambique	
					Namibia	
					Niger	
					Nigeria	
					Rwanda	

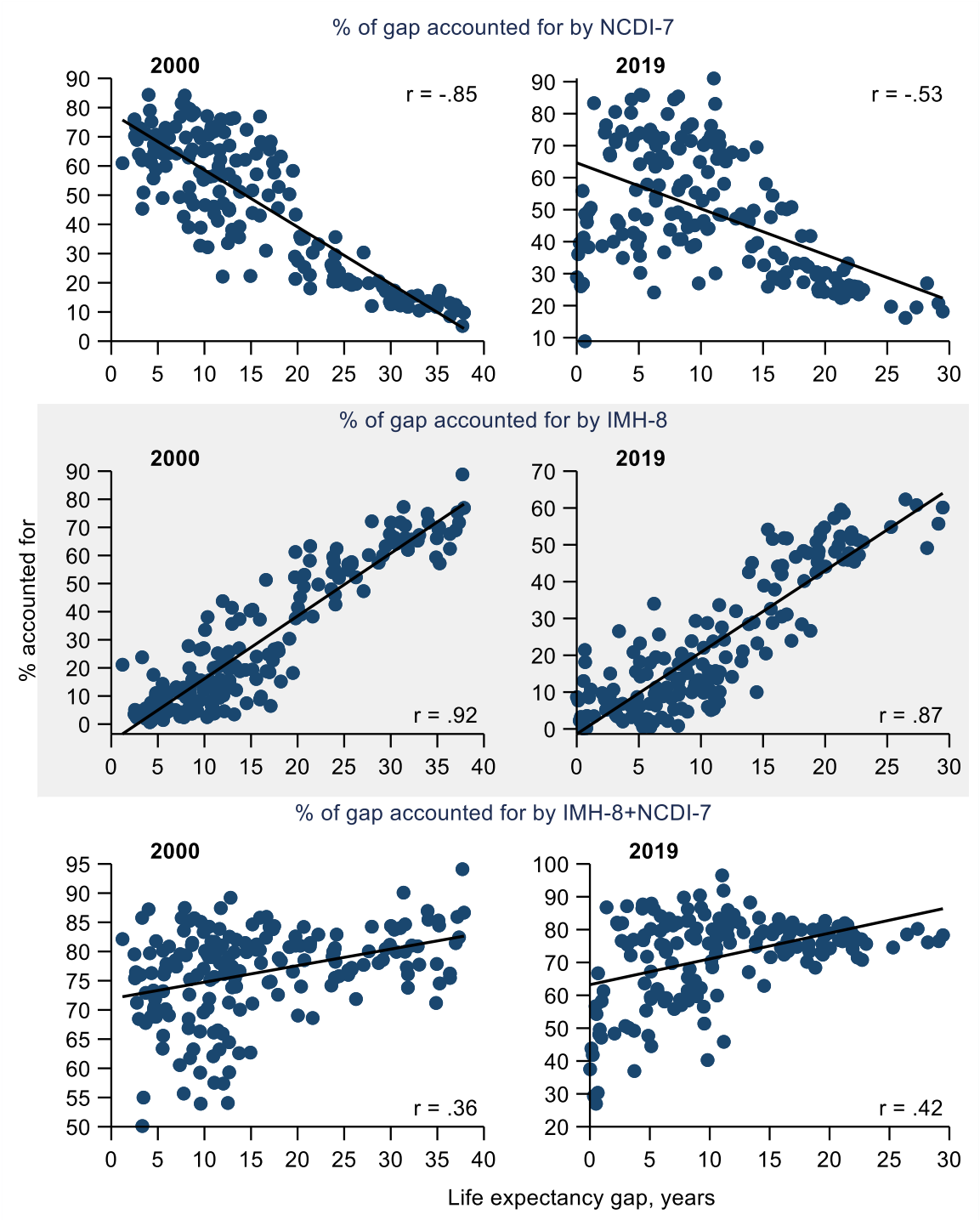
Central & East-ern Europe	Central Asia	Latin America & the Caribbean	Middle East & North Africa	North Atlantic	Sub-Saharan Africa	Western Pac-ific & Southeast Asia
					Senegal	
					Seychelles	
					Sierra Leone	
					Somalia	
					South Africa	
					South Sudan	
					Sudan	
					São Tomé & Príncipe	
					Tanzania	
					Togo	
					Uganda	
					Zambia	
					Zimbabwe	

Table S2. Tabulated estimates from Figure 1: Percentage of life expectancy gap compared to the North Atlantic attributable to IMH-8 and NCDI-7: Distribution across countries, 2019

	All			Low income			Middle income			High income		
	IMH-8	NCDI-7	Both	IMH-8	NCDI-7	Both	IMH-8	NCDI-7	Both	IMH-8	NCDI-7	Both
Minimum	0.2	8.9	27	13	16	68	0.5	18	40	0.2	8.9	27
Percentile 5	2.0	24	45	19	19	71	3.0	25	58	0.4	26	30
Percentile 25	8.6	31	64	39	24	74	9.8	36	72	3.4	39	47
Median	17	47	76	47	28	76	18	53	78	6.9	49	58
Percentile 75	40	67	80	53	35	79	34	70	82	11	69	75
Percentile 95	55	81	87	61	62	82	52	84	88	20	78	84
Maximum	62	91	97	62	71	90	60	91	97	21	83	87
Interquartile range	32	37	16	14	11	4.2	24	34	9.9	8.1	30	28
Mean	23	49	72	45	32	77	23	52	76	8.1	51	59
Standard deviation	18	19	13	13	13	4.4	17	19	9.9	5.9	18	17
Number of countries	169	169	169	26	26	26	103	103	103	40	40	40

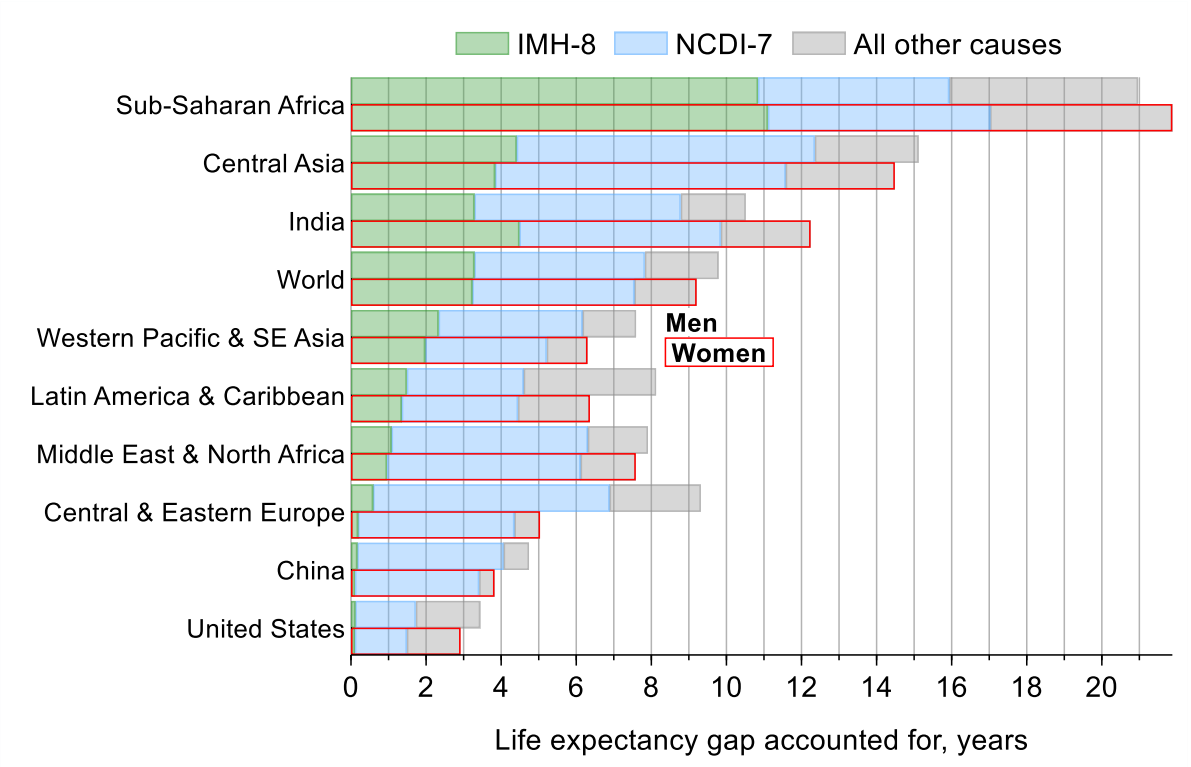
Note: 'Both' shows IMH-8+NCDI-7. Results are shown by 2019 World Bank Income groups. Only countries with lower life expectancy than the North Atlantic were included. Countries were equally weighted for descriptive statistics. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Figure S1. Country-level correlation between the percentage of life expectancy gap attributable to IMH-8 and NCDI-7 and the total life expectancy gap



Note: Pearson's (r) correlation coefficients are shown. Countries were equally weighted. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Figure S2 Life expectancy gap compared to the North Atlantic 2019 attributable to sets of causes, men and women in 2019



Note: Men were compared to men in the North Atlantic and women to women in the North Atlantic. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Southeast (SE). Data: WHO GHE 2022 and UN WPP 2022.

Table S3A. Life expectancy gaps compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, men (M) and women (W) in 2019

	China		India		Sub-Saharan Africa		United States		World	
	M	W	M	W	M	W	M	W	M	W
Total gap	4.7	3.8	11	12	21	22	3.4	2.9	9.8	9.2
Total impact of-	4.1	3.4	8.8	9.9	16	17	1.7	1.5	7.8	7.6
NCDI-7 and IMH-8	(86)	(89)	(84)	(80)	(76)	(78)	(50)	(51)	(80)	(82)
Total impact of NCDI-7	3.9	3.3	5.5	5.4	5.1	5.9	1.6	1.4	4.5	4.3
	(82)	(87)	(52)	(44)	(24)	(27)	(47)	(47)	(46)	(47)
Atherosclerotic CVDs	1.3	1.5	2.3	2.0	1.3	2.1	0.8	0.6	1.8	2.1
	(27)	(38)	(22)	(17)	(6.2)	(9.6)	(22)	(19)	(19)	(23)
Hemorrhagic stroke	0.9	0.7	0.5	0.6	1.0	1.2	<0.1	<0.1	0.7	0.7
	(18)	(18)	(5.2)	(5.2)	(4.9)	(5.5)	(0)	(0)	(7.2)	(7.3)
Tobacco-related NCDs	0.8	0.6	1.5	1.4	0.3	0.2	0.2	0.5	0.6	0.5
	(16)	(16)	(14)	(11)	(1.4)	(1.0)	(6.3)	(16)	(6.2)	(5.2)
Infection-related NCDs	0.6	0.3	0.5	0.6	0.6	1.1	<0.1	<0.1	0.5	0.5
	(13)	(8.1)	(4.9)	(5.1)	(3.0)	(4.9)	(0)	(0)	(5.2)	(5.0)
Road injury	0.4	0.1	0.5	0.2	1.3	0.7	0.3	0.1	0.6	0.2
	(7.9)	(3.3)	(4.4)	(1.3)	(6.4)	(3.0)	(7.3)	(4.1)	(5.8)	(2.4)
Diabetes	<0.1	<0.1	0.4	0.5	0.8	0.9	0.2	0.1	0.3	0.4
	(0)	(0)	(4.0)	(4.0)	(3.6)	(4.0)	(5.3)	(3.8)	(3.3)	(4.6)
Suicide	0	<0.1	<0.1	0.2	0.1	<0.1	0.3	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(2.0)	(0.6)	(0)	(8.2)	(0)	(0)	(0)
Total impact of IMH-8	0.2	0.1	3.3	4.5	11	11	0.1	0.1	3.3	3.2
	(3.6)	(2.8)	(31)	(37)	(52)	(51)	(3.3)	(3.5)	(34)	(35)
Neonatal conditions	<0.1	<0.1	1.0	1.2	2.2	2.0	0.1	<0.1	1.0	0.9
	(0)	(0)	(9.8)	(10)	(10)	(8.9)	(3.0)	(0)	(11)	(9.8)
Lower respiratory infections	<0.1	<0.1	0.5	0.7	2.4	2.3	0	0	0.7	0.6
	(0)	(0)	(4.4)	(5.6)	(11)	(10)	(0)	(0)	(6.9)	(6.9)
Diarrheal diseases	<0.1	<0.1	0.8	1.5	1.6	1.6	<0.1	<0.1	0.5	0.6
	(0)	(0)	(7.4)	(13)	(7.6)	(7.1)	(0)	(0)	(4.8)	(6.0)
Tuberculosis	<0.1	<0.1	0.9	0.8	1.6	1.1	0	0	0.5	0.4
	(0)	(0)	(8.2)	(6.1)	(7.5)	(5.1)	(0)	(0)	(5.1)	(4.0)
HIV/AIDS	<0.1	<0.1	<0.1	<0.1	1.5	1.6	<0.1	<0.1	0.2	0.2
	(0)	(0)	(0)	(0)	(6.9)	(7.2)	(0)	(0)	(2.5)	(2.5)
Malaria	0	0	<0.1	<0.1	1.1	1.2	<0.1	0	0.2	0.2
	(0)	(0)	(0)	(0)	(5.2)	(5.3)	(0)	(0)	(2.0)	(2.2)
Vaccine preventable diseases	<0.1	<0.1	<0.1	<0.1	0.6	0.6	<0.1	0	0.2	0.2
	(0)	(0)	(0)	(0)	(2.7)	(2.9)	(0)	(0)	(1.7)	(1.9)
Maternal conditions	0	<0.1	0	0.1	0	0.9	0	<0.1	0	0.2
	(0)	(0)	(0)	(0.9)	(0)	(3.9)	(0)	(0)	(0)	(1.7)

Note: Number of years are shown with percentage of total gap in parentheses below. Men were compared to men in the North Atlantic and women to women in the North Atlantic. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table S3B. Life expectancy gaps compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, men (M) and women (W) in 2019

	Central & Eastern Europe		Central Asia		Latin America & the Caribbean		Mid. East & North Africa		Western Pacific & SE Asia	
	M	W	M	W	M	W	M	W	M	W
Total gap	9.3	5.0	15	14	8.1	6.4	7.9	7.6	7.6	6.3
Total impact of-	6.9	4.4	12	12	4.6	4.5	6.3	6.1	6.2	5.2
NCDI-7 and IMH-8	(74)	(86)	(82)	(80)	(57)	(70)	(80)	(81)	(81)	(83)
Total impact of NCDI-7	6.3	4.2	7.9	7.7	3.1	3.1	5.2	5.2	3.8	3.2
	(68)	(83)	(53)	(53)	(38)	(49)	(66)	(68)	(50)	(51)
Atherosclerotic CVDs	4.4	3.7	4.3	4.1	1.1	1.2	3.5	3.8	1.2	1.2
	(47)	(73)	(29)	(28)	(14)	(19)	(45)	(51)	(15)	(19)
Hemorrhagic stroke	0.4	0.2	1.0	1.2	0.3	0.3	0.2	0.3	0.9	0.9
	(4.6)	(4.8)	(6.3)	(8.3)	(4.1)	(5.3)	(3.1)	(3.7)	(12)	(14)
Tobacco-related NCDs	0.5	<0.1	1.1	0.5	0.2	0.2	0.2	<0.1	0.5	0.2
	(5.5)	(0)	(7.1)	(3.3)	(2.8)	(3.8)	(2.0)	(0)	(6.5)	(3.8)
Infection-related NCDs	0.3	0.2	0.7	0.9	0.2	0.3	0.5	0.4	0.5	0.4
	(3.7)	(4.5)	(4.3)	(6.0)	(3.0)	(5.4)	(6.8)	(5.1)	(6.8)	(6.1)
Road injury	0.2	<0.1	0.4	0.3	0.7	0.2	0.6	0.2	0.5	0.1
	(2.5)	(0)	(2.4)	(1.9)	(9.0)	(2.6)	(7.4)	(3.0)	(6.3)	(1.9)
Diabetes	<0.1	<0.1	0.7	0.9	0.8	1.0	0.4	0.6	0.4	0.6
	(0)	(0)	(4.3)	(6.4)	(10)	(16)	(4.9)	(7.6)	(5.6)	(8.7)
Suicide	0.4	<0.1	0.1	<0.1	0	0	0	0	0	0
	(4.2)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total impact of IMH-8	0.6	0.2	4.4	3.8	1.5	1.4	1.1	1.0	2.3	2.0
	(6.3)	(3.7)	(29)	(26)	(18)	(21)	(14)	(13)	(31)	(31)
Neonatal conditions	<0.1	<0.1	2.1	1.6	0.5	0.4	0.5	0.5	0.6	0.5
	(0)	(0)	(14)	(11)	(5.6)	(5.7)	(6.9)	(6.0)	(8.0)	(7.5)
Lower respiratory infections	0.3	<0.1	0.8	0.6	0.6	0.7	0.3	0.3	0.6	0.5
	(2.7)	(0)	(5.5)	(4.1)	(7.9)	(11)	(3.8)	(3.7)	(7.5)	(7.8)
Diarrheal diseases	0	0	0.8	0.8	<0.1	<0.1	<0.1	<0.1	0.3	0.3
	(0)	(0)	(5.3)	(5.2)	(0)	(0)	(0)	(0)	(3.3)	(4.0)
Tuberculosis	0.1	<0.1	0.5	0.4	<0.1	<0.1	<0.1	<0.1	0.6	0.4
	(1.2)	(0)	(3.0)	(2.5)	(0)	(0)	(0)	(0)	(8.0)	(7.1)
HIV/AIDS	0.2	0.1	0.1	<0.1	0.2	0.1	<0.1	<0.1	0.2	0.1
	(2.1)	(2.0)	(0.7)	(0)	(2.6)	(1.8)	(0)	(0)	(2.1)	(1.8)
Malaria	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Vaccine preventable diseases	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	(0)	(0)	(1.0)	(1.1)	(0)	(0)	(0)	(0)	(1.5)	(0)
Maternal conditions	0	<0.1	0	0.3	0	<0.1	0	<0.1	0	<0.1
	(0)	(0)	(0)	(2.2)	(0)	(0)	(0)	(0)	(0)	(0)

Note: Number of years are shown with percentage of total gap in parentheses below. Men were compared to men in the North Atlantic and women to women in the North Atlantic. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table S4. Life expectancy gap compared to the North Atlantic 2019 attributable to specific IMH-8, NCDI-7, and all other causes, 2000 and 2019

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Total gap	14	7.1	20	15	10	4.4	20	11	11	7.3	13	7.9	32	21	5.6	3.2	12	7.0	16	9.6
Total impact of NCDI-7	9.8	5.3	8.6	7.9	7.4	3.7	5.7	5.6	4.9	3.1	7.7	5.3	4.6	5.5	3.7	1.5	4.8	3.6	6.3	4.5
	(71)	(74)	(42)	(53)	(71)	(84)	(29)	(49)	(43)	(43)	(61)	(67)	(15)	(26)	(67)	(47)	(39)	(51)	(39)	(47)
Ischemic heart disease	5.0	3.2	3.7	3.6	0.6	0.8	1.7	2.0	1.6	0.9	4.6	3.0	0.9	1.2	2.1	0.7	0.9	0.7	1.9	1.5
	(36)	(45)	(18)	(24)	(5.8)	(18)	(8.6)	(17)	(14)	(13)	(36)	(38)	(2.9)	(5.5)	(37)	(21)	(7.0)	(10)	(12)	(15)
Hemorrhagic stroke	0.8	0.3	1.3	1.1	1.9	0.8	0.7	0.6	0.7	0.3	0.6	0.3	1.0	1.1	0.1	<0.1	1.2	0.9	1.0	0.7
	(5.6)	(4.7)	(6.6)	(7.3)	(18)	(18)	(3.8)	(5.2)	(6.1)	(4.7)	(4.4)	(3.3)	(3.3)	(5.2)	(2.7)	(0)	(9.4)	(13)	(6.6)	(7.3)
Ischemic stroke	1.7	0.9	0.6	0.6	0.7	0.6	0.3	0.3	0.5	0.3	0.8	0.7	0.3	0.5	0.2	0	0.6	0.5	0.7	0.5
	(12)	(13)	(3.1)	(4.3)	(6.5)	(14)	(1.3)	(2.2)	(4.6)	(3.9)	(6.4)	(9.1)	(1.0)	(2.2)	(3.0)	(0)	(5.2)	(7.1)	(4.2)	(5.5)
Chronic obstructive pulmonary disease	0.2	<0.1	0.8	0.6	1.9	0.5	1.2	1.3	0.4	0.2	0.1	<0.1	0.2	0.2	0.3	0.3	0.4	0.3	0.8	0.5
	(1.3)	(0)	(3.7)	(4.3)	(18)	(12)	(6.1)	(11)	(3.8)	(3.1)	(1.0)	(0)	(0.7)	(1.1)	(5.6)	(8.8)	(3.4)	(4.4)	(5.1)	(5.2)
Road injury	0.5	0.1	0.3	0.3	0.6	0.3	0.4	0.3	0.5	0.5	0.6	0.4	0.8	1.0	0.4	0.2	0.4	0.3	0.5	0.4
	(3.5)	(2.1)	(1.7)	(2.2)	(5.4)	(5.8)	(2.2)	(2.9)	(4.8)	(6.2)	(4.5)	(5.4)	(2.5)	(4.8)	(6.4)	(5.7)	(3.4)	(4.3)	(3.3)	(4.2)
Diabetes mellitus	<0.1	<0.1	0.4	0.6	<0.1	<0.1	0.2	0.3	0.6	0.7	0.3	0.3	0.5	0.7	0.2	<0.1	0.3	0.4	0.2	0.3
	(0)	(0)	(1.7)	(4.1)	(0)	(0)	(1.2)	(3.0)	(5.8)	(9.6)	(2.7)	(4.2)	(1.5)	(3.2)	(3.1)	(0)	(2.4)	(5.2)	(1.5)	(2.9)
Stomach cancer	0.3	0.1	0.1	<0.1	0.6	0.3	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0	0	0.2	<0.1	0.2	0.1
	(1.9)	(1.5)	(0.5)	(0)	(5.3)	(6.1)	(0)	(0)	(1.8)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0)	(1.7)	(0)	(1.4)	(1.4)
Chronic kidney disease due to diabetes	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1
	(0)	(0)	(0.6)	(1.2)	(0)	(0)	(0)	(1.0)	(1.5)	(3.1)	(1.3)	(1.9)	(0.3)	(0.7)	(0)	(0)	(0.9)	(1.8)	(0)	(0)
Cirrhosis due to hepatitis B	0.1	<0.1	0.2	0.2	0.1	<0.1	0.2	0.2	<0.1	<0.1	0.2	0.1	0.3	0.2	0	0	0.2	<0.1	0.1	<0.1
	(0.8)	(0)	(1.1)	(1.3)	(1.1)	(0)	(0.8)	(1.4)	(0)	(0)	(1.8)	(1.3)	(0.8)	(1.1)	(0)	(0)	(1.3)	(0)	(0.8)	(0)
Cirrhosis due to hepatitis C	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.1	0.2	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
	(0)	(0)	(1.1)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0)	(1.7)	(2.3)	(0.5)	(0.8)	(0)	(0)	(1.0)	(0)	(0)	(0)
Rheumatic heart disease	<0.1	<0.1	0.4	0.3	0.2	<0.1	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	0.1	<0.1
	(0)	(0)	(1.9)	(1.7)	(1.5)	(0)	(1.6)	(1.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.8)	(0)
Cervix uteri cancer	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	0.2	0.3	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.4)	(1.4)	(0)	(0)	(0.8)	(1.5)	(0)	(0)	(0.8)	(0)	(0)	(0)
Liver cancer secondary to hepatitis B	<0.1	<0.1	<0.1	<0.1	0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0.1	<0.1	0.1	<0.1
	(0)	(0)	(0)	(0)	(3.3)	(2.3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.9)	(0)	(0.7)	(0)
Mouth and oropharynx cancers	<0.1	<0.1	0.1	0.1	<0.1	0	0.1	0.2	<0.1	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.7)	(0.9)	(0)	(0)	(0.8)	(1.6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Suicide	0.7	0.2	0.2	<0.1	0.2	0	0.3	0.2	0	0	0	0	0.1	<0.1	<0.1	0.2	<0.1	0	0.2	<0.1
	(5.3)	(2.8)	(0.8)	(0)	(1.6)	(0)	(1.7)	(1.4)	(0)	(0)	(0)	(0)	(0.4)	(0)	(0)	(5.3)	(0)	(0)	(1.1)	(0)
Larynx cancer	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Liver cancer secondary to hepatitis C	0	0	<0.1	<0.1	<0.1	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Trachea, bronchus, lung cancers	0.2	<0.1	0	0	0.2	0.2	0	0	0	0	0	0	0	0	0.4	<0.1	0	0	0	0
	(1.6)	(0)	(0)	(0)	(1.9)	(4.3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(6.5)	(0)	(0)	(0)	(0)	(0)
Total impact of IMH-8	0.9	0.4	8.2	4.1	1.4	0.1	10	3.9	2.6	1.4	2.5	1.0	21	11	0.3	0.1	5.2	2.2	6.8	3.3
	(6.6)	(5.4)	(40)	(28)	(13)	(3.2)	(52)	(34)	(23)	(20)	(20)	(13)	(66)	(51)	(6.0)	(3.4)	(42)	(31)	(43)	(34)
Lower respiratory infections	0.3	0.1	1.7	0.7	0.5	<0.1	1.7	0.6	0.7	0.7	0.7	0.3	3.3	2.3	<0.1	0	1.0	0.5	1.3	0.7
	(2.4)	(1.9)	(8.3)	(4.9)	(4.5)	(0)	(8.7)	(5.0)	(6.7)	(9.1)	(5.3)	(3.7)	(10)	(11)	(0)	(0)	(8.5)	(7.7)	(8.1)	(6.9)
Diarrheal diseases	<0.1	0	1.7	0.8	0.1	<0.1	2.9	1.1	0.3	<0.1	0.3	<0.1	3.2	1.6	0	<0.1	0.7	0.3	1.2	0.5
	(0)	(0)	(8.3)	(5.2)	(1.0)	(0)	(15)	(9.8)	(2.6)	(0)	(2.4)	(0)	(10)	(7.4)	(0)	(0)	(5.9)	(3.7)	(7.7)	(5.4)
Tuberculosis	0.2	<0.1	0.9	0.4	0.1	<0.1	1.6	0.8	0.2	<0.1	0.1	<0.1	1.7	1.4	<0.1	0	1.4	0.5	0.8	0.4
	(1.5)	(0)	(4.4)	(2.8)	(1.4)	(0)	(8.2)	(7.2)	(1.4)	(0)	(1.0)	(0)	(5.3)	(6.4)	(0)	(0)	(11)	(7.6)	(4.9)	(4.6)
Preterm birth complications	0.2	<0.1	1.1	0.8	0.2	<0.1	1.2	0.6	0.5	0.2	0.6	0.2	1.1	0.8	0.1	<0.1	0.5	0.2	0.7	0.4
	(1.2)	(0)	(5.3)	(5.4)	(2.2)	(0)	(5.9)	(5.5)	(4.2)	(2.5)	(4.6)	(2.9)	(3.4)	(3.6)	(1.9)	(0)	(4.3)	(3.3)	(4.4)	(4.4)
Birth asphyxia and birth trauma	<0.1	<0.1	1.1	0.6	0.3	<0.1	0.9	0.3	0.2	<0.1	0.3	0.1	1.1	0.8	<0.1	0	0.5	0.2	0.6	0.3
	(0)	(0)	(5.2)	(3.7)	(2.8)	(0)	(4.7)	(2.4)	(1.9)	(0)	(2.6)	(1.9)	(3.6)	(3.9)	(0)	(0)	(3.7)	(2.6)	(3.9)	(3.5)
HIV/AIDS	<0.1	0.2	0	<0.1	<0.1	<0.1	0.3	<0.1	0.3	0.2	<0.1	<0.1	5.2	1.5	0.1	<0.1	0.2	0.1	0.7	0.2
	(0)	(2.2)	(0)	(0)	(0)	(0)	(1.4)	(0)	(3.0)	(2.3)	(0)	(0)	(17)	(7.1)	(2.1)	(0)	(1.8)	(2.0)	(4.1)	(2.5)
Malaria	0	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.3	1.1	0	<0.1	<0.1	<0.1	0.4	0.2
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7.4)	(5.2)	(0)	(0)	(0)	(0)	(2.6)	(2.1)
Neonatal sepsis and infections	<0.1	<0.1	0.4	0.3	<0.1	0	0.5	0.2	0.2	<0.1	0.2	<0.1	0.4	0.4	<0.1	<0.1	0.3	0.1	0.3	0.2
	(0)	(0)	(2.1)	(2.3)	(0)	(0)	(2.5)	(1.6)	(1.4)	(0)	(1.3)	(0)	(1.3)	(1.8)	(0)	(0)	(2.1)	(1.6)	(1.7)	(1.8)
Vaccine preventable diseases	<0.1	<0.1	0.7	0.2	<0.1	<0.1	0.6	<0.1	<0.1	<0.1	0.2	<0.1	1.7	0.6	<0.1	<0.1	0.4	0.1	0.5	0.2
	(0)	(0)	(3.5)	(1.1)	(0)	(0)	(2.9)	(0)	(0)	(0)	(1.4)	(0)	(5.3)	(2.8)	(0)	(0)	(2.9)	(1.5)	(3.3)	(1.8)
Maternal conditions	<0.1	<0.1	0.4	0.2	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	0.9	0.4	<0.1	<0.1	0.1	<0.1	0.2	<0.1
	(0)	(0)	(1.8)	(1.0)	(0)	(0)	(1.5)	(0)	(0)	(0)	(0)	(0)	(2.7)	(1.8)	(0)	(0)	(0.9)	(0)	(1.1)	(0)
Other neonatal conditions	<0.1	0	0.2	0.1	<0.1	0	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	(0)	(0)	(0.9)	(0.8)	(0)	(0)	(1.0)	(0)	(0)	(0)	(0.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.6)	(0)
Total impact of other causes	3.2	1.5	3.8	2.8	1.7	0.5	3.7	2.0	3.8	2.7	2.5	1.6	6.0	5.0	1.5	1.6	2.3	1.3	2.9	1.8
	(23)	(21)	(18)	(19)	(16)	(12)	(19)	(18)	(34)	(37)	(19)	(20)	(19)	(23)	(27)	(50)	(19)	(18)	(18)	(19)
Interpersonal violence	0.3	<0.1	0.2	0.1	<0.1	0	0.1	0.1	1.0	1.0	0.2	0.1	0.4	0.4	0.2	0.1	0.2	0.1	0.2	0.2

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
	(2.3)	(0)	(1.0)	(1.0)	(0)	(0)	(0.7)	(0.9)	(9.1)	(14)	(1.3)	(1.7)	(1.2)	(1.8)	(3.4)	(4.5)	(1.4)	(1.9)	(1.4)	(2.2)
Hypertensive heart disease	<0.1	<0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.2	0.2	0.4	0.4	0.4	0.5	<0.1	<0.1	0.2	0.2	0.2	0.2
	(0)	(0)	(1.1)	(1.6)	(2.2)	(6.2)	(0.6)	(1.0)	(1.6)	(2.6)	(3.5)	(5.5)	(1.1)	(2.1)	(0)	(0)	(1.2)	(2.8)	(1.0)	(2.1)
Other chronic kidney disease	<0.1	<0.1	0.3	0.4	<0.1	<0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.2
	(0)	(0)	(1.3)	(2.4)	(0)	(0)	(1.1)	(2.0)	(2.1)	(4.1)	(2.5)	(4.0)	(0.7)	(1.4)	(1.8)	(3.2)	(1.5)	(3.3)	(0.9)	(1.9)
Asthma	<0.1	<0.1	0.3	0.2	<0.1	<0.1	0.4	0.4	<0.1	<0.1	0.3	0.2	0.3	0.3	<0.1	<0.1	0.3	0.2	0.2	0.1
	(0)	(0)	(1.4)	(1.3)	(0)	(0)	(2.2)	(3.4)	(0)	(0)	(2.1)	(1.9)	(0.9)	(1.2)	(0)	(0)	(2.5)	(3.3)	(1.1)	(1.5)
Other unintentional injuries	0.3	0.1	0.3	0.2	0.2	<0.1	0.4	0.2	0.3	0.1	0.2	<0.1	0.3	0.3	<0.1	<0.1	0.1	<0.1	0.2	0.1
	(2.5)	(1.8)	(1.5)	(1.5)	(1.7)	(0)	(2.0)	(2.2)	(2.7)	(1.7)	(1.3)	(0)	(1.0)	(1.4)	(0)	(0)	(1.0)	(0)	(1.4)	(1.4)
Meningitis	<0.1	<0.1	0.4	0.2	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	0.1	<0.1	0.9	0.5	<0.1	0	0.2	<0.1	0.3	0.1
	(0)	(0)	(2.0)	(1.3)	(0)	(0)	(1.5)	(0)	(0)	(0)	(0.9)	(0)	(2.7)	(2.2)	(0)	(0)	(1.3)	(0)	(1.7)	(1.4)
Falls	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0.1	0.1
	(0.9)	(0)	(0)	(0)	(0)	(2.9)	(1.6)	(3.4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.7)	(1.3)
Drowning	0.2	<0.1	0.1	<0.1	0.3	0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.3	0.1	0.2	0.1
	(1.7)	(0)	(0.7)	(0)	(3.1)	(3.1)	(1.1)	(1.0)	(1.0)	(0)	(0)	(0)	(0.4)	(0.5)	(0)	(0)	(2.1)	(2.1)	(1.2)	(1.1)
Congenital heart anomalies	0.1	<0.1	0.1	0.1	0.2	<0.1	0.1	0.1	0.2	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1
	(0.8)	(0)	(0.7)	(0.8)	(1.8)	(0)	(0.7)	(0.9)	(1.7)	(1.8)	(1.8)	(1.6)	(0)	(0)	(0)	(0)	(1.1)	(1.7)	(0.8)	(0)
Other congenital anomalies	<0.1	<0.1	0.1	<0.1	<0.1	0	0.1	<0.1	0.2	0.1	0.2	0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
	(0)	(0)	(0.5)	(0)	(0)	(0)	(0.6)	(0)	(1.4)	(1.5)	(1.7)	(1.7)	(0.4)	(0.8)	(0)	(0)	(0)	(0)	(0.7)	(0)
Protein-energy malnutrition	<0.1	0	0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.3	0.1	<0.1	<0.1	0.5	0.3	<0.1	<0.1	0.3	<0.1	0.2	<0.1
	(0)	(0)	(0.5)	(0)	(0)	(0)	(1.0)	(0)	(2.4)	(1.5)	(0)	(0)	(1.6)	(1.4)	(0)	(0)	(2.5)	(0)	(1.2)	(0)
Other liver cirrhosis	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	0.2	0.2	<0.1	<0.1	0.1	0.1	<0.1	<0.1
	(0)	(0)	(0.7)	(1.0)	(0)	(0)	(0.6)	(0)	(0)	(0)	(1.1)	(1.8)	(0.5)	(0.8)	(0)	(0)	(0.9)	(1.5)	(0)	(0)
Esophagus cancer	<0.1	0	<0.1	<0.1	0.3	0.3	<0.1	<0.1	<0.1	0	0	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(3.3)	(6.0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Peptic ulcer disease	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(1.1)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other infectious diseases	0	0	<0.1	<0.1	0	0	<0.1	0	<0.1	<0.1	0	0	0.2	0.3	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.7)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0)
Exposure to mechanical forces	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Paralytic ileus and intestinal obstruction	<0.1	<0.1	<0.1	<0.1	<0.1	0	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)
Neural tube defects	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.4)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)
Fire, heat and hot substances	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.8)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Other urinary diseases	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Collective violence and legal intervention	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(1.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2.6)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Encephalitis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(1.1)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Poisonings	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
STDs excluding HIV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Sickle cell disorders and trait	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.4)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)
Cardiomyopathy, myocarditis, endocarditis	0.3	0.4	<0.1	<0.1	0	0	0	0	0.1	<0.1	<0.1	0	<0.1	<0.1	0.1	<0.1	<0.1	0	<0.1	<0.1
	(2.5)	(5.2)	(0)	(0)	(0)	(0)	(0)	(0)	(1.1)	(0)	(0)	(0)	(0)	(0)	(2.3)	(0)	(0)	(0)	(0)	(0)
Cirrhosis due to alcohol use	<0.1	0.1	<0.1	<0.1	0	0	<0.1	<0.1	0.1	<0.1	0	0	<0.1	0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(1.9)	(0)	(0)	(0)	(0)	(0)	(0)	(1.0)	(0)	(0)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)
Rabies	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other malignant neoplasms	<0.1	<0.1	<0.1	<0.1	0	0	0	0	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.4)	(1.0)	(0)	(0)	(0)	(0)	(0)	(0)
Hepatitis	0	0	0.2	<0.1	<0.1	0	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.9)	(0)	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gallbladder and biliary tract cancer	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Pancreatitis	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Dengue	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Epilepsy	<0.1	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other nutritional deficiencies	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Appendicitis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other liver cancer	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Sudden infant death syndrome	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	0	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gastritis and duodenitis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gallbladder and biliary diseases	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other haemoglobinopathies and hemolytic anemia	0	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Thalassemia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leukemia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rheumatoid arthritis	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Thyroid cancer	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Schistosomiasis	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Yellow fever	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leishmaniasis	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Acute glomerulonephritis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cysticercosis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Echinococcosis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Upper respiratory infections	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Natural disasters	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Urolithiasis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gynecological diseases	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Chagas disease	0	0	<0.1	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Cleft lip and cleft palate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Intestinal nematode infections	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
African trypanosomiasis	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Inflammatory bowel disease	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	0	0	<0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leprosy	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	0	0	0	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Testicular cancer	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	0	0	0	0	<0.1	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Eating disorders	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Lymphatic filariasis	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Vitamin A deficiency	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Onchocerciasis	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Liver cancer secondary to alcohol use	0	<0.1	0	0	<0.1	0	0	0	0	0	0	0	<0.1	0	0	0	<0.1	<0.1	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Multiple sclerosis	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Iron-deficiency anemia	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	<0.1	<0.1	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Parkinson disease	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Uncorrected refractive errors	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other hearing loss	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Anxiety disorders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Drug use disorders	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0.5	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(15)	(0)	(0)	(0)	(0)
Idiopathic intellectual disability	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Osteoarthritis	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Bipolar disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Glaucoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Breast cancer	<0.1	<0.1	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	0	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Prostate cancer	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Alcohol use disorders	0.4	0.2	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0	0	<0.1	0	0	<0.1	0
	(2.6)	(2.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Otitis media	0	0	<0.1	0	0	0	<0.1	0	<0.1	<0.1	0	0	<0.1	<0.1	0	0	<0.1	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other endocrine, blood and immune disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Ovary cancer	<0.1	<0.1	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other sense organ disorders	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Kidney cancer	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other mental and behavioral disorders	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	<0.1	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Brain and nervous system cancers	<0.1	<0.1	0	0	<0.1	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Melanoma and other skin cancers	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Colon and rectum cancers	0.1	<0.1	0	0	0	<0.1	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0
	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Migraine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Schizophrenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Back and neck pain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other circulatory diseases	<0.1	<0.1	<0.1	0	0	0	0	0	<0.1	0	<0.1	0	<0.1	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Periodontal disease	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	<0.1	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other neurological conditions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Iodine deficiency	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other neoplasms	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Benign prostatic hyperplasia	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Bladder cancer	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gout	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	0	<0.1	<0.1	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other musculoskeletal disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Dental caries	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other respiratory diseases	0	0	0	0	0	0	<0.1	<0.1	0.2	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other digestive diseases	<0.1	<0.1	0	0	0	0	0	0	0.2	0.2	0	0	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.7)	(2.6)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Down syndrome	0	0	0	0	<0.1	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Trachoma	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Corpus uteri cancer	<0.1	<0.1	<0.1	0	<0.1	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Alzheimer disease and other dementias	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(8.8)	(0)	(0)	(0)	(0)
Lymphomas, multiple myeloma	<0.1	0	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cataracts	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	<0.1	0	0	0

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other chromosomal anomalies	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Pancreas cancer	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other oral disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Note: Number of years are shown with percentage of total gap in parentheses below. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table S5. Life expectancy gap compared to the North Atlantic 2019 attributable to specific IMH-8, NCDI-7, and all other causes, men (M) and women (W) in 2019

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Total gap	9.3	5.0	15	14	4.7	3.8	11	12	8.1	6.4	7.9	7.6	21	22	3.4	2.9	7.6	6.3	9.8	9.2
Total impact of NCDI-7	6.3	4.2	7.9	7.7	3.9	3.3	5.5	5.4	3.1	3.1	5.2	5.2	5.1	5.9	1.6	1.4	3.8	3.2	4.5	4.3
	(68)	(83)	(53)	(53)	(82)	(87)	(52)	(44)	(38)	(49)	(66)	(68)	(24)	(27)	(47)	(47)	(50)	(51)	(46)	(47)
Ischemic heart disease	3.5	2.8	3.8	3.4	0.7	0.9	2.0	1.8	0.9	1.0	2.9	3.0	0.9	1.5	0.8	0.6	0.7	0.7	1.4	1.5
	(37)	(55)	(25)	(23)	(14)	(24)	(19)	(15)	(11)	(15)	(37)	(40)	(4.5)	(6.8)	(22)	(19)	(8.9)	(12)	(14)	(17)
Hemorrhagic stroke	0.4	0.2	1.0	1.2	0.9	0.7	0.5	0.6	0.3	0.3	0.2	0.3	1.0	1.2	<0.1	<0.1	0.9	0.9	0.7	0.7
	(4.6)	(4.8)	(6.3)	(8.3)	(18)	(18)	(5.2)	(5.2)	(4.1)	(5.3)	(3.1)	(3.7)	(4.9)	(5.5)	(0)	(0)	(12)	(14)	(7.2)	(7.3)
Ischemic stroke	0.9	0.9	0.6	0.7	0.6	0.5	0.2	0.3	0.3	0.3	0.6	0.8	0.4	0.6	0	<0.1	0.5	0.5	0.5	0.6
	(9.4)	(18)	(3.7)	(5.0)	(13)	(14)	(2.3)	(2.1)	(3.4)	(4.3)	(7.8)	(11)	(1.7)	(2.8)	(0)	(0)	(6.3)	(7.8)	(4.9)	(6.0)
Chronic obstructive pulmonary disease	0.1	0	0.9	0.4	0.5	0.5	1.2	1.2	0.2	0.2	0.1	<0.1	0.3	0.2	0.2	0.3	0.4	0.2	0.5	0.4
	(1.1)	(0)	(5.9)	(2.5)	(11)	(14)	(12)	(10)	(2.5)	(3.7)	(1.5)	(0)	(1.3)	(0.9)	(6.3)	(11)	(5.4)	(3.2)	(5.5)	(4.8)
Road injury	0.2	<0.1	0.4	0.3	0.4	0.1	0.5	0.2	0.7	0.2	0.6	0.2	1.3	0.7	0.3	0.1	0.5	0.1	0.6	0.2
	(2.5)	(0)	(2.4)	(1.9)	(7.9)	(3.3)	(4.4)	(1.3)	(9.0)	(2.6)	(7.4)	(3.0)	(6.4)	(3.0)	(7.3)	(4.1)	(6.3)	(1.9)	(5.8)	(2.4)
Diabetes mellitus	<0.1	<0.1	0.5	0.8	<0.1	<0.1	0.3	0.4	0.6	0.8	0.3	0.4	0.6	0.7	0.1	<0.1	0.3	0.4	0.2	0.3
	(0)	(0)	(3.2)	(5.2)	(0)	(0)	(2.9)	(3.2)	(7.4)	(12)	(3.2)	(5.4)	(3.0)	(3.3)	(3.4)	(0)	(4.0)	(6.7)	(2.3)	(3.5)
Stomach cancer	0.1	<0.1	<0.1	<0.1	0.4	0.2	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0	<0.1	0	0	<0.1	<0.1	0.2	<0.1
	(1.6)	(0)	(0)	(0)	(7.5)	(4.0)	(0)	(0)	(1.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.6)	(0)
Chronic kidney disease due to diabetes	<0.1	0	0.2	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.2	0.1	0.2	0.1	0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1
	(0)	(0)	(1.2)	(1.2)	(0)	(0)	(1.1)	(0)	(2.7)	(3.5)	(1.7)	(2.2)	(0.6)	(0.7)	(0)	(0)	(1.6)	(2.0)	(0)	(0)
Cirrhosis due to hepatitis B	<0.1	<0.1	0.2	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.1	<0.1	0.3	0.2	0	0	0.1	<0.1	0.1	<0.1
	(0)	(0)	(1.3)	(1.2)	(0)	(0)	(2.0)	(0)	(0)	(0)	(1.5)	(0)	(1.5)	(0.7)	(0)	(0)	(1.5)	(0)	(1.2)	(0)
Cirrhosis due to hepatitis C	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
	(0)	(0)	(1.2)	(1.6)	(0)	(0)	(0)	(0)	(0)	(0)	(2.5)	(2.0)	(1.0)	(0.5)	(0)	(0)	(1.6)	(0)	(0)	(0)
Rheumatic heart disease	<0.1	<0.1	0.2	0.3	<0.1	<0.1	0.2	0.3	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(1.3)	(2.1)	(0)	(0)	(1.6)	(2.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cervix uteri cancer	0	<0.1	0	<0.1	0	<0.1	0	0.1	0	0.2	0	<0.1	0	0.7	0	<0.1	0	0.1	0	0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.1)	(0)	(3.1)	(0)	(0)	(0)	(3.1)	(0)	(0)	(0)	(2.2)	(0)	(1.6)
Liver cancer secondary to hepatitis B	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(3.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.6)	(0)	(0)	(0)
Mouth and oropharynx cancers	0.1	<0.1	0.2	0.1	0	0	0.2	0.1	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(1.1)	(0)	(1.1)	(0.7)	(0)	(0)	(2.0)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Suicide	0.4	<0.1	0.1	<0.1	0	<0.1	<0.1	0.2	0	0	0	0	0.1	<0.1	0.3	<0.1	0	0	<0.1	<0.1
	(4.2)	(0)	(0.7)	(0)	(0)	(0)	(0)	(2.0)	(0)	(0)	(0)	(0)	(0.6)	(0)	(8.2)	(0)	(0)	(0)	(0)	(0)
Larynx cancer	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Liver cancer secondary to hepatitis C	0	0	0	<0.1	0	<0.1	0	0	0	<0.1	<0.1	<0.1	0	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Trachea, bronchus, lung cancers	0.2	0	0	0	0.3	<0.1	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0
	(2.7)	(0)	(0)	(0)	(5.4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4.1)	(0)	(0)	(0)	(0)
Total impact of IMH-8	0.6	0.2	4.4	3.8	0.2	0.1	3.3	4.5	1.5	1.4	1.1	1.0	11	11	0.1	0.1	2.3	2.0	3.3	3.2
	(6.3)	(3.7)	(29)	(26)	(3.6)	(2.8)	(31)	(37)	(18)	(21)	(14)	(13)	(52)	(51)	(3.3)	(3.5)	(31)	(31)	(34)	(35)
Lower respiratory infections	0.3	<0.1	0.8	0.6	<0.1	<0.1	0.5	0.7	0.6	0.7	0.3	0.3	2.4	2.3	0	0	0.6	0.5	0.7	0.6
	(2.7)	(0)	(5.5)	(4.1)	(0)	(0)	(4.4)	(5.6)	(7.9)	(11)	(3.8)	(3.7)	(11)	(10)	(0)	(0)	(7.5)	(7.8)	(6.9)	(6.9)
Diarrheal diseases	0	0	0.8	0.8	<0.1	<0.1	0.8	1.5	<0.1	<0.1	<0.1	<0.1	1.6	1.6	<0.1	<0.1	0.3	0.3	0.5	0.6
	(0)	(0)	(5.3)	(5.2)	(0)	(0)	(7.4)	(13)	(0)	(0)	(0)	(0)	(7.6)	(7.1)	(0)	(0)	(3.3)	(4.0)	(4.8)	(6.0)
Tuberculosis	0.1	<0.1	0.5	0.4	<0.1	<0.1	0.9	0.8	<0.1	<0.1	<0.1	<0.1	1.6	1.1	0	0	0.6	0.4	0.5	0.4
	(1.2)	(0)	(3.0)	(2.5)	(0)	(0)	(8.2)	(6.1)	(0)	(0)	(0)	(0)	(7.5)	(5.1)	(0)	(0)	(8.0)	(7.1)	(5.1)	(4.0)
Preterm birth complications	<0.1	<0.1	0.9	0.7	<0.1	<0.1	0.6	0.7	0.2	0.2	0.3	0.2	0.8	0.7	<0.1	<0.1	0.3	0.2	0.4	0.4
	(0)	(0)	(6.0)	(4.8)	(0)	(0)	(5.4)	(5.6)	(2.5)	(2.5)	(3.2)	(2.7)	(3.9)	(3.3)	(0)	(0)	(3.4)	(3.2)	(4.5)	(4.3)
Birth asphyxia and birth trauma	<0.1	<0.1	0.6	0.5	<0.1	<0.1	0.3	0.3	0.1	<0.1	0.2	0.1	0.9	0.8	0	0	0.2	0.2	0.4	0.3
	(0)	(0)	(4.1)	(3.3)	(0)	(0)	(2.4)	(2.4)	(1.3)	(0)	(2.0)	(1.7)	(4.2)	(3.6)	(0)	(0)	(2.7)	(2.6)	(3.6)	(3.4)
HIV/AIDS	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	<0.1	1.5	1.6	<0.1	<0.1	0.2	0.1	0.2	0.2
	(2.1)	(2.0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(2.6)	(1.8)	(0)	(0)	(6.9)	(7.2)	(0)	(0)	(2.1)	(1.8)	(2.5)	(2.5)
Malaria	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.1	1.2	<0.1	0	<0.1	<0.1	0.2	0.2
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5.2)	(5.3)	(0)	(0)	(0)	(0)	(2.0)	(2.2)
Neonatal sepsis and infections	<0.1	<0.1	0.4	0.3	0	0	0.2	0.2	<0.1	<0.1	<0.1	<0.1	0.4	0.4	<0.1	<0.1	0.1	<0.1	0.2	0.2
	(0)	(0)	(2.6)	(2.1)	(0)	(0)	(1.6)	(1.6)	(0)	(0)	(0)	(0)	(2.0)	(1.7)	(0)	(0)	(1.6)	(0)	(1.9)	(1.8)
Vaccine preventable diseases	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	0.6	<0.1	0	0.1	<0.1	0.2	0.2
	(0)	(0)	(1.0)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2.7)	(2.9)	(0)	(0)	(1.5)	(0)	(1.7)	(1.9)
Maternal conditions	0	<0.1	0	0.3	0	<0.1	0	0.1	0	<0.1	0	<0.1	0	0.9	0	<0.1	0	<0.1	0	0.2
	(0)	(0)	(0)	(2.2)	(0)	(0)	(0)	(0.9)	(0)	(0)	(0)	(0)	(0)	(3.9)	(0)	(0)	(0)	(0)	(0)	(1.7)
Other neonatal conditions	0	0	0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total impact of other causes	2.4	0.7	2.8	2.9	0.7	0.4	1.7	2.4	3.5	1.9	1.6	1.5	5.0	4.9	1.7	1.4	1.4	1.1	2.0	1.7
	(26)	(14)	(18)	(20)	(14)	(11)	(16)	(20)	(43)	(30)	(20)	(19)	(24)	(22)	(50)	(49)	(19)	(17)	(20)	(18)
Interpersonal violence	0.1	<0.1	0.2	<0.1	0	<0.1	0.2	<0.1	1.7	0.2	0.2	<0.1	0.6	0.2	0.2	<0.1	0.2	<0.1	0.3	<0.1

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
	(1.5)	(0)	(1.5)	(0)	(0)	(0)	(1.4)	(0)	(20)	(3.8)	(2.8)	(0)	(2.7)	(0.8)	(7.1)	(0)	(2.7)	(0)	(3.3)	(0)
Hypertensive heart disease	<0.1	<0.1	0.2	0.3	0.2	0.3	<0.1	0.2	0.2	0.2	0.4	0.5	0.3	0.7	0.1	<0.1	0.2	0.2	0.2	0.2
	(0)	(0)	(1.3)	(1.9)	(4.7)	(8.9)	(0)	(1.4)	(2.2)	(3.2)	(5.1)	(6.0)	(1.3)	(3.0)	(4.0)	(0)	(2.5)	(3.0)	(1.7)	(2.5)
Other chronic kidney disease	<0.1	<0.1	0.4	0.3	<0.1	<0.1	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.1	<0.1	0.2	0.2	0.2	0.2
	(0)	(0)	(2.4)	(2.3)	(0)	(0)	(2.4)	(1.6)	(3.6)	(4.7)	(3.7)	(4.4)	(1.5)	(1.3)	(3.1)	(0)	(2.9)	(3.8)	(1.8)	(1.9)
Asthma	<0.1	<0.1	0.2	0.2	<0.1	<0.1	0.3	0.5	<0.1	<0.1	0.2	0.1	0.2	0.3	<0.1	<0.1	0.2	0.2	0.1	0.2
	(0)	(0)	(1.5)	(1.2)	(0)	(0)	(3.0)	(3.7)	(0)	(0)	(2.1)	(1.8)	(1.0)	(1.4)	(0)	(0)	(2.9)	(3.6)	(1.2)	(1.7)
Other unintentional injuries	0.2	<0.1	0.3	0.2	<0.1	0	0.3	0.2	0.2	<0.1	<0.1	<0.1	0.3	0.2	<0.1	<0.1	<0.1	0	0.2	<0.1
	(2.4)	(0)	(1.8)	(1.3)	(0)	(0)	(2.4)	(2.0)	(2.1)	(0)	(0)	(0)	(1.6)	(1.1)	(0)	(0)	(0)	(0)	(1.7)	(0)
Meningitis	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.5	0.5	0	0	<0.1	<0.1	0.1	0.1
	(0)	(0)	(1.3)	(1.2)	(0)	(0)	(0)	(0.8)	(0)	(0)	(0)	(0)	(2.2)	(2.1)	(0)	(0)	(0)	(0)	(1.4)	(1.4)
Falls	0.1	0	<0.1	<0.1	0.1	0.1	0.3	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1
	(1.1)	(0)	(0)	(0)	(3.1)	(2.9)	(3.3)	(3.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.3)	(1.2)
Drowning	0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	<0.1
	(1.3)	(0)	(0)	(0)	(3.5)	(2.6)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0.6)	(0)	(0)	(0)	(2.4)	(1.6)	(1.3)	(0)
Congenital heart anomalies	<0.1	<0.1	0.1	0.1	<0.1	0.1	<0.1	0.1	0.1	0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1
	(0)	(0)	(0.8)	(0.8)	(0)	(2.7)	(0)	(0.9)	(1.6)	(2.0)	(1.8)	(1.5)	(0.5)	(0)	(0)	(0)	(1.6)	(1.8)	(1.0)	(0)
Other congenital anomalies	<0.1	<0.1	0.1	<0.1	0	0	<0.1	<0.1	0.1	0.1	0.1	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(1.4)	(1.6)	(1.9)	(1.5)	(0.9)	(0.6)	(0)	(0)	(0)	(0)	(0)	(0)
Protein-energy malnutrition	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0.3	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.2)	(1.8)	(0)	(0)	(1.3)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0)
Other liver cirrhosis	<0.1	<0.1	<0.1	0.2	<0.1	0	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.2	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
	(0)	(0)	(0)	(1.4)	(0)	(0)	(0)	(0)	(0)	(0)	(1.4)	(2.1)	(0.8)	(0.9)	(0)	(0)	(0)	(1.9)	(0)	(0)
Esophagus cancer	<0.1	0	<0.1	<0.1	0.3	0.2	0	<0.1	0	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(6.9)	(4.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Peptic ulcer disease	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(1.2)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other infectious diseases	0	0	0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0.3	0.3	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.5)	(1.2)	(0)	(0)	(0)	(0)	(0)	(0)
Exposure to mechanical forces	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.9)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Paralytic ileus and intestinal obstruction	<0.1	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Neural tube defects	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0.6)	(0)	(0)	(0)	(0)	(0)	(0)
Fire, heat and hot substances	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Other urinary diseases	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0.1	0.2	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.3)	(2.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Collective violence and legal intervention	<0.1	<0.1	0.2	0.2	<0.1	0	<0.1	<0.1	<0.1	<0.1	0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(1.5)	(1.5)	(0)	(0)	(0)	(0)	(0)	(0)	(3.5)	(1.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Encephalitis	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.7)	(0)	(0)	(0)	(1.1)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Poisonings	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
STDs excluding HIV	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Sickle cell disorders and trait	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0.6)	(0)	(0)	(0)	(0)	(0)	(0)
Cardiomyopathy, myocarditis, endocarditis	0.5	0.2	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1
	(5.5)	(4.2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cirrhosis due to alcohol use	0.2	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0.1	<0.1	0	0	0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(2.1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.7)	(0)	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rabies	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other malignant neoplasms	<0.1	<0.1	0.1	<0.1	0	0	0	0	0	<0.1	<0.1	<0.1	0.2	0.2	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0.7)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.9)	(1.1)	(0)	(0)	(0)	(0)	(0)	(0)
Hepatitis	0	0	<0.1	0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gallbladder and biliary tract cancer	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	0	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Pancreatitis	0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1
	(1.2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Dengue	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Epilepsy	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other nutritional deficiencies	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Appendicitis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other liver cancer	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Sudden infant death syndrome	<0.1	<0.1	<0.1	<0.1	0	0	0	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gastritis and duodenitis	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gallbladder and biliary diseases	<0.1	<0.1	0	<0.1	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other haemoglobinopathies and hemolytic anemia	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Thalassemia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leukemia	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Rheumatoid arthritis	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Thyroid cancer	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Schistosomiasis	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Yellow fever	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leishmaniasis	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Acute glomerulonephritis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cysticercosis	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Echinococcosis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Upper respiratory infections	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0	0	<0.1	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Natural disasters	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Urolithiasis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gynecological diseases	0	<0.1	0	<0.1	0	<0.1	0	<0.1	0	<0.1	0	<0.1	0	<0.1	0	0	0	<0.1	0	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Chagas disease	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Cleft lip and cleft palate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Intestinal nematode infections	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
African trypanosomiasis	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Inflammatory bowel disease	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Leprosy	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Testicular cancer	<0.1	0	<0.1	0	0	0	<0.1	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Eating disorders	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Lymphatic filariasis	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Vitamin A deficiency	<0.1	<0.1	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Onchocerciasis	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other oral disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Anxiety disorders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Alzheimer disease and other dementias	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4.3)	(13)	(0)	(0)	(0)	(0)
Brain and nervous system cancers	<0.1	<0.1	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Pancreas cancer	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Iron-deficiency anemia	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	<0.1	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Colon and rectum cancers	0.1	<0.1	0	0	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(1.3)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Drug use disorders	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.3	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(18)	(11)	(0)	(0)	(0)	(0)
Alcohol use disorders	0.3	<0.1	<0.1	0	0	0	0	0	<0.1	0	0	0	0	0	<0.1	<0.1	0	0	0	0

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
	(3.4)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other endocrine, blood and immune disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Uncorrected refractive errors	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Osteoarthritis	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Dental caries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Ovary cancer	0	<0.1	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Corpus uteri cancer	0	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Prostate cancer	<0.1	0	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.5)	(0)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Otitis media	0	0	<0.1	0	0	0	0	0	<0.1	<0.1	0	0	<0.1	<0.1	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other neurological conditions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Liver cancer secondary to alcohol use	<0.1	<0.1	0	<0.1	0	0	0	0	0	<0.1	0	0	0	<0.1	0	0	<0.1	<0.1	0	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Cataracts	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Down syndrome	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Iodine deficiency	0	<0.1	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Migraine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Benign prostatic hyperplasia	<0.1	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Gout	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Schizophrenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

	Central & Eastern Europe		Central Asia		China		India		Latin America & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Other chromosomal anomalies	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Trachoma	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other digestive diseases	<0.1	0	0	0	0	0	0	0	0.2	0.2	0	0	<0.1	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(2.4)	(2.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Kidney cancer	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Bipolar disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other circulatory diseases	<0.1	0	0	<0.1	0	0	0	0	0	0	0	<0.1	0	<0.1	0	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other sense organ disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Back and neck pain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Glaucoma	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other neoplasms	0	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Melanoma and other skin cancers	<0.1	<0.1	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other respiratory diseases	0	0	0	0	0	0	0	<0.1	<0.1	0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1.9)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Parkinson disease	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	0	<0.1	0	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other mental and behavioral disorders	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	0	0	0	0	<0.1	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Multiple sclerosis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Lymphomas, multiple myeloma	0	0	<0.1	0	0	0	0	0	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other hearing loss	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Other musculoskeletal disorders	0	0	0	0	0	0	0	0	<0.1	<0.1	0	0	0	0	<0.1	<0.1	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Bladder cancer	<0.1	0	0	0	0	0	0	0	0	0	<0.1	<0.1	0	<0.1	0	0	0	0	0	0

	Central & Eastern Europe		Central Asia		China		India		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Sub-Saharan Africa		United States		Western Pacific & SE Asia		World	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Breast cancer	0	<0.1	0	0.1	<0.1	0	<0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0
	(0)	(0)	(0)	(0.8)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0)	(0)	(0)	(0)	(0)	(0)
Idiopathic intellectual disability	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Periodontal disease	0	0	0	0	0	0	0	0	<0.1	0	0	0	0	0	<0.1	0	0	<0.1	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Note: Number of years are shown with percentage of total gap in parentheses below. Men were compared to men in the North Atlantic and women to women in the North Atlantic. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table S6A. Gap in probability of premature death compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, 2000 and 2019

	China		India		Sub-Saharan Africa		United States		World	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Total gap	16	6.1	34	22	51	37	10	7.2	26	16
Total impact of-	13	4.9	27	17	41	28	6.8	3.5	20	12
NCDI-7 and IMH-8	(81)	(81)	(80)	(80)	(79)	(76)	(66)	(49)	(79)	(79)
Total impact of NCDI-7	12	4.7	14	12	12	12	6.2	3.2	12	8.0
	(71)	(78)	(41)	(56)	(23)	(32)	(61)	(45)	(45)	(51)
Atherosclerotic CVDs	1.9	1.4	5.2	5.1	3.2	3.3	3.0	1.3	4.1	3.2
	(12)	(23)	(15)	(24)	(6.2)	(9.0)	(30)	(18)	(16)	(20)
Hemorrhagic stroke	3.2	1.2	2.3	1.7	3.0	2.8	0.4	0.2	2.3	1.5
	(19)	(20)	(6.7)	(8.0)	(5.8)	(7.4)	(3.5)	(2.6)	(8.9)	(9.5)
Infection-related NCDs	2.8	1.0	1.9	1.4	2.3	2.2	0.2	0.3	1.9	1.2
	(17)	(17)	(5.5)	(6.5)	(4.4)	(6.0)	(2.0)	(3.5)	(7.4)	(7.4)
Diabetes	0.3	0.2	1.0	1.1	1.7	2.0	0.5	0.5	0.8	0.9
	(1.8)	(2.7)	(2.8)	(5.3)	(3.2)	(5.3)	(5.1)	(6.5)	(3.0)	(5.5)
Road injury	0.8	0.5	0.8	0.7	1.4	1.9	0.6	0.4	0.8	0.8
	(5.2)	(8.1)	(2.2)	(3.2)	(2.6)	(5.1)	(6.0)	(6.0)	(3.3)	(4.8)
Tobacco-related NCDs	2.3	0.5	3.1	2.5	0.7	0.6	1.5	0.5	1.4	0.7
	(14)	(8.9)	(9.2)	(12)	(1.3)	(1.5)	(15)	(6.4)	(5.4)	(4.7)
Suicide	0.2	0	0.5	0.2	0.3	0.2	<0.1	0.4	0.3	<0.1
	(1.5)	(0)	(1.5)	(1.1)	(0.6)	(0.5)	(0)	(5.1)	(1.2)	(0)
Total impact of IMH-8	1.7	0.2	13	5.3	29	16	0.5	0.3	8.7	4.4
	(10)	(3.4)	(39)	(25)	(56)	(44)	(5.2)	(3.8)	(34)	(28)
Neonatal conditions	0.6	<0.1	2.2	1.0	1.9	1.7	0.2	<0.1	1.5	1.0
	(3.5)	(0)	(6.5)	(4.8)	(3.7)	(4.5)	(1.5)	(0)	(6.1)	(6.1)
Lower respiratory infections	0.5	<0.1	2.0	0.9	4.4	3.4	0.1	<0.1	1.5	0.9
	(2.9)	(0)	(5.7)	(4.1)	(8.5)	(9.1)	(1.0)	(0)	(5.9)	(5.5)
Tuberculosis	0.4	<0.1	3.2	1.6	3.4	2.9	<0.1	0	1.6	0.8
	(2.2)	(0)	(9.3)	(7.3)	(6.7)	(7.7)	(0)	(0)	(6.2)	(5.4)
Diarrheal diseases	0.1	<0.1	4.3	1.5	4.7	2.4	<0.1	<0.1	1.6	0.7
	(0.7)	(0)	(13)	(6.9)	(9.2)	(6.5)	(0)	(0)	(6.4)	(4.4)
HIV/AIDS	<0.1	<0.1	0.5	0.2	9.6	3.0	0.3	<0.1	1.2	0.5
	(0)	(0)	(1.6)	(0.7)	(19)	(8.2)	(2.6)	(0)	(4.6)	(3.0)
Malaria	<0.1	0	0.1	<0.1	2.3	1.6	0	<0.1	0.4	0.3
	(0)	(0)	(0.3)	(0)	(4.5)	(4.3)	(0)	(0)	(1.7)	(1.6)
Vaccine preventable diseases	<0.1	<0.1	0.5	<0.1	1.3	0.5	0	<0.1	0.5	0.2
	(0)	(0)	(1.5)	(0)	(2.6)	(1.5)	(0)	(0)	(2.0)	(1.2)
Maternal conditions	<0.1	<0.1	0.4	<0.1	1.3	0.6	<0.1	<0.1	0.3	0.1
	(0)	(0)	(1.2)	(0)	(2.6)	(1.7)	(0)	(0)	(1.1)	(0.8)

Note: Probability of premature death was defined as the percentage probability of dying before age 70 years. Percentage point gaps are shown with percentage of total gap in parentheses below. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.

Table S6B. Gap in probability of premature death compared to the North Atlantic 2019 attributable to specific IMH-8 and NCDI-7, 2000 and 2019

	Central & Eastern Europe		Central Asia		Latin Amer-ica & the Caribbean		Mid. East & North Africa		Western Pacific & SE Asia	
	'00	'19	'00	'19	'00	'19	'00	'19	'00	'19
Total gap	29	16	34	25	19	12	22	12	20	13
Total impact of-	20	10	27	20	12	7.4	17	9.8	16	10
NCDI-7 and IMH-8	(70)	(67)	(79)	(78)	(63)	(60)	(79)	(79)	(80)	(81)
Total impact of NCDI-7	19	9.3	18	15	8.7	5.5	14	8.6	9.1	7.3
	(65)	(59)	(54)	(60)	(46)	(45)	(65)	(69)	(45)	(57)
Atherosclerotic CVDs	11	6.0	8.9	7.6	3.2	1.9	9.4	5.7	2.3	2.2
	(38)	(38)	(26)	(30)	(17)	(15)	(43)	(46)	(11)	(18)
Hemorrhagic stroke	2.1	0.9	3.4	2.5	1.6	0.8	1.2	0.5	2.5	2.1
	(7.3)	(5.9)	(10)	(10.0)	(8.5)	(6.8)	(5.4)	(4.2)	(12)	(16)
Infection-related NCDs	1.6	0.9	2.3	1.7	1.2	0.7	1.6	1.0	1.9	1.0
	(5.5)	(5.5)	(6.9)	(6.6)	(6.5)	(5.6)	(7.6)	(8.0)	(9.4)	(8.2)
Diabetes	0.2	0.2	1.3	1.8	1.9	1.9	1.2	1.0	1.0	1.2
	(0.6)	(1.0)	(3.7)	(7.2)	(9.8)	(16)	(5.5)	(7.8)	(4.8)	(9.7)
Road injury	0.8	0.3	0.5	0.5	1.0	0.9	1.0	0.8	0.7	0.6
	(2.6)	(2.0)	(1.6)	(2.1)	(5.1)	(7.1)	(4.7)	(6.1)	(3.5)	(4.6)
Tobacco-related NCDs	1.7	0.7	2.0	1.4	0.5	0.2	0.4	0.2	0.9	0.6
	(5.8)	(4.3)	(5.9)	(5.5)	(2.9)	(1.5)	(1.7)	(1.5)	(4.3)	(4.5)
Suicide	1.3	0.4	0.2	<0.1	0	0	0	0	0.1	0
	(4.5)	(2.8)	(0.6)	(0)	(0)	(0)	(0)	(0)	(0.5)	(0)
Total impact of IMH-8	1.7	1.1	8.5	4.6	3.3	1.9	2.9	1.2	7.0	2.9
	(5.8)	(7.1)	(25)	(18)	(17)	(15)	(14)	(9.7)	(35)	(23)
Neonatal conditions	0.2	<0.1	2.0	1.5	0.9	0.4	1.1	0.5	1.2	0.5
	(0.9)	(0)	(5.8)	(5.9)	(4.6)	(3.3)	(5.3)	(3.8)	(5.9)	(4.2)
Lower respiratory infections	0.7	0.5	1.6	0.8	0.9	0.8	0.9	0.4	1.1	0.6
	(2.4)	(3.1)	(4.7)	(3.3)	(4.7)	(6.1)	(4.1)	(3.4)	(5.2)	(4.7)
Tuberculosis	0.6	0.2	1.8	0.8	0.4	0.1	0.3	<0.1	2.8	1.0
	(2.0)	(1.3)	(5.2)	(3.0)	(1.9)	(1.1)	(1.3)	(0)	(14)	(7.9)
Diarrheal diseases	<0.1	0	1.9	0.9	0.3	0.1	0.3	<0.1	0.9	0.3
	(0)	(0)	(5.7)	(3.7)	(1.8)	(0.8)	(1.5)	(0)	(4.5)	(2.6)
HIV/AIDS	0.1	0.4	0	0.2	0.7	0.4	0	<0.1	0.4	0.3
	(0.5)	(2.5)	(0)	(0.6)	(3.6)	(3.1)	(0)	(0)	(1.9)	(2.1)
Malaria	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Vaccine preventable diseases	<0.1	<0.1	0.6	0.2	<0.1	<0.1	0.2	<0.1	0.4	0.1
	(0)	(0)	(1.8)	(0.6)	(0)	(0)	(0.8)	(0)	(1.9)	(0.9)
Maternal conditions	<0.1	<0.1	0.5	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
	(0)	(0)	(1.5)	(0.9)	(0)	(0)	(0)	(0)	(0.9)	(0)

Note: Probability of premature death was defined as the percentage probability of dying before age 70 years. Percentage point gaps are shown with percentage of total gap in parentheses below. Both 2000 and 2019 were compared to the North Atlantic in 2019. The IMH-8 are neonatal conditions, lower respiratory infections, diarrheal diseases, HIV/AIDS, tuberculosis, malaria, vaccine-preventable childhood diseases, and maternal conditions. The NCDI-7 are atherosclerotic cardiovascular diseases, hemorrhagic stroke, NCDs strongly linked to infections, NCDs strongly linked to tobacco use, diabetes, road injury, and suicide. Data Source: WHO GHE 2022 and UN WPP 2022.