Global Mortality
Report

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Introduction

Human beings are now living longer than ever before.

In 2019, the **World Bank** estimated the average global life expectancy of a newborn baby to be 73 years – the highest ever in history – and more than double the average global life expectancy from a century ago. Populations of many of the world's richest countries are now expected to live for over 80 years. In a study published in 2021, the **World Health Organization** predicted the number of people aged 80 years or older will triple to 426 million by 2050.
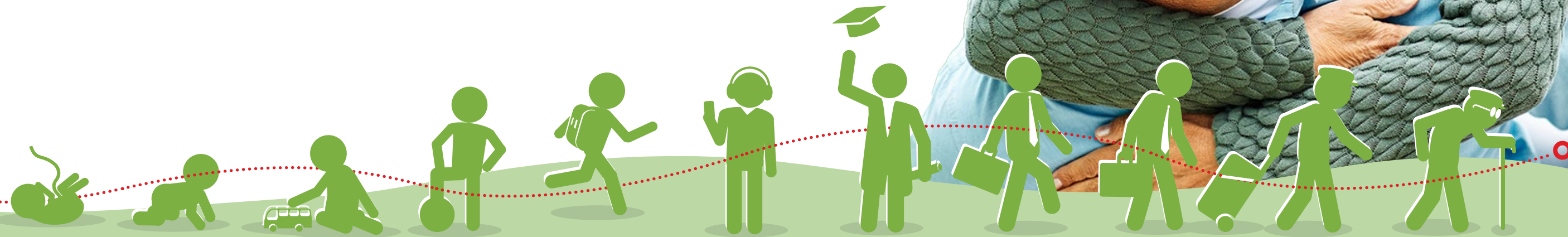
Rising levels of **obesity** and **diabetes** have made it difficult to maintain life expectancy gains

Against this backdrop, however, **another trend continues to gain traction,** as was highlighted in the OECD (Organisation for Economic Co-operation and Development) **Health Statistics 2021** report.

Even before COVID-19, **gains in life expectancy had been slowing markedly in several OECD countries over the last decade,** most notably in the United States, France, the Netherlands, Germany and the United Kingdom.

While there are a number of causes of this slowdown in life expectancy, **the primary reason is slowing improvements in heart disease and stroke** – as rising levels of obesity and diabetes have made it difficult to maintain the previous progress achieved in reducing deaths from these circulatory diseases.

> # We are living longer lives – yet we are not necessarily living healthier lives.

A 2022 report from the **McKinsey Health Institute,** *Adding Years to Life and Life to Years,* summed this up very clearly:

*"The share of our lives we spend in poor health has not diminished over time. **On average, people spend about 50% of their lives in less-than-good health, including 12% in poor health.** The best available data suggest that this ratio has not changed much in the past 50 years. The upshot is that we spend more time in absolute terms in moderate and poor health than we have at any other point in history. The situation may be gradually worsening, particularly in high-income countries, where chronic conditions now afflict growing numbers of people for a significant portion of their lives."*

This makes for a curious juxtaposition. Thanks to tremendous healthcare advancements, we are living longer lives – **yet we are not necessarily living healthier lives.** In fact, our modern lifestyles have driven diseases such as hypertension, obesity and diabetes to such levels that the potential for further gains have become increasingly difficult.

■ 2000 □ 2019*

Total Global Population increased by 26%

6,145,000,000
7,715,000,000

Total Global Deaths increased by 11%

50,715,000
56,527,000

Deaths 70 and older increased by 47% and made up half of all deaths in 2019

38% 50%

Deaths between 50 and 69 increased by 26%

23% 26%

Deaths between 15 and 49 reduced by 15%

17% 13%

Deaths under 15 reduced by 47%

21% 10%
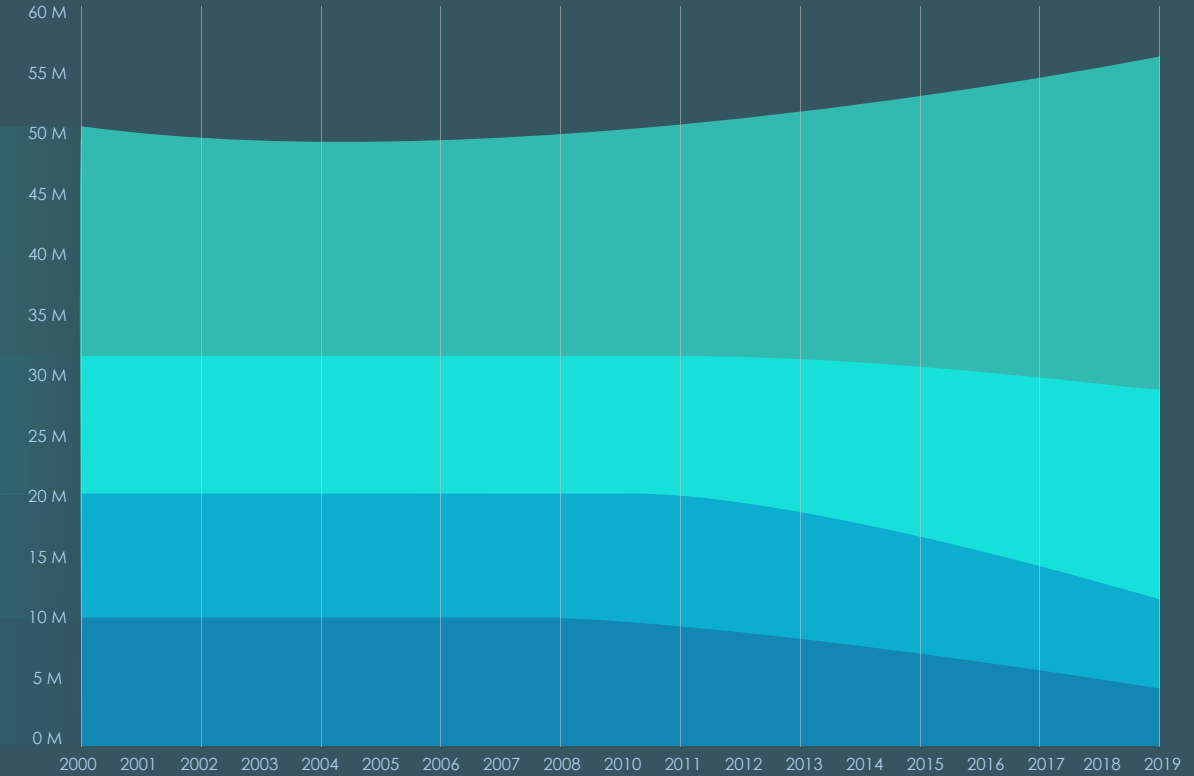
*Global mortality data analysis – in the detail we examine it – takes a good deal of time to prepare.
The latest published analysis available is for 2019, which is why this report refers to data from that year.*

60 M
55 M
50 M
45 M
40 M
35 M
30 M
25 M
20 M
15 M
10 M
5 M
0 M

2000 2001 2002 2003 2004 2005 2006 2007 2008 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Under 15 ■ 15-49 years ■ 50-69 years ■ 70+ years

The Rapid Change in Causes of Death

Causes of death can be grouped into **three** broad categories:

Injuries

Such as road accidents, homicides and suicides, deaths from conflict and terrorism, fire-related accidents and natural disasters. The number of **overall deaths** attributable to injuries **reduced by 3% from 2000 to 2019.**

Communicable Diseases (CD)

Infectious diseases such as HIV, malaria and tuberculosis, together with maternal deaths, neonatal deaths and deaths from malnutrition. **There were 5 million fewer deaths from CD in 2019 compared to 2000 (a 33% reduction),** evidencing the tremendous progress being made in the fight against infectious diseases and deaths from addressable socio-economic issues.

Non-Communicable Diseases (NCD)

Often chronic, long-term illnesses, including cardiovascular diseases, cancers, diabetes and chronic respiratory disease. **NCD killed 42 million people in 2019, 11 million more than in 2000** – arguably more than eliminating the gains made in reducing deaths from CD.
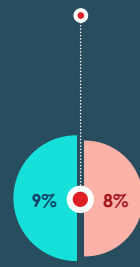
Share of death by category

■ 2000   ■ 2019

Injuries

Communicable Diseases

Non-Communicable Diseases

9% | 8%

30% | 18%

61% | 74%

Reduced by 3%

Reduced by 33%

Increased by 36%

60 M
50 M
40 M
30 M
20 M
10 M
0 M

2000 2001 2002 2003 2004 2005 2006 2007 2008 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

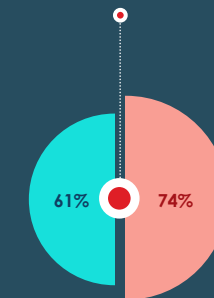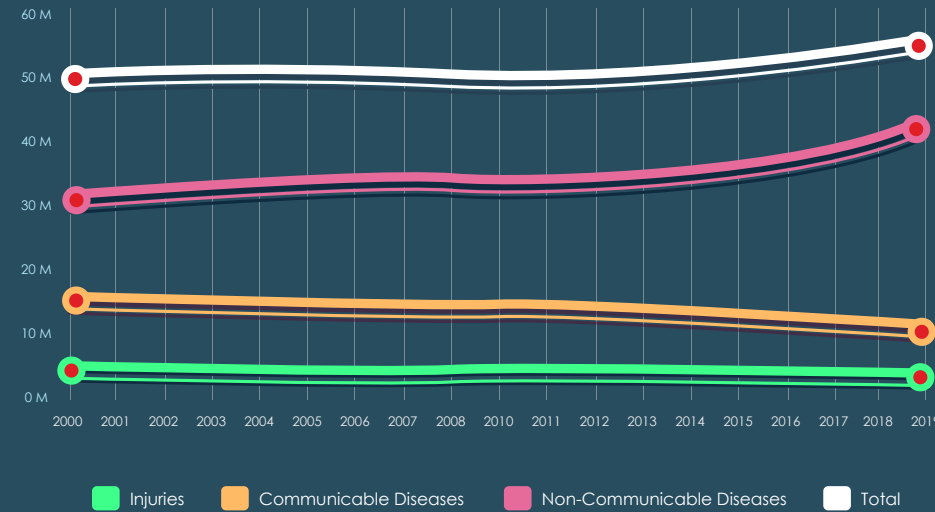■ Injuries   ■ Communicable Diseases   ■ Non-Communicable Diseases   ■ Total

Collectively, NCD accounted for 74% of global deaths in 2019.

As populations age, it is reasonable to expect that **NCD will continue to increase as the dominant cause of death.** After all, if an increasing number of people are dying over the age of 70, the cause of death for those people is increasingly likely to be an NCD – especially given the progress the world is making in combating many infectious diseases and addressable socio-economic issues.

In 2019, Communicable Diseases accounted for 18% of global deaths, a 33% reduction from 2000 to 2019.

15,3 million deaths

10,2 million deaths

Deaths from **infectious diseases** such as:

HIV/AIDS reduced by 45%

Malaria reduced by 27%

Tuberculosis reduced by 31%

Deaths from **addressable socioeconomic issues** such as:

Maternal deaths reduced by 32%

Neonatal deaths reduced by 31%

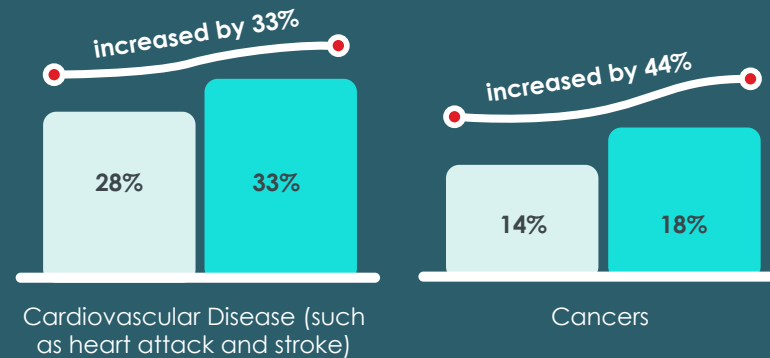*Malnutrition reduced by 57%*

unisuregroup.com

Causes of death vary significantly between countries. Broadly, NCD are the dominant cause of death in rich countries, while CD remain high in lower income countries. **This broad interpretation leads to a common misconception that NCD are most prevalent among populations of rich countries** – primarily due to unhealthy lifestyles, unhealthy diets and ageing populations.

Deaths from Non-Communicable Diseases increased by 36% from 2000 to 2019

● 2000   ● 2019

Cardiovascular Disease and Cancers caused 51% of global deaths in 2019

increased by 33%

28% 33%

Cardiovascular Disease (such as heart attack and stroke)

increased by 44%

14% 18%

Cancers

These 4 primary chronic conditions caused 81% of all NCD deaths in 2019

increased by 15%

7% 7%

Chronic Respiratory Diseases (such as COPD and asthma)

increased by 71%

2% 3%

Diabetes
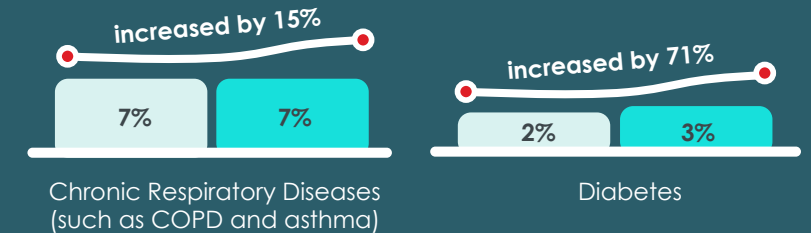
■■ Percentage of total deaths

Change in number of deaths

A report published by the **World Health Organization** in September 2022 **reveals a quite different, and quite alarming, shift in the prevalence of NCD and the distribution of deaths caused by NCD:**

"People of all age groups, regions and countries are affected by NCD. These conditions are often associated with older age groups, but evidence shows that **17 million NCD deaths occur before the age of 70 years.** Of these premature deaths, 86% are estimated to occur in low- and middle-income countries. Children, adults and the elderly are all vulnerable to the risk factors contributing to NCD, whether from unhealthy diets, physical inactivity, exposure to tobacco smoke or the harmful use of alcohol.

These diseases are driven by forces that include rapid unplanned urbanisation, globalisation of unhealthy lifestyles and population ageing. **Unhealthy diets** and **a lack of physical activity** may show up in people as raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called **metabolic risk factors** and **can lead to cardiovascular disease,** the leading NCD in terms of premature deaths."
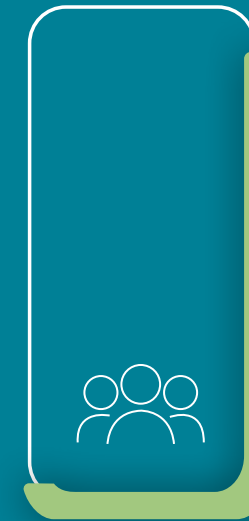
The report included the following key statistics:

NCD account for 74% of all deaths globally

77% of all NCD deaths are in low- and middle-income countries

17 million people die each year from NCD before the age of 70

86% of these premature deaths occur in low- and middle-income countries

While NCD may be the dominant cause of death in rich countries, these statistics highlight that **only 23% of all NCD deaths worldwide actually occur in rich countries.** It's clear that NCD are now the dominant cause of death everywhere and, given the pervasiveness of NCD in low- and middle-income countries, and the high cost of treatment for these chronic conditions, it is probable that this trend will accelerate, further eclipsing gains made against Communicable Diseases.

Moreover, they highlight that **61% of all premature deaths in the world are caused by NCD,** and that **40% of all NCD deaths in the world are premature.**

It's clear, therefore, that there remains a significant risk of premature death due to an NCD before the age of 70.
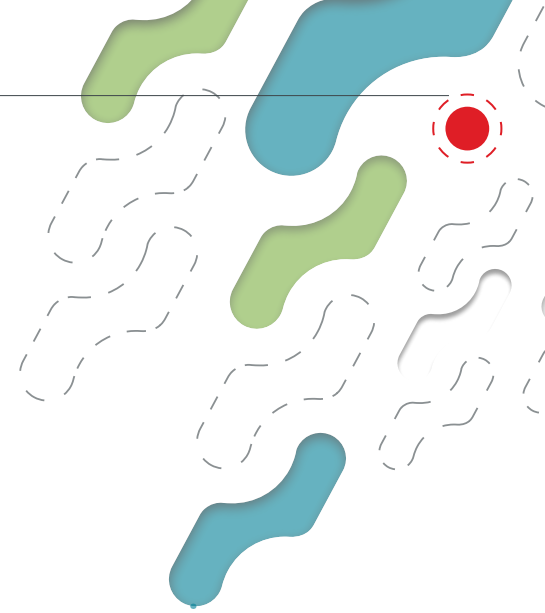
# The Prevalence of Non-Communicable Diseases

Cardiovascular Disease

Cardiovascular Disease is an umbrella term for all diseases of the circulatory system, including conditions such as coronary heart disease, peripheral vascular disease, atrial fibrillation, heart failure, stroke and vascular dementia.

Sources:
- British Heart Foundation Global CVD Factsheet August 2022
- WHO Cardiovascular diseases Fact Sheet 2021
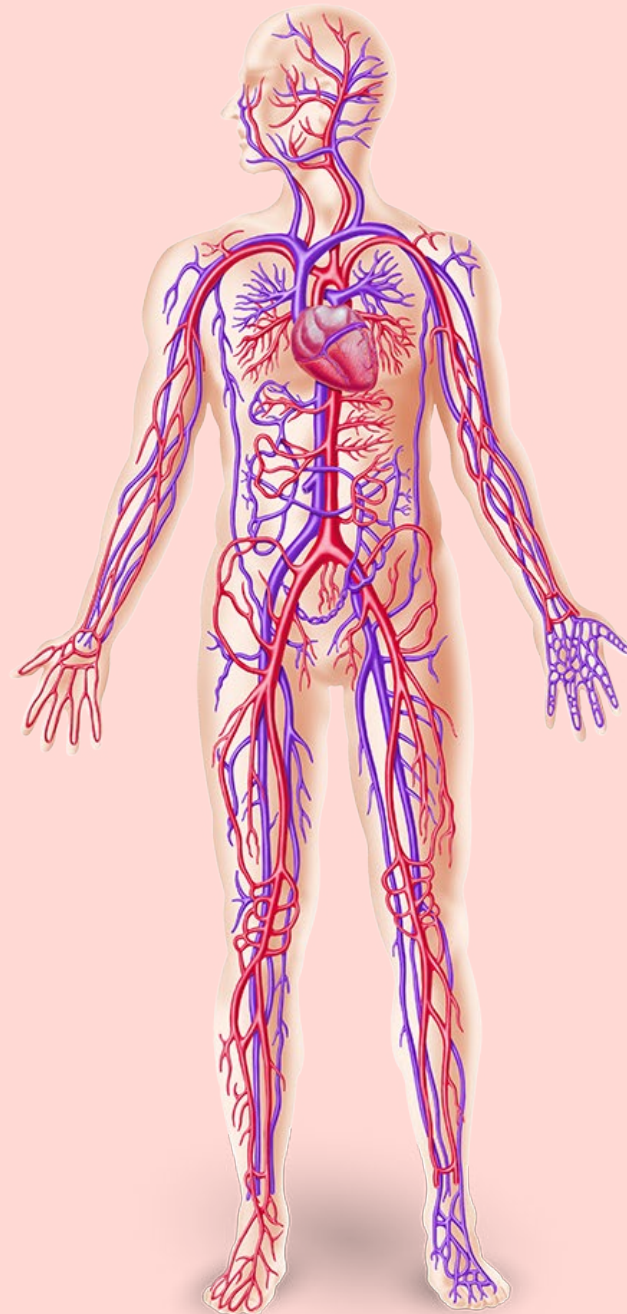
Cardiovascular Disease is **the leading cause of death** and **caused 33% (18.5 million) of global deaths in 2019** (up from 28% in 2000).

An estimated **60 million people** develop cardiovascular disease **each year** and approximately **550 million people are living with cardiovascular disease worldwide.**

Coronary Heart Disease (CHD) – the narrowing or blockage of coronary arteries – **is the most common cardiovascular disease and was the cause of 9 million deaths in 2019.** There are an estimated 200 million people worldwide living with CHD.

There are an estimated **100 million stroke survivors worldwide.** Stroke was the cause of **6.6 million** deaths in **2019.**

Cancers

A group of diseases characterised by uncontrolled growth and the spread of abnormal cells that can lead to death if untreated. The most common are breast, lung, colorectal and prostate cancers.

Sources:
- WHO Cancer Fact Sheet 2022
- International Agency for Research on Cancer
- American Cancer Society – Cancer Facts & Figures 2022

Cancer was the cause of **10 million (1 out of every 6) global deaths in 2019**, a 44% increase from 7 million deaths in 2000.

There were **18 million cancer cases diagnosed in 2020,** and the global prevalence of cancer is estimated to be 98 million people.

Lung cancer is the primary cause of death among cancers, with **1.8 million deaths in 2020 (twice that of colorectal cancer, which caused 900 thousand deaths).** The average 5-year survival rate for lung cancer is 22%.

Chronic Respiratory Diseases

Chronic respiratory diseases are incurable conditions affecting the airways and other structures of the lungs. The most common are Chronic Obstructive Pulmonary Disease (COPD), asthma, occupational lung diseases and pulmonary hypertension.

Sources:
- WHO COPD Fact Sheet 2022
- Frontiers in Public Health - Revamping of Chronic Respiratory Diseases in Low and Middle Income Countries

Chronic respiratory diseases caused **4 million deaths in 2019**, a 15% increase from 2000.

81% of these deaths were due to COPD.

COPD caused the deaths of **3.2 million people in 2019** and there are an estimated 212 million people afflicted with this disease.

With 70% of diagnosed cases and nearly 90% of COPD deaths before 70, **the burden of this disease is very heavily concentrated in low- and middle-income countries.** Inadequate access to spirometry and other factors are responsible for high degrees of under-diagnosis, to the extent that recent national surveys suggest that more than one-third of the global population may suffer from this disease.
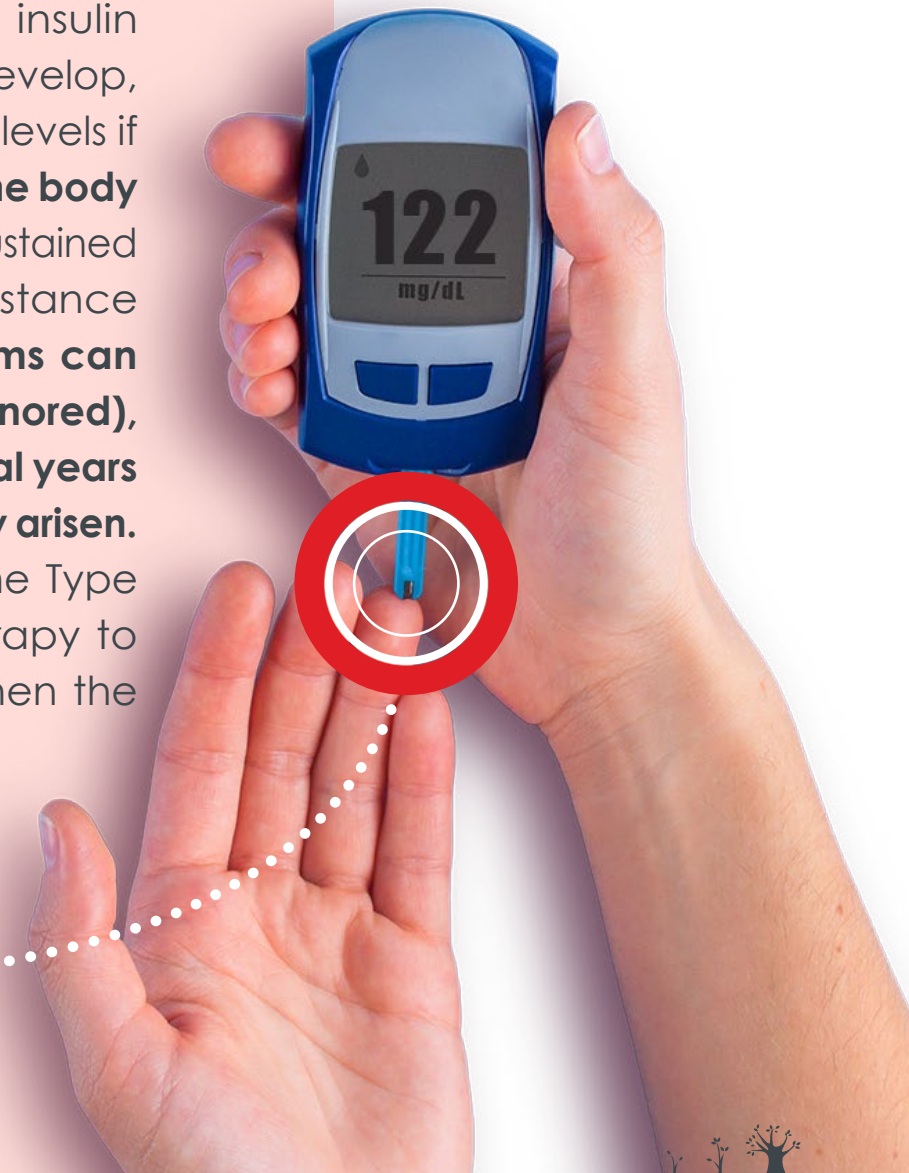
Diabetes

Type 1 Diabetes is characterised by the destruction of insulin-producing cells of the pancreas, over months or years, until no insulin is produced.

Without insulin a quick death is likely. Neither the cause nor the means to prevent it are known and there is no cure. The only treatment is the daily administration of insulin.

Type 2 Diabetes, by contrast, causes insulin resistance (ineffective use of insulin) to develop, leading to steadily increasing blood sugar levels if left untreated. **Diabetic medication helps the body use insulin more effectively.** Significant and sustained lifestyle changes can reduce insulin resistance – particularly if diagnosed early. **Symptoms can be vague and may go undetected (or ignored), delaying diagnosis of the disease for several years after onset, after complications have already arisen.** As diabetes is a progressive disease, some Type 2 diabetics may also require insulin therapy to complement other treatment, usually when the pancreas becomes impaired.
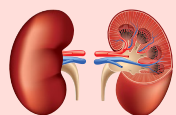
For either type, persistently elevated blood sugar can cause serious complications:

Diabetic Retinopathy
Eye disease which can lead to loss of sight if untreated.

Diabetic Nephropathy
Kidney disease resulting from damage to the kidneys due to long periods of uncontrolled blood sugar.

Diabetic Neuropathy
Nerve damage caused by long periods of high blood sugar.

Heart Attack and Stroke
High blood sugar can cause damage to the circulatory system which can lead to heart attacks and strokes.

Lower Limb Amputation
A combination of nerve and circulation damage can increase the risk of foot-related complications, which can lead to a need for amputation.
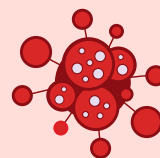
Cancers
Diabetics are at increased risk of developing certain cancers, and some cancer treatments make it more difficult to control blood sugar.

1.5 million deaths were attributed to diabetes in 2019, 70% up from 2000. However, this somewhat low number understates the serious risk diabetes represents as it is a major cause of kidney failure, heart attack and stroke. **By some estimates, diabetes significantly contributes to over 6.5 million deaths a year.**

In 1980, an estimated 108 million people were living with diabetes; **today there are 537 million.** Half of these are undiagnosed and a further 540 million have Impaired Glucose Tolerance (pre-diabetic) and at high risk of developing Type 2 diabetes.

Over 90% of diabetics have Type 2 diabetes and **75% of diabetics live in low- and middle-income countries.** Until recently, Type 2 diabetes was only seen in adults but is being diagnosed with increasing frequency in children – a clear causal link to the "globalisation of unhealthy lifestyles" referred to in WHO's 2022 report on NCD.

Sources:
- WHO Diabetes Fact Sheet 2022
- International Diabetes Federation – Diabetes Facts and Figures 2021
- Diabetes UK

Risk Factors for Death – Cause and Effect

Risk factors can compound, collectively influencing the likelihood of disease and, eventually, death.

For the purpose of this report, it's important to distinguish between *causes of death and deaths attributed to risk factors.*

Causes of death

Each death is attributed to one specific single underlying cause – the cause which initiated the series of events leading to death.

Risk factors for premature death

Risk factors for death are grouped into four broad categories: **behavioural, environmental, occupational,** and **metabolic**. Risk factors can compound, collectively influencing the likelihood of disease and, eventually, death.

For example, it should not surprise anyone that there exists a link between smoking and the risk of cancers, or that smoking increa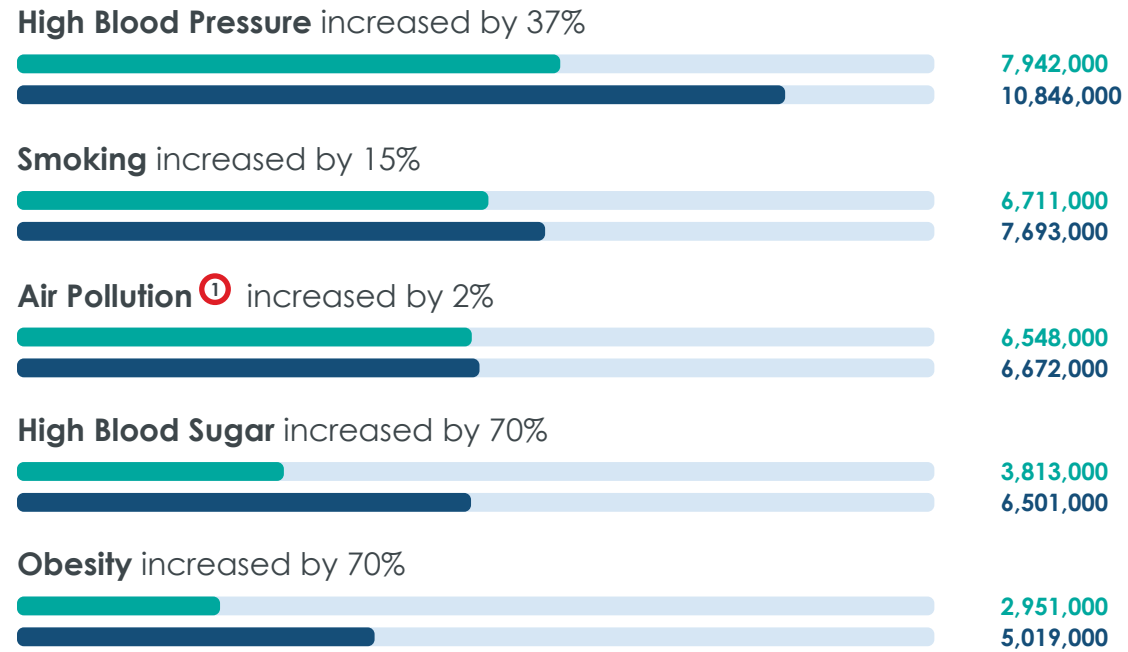ses the risk of cardiovascular disease and stroke, but it would probably surprise many that smoking increases the risk of developing Type 2 diabetes.

There is also evidence that elevated BMI increases the risk of NCD including cardiovascular disease (mainly heart attack and stroke) as well as some cancers; and evidence of hypertension and diabetes increasing the risk of heart attack and stroke.

Leading Risk Factors for Death

■ 2000 ■ 2019

High Blood Pressure increased by 37%

7,942,000
10,846,000

Smoking increased by 15%

6,711,000
7,693,000

Air Pollution ① increased by 2%

6,548,000
6,672,000

High Blood Sugar increased by 70%

3,813,000
6,501,000

Obesity increased by 70%

2,951,000
5,019,000

① ■ 2000 □ 2019

Outdoor Air Pollution increased by 57%

2,878,034
4,506,193

Household Air Pollution reduced by 39%

3,800,556
2,313,991

Air Pollution increased by 2%

6,548,000
6,672,000

While the total estimated deaths attributed to Air Pollution has hardly changed since 2000, the ratio between the two constituents making up this total risk factor has changed significantly over this period.

How primary risk factors are contributing to the rise in Non-Communicable Diseases

The next 5 pages show just how **interconnected primary risk factors are with each NCD** and how the prevalence of these risk factors contribute to the increase in the prevalence of NCD and therefore deaths caused by NCD. It is also clear that certain **risk factors compound to collectively increase the likelihood of eventual diagnosis of, or death due to a specific NCD.**

Smoking

Tobacco kills half its users.

1.3 billion (22%)
people use tobacco.

Over 80% of tobacco users live in low and middle-income countries and over 80% of smokers are men.

Cigarette smoking is the most common form of tobacco use.

Smoking causes 14% (7.7 million) of all deaths annually.

- WHO Tobacco
- CDC – Smoking and Tobacco Use

Smoking is a major risk factor for all four primary NCD:

Cardiovascular Disease

20% of CHD deaths are due to smoking. Second-hand smoke increases the risk of Cardiovascular Disease by 25-30%.

Cancers

People who smoke cigarettes are up to 30 times more likely to get, or die from, lung cancer than those who do not smoke.

Chronic Respiratory Diseases

Up to 90% of COPD is caused by smoking. Smokers are approximately 12 times more likely to die from COPD than non-smokers.

Diabetes

Smokers are up to 40% more likely to develop diabetes than non-smokers.

Air Pollution

2.4 billion people primarily rely on polluting fuels or technologies for cooking.

Death rates from air pollution have remained stable since 2000, primarily driven by improvements in indoor pollution, masking the 57% increase in deaths attributed to outdoor air pollution.

99% of the world's population live in places where air pollution levels exceed WHO guideline limits.

Air Pollution causes 12% (6.7 million) of all deaths annually.

- WHO Household Air Pollution
- WHO Outdoor Air Pollution
- Our World in Data – Air Pollution

Air pollution is a leading risk factor for the following NCD:

Cardiovascular Disease

Approximately 63% (4.2 million) deaths caused by air pollution resulted from Coronary Heart Disease or stroke.

Cancers

6% (400,000) deaths caused by air pollution deaths resulted from lung cancer.

Chronic Respiratory Diseases

19% (1.3 million) deaths caused by air pollution deaths resulted from COPD.
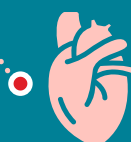
Obesity

Adult obesity is now more common than under-nutrition.

Of the world's adults, 1.9 billion (39%) are overweight and 650 million (13%) are obese.

The prevalence of obesity tripled between 1975 and 2016. If this trend continues, over 1 billion people will be obese by 2025.

Obesity causes 9% (5 million) of all deaths annually.

• WHO Obesity and Overweight
• NIH - Obesity and CVD

The global obesity epidemic is caused by the increased intake of energy-dense foods high in fat and sugars and reduced physical activity due to the increasingly sedentary nature of work, changing transportation, and mass urbanisation.

Elevated BMI is a major risk factor for:

Cardiovascular Disease

Mainly heart attack and stroke.

Cancers

Breast, colorectal and prostate as well as liver, gallbladder and kidney cancers.

Diabetes

Elevated BMI, high belly fat and a lack of physical activity significantly increase the risk of developing type 2 diabetes.

Alcohol Abuse

107 million (1.4%) people have an alcohol use disorder – 70% are men.

For many, social drinking or moderate alcohol consumption is pleasurable and holds an important role in social engagement.

Alcohol consumption is static or steadily reducing in developed countries, but has increased globally by 70% over the last 30 years, with low and middle income countries driving this trend.

Alcohol use causes 4% (3 million) of all deaths annually.

Harmful alcohol use is a causal factor in over 200 disease and injury conditions.

Cardiovascular Disease

Regular excessive alcohol use increases the risk of hypertension which increases the risk of heart attack and stroke.

Cancers

Harmful alcohol use increases the risk of breast, colorectal, liver, stomach, mouth, oesophageal, pharynx and larynx cancers.

Diabetes

Regular excessive alcohol increases the risk of developing type 2 diabetes.

- WHO Alcohol
- The Lancet Global Alcohol Exposure
- Our World in Data – Alcohol Consumption
- British Heart Foundation - Alcohol

As this chart shows, **there are strong interrelationships between numerous risk factors.** When they compound, they collectively influence the increased likelihood of disease.

Smoking

Obesity

Cancers

Cardiovascular Disease

Chronic Respiratory Diseases

Diabetes

Alcohol Abuse

Air Pollution
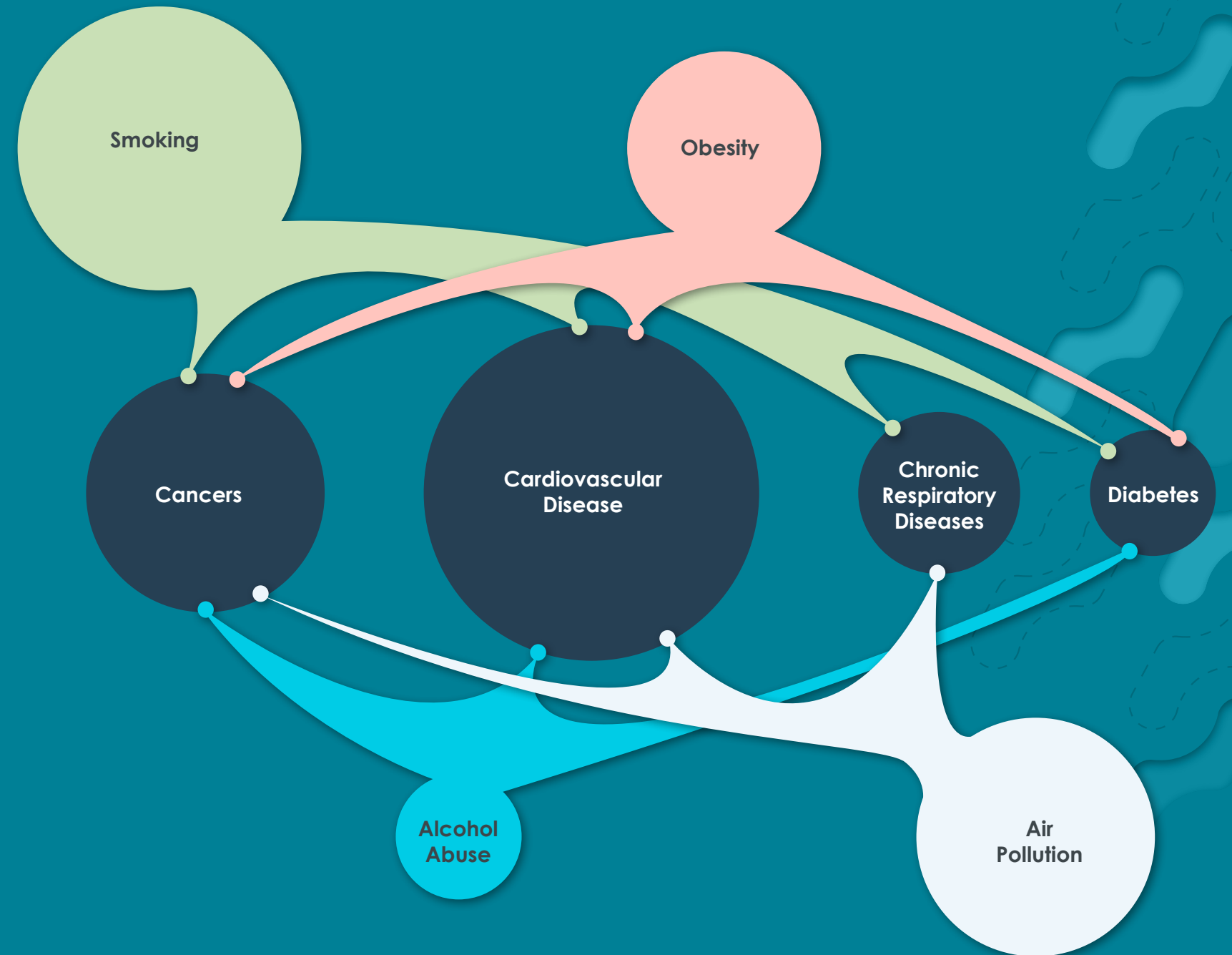
"Problems that are large, increasing, and variable across countries at the same level of development likely warrant particular policy attention. Our analysis showed that **components of diet, obesity, FPG (fasting plasma glucose), and SBP (systolic blood pressure) are the most prominent global risks** fulfilling these criteria. **Because of the strong interrelationships between these risks, the true driver of this cluster is likely diet, the risk in BMI, or both,** with knock-on consequences for FPG and SBP. The rise of obesity and the associated increases in FPG and SBP warrant considerable global policy attention."

Source: Lancet - GBD 2016 Risk Factors Collaborators

What can we do?

This Global Mortality Report highlights that human beings are now living longer than ever before, and that the population of people aged 80 or older is predicted to triple over the next 30 years. **Yet, gains in life expectancy are slowing as relentless global increases** in risk factors for premature death (hypertension, smoking, diabetes and obesity) make further gains in the fight against Non-Communicable Diseases harder to achieve, to the extent that gains in life expectancy could eventually start to be reversed.

From the perspective of an individual reading this report, considering the sometimes overwhelming magnitude of the trends discussed in it, there is little or nothing that we can do to influence or change any of these statistics; **but there are things that we can do as individuals to immediately reduce the financial risks our families face from the premature death of a breadwinner,** at the same time as doing things which reduce our individual risk factors for premature death.

Protect your family – buy life insurance

Life insurance can protect your family from financial catastrophe should the unthinkable happen to you. As the need for life insurance would seem to have never been more important, the use of life insurance for family financial protection is reducing.

According to the 2022 Insurance Barometer Study (**Insurance Information Institute / Life Happens**) conducted in the US insurance market by LIMRA (Life Insurance Marketing and Research Association) and Life Happens (a non-profit organisation)

– 106 million adults, or **half the adult population, either lack life insurance or have inadequate life cover.** The need gap – what people have versus what they said they need – is higher than ever and more than double what it was 12 years ago. Over two in five parents say it would take less than six months for financial hardship to set in. According to **LIMRA**, while 70% of Americans said they needed life insurance, only 54% actually had life cover in 2020; one quarter of these were covered by a group policy purchased by their employer.

According to statistics compiled by **BestLifeRates**, **65% of consumers in the US don't buy life insurance because they believe it is too expensive.** At the same time, more than 50% of people surveyed guessed the premium for a $250,000 term life insurance policy for a healthy 30-year old non-smoker was three times higher than it actually was; while more than 40% of millennials guessed the premium would be over six times higher than the actual premium.

If you have debt which could be passed to your family members if you died, or **if you have loved ones who would be financially affected by your death, life insurance is often the simplest and most cost-effective way of making sure your debts are settled and your family is financially secure if you die.** The younger you are when you take out a policy, the lower your risks (and your premiums). Once your policy is in place, you'll have the peace of mind that you've protected your family's financial future should something happen to you. If you are living abroad and need some guidance about buying international life insurance, please read our article **"Five challenges that customers buying international life insurance face – and how to navigate them".**

Protect yourself and your family – buy health insurance

Regular health screenings play a crucial role in the early detection of many NCD. For example, the **University of Chicago** reports the following percentage of cancers detected by screening in the United States:

61%
Breast

52%
Cervical

45%
Colorectal

3%
Lung

77%
Prostate

Despite well-researched and documented benefits, the rates of preventative services are not where they should be. A **CDC report** found that **fewer than 30% of adults aged 50 to 64 are up to date with core clinical preventative services.** The lack of use of clinical preventative services globally is often as a result of cost, not having a primary care provider, and a lack of awareness around the life-saving benefits of preventative screening.

The protection that international health insurance affords you and your family can be, quite literally, lifesaving. This is not only for emergency care and medical evacuation, but also for the important primary healthcare screenings that most health insurance plans cover.

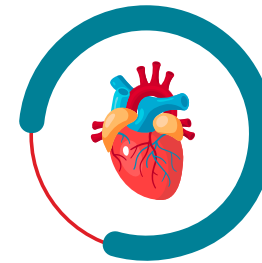# Protect yourself through long-term lifestyle changes

" In a world filled with uncertainty, a silver lining for NCD is that we know both how to prevent them and how to manage them. "
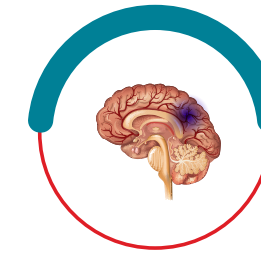
- WHO NCD Monitor 2022

According to research by **Harvard Health,** you can reduce your risk of heart disease by doing five key things and making them lifestyle habits:

Don't smoke (or quit if you do)

Maintain a healthy weight

Improve sleep health

Exercise

Follow a healthy diet

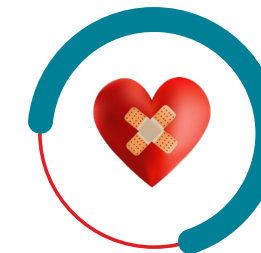# Following a **healthy lifestyle** may prevent:

80% of cases of coronary artery disease

50% of ischemic strokes

80% of sudden cardiac deaths

**72%** of heart disease-related premature deaths

unisuregroup.com

For those who smoke, these are the health benefits of quitting over the short, medium and long term:

0 yrs | 1 yr | 2 yrs | 3 yrs | 4 yrs | 5 yrs | 6 yrs | 7 yrs | 8 yrs | 9 yrs | 10 yrs | 11 yrs | 12 yrs | 13 yrs | 14 yrs | 15 yrs | 16 yrs | 17 yrs | 18 yrs | 19 yrs | 20 yrs

Decreased coughing and shortness of breath

Heart attack risk reduced by 50%

Coronary Heart Disease risk reduced by 50%

Risk of mouth, throat and larynx cancers reduced by 50% Decreased risk of stroke

Lung cancer risk reduced by 50% Reduced risk of bladder, kidney and oesophagus cancers

Risk of Coronary Heart Disease similar to that of a non-smoker Risk of mouth, throat, larynx and pancreatic cancers similar to that of a non-smoker

CDC – Benefits of Quitting

For those who are obese, losing weight can dramatically reduce type 2 diabetes and cancer risks:

The risk of type 2 diabetes and insulin resistance is **more than three times higher** for obese people compared with those of normal body weight.

The risk of cancer is up to **2 times higher** in obese people compared with those with normal body weight.

**International Journal of Environmental Research and Public Health**
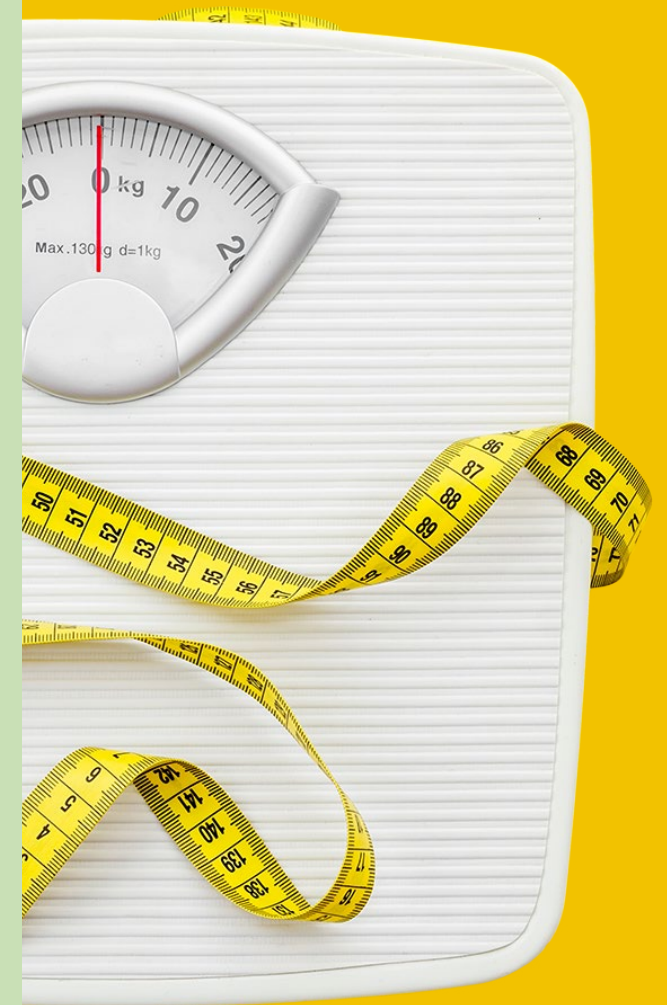
Television, exercise and diabetes

Given that many of us do work which involves sitting for long periods looking at screens, **it's important to know the health benefits of more activity and less television when we're away from work.** According to **Harvard Health,** television watching appears to be an especially detrimental form of inactivity. **Every two hours spent watching TV** instead of being active **increases the risks of developing diabetes by 20%, heart disease by 15% and early death by 13%.**

Pleasingly, "being active" doesn't necessarily require long periods of hot, sweaty exercise. **Walking briskly for 30 minutes to 1 hour each day reduces the risk of developing Type 2 diabetes by as much as 30%,** as well as a variety of additional health benefits. Of course, greater cardiovascular and other advantages can be gained by more intense exercise done more often.
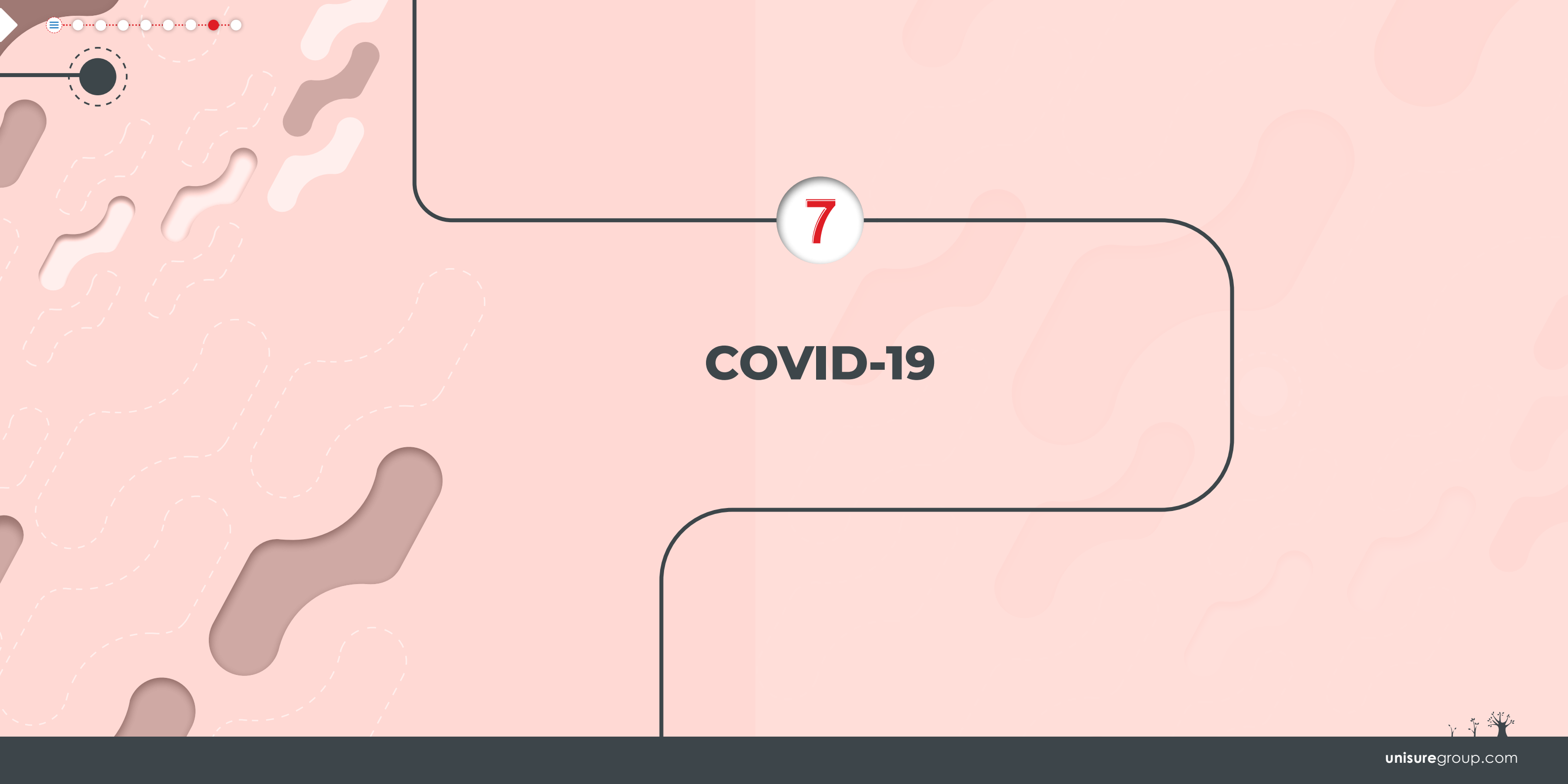
COVID-19

As we noted at the start of this report, the latest published analysis of global mortality data is for 2019, the year before the COVID-19 pandemic began. **The impact of this pandemic on global mortality is therefore absent from the data available for this report,** and it is likely to be several years before there is accurate data of how COVID-19 has affected global mortality trends over the last three years, not to mention the years we have ahead of us as the pandemic continues to evolve.
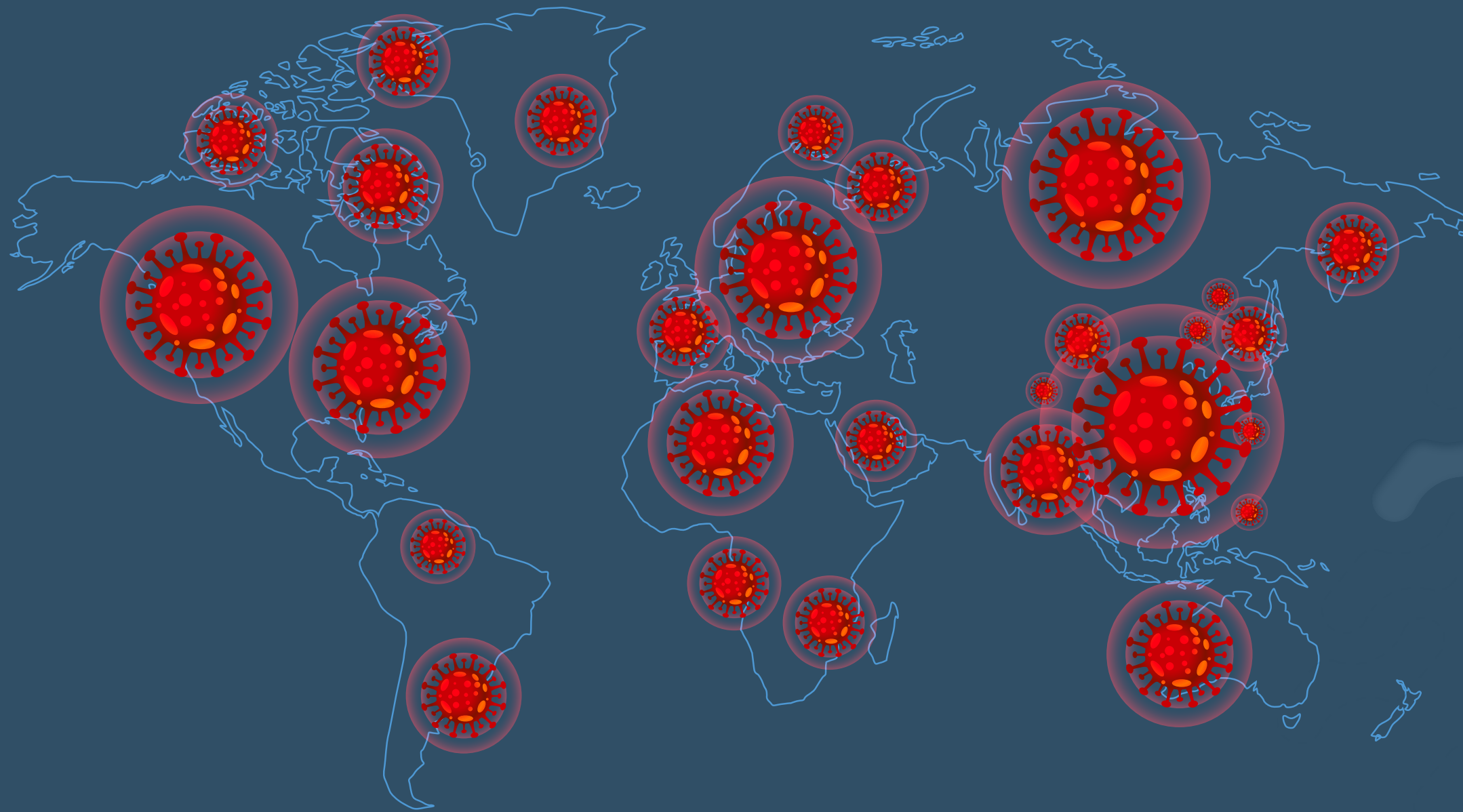
The common reporting standard is **"confirmed COVID-19" deaths,** which stand at **6.7 million at the end of December 2022.** However, **the actual death toll is likely to be higher than the number of confirmed deaths** for several reasons.

Firstly, there are challenges with attributing death to specific causes, as health problems are often connected and can be compounding, meaning underlying conditions can lead to complications which ultimately result in death. For example, a COVID-19 infection may lead to pneumonia, or exacerbate a pre-existing underlying condition resulting in death. Although the COVID-19 infection will have been the underlying cause of death, it may not be the attributed cause of death recorded on the death certificate as there are different attribution standards from country to country.

Secondly, some countries only count COVID-19 deaths which occur in hospitals while other countries include those which occur in homes and, for varied additional reasons, **the difference between reported confirmed deaths and actual deaths varies by country.**

Given all these challenges, and the need for a more comprehensive means of estimating the pandemic's impact on global mortality, **much work has been done to understand excess mortality.** By comparing the number of total deaths over the last three years, compared with a baseline of expected deaths (calculated from pre-pandemic data) for equivalent time periods, estimates of excess deaths can be calculated to provide information about the COVID-19 mortality burden, including deaths that are directly or indirectly attributed to COVID-19.

Although the official number of deaths caused by COVID-19 is now 6.7m, our single best estimate is that the actual toll is 21m people.

The Economist has been tracking changes in total mortality since January 2020 to attempt to determine the actual number of deaths caused by COVID-19. Their open article, **The Pandemic's True Death Toll,** provides excellent detail on the reasons why they are running this project, their process, data sources as well as some caveats, so we encourage you to read the full article for context.

For the purposes of our report, in seeking an interim number that we may refer to as a potentially reliable estimate, we have quoted directly from their article:

Although the official number of deaths caused by COVID-19 is now 6.7m, our single best estimate is that the actual toll is **21m people.** *We find that there is a 95% chance that the true value lies between* **16m and 28.1m** *additional deaths.*

The reason that we can provide only a rough estimate, with a wide range of surrounding uncertainty, is that calculating excess deaths for the entire world is complex and imprecise. Including statistics released by sub-national units like provinces or cities, among the world's 156 countries with at least 1m people we managed to obtain data on total mortality from just 84. Some of these places update their figures regularly; others have published them only once.

To fill in these voids in our understanding of the pandemic, The Economist has built a machine-learning model, which estimates excess deaths for every country, every day since the pandemic began. It is based both on official excess-mortality data and on more than 100 other statistical indicators. Our final tallies use governments' official excess-death numbers whenever and wherever they are available, and the model's estimates in all other cases.

Whether the actual COVID-19 death toll is **6.7 million (which seems optimistic)** or is a far higher number (according to *The Economist* and others) will become known in the years to come and will be analysed in future editions of our Global Mortality Report.

8

Conclusion

This report presents a worrying trend in the relentless rise of risk factors for Non-Communicable Diseases which make a sharp rise in the prevalence of chronic diseases worldwide increasingly likely. **This puts more people at greater risk of premature death – which can have a devastating impact on families.**

We have the potential within each of us for making long term lifestyle changes to reduce the individual risks the modern lifestyle presents us with. **Health insurance can provide improved access to important routine healthcare screenings,** which improve the chances of life shortening illnesses being detected early. **Life insurance can provide families with protection from financial ruin if the worst were to happen.**

Don't wait until it is too late.

Speak to **your insurance adviser today** about the **international insurance** options available to **protect yourself** and **your family.**

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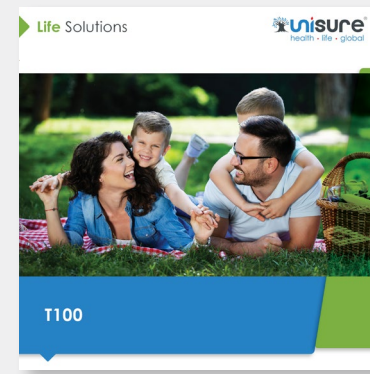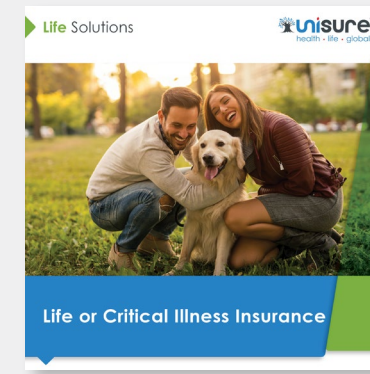(Click on the thumbnail below for more info)

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The Purpose of Life Insurance

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