Forum: World Health Organization (WHO)

Issue: Measures to prevent high global amenable mortality rates

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Introduction

Death is an inevitable part of life, but humans have made great progress to elongate their lives. To illustrate, the global life expectancy has been extended from 66.8 years in 2000 to 73.4 in 2019 ("GHE"). Unfortunately, it is the reality that many preventable deaths take place globally yet to this day. It has been found that in 2017 in OECD countries, nearly 3 million premature deaths, which accounts for over one-quarter of all deaths, occurred. These deaths could've been prevented through "better prevention and healthcare interventions" ("Health at a Glance 2019"). Expanding the view to low-income and middle-income countries, around 15.6 million excess deaths took place in 2016 (Kruk).

As aforementioned, lack of adequate treatment is one of the main causes of these fatalities. Specifically, of the 3 million deaths in OECD countries, 1.8 million were preventable through public health and primary prevention efforts, and another 1 million could've been treated with timely healthcare interventions. In the observed low-income and middle-income countries, 8.6 million deaths were a consequence of ineffective or complete lack of treatment. Some of the most common diseases that cause such deaths are ischemic heart disease, cerebrovascular diseases, colorectal cancer, and breast cancer. These account for over half of all cases of preventable deaths. ("Health at a Glance

2019")

Avoidable deaths also have a tight link with poverty. In the UK, it has been discovered that men and women living in impoverished conditions were "4.5 and 3.9 times more likely to die from avoidable conditions, respectively" in 2017 ("Astonishing"). Such a gap caused by economic factors doesn't only exist within, but across nations as well. Due to the large gap in annual government spending on healthcare, which can range from $20 to over $6000 per person annually, life expectancies vary by more than 40 years (Chan).

Apart from impoverishment, obesity, smoking, and environmental hazards are other factors that increase the chances of premature death. Additionally, "high blood pressure, high cholesterol, Type 2 diabetes, and physical inactivity" are risk factors that can increase the chances of cardiovascular disease. Injuries, which can be caused by high-risk occupations and behaviors such as drug abuse, are another factor that can lead to avoidable death. ("Premature Death")

Definition of Key Terms

Mortality Rate

The measure of the frequency of the occurrence of death during a set interval on a set population (usually per 100,000 or 1 million people)

Life expectancy

The average period or time a person can be expected to live (Can vary depending on the country)

Poverty

Whenever someone is living off under $2.15 per day.

Universal Healthcare

Set by WHO, means that everybody has access to health services when in need

regardless of their financial hardships.

Obesity

When a person is severely overweight for their age and height which can cause health complications.

Blood Pressure

The pressure of the blood in the circulatory system, most often measured for a diagnosis since it's closely related to the to the heartbeat rate and the diameter and elasticity of the arterial walls

High-Risk Occupation

Those private sector occupations that have a two-fold or higher rate of injuries or illnesses.

General Overview

Global mortality rates have always been used when talking about deaths from certain diseases using data from people that contracted said disease. Although most mortality rates are quite low with some diseases (less than a 1% chance of dying) others, like the coronavirus has over 2% mortality rate, which means over 2,000 people pass away per 100,000 that end up having coronavirus. This of course is way too high for a disease since most of the time the mortality rates are below 1%. We can see this in a lot of diseases such as measles, although it has annually 140,000 deaths, if we equally divide all of these deaths per 100,000 people, it turns out 1.75 people per 100,000 pass away due to measles. This is very low considering that we are almost at an 8 billion global population, of course, there are some diseases that are lower than this and others that are higher.

Preventable deaths in Europe

According to Eurostat, 1.5 million people died in 2017 that were below the age of 75, 1 million of those deaths were preventable. That means that 66% of the deaths were preventable, which means 2 in 3 people died due to preventable death. This is way too high for such a developed area like Europe since you would think that they would have this under control, but it's the complete opposite.

Preventable deaths in Africa

1 in 5 children do not have access to lifesaving vaccines, which means that children are dying according to the World Health Organization (WHO). This means diseases like Malaria, Tuberculosis, and West Nile Virus just to name a few. They have shown signs of improvement though, we can see this with measles, in which nearly 75% of children already have the first doses by their first birthday, in 2013 (WHO), this number was 53% in 2000. This shows great progress towards fewer deaths, but still a long way to go.

Accessibility to proper treatment

One of the main leading causes for preventable deaths is that hospitals do not have the proper equipment to deal with certain patients. This is caused by lack of funding or geographical location of said hospital. Another reason for preventable deaths is the lack of experienced doctors in the facility, which might make it difficult treating certain diseases. One country that has tried to minimize this issue is China, who have made a health reform that involves the equal distribution of health resources and health services between hospitals and primary care institutions. Other countries should follow China's footstep to decrease hospital inequality and let everybody have the best care no matter where they are staying.

Major Parties Involved and Their Views

United States

In the United States, nearly 900,000 individuals die prematurely every year. However, the Centers for Disease Control and Prevention (CDC) has found that a significant portion – up to 40% – of these premature deaths are preventable ("Premature Deaths from"). A study by the Commonwealth Fund has found that the US experienced the lowest level of decline in amenable mortality between 1997-1998 and 2006-2007 among 16 high-income nations. This can be attributed to the country's high costs of healthcare and lack of universal coverage (Nolte). Social factors such as ethnicity and neighborhoods also have an especially heavy impact on premature deaths in the US. For instance, native populations have premature death rates 50% greater than non-Hispanic whites, and their infant mortality rates are twice as high. ("Premature Death") The CDC has created various initiatives such as the *HHS Action Plan to Reduce Racial and Ethnic Health Disparities* and *National Quality Strategy* among many others ("CDC").

Hungary

Hungary is another nation that experiences high rates of amenable mortality. In 2017, nearly 30,000 deaths could have been avoided in Hungary through "effective public health and prevention interventions" and another 16,000 could've been prevented through adequate and timely healthcare. This placed Hungary among the top countries with the greatest number of preventable and treatable deaths in the EU. ("State of Health in the EU Hungary 2019") There are various causes of this outcome, among which is the healthcare system of Hungary. The National Institute of Health Insurance Fund Management (NEAK) is the only health insurance fund that provides coverage for the majority of Hungary's population. It provides a limited budget to the health sector, leading

to a human resource shortage and a decrease in the quality and accessibility of healthcare in the nation. ("State of Health in the EU Hungary 2021") To illustrate, Hungary only spent 6.9% of its GDP on healthcare in 2017, compared to the EU average of nearly 10%, and only two-thirds of this amount came from public funding. ("State of Health in the EU Hungary 2019") Hungary also has an insufficient number of healthcare professionals as well as an uneven distribution of doctors, which gives rise to excessively high healthcare costs. Finally, the rates of behavioral risk factors among Hungarians are very high: more than a quarter of adults smoked on a daily basis in 2014, the adult obesity rate is one of the highest in the EU, and Hungarians consume more alcohol than the EU average. ("State of Health in the EU Hungary 2021")

Mexico

In 2017, 212 deaths per 100,000 individuals were due to preventable causes, and 141 per 100,000 were due to treatable causes. This placed Mexico among the 4 top countries with the highest rates of amenable mortality ("Health at a Glance 2019"). Mexico has been taking steps to improve its healthcare system by increasing government expenditure on health through the 2003 reform of the General Health Law, public spending on health is significantly lower than the majority of other OECD countries. To illustrate, 51.6% of total health expenditure came from Mexico's government, placing it at the bottom of the list of OECD countries for this category. Moreover, out-of-pocket spending accounted for 41.3% of health financing in Mexico in 2015, while government spending only made up 24.2%. To improve this situation, Mexico has made reforms to the General Health Law and created the Institute of Health for Wellbeing. (Block) Mexico also has obesity rates greater than the OECD average, and the healthcare system is highly under-resourced, with limited numbers of hospital beds, doctors, and nurses ("Health at a Glance 2021").

France

France is one of the countries with the lowest rates of amenable deaths in Europe. In 2015, there were only 184 preventable deaths per 100,000 people and 78 amenable deaths per 100,000, which put France at the top among other European nations ("Health at a Glance Europe"). These low rates can be attributed to France's statutory health insurance that covers the entirety of the French population (Tikkanen). 83.7% of health spending in France was sourced from public and private compulsory health insurance schemes in 2019, which is higher than the EU average. France also spent a great proportion of its GDP on healthcare, specifically 11.1%, which is among the highest in the EU (*France: Country*). France has taken various other measures for prevention in healthcare. For example, the National Agency for the Quality Assessment of Health and Social Care "promotes patient rights and develops preventive measures to avoid mistreatment," and the Public Health Agency was formed in 2016 to protect population health (Tikkanen). The nation has also implemented national plans since 2014 in order to reduce the amount of tobacco consumption and has created an easy-to-understand logo that shows the nutritional quality of food products in order to combat obesity (*France: Country*).

Japan

Japan's life expectancy is 85 years, which is the highest in the world. Similarly, the country's amenable mortality rate was 100,000 in 2007, only surpassed by France, Iceland, and Italy (Gay). The public's health was made possible by Japan's statutory health insurance system that provides coverage for nearly all of its population – 98.3 percent and the separate Public Social Assistance Program for the other 1.7% of the population (Tikkanen). Japan also has implemented several national health promotion measures that aim to prevent non-communicable diseases such as smoking, alcohol, unbalanced diets, and inactive lifestyles. In 1978, Japan launched the First National Health Promotion Measures, a 10-year plan that aimed for the "advancement of lifelong health promotion, development of infrastructure for health promotion, and public

awareness of health promotion." This plan has been continually updated every decade, and in the third version launched in 2000, there was a substantial amount of emphasis placed on primary prevention. Japan also has created numerous measures for cancer and cardiovascular disease control, such as the 3rd Basic Programme Relating to Cancer Control and Basic Plan for the Promotion of Measures against Cardiovascular Diseases. ("NCDS")

Timeline of Events

Date	Description of event
1854	Nightingale reduced preventable mortality rates of British troops through reduction of overcrowding, ventilation, and removal of horses from the hospital, among other measures. She also made improvements to documentation methods. (Sheingold)
1861	Clara Barton volunteered at the Sanitary Commission and worked to promote clean conditions in hospitals and living spaces of soldiers. (Sheingold)
1879	Dr. Charles Chamberland designed the Chamberland Autoclave that heated solutions to exterminate harmful microorganisms. (Sheingold)
1883	Chancellor Otto Von Bismarck of Germany creates a state-run medical insurance program. (Sheingold)
1895	Wilhelm Conrad Rontgen discovered X-rays, which allowed doctors to diagnose musculoskeletal injuries and to treat cancerous tumors. (Sheingold)
1942	The Beveridge Report by William Beveridge is published in the UK, and this forms the basis of the establishment of the National Health Service in 1948. (Sheingold)
1959	Nils Bohlin, an engineer at Volvo, created the modern three-point

	seat belt. The patent was left open, allowing all other vehicle companies to utilize the invention. ("The Three-Point")
Late 1950s	The A-B-C technique for cardio-pulmonary resuscitation was developed by Dr. Peter Safar. He also established fully equipped ambulances and the first 24-hour intensive care unit in the US. (Sheingold)
Mid 1960s - 1970s	Several reports on the negative impact of smoking on health are published, and world conferences on this issue are held. Physicians and epidemiologists began to actively advocate for anti-smoking. (Reubi)
21 May 2003	The WHO Framework Convention on Tobacco Control (WHO FCTC) is adopted by the World Health Assembly. It was a treaty created in response to the tobacco endemic. ("WHO Framework")
January 2012	The London Declaration on Neglected Tropical Diseases was signed. It pledged 14 billion treatments and a commitment to the control and eradication of 10 major NTDs. ("Timeline")
May 2013	The 66th World Health Assembly adopted the Comprehensive Global Monitoring Framework for the Prevention and Control of NCDs (non-communicable diseases) (Mendis).
June 2014	The Every Newborn Action Plan, which aims to reduce the number of newborn deaths, was launched in 2014 and was indorsed by 194 member states ("Every").
2016	NOhep was launched, which was a global movement to eliminate viral hepatitis, one of the leading causes of death. It united governments with those in the medical field and patients. ("Timeline")
2017	Access Accelerated was launched, which brought together 23 biopharmaceutical companies, the World Bank, Boston University, and UICC (Union of International Cancer Control) to combat

	non-communicable diseases on a global scale. ("Timeline")
May 2017	Numerous governments from around the globe passed the World Health Assembly Resolution 70.12 on cancer prevention and control within an integrated approach (Prager).

UN involvement, Relevant Resolutions, Treaties and Events

The UN has addressed the issue about mortality, but not in the terms of preventable deaths. Here is a case where the UN has addressed mortality.

- UNICEF has addressed concerns about the issue of child mortality, specifically the under-five mortality rate which show data since 1990. This was published in december 2021.

Evaluation of Previous Attempts to Resolve the Issue

One of the most impactful measures taken to reduce amenable mortality rates is the implementation of universal healthcare systems. European countries, such as France, Germany, and the UK that have universal health care experienced a considerable decrease in amenable mortality rates. On the other hand the U.S.,t having spent a much greater amount on healthcare per capita, had a decrease of only "half as good in certain populations" (Ramkissoon). It is also important to note that healthcare systems with private ownership have a slower decline rate of amenable deaths (Gianino).

There have also been efforts to reduce smoking, the most prominent of which is the WHO Framework Convention on Tobacco Control. It has been highly successful in various countries. For instance, it prompted the creation of national tobacco control laws in Kenya, Bangladesh, Sri Lanka, Iran, and Madagascar. In countries with pre-existing legislatures addressing the topic, such as the UK, Pakistan, and the Philippines, those laws and policies were further strengthened. Moreover, in the majority of countries, the treaty has assisted in strengthening

collaboration with other departments in the government as well as with civil society organizations. (Craig) This has led to the global smoking rates in 2020 to decline by 27.2% and 37.9% for men and women, respectively, compared to 1990, consequently preventing many deaths (Dai).

The implementation of electronic health records systems also has the capacity of improving the performance and quality of healthcare, thus reducing preventable mortality rates. An example is Malaysia, where it has been discovered that electronic health records systems "supported the clinical tasks and workflows of care providers" and thus increased their system quality (Salleh).

Cancer is one of the greatest causes of premature death, and there have been many actions taken to mitigate its effects. The guiding principles for cancer screening proposed by Wilson and Jungner of WHO and other improvements in cancer screening, immunotherapy, and precision medicine have contributed to reducing cancer mortality. In the US in particular, mortality rates have decreased by 25% from 1990 to 2015. Thanks to this, globally, it has been found through the Global Burden of Disease 2015 study that between 2005 and 2015, there has been an increase in the number of cases of cancer but a decrease in deaths. (Loud; Nagai)

Possible Solutions

To solve this issue, we must see what China has been doing to prevent hospital inequality, which is passing a reform that helps equally distribute hospital equipment so that less fortunate hospitals can still have the materials to treat patients. This can really help your chances of not passing away due to preventable diseases. If countries follow what China is doing, we could see a sharp decline around the world in terms of preventable deaths.

Sustainable Development Goal (SDG)

A related Sustainable Development Goal of the issue at hand is goal 10, reducing inequality within and among countries. There are great discrepancies in the accessibility and quality of healthcare both within and among nations. Specifically, low-resourced individuals and developing countries tend to be more susceptible to amenable deaths. Therefore, reducing inequality will help to advance progress in decreasing the number of preventable deaths.

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Appendix

I. Here are preventable death statistics in Europe by EuroStat. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Preventable_and_treatable_mortality_statistics#:~:text=In%20the%20EU%2C%20mortality%20rates,than%20for%20women%20in%202019.&text=In%20the%20EU%2C%201.5%20million,75%20years%20was%201.0%20million.

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