

**Committee:** World Health Organization

**Topic:** Understanding the social epidemiological impact on modern diseases

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## Introduction

The term epidemiology stands for the branch of medicine that deals with the incidence, distribution, and possible control of diseases and other factors relating to health. With the use of modern technology, the advancement of medicine created solutions to many unsolved complications of illnesses and diseases, such as the plague. Unfortunately, it is also true that as modern technology grows, the complexity of modern diseases also follows as well. The expansion of human activity and interaction confuses us from finding the origin of an outbreak of a disease, which leads to an international pandemic citizens of all nations are involved in.

The point of understanding the social epidemiological impact of a disease is a major part of processing how the network of international society changes and how nations or the environment of a person differ their positions on the same matter. The biggest goal of understanding social epidemiology is to understand the determinants of a disease in the population and to develop programs to prevent diseases and promote health. Social epidemiology focuses on why some part of the population is weak to specific diseases, or why some people have different genomes compared to others which strengthen them in a particular way. In the sight of social epidemiology, it is interpreted that our living environment, social status, yearly income, education and even laws, policies and employment rates, cause an effect to a disease. Social epidemiology believes that every one of the human population is unequal, and that while some countries have better welfare and stabilized income — which can prevent natural causes of diseases, others do not. In countries with relatively low income, bias, discrimination and social status clearly affect morbidity rates. Because members with

low income would be open to an inferior environment, the lower the social status is, the higher it is to be affected by a disease.

However, there still isn't a consensus on the essential factors of social epidemiology. Categorizing the causes of a disease is as fundamental as it is controversial, and organizing these are one of the main problems to be solved. There are factors categorized, but however, it doesn't have a united standard. Because of this, factors of social epidemiology are vague, and there are difficulties in categorizing social epidemiology. One other problem with linking social epidemiology with modern diseases is that social epidemiology is not as recognized when studying diseases compared to other factors such as personal health, history or diet. In this issue, it is important to find a solution where social epidemiology is highlighted as a main factor of diseases, continuing research and categorizing a united standard for the factors of social epidemiology.

## **Definition of Key Terms**

### **Epidemiology**

Epidemiology is the study of the determinants, occurrence, and distribution of health and disease in a defined population. Infection of the host spreads to other organisms, which may cause disease. A carrier is an individual who carries infectious organisms. Dissemination is the spread of the organism in the environment.

### **Social Epidemiology**

Social epidemiology is a branch of epidemiology where its initial goal is to deal with the incidence, distribution, and possible control of diseases and other factors relating to health. Social epidemiology proposes to identify social characteristics that affect the disease and health distribution in a society and to understand its mechanisms. After the determinants of a disease are identified, social epidemiology's goal is to develop programs to prevent diseases and promote health.

### **Communicable Diseases**

Communicable diseases are diseases caused by viruses or bacteria that people spread to one another through contact. The most common forms of spread include food, insect bites, contact with contaminated fomites, droplets, or skin contact. Some recognizable communicable diseases include COVID-19, Human Immunodeficiency Viruses (HIV), and the Ebola Virus Disease (EVD). Because contact - both by human activity and non-human activity causes communicable diseases, it is a matter to be focused on when studying social epidemiology. It is important to know where the outbreak originated, what region are people more vulnerable in, or how the government coped with it to understand more about communicable diseases and member states that are suffering from it.

### **Non-Communicable Diseases**

Non-communicable diseases are diseases that do not transmit directly from one person to another. Rather It is a disease that is typically caused by unhealthy behaviors or by genetic disorders. Examples of non-communicable diseases include chronic respiratory diseases, cancer, diabetes, and cardiovascular diseases. These are also highly linked with social epidemiology because it could focus

on how the differences of genetic factors caused by the environments of different regions or see how different behavioral factors influence a person's body condition.

### **Sustainable Development Goals (SDGs)**

The Sustainable Development Goals (SDGs) are the 17 goals with 169 targets which are the comprehensive plans to achieve a better future that all 191 UN Member States have agreed on. SDGs are the blueprint to achieve a better and more sustainable future for the world. SDGs address the global challenges we face, including poverty, inequality, climate change, peace and justice. All Goals are all intertwined with one another, and all agendas are proposed to be achieved until 2030.

### **Sustainable Development Goals (SDGs) - 5 "Ps"**

The 5 "Ps" of the SDGs are the five pillars of the 2030 agenda, arranging the SDGs into five groups: People, Planet, Prosperity, Peace, and Partnerships. SDGs 1 to SDGs 5 are part of the People sector, SDGs 7 to SDGs 11 are part of the Prosperity sector, SDGs 6 and SDGs 12 to SDGs 15 are part of the Planet sector, SDGs 16 is part of the Peace sector, and finally, SDGs 17 is a part of the Partnership sector. These 5 Ps highlight how the SDGs are an intertwined framework instead of a group of solo goals. The progress on one P must balance and support the progress on another.

### **SDGs 3 - Good Health and Well-Being**

SDGs 3's initiative is to ensure healthy lives and promote well-being for all at all ages. One of the main goals of SDG 3 is to fight communicable diseases. By 2030, the goal is to end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

### **Gross Domestic Product (GDP)**

Gross Domestic Product, GDP For short, measures the monetary value of final goods and services bought by the final user produced in a country in a given period of time. It counts all of the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also includes some nonmarket production, such as education or services provided by the government. The difference it has with Gross National Product (GNP) is that while GDP only

holds the output only in the country, GNP allows the income of residents that reside out of the country inside the GNP. Countries with high GDP would be able to focus more on the country's health and welfare while countries with low GDP would prioritize economic growth.

### **Gross National Income (GNI)**

Gross national income (GNI) is the aggregate value of the gross balances of primary incomes for all sectors. GNI is the GDP plus net income from abroad of compensation of employees, property income and net taxes less subsidies on production. Compensation of employees receivable from abroad are those that are earned by residents who essentially live inside the economic territory but work abroad, or for seasonal workers and whose center of economic interest remains in their home country. Property income receivable from/payable to abroad includes interest, dividends.

### **Human Development Index (HDI)**

The Human Development Index (HDI) is a measure of achievement in human development. The standards for the HDI is a long and healthy life, being knowledgeable, and having a decent standard of living. The HDI is the geometric mean of the normalized index for each of the three aspects.

The health area is measured by average life expectancy; the education area is measured by the average years of schooling for adults from 25 years and more, and the expected years of schooling for children. The standard of living area is measured by GNI per capita. The scores for the three HDI area indices are then aggregated into a composite index using geometric mean. The HDI can be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. These contrasts can stimulate debate about government policy priorities.

### **Subjective Social Status Scales**

Subjective social status is how a person perceives their social class relative to other people and has frequently been associated with people's health and well-being. The most representative is the MacArthur Scale of Subjective Social Status. The MacArthur Scale of Subjective Social Status is a scale that depicts social status as a 10 rung ladder, asking individuals to rank themselves socially on this ladder compared to other people. With utilizing scales of subjective social status, it could be used

as data of one's social standards or compared to other countries with relatively higher or lower income.

### **Universal Health Coverage**

Universal health coverage (UHC) is a health service for people to have access to the full range of quality health services when they need, and where they need them, without financial burden. It covers essential health services, from health promotion to palliative care for one's entire life course. Achieving UHC is one of the targets the nations of the world set when they adopted the 2030 SDGs in 2015.

## Background Information

### **World Bank Classification of Countries by Income**

The World Bank creates a yearly classification of countries by income, for all countries with populations over 30,000. The World Bank Group assigns the world's economies to four income groups: low, lower-middle, upper-middle, and high. The classifications are updated each year on July 1, based on the GNI per capita of the previous calendar year. GNI measures are expressed in United States dollars using conversion factors derived according to the Atlas method, which in its current form was introduced in 1989. The World Bank's income classification aims to reflect a country's level of development, drawing on Atlas GNI per capita as a broadly available indicator of economic capacity.

While countries with high income are more likely to have better welfare, more advanced technology, and a more accessible infrastructure, countries with lower income are not likely to do so. Countries with lower income usually suffer from the lack of welfare or the violation of basic human rights. These differences work as a large factor when viewing socio-epidemiology, where the development of a country can alter possible causes of a disease.

### **Life Course Theory**

The life course theory is written by Glen Elder, who believes that to understand how a person develops, one must understand the historical period, time, the relations between important events, and the social role and limits to a decision. Elder decided to take a whole life approach in developmental psychology, to see the social roles and events in a changing relationship. This theory lets one understand the multiple factors of human activity, and for this, five basic concepts were established: time and place, life-span development, timing, agency, and linked lives, and its six themes are interplay of human lives and historical time, timing of lives, linked lives, human agency in making choices, diversity in life course trajectories, and developmental risk and protection. By understanding the basic concepts and themes, it is possible to interpret human lives. The themes are all interrelated, causing effect to one as an event occurs. The approach has been effectively used by social epidemiology as it can examine social gradients in population health.

The life course approach takes a societal perspective on the health and well-being of individuals and generations, recognizing that all stages of a person's life are all intertwined with each other, with the lives of others born in the same period, and with the past and future. Applying the life-course theory Needs a wide perspective from the interaction of the current generation to historical events hundreds of years ago. As the life-course theory takes human activity and personal history into consideration, every individual experience is different from one another. It is important to understand why a consequence of a certain event affects differently from one another and how those could intertwine in a certain point.

One application of the life course approach to social epidemiology could be seen in why birth rates are declining in developing countries. There are many factors of why this is happening, but one of the most influential factors would be that the social participation of women is increasing. He explains that before the social structures and the general beliefs of developing countries had generally lower levels of female education because of their social goal. Also, developing countries lacked the access to contraceptives, which also increased their birth rates. However, as now younger populations contribute to the nations and global progress, women can now contribute more to the total workforce and have an occupation. As the social participation of women increases, and the country economically grows, women start to decide on keeping their career or being a mother. As they decide on work and family force, and as raising a child needs economic certainty, women hoping to raise a child decline.

However, the government also proposes new policies and laws to prevent this from happening. In developing countries, the government proposes policies, such as affordable housing, educational support and more. Below is the visual concept of policies proposed to prevent lower birth rates.



*Proposed policies to address declining birth rates in developed countries - G.Nargund(2009), source: National Library of Medicine, PubMed Central*

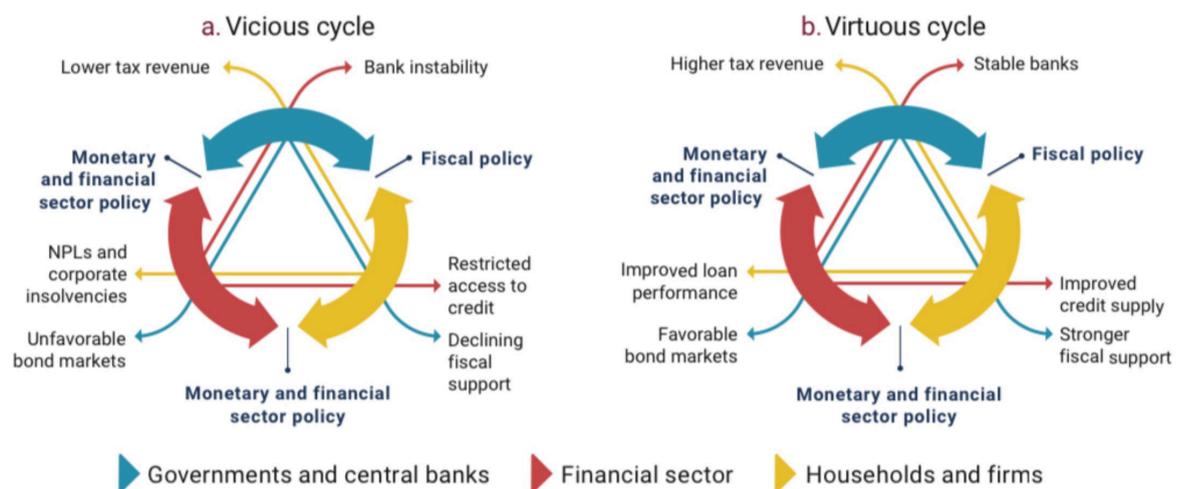
The application of the life course approach to social epidemiology has helped epidemiologists theoretically examine social gradients in population health. Longitudinal data with rich contextual information collected repeatedly and advanced statistical approaches have made this challenging task easier. A systematic approach to methods, including theoretically guided measurement of socioeconomic position, would assist researchers in gathering evidence for reducing social gradients in health, and collaboration across individual disciplines will make this task achievable.

### **Economic Impact on People's Health**

Over the long term, if government revenues continue to be less than the expenditures, then the economic health of the country worsens because this will result in accumulated debt. An increasing government debt will result in higher interest payments, and less money available for socioeconomic development. To pay for the debt, the government will have to raise taxes, which will reduce the competitive position of the country in the global economy and chase investors away resulting in less economic activities and more job losses. To avoid higher unemployment and social instability, the government has to raise more debt to fund spending and welfare support by raising the interest rate which will increase the cost of money, reduce corporate profits, and slow economic investments, thus resulting in more job losses and reduced government revenues, despite income tax increases.

Nations with vicious economic cycles compared to nations with virtuous economic cycles can be seen in an exemplary case with COVID-19, which can be seen in the World Bank group's world development report in 2022, where many workers in diverse industries were unemployed or affected by lockdowns or social distancing measures. Fiscal, monetary, and financial sector policy responses diverged between many countries, creating a bigger gap for less economically developed countries (LEDCs) and More Economically Developed Countries (MEDCs) as countries with faster responses were able to create vaccines and prevent further outbreaks from spreading. Countries with lower responses however, had serious losses. In the report, it is mentioned that countries in regions such as Sub-Saharan Africa lent more arrears after the COVID-19 projection.

Conclusively, vaccines made to cope with COVID-19 were provided worldwide, reducing the fatality rates of this pandemic. Obviously, nations with less fiscal policies were not able to cope with COVID-19 as representative MEDCs do, which means they had a national loss of finance and a big downfall in economic growth and in technological advancements.



*A visual example of a country with a vicious cycle compared to a country with a virtuous cycle, WDR 2022 team, based on Schnabel (2021)*

### **How the survival rate of Gambia's people during their adulthood alters from the period when they were born**

The country Gambia, which is located in southern Africa, suffers during the rainy season which is July to December. The reason for their suffering is that During this season, harvested crops are already

used up, and working in the fields during the rain leads to diarrhea and malaria. As Gambia is a low-income country with a GDP of less than \$500, it is hard for them to have sufficient amounts of food that would last them a year. That is why, even in the rainy season, they still need to work without consuming enough food. This leads to consequences of People having malnutrition.

Researchers have made data on these survival rates of Gambia's people born in the rainy season compared to ones who were not. After puberty, children who were born in the dry season survived more than those who were born in the rainy season, and after they turned 40, the survival rates Of the people born in the dry season was double the amount compared to the rainy season. This leads to a conclusion of how early fetus development and growth during the infant stage influences survival rates in a low-income country.

### **How obesity during pregnancy influences child obesity**

Another research shows how obesity during pregnancy can affect the fetus development. One would think that obesity would only affect the mother's condition and that being overweight is extremely natural during pregnancy. While being overweight is the norm during pregnancy, obesity is a different problem. Obesity during pregnancy can lead to the child being obese or the child having disabilities. Women with obesity have smaller ova, which means it lowers the possibility of fertilization. Also, higher blood sugar causes a negative impact on the fetus. Because 30% of the blood sugar goes into the fetus as a source of energy, consuming too many calories would lead to the fetus being overweight before they are born and would also create child obesity. Also, a BMI over 40 would increase the percentage of miscarriage two or three times more than the norm. As obesity carries over generations, it is highly likely that the child of an obese parent would also give birth to an obese child as well.

The opposite also produced a negative effect. During the Dutch famine in WW2, the daily consumption of calories was less than 800 calories per day for over six months. As mentioned before, the blood sugar of a pregnant mother is used as a source of energy for the fetus. And because the fetus during the Dutch famine wasn't able to get enough energy, they also suffered from diverse diseases. Researchers found out that The possibility for them to get a heart disease was three times the norm, the possibility of them getting schizophrenia was 2.6 times the norm, and they were also vulnerable to diverse diseases.

### **How safe social environments impact the smoking population in a group of workers**

Smoking is more common among blue-collar workers, where pursuing daily life and income is more important than personal health. Because blue-collar workers usually work in dangerous sites such as

construction sites or factories, explaining smoking can cause cancer is not a big deal compared to the dangers they face each day. Glorian Sorenson of Harvard T.H. Chan School of Public Health made a program to promote not smoking but taking social environments as a key factor. The professor made a research team to study whether Occupational Safety and Health Act programs can positively influence smokers in a construction site. After six months of the program, workers who had both the non-smoking program and the Occupational Safety and health act program had double the non-smoking population than The ones who only had the non-smoking program. This gives us a hint about securing the safety of social environments. members of the group can take care of their own health as the environments improve.

### **How freedom of gender influences the mental health of sexual minority**

This case specifically refers to the United States of America. The Supreme Court of the United States of America allowed same-sex marriage on 2015 June 26. The influence it had on American society was greater than expected. Allowing same-sex marriage means that the sexual minority is included in American society. This means that the sexual minority should be considered as a normal member would, abating the discrimination they used to receive.

Before same-sex marriage was allowed by the Supreme Court, California University's Richard G. Wight did research on how allowing same-sex marriage influences the mental health of sexual minorities. In California, 2008 June 16th, Same-sex marriage was officially allowed. However, it was canceled the same year on November 5. The team decided to do research on how the mental health of the sexual minorities who officially had same-sex marriage was different to those who did not. The consequences were that the people who officially had same-sex marriage only had a 154% increase in generalized anxiety disorder, and even reduced any mood disorder while people who didn't officially had the same marriage had 420% increase in their generalized anxiety disorder, and 167% increase in any mood disorder. The professor explained that this was because of social anxiety. People who were sexual minorities were afraid of the consequences if they reveal their sexuality to the public. Still, sexual minorities have suicide rates 250% higher compared to the norm, and 150% higher in depression or anxiety.

Also, education plays a big role in determining gender roles to the public. As education from early ages plays a big role in forming self-identity, gender rules are forced on children. As changes in the society of viewing sexual minorities were fairly recent, children tend to think of the gender in a fixed way, excluding sexual minorities. This leads to people not fully realizing their sexual identity. Brittany Charlton of Harvard T.H. Chan School of Public Health conducted a research on how social discrimination made a change of opening their sexuality of homosexual and bisexual people. Brittany

Charlton and her team analyzed Nurse Health Study II, and found out that 30% more of the population who identified themselves as heterosexual defined themselves as homosexual or bisexual after laws were made to protect people with sexual minorities in 2009. This explains how laws and social protection can influence one's life and self-esteem.

### **Public Health Emergency of International Concern (PHEIC) Diseases between 2009 and 2024**

Public Health Emergency of International Concern (PHEIC) is a formal declaration by WHO of 'an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response', formulated when a situation arises that is 'serious, sudden, unusual or unexpected', which 'carries implications for public health beyond the affected state's national border' and 'may require immediate international action'. The concern of the diseases is that the frequency of the appearance of diseases declared as PHEIC is increasing.

<b>Pandemic/Epidemic</b>	<b>Year declared as PHEIC</b>
H1N1 ("Swine Flu") Influenza Pandemic	2009
Polo declaration	2014
West Africa Ebola Epidemic	2014
Zika Virus Epidemic	2016
Kivu Ebola Epidemic	2019
COVID-19 Pandemic	2020
Monkeypox Epidemic	2022
Monkeypox Epidemic	2024

*List of all Public Health Emergencies of International Concern (PHEIC), WHO(2024)*

As seen on the list above, the more recent it gets the more PHEIC outbreaks, and In a socio-epidemiological view the reason for this can be because of the advance of modern transportation. as people are able to visit places that they weren't able to several decades ago, people would be infected by the particular endemic in the area without realizing. As they return to their own country, The virus would spread out and the same thing would repeat until it becomes declared as a PHEIC outbreak, or in other words becomes an epidemic or pandemic. It is obvious that even the advance of technology or just traveling to a country to another continent could bring up an international health emergency.

## Possible solutions

### **Creating international guidelines for social epidemiology**

As previously mentioned, there are no exact guidelines or factors about what parts that are essential in social epidemiology, or how social epidemiology can be elaborated. It is essential to create international guidelines for social epidemiology for member states to focus and measure future outbreaks of diseases by using social epidemiology. It is suggested that categorizing diverse factors into bigger categories should be prioritized, to further set the international framework of social epidemiology. As there is currently an abundance of information on these factors, collecting and categorizing these factors internally would be the main focus of this solution.

### **International research and seminars to cooperate with nations**

International research is mandatory for further studies. As more information provides more links between certain occurrences, interaction between countries in conducting research will be advantageous in enhancing social epidemiology. Research will be conducted by dispatching elite personnel from each country to collect data. The collected data will then be organized to use as research data. These data will then be used to elaborate further research and hold seminars.

The seminars held will be a critical step in sharing information between nations about diseases. As the data of different regions, different environments, and different social statuses will be collected, holding a seminar can collect and rearrange the data into material that nations could use when a pandemic outbreak happens or if citizens are having problems with a noncommunicable disease. Further on, the information collected can be made into a guideline of how countries can react to certain pandemics or epidemics when the outbreak happens, reducing the damage to the minimum.

### **Education for public awareness**

As recognition of interpreting diseases with social epidemiology is low, nations may cooperate to educate the need for the advancement of social epidemiology or even further elaborate to make an organization for the recognition of social epidemiology as an essential factor of diseases. By doing so, it will be easier for nations to interpret the cause of the disease by linking it with social epidemiology. This has the advantage of conducting research in the future, making a larger field of study in social epidemiology.

### **Strengthen the nation's welfare**

MEDCs or countries with relatively high incomes can utilize this idea as they have enough money to care for their populace and have enough economic growth. This way, nations can focus on their citizens by their government, which deducts the potential expense of providing foreign needs for countries with less economic development or countries with insufficient welfare. Focusing on a country's welfare can help in social epidemiology as it focuses on the environment, genetics, and socioeconomic factors of a disease. With an improved environment, researchers can conduct research on how to elevate people's residentialization. Also, this can help in reducing the inequalities between people with different social statuses and reduce vulnerable people who are open to an inferior environment.

### **Policies for open access to health care**

Many countries, including the USA, Egypt, and China are countries that do not provide universal health coverage. According to the World Bank, the benefit of universal health coverage allows countries to build a strong human capital asset. Every country needs their people to sustain their nation, so providing them with fair welfare and healthcare services benefits both the nation and its people. Supporting health represents a foundational investment in human capital and in economic growth. With good health, children can grow to support and sustain their nation as they reach their full potential, while adults are able to live healthy lives. MEDC countries or countries categorized as middle-high income that don't provide universal health coverage can utilize this method to lessen the burden of healthcare and health insurance.

### **Requests for foreign aid**

LEDCs or countries with low income or welfare should be the member states that would specifically focus on this solution. By adopting this solution, nations that are willing to receive financial aid do so with a reasonable excuse to obtain monetary support. This is essential to the countries obtaining the money because the money can then be used to enhance national welfare, conducting research on this matter, or using the money to increase hygiene or infrastructure. However, nations such as LEDCs would not be in favor of providing monetary support. LEDCs must search for a reasonable cause for the support or provide other resources in return for obtaining monetary support.

## **Urbanization for less developed countries**

Though there are several setbacks by adapting urbanization to countries, it also holds several advantages that lead to the advance of a country or an improvement in one's living conditions. Urbanization leads to increased economic development and industrialization. This indicates the growth of cities, which can lead to job opportunities. Larger urban areas necessarily hold more industries, businesses, and institutions where people can seek and find employment compared to suburban or rural areas. Urban areas often have better facilities such as larger hospitals and better educational facilities. Urban areas are typically hubs for technology and innovation. With the concentration of resources in cities, cities are places suitable for technological advancement and innovation. However, recognizing the setbacks of urbanization, it is mandatory for countries to adapt and amend certain laws and regulations in order to complement the drawbacks of urbanization.

## **Access to clean water and sanitation**

Along with the improvement of infrastructure, sanitation must be provided to prevent various diseases. Diseases are highly influenced by sanitation, and ignoring the sanitation of infrastructure or supplies can make contaminated public facilities, such as a public water fountain, a fomite of a disease. Because of this reason, access to clean water and sanitation is mandatory to prevent any possible endemics. According to the WHO, poor sanitation can lead to the development of diarrhoeal diseases such as polio and typhus. Cases like such have been developed to endemics to even pandemics, spreading vastly over the globe. Thus, for LEDCs, improving sanitation would be considered as top priority to prevent these diseases from occurring.

## Major parties involved

### **The United States of America**

The United States of America is a country of great interest by other nations in the world. It holds the highest GDP out of all countries in the world. As the United States of America is a high income country, it should prioritize creating welfare or establishing laws that would help their citizens rather than expanding their incomes. The United States of America has officially allowed same-sex marriage in 2015, expanding human qualities to social minorities. The United States of America also holds the freedom of religion, preventing religious discrimination within its country.

### **People's Republic of China**

The People's Republic of China is one of the most significant countries ignoring basic human rights. The people's Republic of China does not accept same-sex marriage, and access to media is restricted by the government. As a country with the second highest GDP, but still a middle income country, China is a country with a big wealth gap. According to Stanford university's research in 2023, the top 0.0001% owns 5.8% of China's total wealth, which is equivalent to the bottom 50% of the population. China's wage disparity and differing levels of access to education shows the inequality between the nation's citizens themselves.

### **Nigeria**

Nigeria must appeal to the fact that because of many communicable diseases, member state's social and economic development are hindered, and can also be a future threat. As mentioned above, LEDC countries, especially from the Sub-Saharan Africa region, have been suffering from low child mortality, arrears, and lack of infrastructure. Nigeria should strongly appeal for more aid and assistance both financially and technologically. It is important for these countries to look at statistics that would show that the lack of infrastructure and the lack of welfare due to economic insecurity is causing numerous problems, and emphasize the possibility that it may lead to more problems.

### **The Republic of India**

The Republic of India is a country that holds the world's largest population. However, it is a country that is highly polluted. Also, human rights, especially of women, are violated. For India to step up, it is important that it restructure its welfare programs, and to facilitate water supply and sanitation for its citizens. India does not recognize same-sex marriage, and its failure is a setback for human rights in India.

### **The Kingdom of Sweden**

The Kingdom of Sweden ranks third in the reporters without borders rates and fourth in the World Happiness Report. Though its taxes are very high, Sweden respects human rights and takes attentive care in the welfare system. It has also legalized same-sex marriage since 2009, and holds the freedom of religion. In 2023, Sweden was announced the eighth most LGBT plus friendly country by ILGA Europe, which indicates it has a high degree of legal protection.

### **World Bank**

The World Bank Group is a unique global partnership with 189 member countries involved. Five institutions are working for sustainable solutions that reduce poverty and build shared prosperity in developing countries. The World Bank focuses on poverty reduction and the improvement of living standards worldwide by providing low-interest loans, interest-free credit, and grants to developing countries for education, health, infrastructure, and communications, among other things.

## Timeline Of Events

Date	Description of event
1600s	<p><b>The first Bills of Mortality were compiled</b></p> <p>The first Bills of Mortality created what is now a modern-day death registry, listing characteristics of individuals and providing details on who died of what.</p>
1620-1674	<p><b>John Grant's 'Natural and Political Observations Upon the Bills of Mortality' was published</b></p> <p>It noted differences in death rates based on sex and residency.</p>
1700s	<p><b>Louis Rene Villerme (1782-1863), recognized elevated levels of illness that appeared work related</b></p> <p>Louis Rene Villerme identified social class and work conditions as crucial determinants of health or disease.</p>
1844	<p><b>Friedrich Engels (1820-1895) wrote <i>The Condition of the Working Class in England</i></b></p> <p>Friedrich Engels described long hours without breaks, dingy facilities, repetitive duties, and environmental hazards.</p>
1860s	<p><b>Germ theory gains popularity</b></p> <p>Germ theory identifies single causal agents, such as <i>Salmonella typhi</i>, as the cause of disease-in this case typhoid fever.</p>
1920s to 1930s	<p><b>The causal model connecting the combined influence of host, environment, and agent emerged</b></p> <p>This model asserts that the human host is constantly besieged by viral, bacterial, or other disease-causing agents that are repelled by an uncompromised immune system.</p>
1940s	<p><b>Salvador Allende wrote <i>The Structure of National Health</i></b></p> <p>Salvador Allende argued that social change and efforts toward creating a more egalitarian society are the only effective approach to solving health problems.</p>
1950s to 1960s	<p><b>The frequency of chronic diseases increased</b></p> <p>Epidemiologists treating and monitoring these conditions gradually came to understand that chronic diseases are caused by a combination of biological, social, and behavioral exposures leading to the creation of differential risk patterns for various populations.</p>

1960s to 1970s	<b>Journals such as Social Science and Medicine were published</b> The concept of social causation of disease gained traction, leading to research.
1990	<b>The Human Development Index was made</b> From Allende's idea, Amartya Sen and Mahbub ul Haq identified national development as a critical determinant of health, a theory that laid the early groundwork.

## **UN Involvement, Resolutions, Treaties and Events**

### **Projected global deaths for selected causes of death, 2002-2030**

This report indicates the causes and estimations of possible death causes in the near future. In the report, countries classified as groups are often compared to one another to indicate what results are made when there are different groups by income. Furthermore, the report expands to explain subjects such as the decomposition of projected change in numbers of deaths into demographic and epidemiological components, by broad cause group and income group, which explains world deaths in an epidemiological point of view. This report is focused to identify different components of the cause of death, providing abundant amounts of statistics for its cause.

### **Human Development Report 2023-24**

The Human Development Report (HDR) is a report intended to provide a ranked list of all member countries according to the level of human development. It is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. The Human Development Report has had an extensive influence on development debate worldwide.

### **COVID-19 Public Health Emergency of International Concern (PHEIC) Global Research and Innovation Forum**

The COVID-19 Public Health Emergency of International Concern (PHEIC) Global Research and Innovation Forum provides information about the overall situation of the COVID-19 outbreak. Not only does it provide information about the deaths of COVID-19, it further explains how nations in different situations, such as different economic cycles, different income levels and geographical placement, affects nations in the COVID-19 situation in 2019 to 2020. It also provides a social epidemiological view on the influence of COVID-19, linking economical situations with the occurrence of the disease.

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