COMMITTEE : World Health Organization
ISSUE : How can the international community strengthen pandemic preparedness and response without compromising national sovereignty and equity of access to needed medical resources?
CHAIRS : Elisa BOURGUIGNON, Lorena PETER, Eulalie BOHLER

PRESENTATION OF THE CHAIR

Hello dear delegates! My name is Eulalie Bohler, I'm 16 and I attend the Lycée International de Ferney-Voltaire in the English section. Having lived in different countries during these past years allowed me not only to learn English, but also to discover how enriching cultures around the world can be. During my free time, I enjoy running in the Jura, spending time with my friends and practicing the saxophone.

This year, at Fermun, we will focus on the health system and on how to ensure equitable access around the world to medical resources. This issue will focus more specifically on pandemics; improving their management could significantly reduce the loss of human lives as well as the impacts pandemics have on society, culture, economy and therefore development. Indeed, the challenges faced during the Covid-19 pandemic for example, emphasize the need to rethink our approach and how decisions made impact us all.

I hope that this research report will help you and I look forward to meeting you at the OIT during our future debates!

KEY WORDS

Public health emergency of international concern (PHEIC) : a health emergency is defined as a PHEIC by the World Health Organization (WHO) if it is considered as an extraordinary event which is determined to constitute a public health risk around the world, potentially requiring an international response. The WHO is then obliged to take action.

Protective Personal Equipment (PPE): equipment used to prevent or minimize exposure to illnesses or injuries. Healthcare workers use PPE to ensure safety during working hours. Countries receive these resources through the **Supply Chain System**. For example, the distribution of masks in hospitals.

Supply Chain System: a network of organizations and individuals aiming to distribute a product around the world when it is needed and where it is needed. In this case, the WHO distributes critical health tools through a supply chain.

Prevalence : often expressed as a rate, prevalence indicates the number of cases of a disease, the number of infected people at a specific point

Epidemic: An epidemic is a disease outbreak that is rapidly spreading in a limited region, affecting many individuals at the same time. They are unexpected and sudden.

Pandemic: A pandemic is an epidemic that is spreading across the globe with rapid growth and development. It is therefore crossing borders and affecting a large number of people. Some measures such as good hygiene, social distancing and vaccination can help to prevent pandemics.

Endemic areas: diseases maintained in a specific region

Vaccines: Often at the centre of debates, vaccines are substances used to stimulate immunity of a particular disease.

National sovereignty: At the WHO, national sovereignty, meaning the authority of a state to govern itself without external interference, is considered as a right to protect. However, it is a challenge to balance equity between nations, which would suggest the same health system in all countries, while maintaining national sovereignty.

Case-fatality rate/death toll: The death toll is the number of deaths resulting from a particular cause (war/natural disaster/ etc), the case-fatality rate expresses this number proportionally to a population.

Pathogen: a microorganism - such as virus or bacterium - that can cause disease.

Virulence: the danger and speed of the spreading of a disease.

Communicable period: the time during which a disease may be transferred directly or indirectly.

Direct/Indirect transmission: when considering pandemics, it is necessary to understand the way it is transmitted; either

-directly: spread by person-to-person contact and qualified as contagious

-indirectly: disease transmitted when touching a contaminated surface often infectious

OVERVIEW

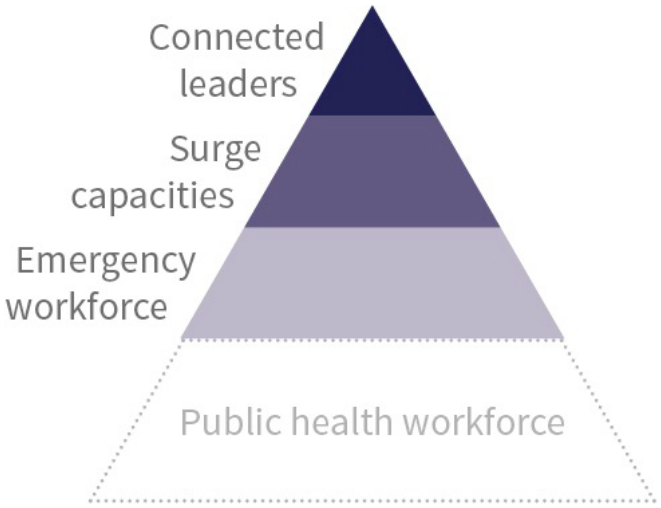
What exactly is the WHO and where does it intervene?

The World Health Organization, created in 1948 just after WW2, is the United Nations' agency dedicated to global health and safety. WHO works with partners and 194 Member States grouped into 6 regions:

- African Region
- Region of the Americas / Pan American Health Organization
- Eastern Mediterranean Region
- European Region
- South-East Asia Region

- Western Pacific Region

This grouping of regions allows better communication and efficiency which is necessary during an emergency such as a disease outbreak. When decisions are taken, the Global Health Emergency Corps (GHEC) is used to coordinate these interventions around the world.



WHO's interventions are partly funded by the Member States' membership dues, for example to provide medical supplies, equipment and doctors. Moreover, it is important to note that the International Health Regulations of 2005 (IHR) were created in response to deadly epidemics that once overran Europe. These regulations provide rights and obligations for countries, including the requirement to report any public health event.

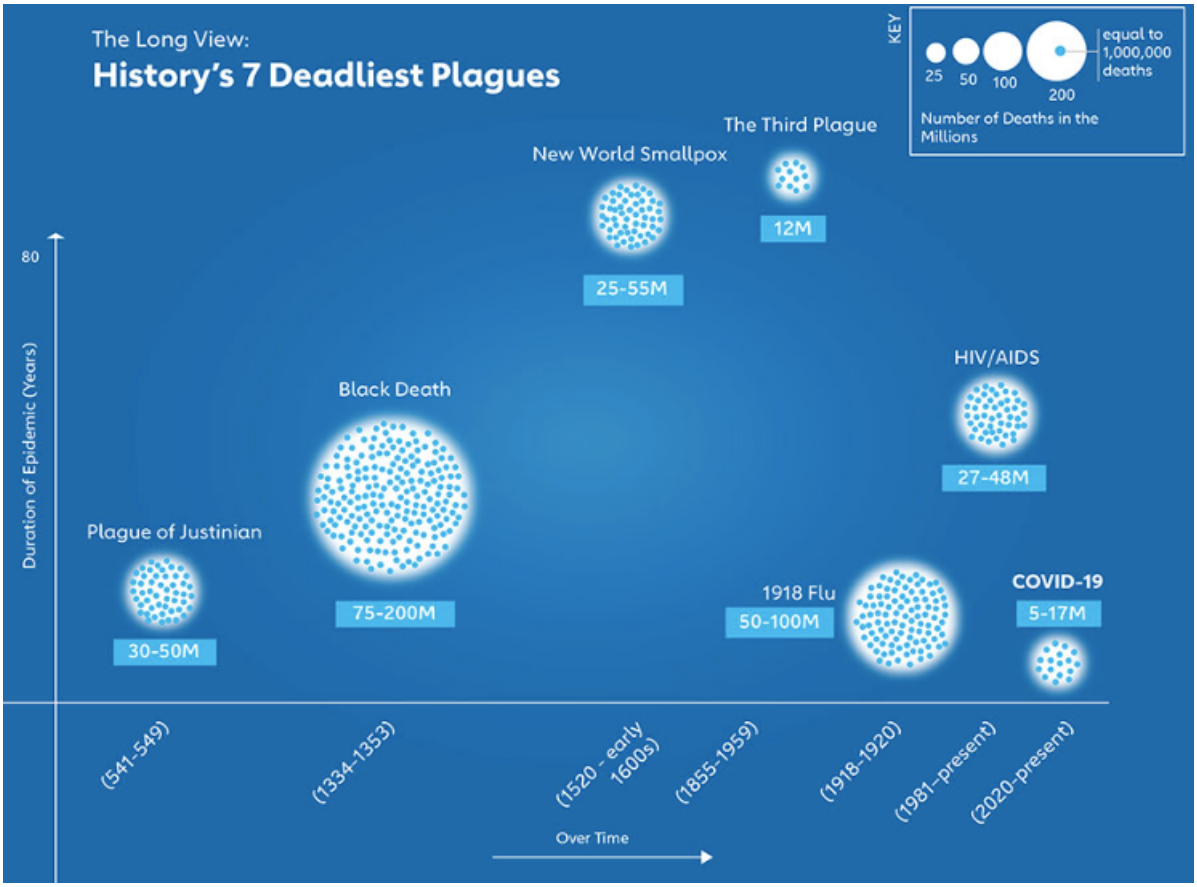
The WHO uses a 6 point scale for determining whether or not a pandemic is a possibility.

1. ***Context: Understanding previous pandemics, current diseases and their impacts***

Definition and context:

Over the last centuries, there have been numerous outbreaks of diseases spreading across large geographic regions, referred to as pandemics. Impacting countries socially, economically

and politically, pandemics therefore disrupt a country's development. ***Some past crises are the following:***



GAVI, The Vaccine Alliance

- **Antonine Plague, 165 AD**

  Also known as the Plague of Galen, the Antonine Plague affected the entire Roman Empire. It is the first plague to be clearly identified as having killed millions of people.

- **The Black Death, 1346 AD**

  Killing about 50 to 60% of Europe's population in only 6 years (approximately 50 million people), the Black Death remains one of the deadliest and earliest pandemics to have an estimated death toll. The population at the time had little understanding of how to protect themselves through sanitation which resulted in a faster contamination.

- **Columbian Exchange, 1492-1600**

After Christopher Columbus' voyage to the Americas, diseases started to be exchanged between continents. Native Americans then caught and died from infectious diseases (bubonic plague, small pox, malaria) because they lacked immunity to such diseases.

- **Influenza Pandemic, 1918-1919**

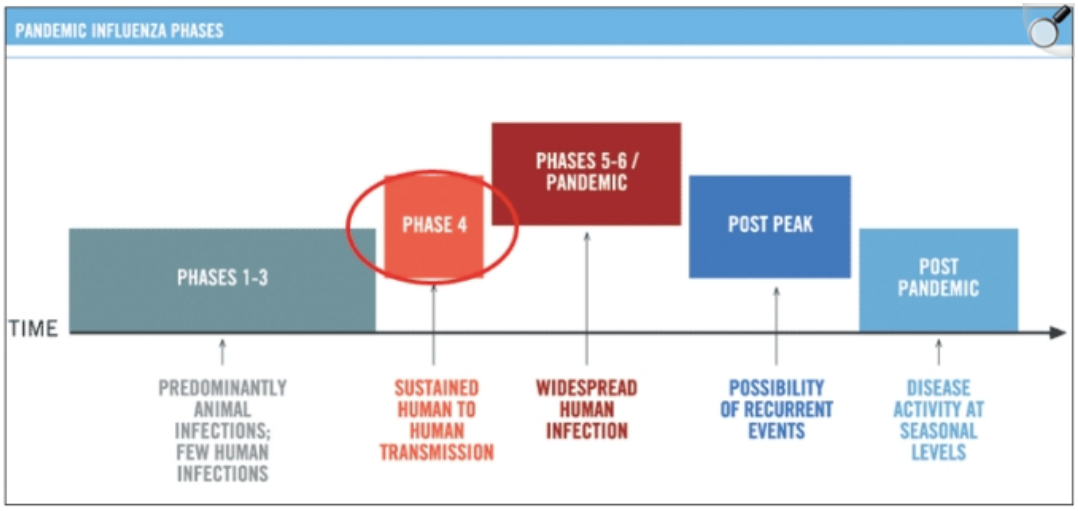
Following the end of WW1, countries were weakened and sanitation was very limited. This resulted in the contamination and death of about 50 million people from this respiratory infection across the United States, France, Germany, and the United Kingdom.

These pandemics were particularly deadly because there was less access to medical care although because of inequalities today, pandemics are still frequent and some remain more deadly than others. Around the globe, ***these are the major current pandemics, organized per regions:***

European region:

- **Pandemic Influenza (type A)**

Just like in 1918, Pandemic Influenza continues to affect many regions in the world such as Tropical and Temperate South America, Eastern Africa and South-East Asia. The disease causes regional epidemics that are closely watched by the WHO because type A viruses have pandemic potential.



WHO pandemic scale for Influenza

Eastern Mediterranean region, African region, South-East Asia region.

- **Cholera**

There have been 7 past cholera pandemics but today cholera could be considered as regional epidemics such as in the African region. In fact, researchers estimate that there are 21 000 to 143 000 deaths from cholera worldwide each year (WHO). The populations' access to safe water, basic sanitation and hygiene are necessary to prevent cholera.

WHO considers that the world is experiencing a global upsurge of Cholera although it is not considered as a pandemic yet.

African region:

- **Ebola**

Once more, ebola has so far only affected African countries and occasional cases outside of the continent have been rapidly contained. However, the possible mutation of this virus could be a serious threat as it could spread more easily between people.

The WHO refers to the Ebola epidemic as a PHEIC (Public Health Emergency of International Concern–see Key Words).

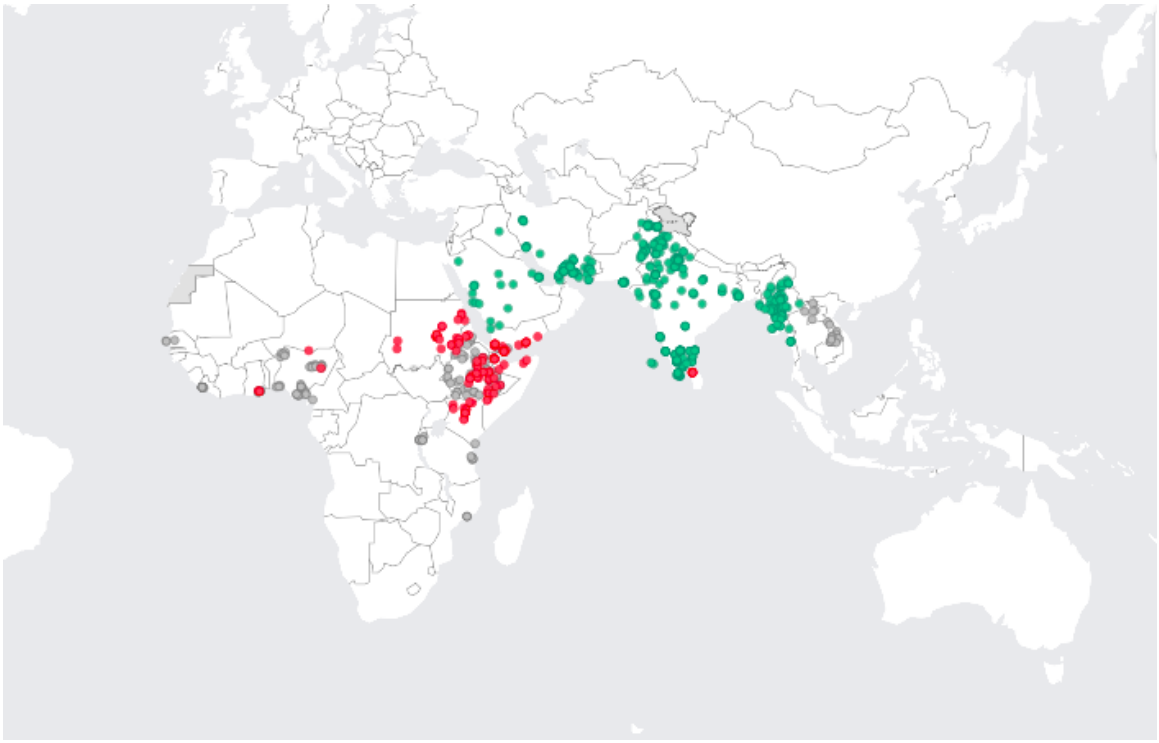
- **Mpox**

Recently, an upsurge of cases in the Democratic Republic of the Congo and in other countries have raised awareness about this viral illness. Mpox can be transmitted through close contact with someone who has mpox, with contaminated materials, or with infected animals. During pregnancy, the virus may be passed to the fetus, or to the newborn during or after birth.

The WHO refers to the Mpox epidemic as a PHEIC.

- **Malaria**

Most people get malaria when bitten by an infected mosquito. The map below represents the invasive vector species, meaning the species spreading the disease. Malaria remains one of the deadliest diseases in the world today although it isn't considered a pandemic anymore because it seems to stabilize in Africa *(it is considered an epidemic of great importance by the WHO).*



WHO Malaria Threat Map, 1984-2025

Global impact:

- **Covid-19**

As we have all experienced, Covid-19 revealed how unprepared countries were to the outbreak of a disease. The crossing of borders was a key point in preventing further contamination as well as the distribution of vaccines. It can also be noted that the constant genetic changes of the disease required scientific research to adapt vaccines.

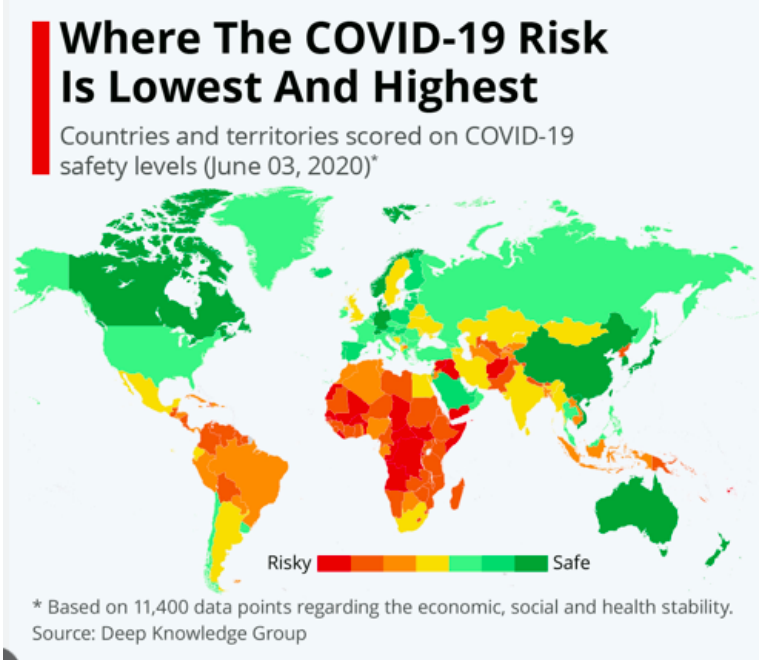
The WHO refers to the Covid-19 epidemic, recently a pandemic, as a PHEIC.

- **HIV/AIDS**

HIV is a virus that affects the body's immune system. AIDS occurs at the advanced stage of the infection.

The WHO states that HIV remains a major global public health issue. It is considered as a global epidemic (there are cases in all countries) and yet it is not a pandemic (High Income Countries limit its propagation).

2. *Identifying the current challenges*



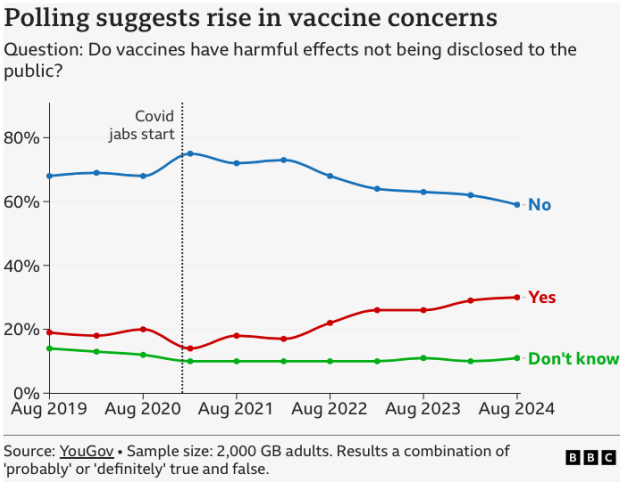
The union of countries is key in order to guarantee prevalence and pandemic preparedness. Today, our lifestyle has massively evolved: people travel around the world either for work or in their free time, crossing international boundaries. Therefore, all nations need to work together during health emergencies to limit the transmission of a disease.

It is also crucial to consider the inequalities created by pandemics: wealthier nations often secure resources first, leaving poorer countries in even more need. As presented on this map, regions such as Africa that are unstable economically and socially have a higher risk of being contaminated by disease outbreaks. Furthermore, Member States might not have the same opinions on how to manage a pandemic, leading to even more complications during debates.

Over the years, new threats linked to diseases have started to appear such as antimicrobial resistance. Antimicrobials are used to prevent and treat infectious disease but over time, some bacterias, fungi, viruses or parasites no longer respond to them. In 2019, antimicrobial resistance contributed to 4.95 million deaths, proving that this is a central issue to consider. This

deterioration of the health of the population could be fatal if a pandemic spreads during the same period; new medicines and vaccines constantly need to be found.

Indeed, during new outbreaks of unknown diseases, vaccines have not yet been found which means that the WHO needs to finance scientists that after some research can develop one. As the BBC graph illustrates, the population questions these new treatments as there hasn't been any test for second effects over a large period of time.



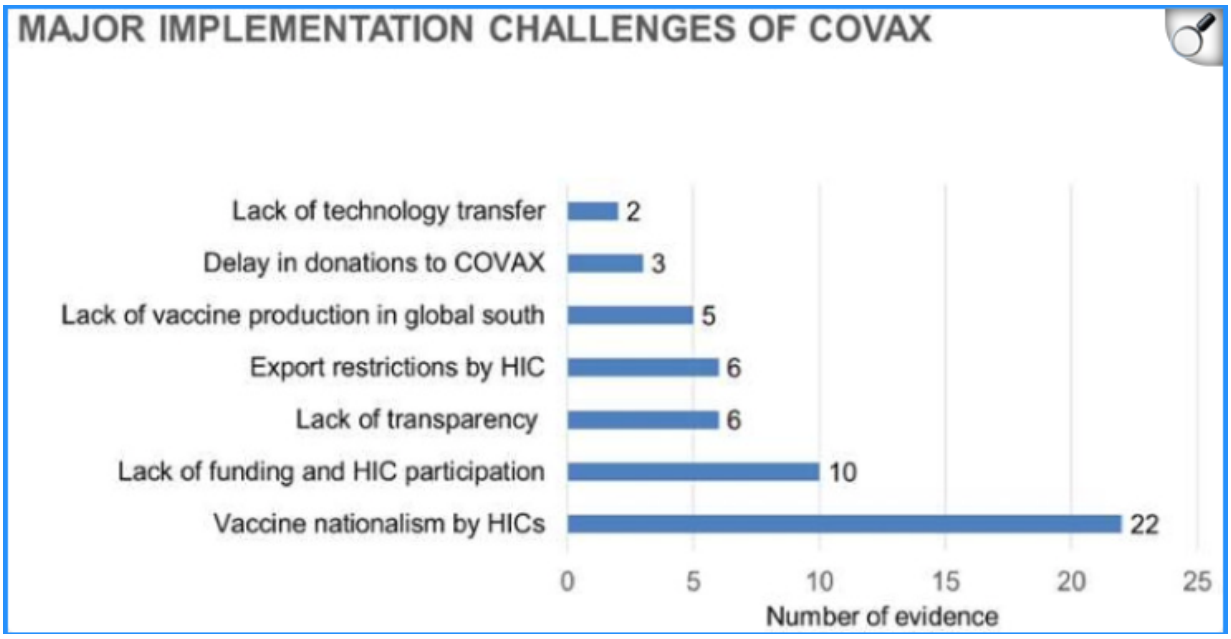
Finally, the population keeps on growing day by day, meaning that the distribution of critical health tools or detection tests needs to be efficient, coordinated but also well-distributed. This can also be said for vaccines, proven to be the most frequent solution found to immune populations to diseases.

3. Key factors to consider

Sovereignty: Each country has the right to make their own decisions because they might have diverging interests; as briefly said above, there are different health policies between countries which makes it harder to reach an agreement. In some countries, data is not always shared transparently, sometimes flawing international decisions.

Equity: It is important for the WHO to empower all nations equally in their resolutions: all countries should benefit from decisions made.

Preparedness: As experienced during the Covid-19 pandemic, diseases can spread extremely fast and cause damage especially in regions unprepared. For instance, this pandemic has revealed the difficulty in distributing vaccines around the globe. Even the Covax mechanism (an alliance between CEPI, GAVI, UNICEF and the WHO in order to distribute vaccines more rapidly) encountered limits and came to an end on the 31st of December 2023. Some limits are shown in the graph below:



PMC graph (PubMed Central–bibliographic database supporting scientific and medical research)

The WHO aims to improve this response in all countries in case of a disease outbreak by reflecting on the challenges faced with COVAX for example. This will not only protect affected populations but also limit further propagation.

To conclude, while decisions on national responses will always be questioned differently by each country, no nation can protect itself from pandemics through individual action alone.

RELEVANT UN TREATIES AND EVENTS

2000

The Global Outbreak Alert and Response Network

2005

International Health Regulations or IHR

24/05/2011

Unanimously adopted during the sixty-fourth World Health Assembly, the **Pandemic Influenza Preparedness Framework (PIP)** aims to increase the access of developing countries to vaccines and other pandemic related supplies. The article 6.11 for example declares that *"Member States should urge vaccine manufacturers to set aside a portion of each production cycle of pandemic influenza vaccine for use by developing countries"*

2014

The **Global Health Security Agenda (GHSA)** is an alliance between international organizations (including the WHO) and more than 70 countries. Similarly to the WHO, its purpose is to protect populations from infectious disease threats.

2023

The **Health Emergency Preparedness and Response program (HEPR)** finances innovative actions, contributing to pandemic preparedness.

20/05/2025

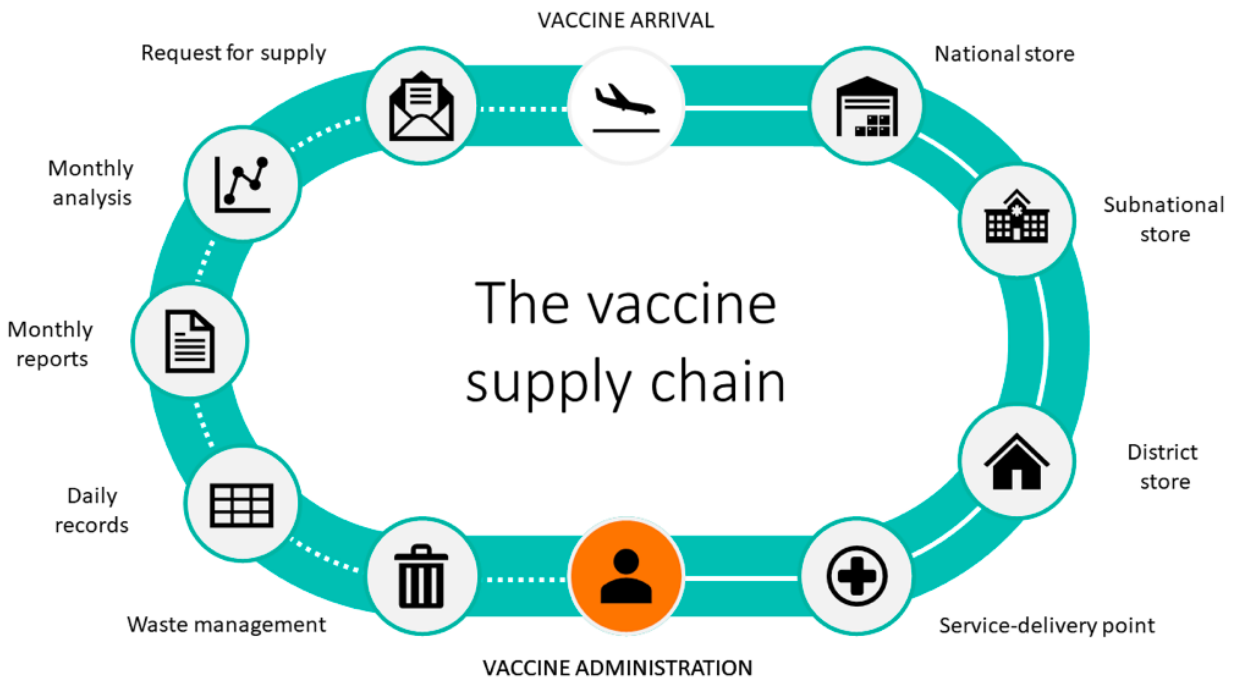
The World Health Assembly adopts the **Pandemic Agreement** to make the world more equitable and safer from future pandemics.

POSSIBLE SOLUTIONS

➔ **Promote data collection and use**: Although it is not known when and what form the next crisis will take, data is vital to prepare for new threats. Additionally, during a pandemic, data helps decision makers to adapt future actions as well as providing a better picture of the scale of the situation. Early warning systems for disease outbreaks are surveillance systems used during humanitarian emergency situations. They collect information on a particular disease at risk of becoming an epidemic/pandemic to prepare for public health interventions.

➔ **Develop healthcare supply chain resilience**: For healthcare organizations such as the WHO, the healthcare supply chain is one of the priorities during a pandemic; distribute critical health tools around the world when it is needed and where it is needed. Despite the fact that

supply chain disruptions are unavoidable during emergencies, it is possible to mitigate or minimize them.



WHO's Supply Chain and Logistics for Immunization

➔ **Encourage workforce recruitment and retention** : During the Covid-19 pandemic, health systems were understaffed which truly slowed the response to the pandemic and therefore has endangered the lives of many. In fact, workforce limitations proved to be a more binding constraint than the availability of hospital beds. To improve workforce flexibility to make the systems resilient, it could be suggested that increasing investment in recruitment and retention is the most efficient solution. Other approaches could include, in case of an emergency, inactive, retired or foreign-trained health professionals into the workforce, with volunteer recruitment also an option for certain tasks. Some countries have also put in place contracts with private sector staff to work in the public sector.

➔ **Improve international co-operation:** As said earlier, it is essential for countries to work together during pandemics because of global mobility today. Financing innovation and research permits to save millions of lives, just like for the development of the Covid-19 vaccine.

GUIDING QUESTIONS

1. Has your country been greatly affected by a pandemic in the past and is it still today?
2. If so, has your entire population access to critical health tools?
3. Can you afford to buy this type of equipment or do you need allies to support the financing?
4. How can the international community improve communication and co-operation for a better response in the case of a new pandemic?
5. In your country, which part of the supply chain system would you need to improve for a better response to a disease (stock, distribution, …) ?
6. Is the medical personnel in your country satisfactory?
7. If not, how could you assure that this number will increase in the future?
8. If your country is affected by a pandemic/spreading disease, do you know what causes it? Could some measures be put in place in order to reduce its propagation? *Ex: intensive livestock and zoonotic diseases.*
9. How can we adapt to the constant genetic changes of diseases?

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  https://www.who.int/about/funding/contributors*(list of contributors)*

- National Institutes of Health (NIH)
  https://www.ncbi.nlm.nih.gov/books/NBK525302/

- Leopoldina
  https://www.leopoldina.org/en/topics/pandemics/emergence-of-pandemics/

- Our World In Data
  https://ourworldindata.org/historical-pandemics

- Pan American Health Organization *(useful for precise vocabulary)*
  https://www.paho.org/sites/default/files/2022-09/covid-19-glosario.pdf

- Global Outbreak Alert and Response Network (GOARN)
  https://goarn.who.int/about

- European Council website
  https://www.consilium.europa.eu/en/infographics/towards-an-international-treaty-on-*pandemics/*

- HEPR
  https://www.healthemergencies.org/

- CDC (Center for disease control)
  https://www.cdc.gov/ebola/outbreaks/index.html

Data

- The Global Health Observatory
  https://www.who.int/data/gho/data/themes/international-health-regulations-(2005)-monitoring-framework

Videos

The Next Pandemic: Are We Ready? | United Nations*(brief video summarising the issue and possible solutions)*