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World Health Organization

Research Report





Definitions

Health: is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". It is also a state that allows the individual to adequately cope with all demands of daily life.

Animal virus outbreak: it constitutes an outbreak of zoonotic infectious diseases, which are transmitted from animals to humans.

Zoonotic: "Zoonotic diseases are infections that are spread between people and animals. These infections are caused by germs, such as viruses, bacteria, parasites, and fungi. Some can be severe and life threatening, such as rabies, and others may be milder and get better on their own".

Zoonoses: "A zoonosis is an infectious disease that has jumped from a non-human animal to humans. Zoonotic pathogens may be bacterial, viral or parasitic, or may involve unconventional agents and can spread to humans through direct contact or through food, water or the environment. They represent a major public health problem around the world due to our close relationship with animals in agriculture, as companions and in the natural environment. Zoonoses can also cause disruptions in the production and trade of animal products for food and other uses"².

Healthcare access: "is the ability to obtain healthcare services such as prevention, diagnosis, treatment, and management of diseases, illness, disorders, and other health-impacting conditions. For healthcare to be accessible, it must be affordable and convenient"³.

The One Health approach: It recognizes the interconnectedness of human, animal, and environmental health and advocates for collaborative efforts across disciplines to address complex health challenges. By integrating expertise from human health, veterinary medicine, environmental science, and other fields, the One Health approach aims to prevent and mitigate the impacts of zoonotic diseases.

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¹ https://www.who.int/about/accountability/governance/constitution

² https://www.who.int/news-room/fact-sheets/detail/zoonoses

³ https://medicine.missouri.edu/centers-institutes-labs/health-ethics/faq/health-care-access





Background

Over the past two decades, the news has reported on the rise in the number of emerging diseases; most of them are zoonoses diseases, in other words, they have an animal source. Examples of these include West Nile virus, severe acute respiratory syndrome (SARS), avian influenza, and monkeypox and many more. All of these new or re-emerging infections have societal implications, often tied to local and national economies. Thus, it is vital for the international community to understand the effects of these emerging animal diseases have on society and public health and to address the problems with stronger collaboration of veterinary and medical professionals, especially in third world countries and rural areas.

Several factors contribute to the emergence and spread of animal viruses. These include habitat destruction and fragmentation, climate change, wildlife trade, intensive farming practices, population growth, and increased human-animal interaction. These factors can disrupt ecosystems, alter wildlife behaviour, and create opportunities for pathogens to spill over into human populations.

Countries across the globe are susceptible to animal virus outbreaks and the spread of zoonotic diseases, with specific regions facing higher risks due to factors such as dense populations, close human-animal interactions, and limited healthcare infrastructure. Tropical regions like Brazil, the Democratic Republic of Congo, and Indonesia are prone to outbreaks due to high biodiversity and close human-wildlife contact. Additionally, countries with intensive agricultural practices such as the United States, China, and Brazil face challenges related to livestock farming. Urban centres like Mumbai, Lagos, and Dhaka are hotspots for disease transmission due to population density and inadequate sanitation. Transit hubs and trading centres in Southeast Asia, such as Thailand and Vietnam, are at risk due to extensive wildlife trade networks. Moreover, countries with limited healthcare infrastructure, particularly in sub-Saharan Africa, struggle to detect and respond to outbreaks effectively. Global collaboration and coordination are crucial to prevent and control animal virus outbreaks and mitigate risks to human and animal health worldwide.

Treaties and Organisations

WHO - World Health Organisation

It is a specialised UN agency for international public health. It pushes for global efforts to achieve a healthier and better lives for all humans by offering the best standard of healthcare, by working with authorities and governments, connecting nations, expanding access to high-quality healthcare services, promoting funding and financial protection, assisting with emergency access to vital medicines and health supplies, offering policy advice, and educating medical workers.





Global Framework for the progressive control of Transboundary Animal Diseases (GF-TADs)

Framework made by the Food and Agriculture Organisation of the UN, which aims are increasing cooperation between countries and to encourage regulations that limit the movement and spread of animal diseases between countries.

World Organisation for Animal Health (WOAH)

Worldwide organisation that aims at pushing for policies and projects that improve the health of animals. It monitors the spread of animal diseases and assists in their control and non-proliferation.

WHO Global Action Plan on Antimicrobial Resistance

A plan developed by the WHO and other organisation to respond to the evolution of microbial resistance to vaccines and medicines, thus allowing for the development of animal diseases that affect humans and other animals. This plan holds the concept of "One Health" as an essential cornerstone, as the understanding of health as one that extends the human-animal division is important for keeping track and solving animal diseases.

Right to Health

According to several international legal instruments including the International Covenant on Economic, Social and Cultural Rights: "Every human being has the right to the highest attainable standard of physical and mental health", "It includes freedoms and entitlements. Freedoms include the right to control one's health and body".

The current situation

There has been a rise of animal diseases that have disrupted the world in radical ways for the last two decades. From SARS, Swine flu, Ebola and COVID-19, the effects were deadly on millions and effected negatively numerous societies and economies around the globe. All of them caused by Zoonoses diseases that evolved and began to effect humans. The horrible unsanitary and disease prone conditions in which animals are subjected to by Human industry and environmental change and due to the interconnectivity of the world via international travel mean that any outbreak of such a disease anywhere in the world can have serious effects worldwide. It is thus vital for the international community to recognize the connectivity of humans and animals, using the framework of One-Health, and to address the problem for the

⁴ https://www.o<u>hchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights</u>





protection of public health, for the stability of the international economy and for reducing social disruptions.

Timeline

Late 19th Century: The concept of zoonotic diseases emerges, recognizing the transmission of diseases between animals and humans.

1918-1919: Spanish Flu spread around the world, originating from birds, affecting one third of the globe and causing millions of deaths.

1924: The World Organization for Animal Health (OIE), originally established in 1924 as the Office International des Epizooties, is officially recognized as an intergovernmental organization responsible for improving animal health worldwide.

1948: The World Health Organization (WHO) is founded as a specialized agency of the UN, responsible for international public health.

1997: Bird Flue spread around the world, caused by chickens and other poultry birds.

2002-2003: Severe Acute Respiratory Syndrome (SARS) plagued the globe, which originated from bats.

2005: The International Health Regulations (IHR) are revised by the WHO, establishing a framework for global cooperation in preventing and responding to public health emergencies, including zoonotic diseases.

2009: Swine Flu infected million around the world, originated from pigs and birds.

2013-2016: The Ebola virus outbreak in West Africa. Originally carried by fruit bats that then spread to humans.

2019-Present: The COVID-19 pandemic emerges and disrupts the whole world, originating from bats.

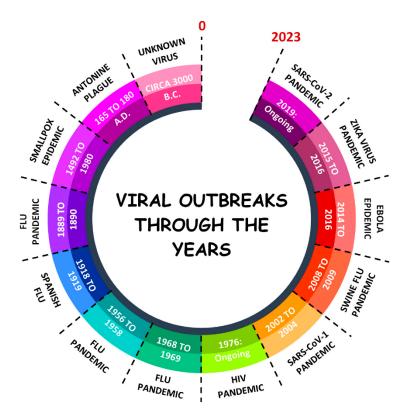




Questions to consider

- What are the main causes of animal virus outbreaks and zoonotic diseases?
- How can we improve early detection and surveillance systems for emerging diseases?
- What measures can be taken to prevent animals from transmitting viruses to humans?
- How can countries work together to address global health threats like zoonotic diseases?
- What is the One Health approach, and how can it guide policy development?
- How can we promote sustainable practices to reduce the risk of disease transmission?
- How can policies ensure that everyone has access to healthcare and resources for disease prevention and control?
- How would you describe the current situation in your country?

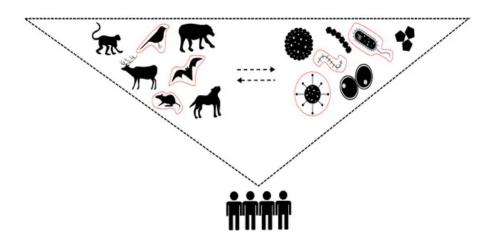
Relevant media



1The (Re-)Emergence and Spread of Viral Zoonotic Disease: A Perfect Storm of Human Ingenuity and Stupidity







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