Changing Threats Landscape

Challenges and Opportunities

Dr. Chadia Wannous
One Health Global Coordinator
World Health Organisation for Animal Health (WOAH)

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Changing landscape of global risks
Understanding Risk

Coping Capacity

Prevention

Five Steps of Risk Management Process
- Identifying potential risks
- Analysing the risk
- Evaluating the risk
- Monitoring and reviewing the risk
- Treating the risk
Increasing risk of pandemics
An increasing number of outbreaks

Outbreaks of zoonotic diseases
1960-2019

Outbreaks of vector-borne diseases
1960-2019

Outbreaks of livestock - poultry diseases
2005-2019

Outbreaks of wildlife diseases
2005-2019

Data source: GIDEON

Data source: OIE-WAHIS

Humans
Livestock
Wildlife
Chicken density

Pig density

Cattle density

Outbreaks of zoonoses

Wild species at threat

Human infectious disease outbreaks (total diseases)
Centrality in outbreaks vs centrality in air routes

First cases of Covid-19 vs centrality in air routes
Disasters in 2022

- In 2022, the Emergency Event Database EM-DAT recorded 387 natural hazards and disasters worldwide, resulting in the loss of 30,704 lives and affecting 185 million individuals. Economic losses totaled around US$223.8 billion. Heat waves caused over 16,000 excess deaths in Europe, while droughts affected 88.9 million people in Africa. Hurricane Ian single-handedly caused damage costing US$100 billion in the Americas. The human and economic impact of disasters was relatively higher in Africa, e.g., with 16.4% of the share of deaths compared to 3.8% in the previous two decades. It was relatively lower in Asia despite Asia experiencing some of the most destructive disasters in 2022.
Drivers of risks

Health risks including pandemic potential

Human – animal – plant – environment interface

- Land use changes
- Climate change and extreme weather events
- Habitat encroachment and deforestation
- Agricultural expansion
- Poverty and inequality
- Human and animal movements
- Wildlife trade
- Population growth
- Unsustainable livestock production and value chain risks
- Underinvestment in One Health systems
- Agricultural expansion
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.

DOI
Pathways of change

Policy, legislation, advocacy, and financing
Organizational development, implementation and sectoral integration
Data, evidence, and knowledge

The OH JPA-Six Action Tracks

Action Track 1: Enhancing One Health capacities to strengthen health systems
Action Track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics
Action Track 3: Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases
Action Track 4: Strengthening the assessment, management and communication of food safety risks
Action Track 5: Curbing the silent pandemic of Antimicrobial Resistance (AMR)
Action Track 6: Integrating the Environment into One Health

Launched 17 October 2022

Prevention of Spillover

Prevention of Zoonotic Spillover to Humans

Prevention of pathogen spillover from animals to humans; shifting the infectious disease control paradigm from reactive to proactive (Primary prevention). Prevention includes addressing the drivers of disease emergence, namely ecological, meteorological and anthropogenic factors and activities that increase spillover risk, in order to reduce the risk of human infection. It is informed by, amongst other actions, biosurveillance in natural hosts, people and the environment, understanding pathogen infection dynamics and implementing intervention activities.

PLoS Pathogens, submitted
Preventive Actions

Preventive Actions should target ‘activities’ and ‘places’ that increase the risk of zoonotic spillover from animals to humans. It requires a One Health (OH) approach that bring together human, animal, and environment sectors to work together on actions that include:

1) Expand viral discovery and integrated OH surveillance and data sharing.
2) Monitor wildlife hunting, consumption and trade as well as large, high-density animal farming for viral infections.
3) Improve biosecurity at animal farms,
4) Strengthen multi-stakeholders coordination mechanisms/OH Platforms, at national, regional and international levels.,
5) Prevent drivers of risk including deforestation and other land-use changes associated with agricultural expansion, & biodiversity loss, degradation of ecosystems, and climate change.
## Relevant international legal instruments

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<th>Overall goal</th>
<th>Reduce risk of infectious disease (re)emergence and spread in humans and animals</th>
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<td><strong>Context</strong></td>
<td>Environmental governance</td>
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<td><strong>Approach</strong></td>
<td>Deep prevention</td>
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<td><strong>Focus</strong></td>
<td>Preventing drivers</td>
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<td><strong>Regulatory target</strong></td>
<td>Drivers of (re)emergence and spread</td>
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<td><strong>Instruments</strong></td>
<td>International agreements, e.g. on wildlife trade (CITES), climate change (UNFCCC/PA), biological diversity (CBD, Biosafety Protocol), land-use change (CBD,UNCCD), international traffic, population movements, etc</td>
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Disaster Risk Reduction Framework

The Sendai framework recognizes that effective disaster risk reduction (DRR) requires expanding focus on the protection of livelihoods and productive assets. This includes livestock, working animals, tools and seeds.
Global commitment

G20 Ministers of Health reaffirm the urgent need to address global health under a One health approach

12. We also welcome the recently announced operational definition of One Health by the work of the One Health High Level Expert Panel, endorsed by WHO, FAO, OIE and UNEP, and its forthcoming gap analysis and recommendations on monitoring and surveillance of emerging zoonotic diseases and priority activities, looking forward to considering the results of the One Health Intelligence Scoping Study as we agreed last year, as G7 Health Ministers, and we support the consideration of the inclusion of the One Health dimension in the new WHO convention, agreement or other international instrument on pandemic prevention, preparedness and response. We encourage other initiatives aiming at strengthening the implementation of the One Health approach such as Zoonotic Disease Integrated Action (ZODIAC) and Preventing Zoonotic Disease Emergence (PREZODE).
Global commitment

1. Multilateral Funds & Multi-Partner Mechanisms
2. Bilateral governmental agreements
3. In kind contributions
4. Non-state actors
## The Quadripartite Call to Action

### 1st Quadripartite Executive Annual Meeting

#### Joint Call to Action

Shaping the next for enhanced collaboration and commitment to translate the One Health approach into early action in all countries, the Quadripartite leaders urge all countries and key stakeholders worldwide to endorse the following principles:

1. **Early Action:** The Quadripartite leaders call for enhanced and accelerated collaboration at all levels and across sectors to prevent and control health crises, including those that have the potential to acquire pandemic potential. This includes early detection, assessment, and containment of diseases of international concern, and the implementation of rapid response strategies to address emerging threats.

2. **Strengthened Global Health Security:** The Quadripartite leaders call for the strengthening of national and international health systems and surveillance capacities, with a focus on enhancing preparedness and response capabilities to address health threats.

3. **One Health Framework:** The Quadripartite leaders call for the implementation of One Health frameworks at all levels, including at the national and international levels, to ensure a comprehensive and integrated approach to health and environmental issues.

4. **Access to Health Technologies:** The Quadripartite leaders call for increased access to essential health technologies, including vaccines, diagnostics, and therapeutics, to ensure that all populations have access to health services.

5. **Global Health Governance:** The Quadripartite leaders call for the strengthening of global health governance structures, including the World Health Organization (WHO), to ensure effective coordination and decision-making in times of crisis.

6. **Intersectoral Collaboration:** The Quadripartite leaders call for enhanced collaboration and coordination across sectors, including health, agriculture, environment, and other relevant fields, to address health threats.

7. **Financial and Technical Support:** The Quadripartite leaders call for increased financial and technical support to countries to strengthen their health systems and surveillance capacities.

Signed by:

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Tackling shared threats for a safer world

#WOAHGlobalConference

3-5 April 2023  Maison de la Chimie, Paris, France