



Concept note

Background

Natural and unnatural infectious disease threats

Threats from infectious disease can be broadly divided into two categories, the known threats from established naturally occurring infectious diseases and the unknown threats from emerging diseases, laboratory accidents, disasters, and deliberate acts. In addition to managing the daily disease burden, animal health and human health systems must be prepared against the unknown threats. Often we are only aware of the importance of having strong health systems when it is too late, once the Health Services are struggling to cope with consequences of an unlikely and unpredictable event.

Recent examples of emerging and re-emerging infectious diseases highlight how ineffective we have been at predicting when and where new diseases will emerge or where existing ones will resurface. Some of these examples also highlight how quickly weak health systems can become overwhelmed. Although we are only just beginning to understand the complex interaction of factors that lead to disease emergence, it is becoming clear that climate change and man's disturbance of ecosystems will facilitate the emergence of more and more infectious disease threats.

Animal and human Health Services also need to be prepared against existential threats. Physical disasters are constantly reminding us how natural (tsunamis, extreme weather, earthquakes) and unnatural (conflicts, industrial accidents) events disrupt or destroy the infrastructure that we rely on every day to keep infectious diseases under control.

Naturally occurring day to day infections are by far the most common cause of disease outbreaks and have the greatest impact world-wide. However, history has shown us that the less likely and potentially devastating threats from bioterrorism and laboratory accidents are real and should not be ignored. As long as there is political instability in the world or a threat from non-state actors, including terrorists, there is a risk that naturally occurring or engineered pathogens will be used as bioweapons agents. Most pathogens that have been used, or considered for use, as bioweapons agents have been animal pathogens due to their severe impacts on health, economies, social stability and trade, and their ready availability. Poor compliance with laboratory biosecurity increases the likelihood that dangerous animal pathogens and zoonotic agents will fall into the wrong hands, as well as creating the very real possibility that dangerous infectious agents will be accidentally released.

Over the last century, technology has helped us to get a better understanding of disease evolution; it has also provided us with better tools to detect and control disease. However, technological advances, including developments in synthetic biology, have created further scope for the misuse of science.

International standards for strong health systems

At the international level, the World Health Organization (WHO) and the World Organisation for Animal Health (the OIE) have longstanding and robust frameworks (WHO's International Health Regulations and OIE's International Standards) under which their Member Countries are obliged to report disease outbreaks, to control them, and to build resilience against biological threats. These internationally adopted standards are the basis for global infectious disease prevention and control, including early detection and rapid response to biological events, and for strong animal health and human health systems. Compliance with these international standards ensures resilience against all infectious disease threats because the tools and systems used to detect diseases early and to control them quickly are the same whether the cause is natural, accidental or deliberate.



Unfortunately many parts of the world suffer from weak health systems (which do not comply with WHO and OIE standards) and several recent examples have demonstrated how quickly disease outbreaks can overwhelm health systems that have poor governance and are lacking infrastructure. To counter biological threats in a sustainable way, the security community has engaged with the health community to support their efforts to strengthen health systems and bolster scientific networks.

Synergies between health and security

The relationship between health and security is of course a two-way street. Lapses in security or social unrest may increase the chance of a potentially devastating bioterrorist attack or a laboratory accident. On the other hand, infectious disease outbreaks may lead to social unrest or instability, particularly if they disrupt social infrastructure or reduce food availability, or if they create fear and panic.

Whilst security risks and health concerns may overlap, the two are not always perfectly aligned. Therefore, it is vital that the human and animal health sectors work together with the security sector to assess priorities and maximise the efficient use of resources, so that the burden of infectious animal diseases and zoonoses from natural or unnatural origins, can be reduced and, at the same time, biological security is strengthened.

The conference

Acknowledging the important role that Health Services and health systems play in reducing biological threats by building resilience against animal disease and zoonoses, the OIE, in close collaboration with the WHO, is hosting a Global Conference on Biological Threat Reduction in Paris (30 June – 2 July 2015).

The conference will put biological threat reduction on the agenda of Veterinary Services in all 180 OIE Member Countries; strengthen links between the health and security community by engaging key partners in public health, animal health and the security sector; promote international human and animal health frameworks as a key to reducing biological threats; and develop a road map focussed on enhancing and coordinating existing mechanisms for scientist outreach and the strengthening of health systems.

The meeting will host up to 400 participants including: relevant international organisations, official Delegates of OIE Member Countries, leading scientific experts, donors, and stakeholders from animal production and trade, animal health and welfare, public health and security communities.



FOR MORE INFORMATION PLEASE CONTACT THE OIE AT
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Proposed Programme

DAY 1

1) Key note perspectives

- The importance of intergovernmental standards in reducing biological threats arising from accidents, nature and deliberate acts
- The nature of disease emergence
- Infectious disease disasters
- Creating synergy between health and security sectors
- The use of animal pathogens as biological weapons agents throughout history
- The risks and the benefits provided by synthetic biology

2) International initiatives and frameworks to reduce biological threats

- United Nations Office of Disarmament Affairs (UNODA)
- The Biologic and Toxin Weapons Convention (BWC) – strengths and weaknesses in international solidarity to prevent biological weapons development and proliferation
- UN Security Council Resolution 1540 - the threat from non-state actors
- The G7 Global Partnership (GP) against Weapons of Mass Destruction
- The Global Health Security Agenda (GHSA)
- European Union Programme
- One Health collaboration to combat antimicrobial resistance – surveillance and regulation

LUNCH

3) Sustainable strengthening of health systems

- Assessment of needs
 - o Updates on
 - OIE Performance of Veterinary Services (PVS) pathway
 - OIE Veterinary Legislation Support Programme
 - o International Health Regulations (IHR) assessment for human health
 - o Exploiting synergies between PVS and IHR
 - o Country perspectives and experiences of PVS and IHR
 - o Country perspectives: practical implementation of a One Health approach: the example of antimicrobial resistance

4) Ensuring that the world remains free from eradicated diseases

- Smallpox experience
- Rinderpest experience
- Prospects for future eradication efforts – polio, PPR



DAY 2

Surveillance and response

5) Surveillance, early detection and disease information reporting

- Diagnostics
 - o Detecting the known – latest technologies in pen-side tests
 - o Detecting the unknown – pathogen discovery
- Current intergovernmental information and reporting systems, legal frameworks, and their respective roles in early warning
- Connecting Organizations for Regional Disease Surveillance (CORDS)
- Future perspectives for detection, characterization and real time reporting of infectious disease events
 - o Looking ahead to 2040: systems for reporting, monitoring and analyzing animal health data
 - o The value of generating genetic data and reporting it at the international level

6) Resilience against accidents and disasters

- Case studies;
 - o Accidental laboratory release
 - o Sustaining health services during conflict
 - o Preparedness and recovery from nature's wrath
- Climate change and its impact on infectious diseases
- Contingency planning and simulation exercises
 - o Antibiothreat exercise: conclusions and lessons learned
 - o The law enforcement perspective
- National coordination in emergencies
- Response to an alleged bioterror attack – the UN Secretary General's mechanism
 - o Overview of UN SG mechanism
 - o OIE involvement – expert's perspective

LUNCH

1) Panel discussion – given the concern about biological disasters and their impact on socioeconomics, is there sufficient political commitment to prevention?

(Chaired by scientific journalist)

- Emerging and re-emerging infectious disease
- Bioweapons
- Laboratory accidents
- Synthetic biology

POSTER SESSION

COCKTAIL



Day 3

Capacity building, outreach, education

1) Engaging scientists and veterinarians

- Education
 - o OIE twinning for veterinary education establishments and veterinary statutory bodies
 - o Case study of veterinary education twinning
 - o On-line training to enhance international veterinary education
 - o Integrating bioethics to life sciences education
- A voice for biosafety associations
- OIE laboratory twinning programme - making a difference

2) Laboratory Capacity building

- Biosecurity and biosafety in the laboratory
- Biosafety training and outreach
- Assessment of capacity in veterinary laboratories
- Safe and secure laboratory capacity building (Safe and Secure Biomaterials)
- Ensuring safe and efficient transport of biological materials

3) Sustainability

- Expanding the vision horizon
- Cost benefit of investing in health systems
- The World Fund for Animal Health and Welfare

4) Conclusions – recommendations

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