

Public Health and Security interface: Impatto sulle regole, sicurezza e pratiche sanitarie globali



Biella, 29 Gennaio 2011

Global Alert and Response

....A world on alert and ready to respond rapidly and effectively to epidemics and other acute public health emergencies

dr. maurizio barbeschi,
team leader, GAR/HSI

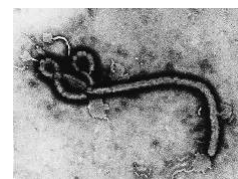


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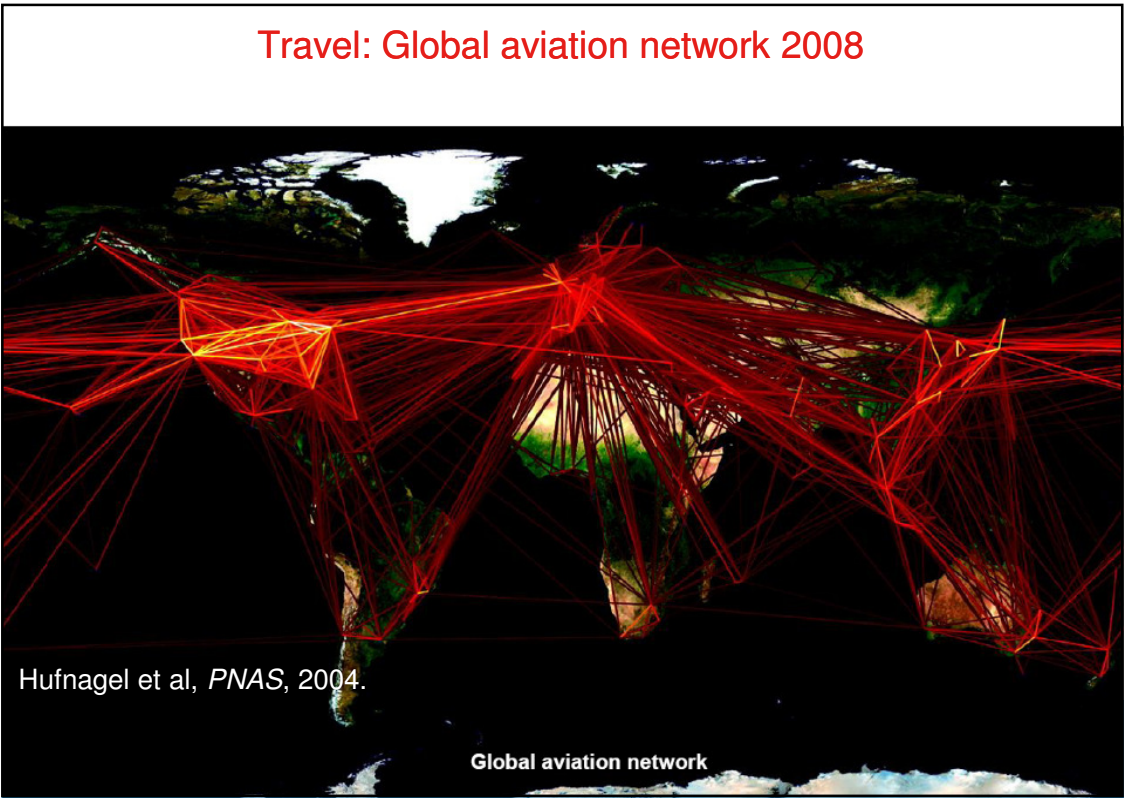
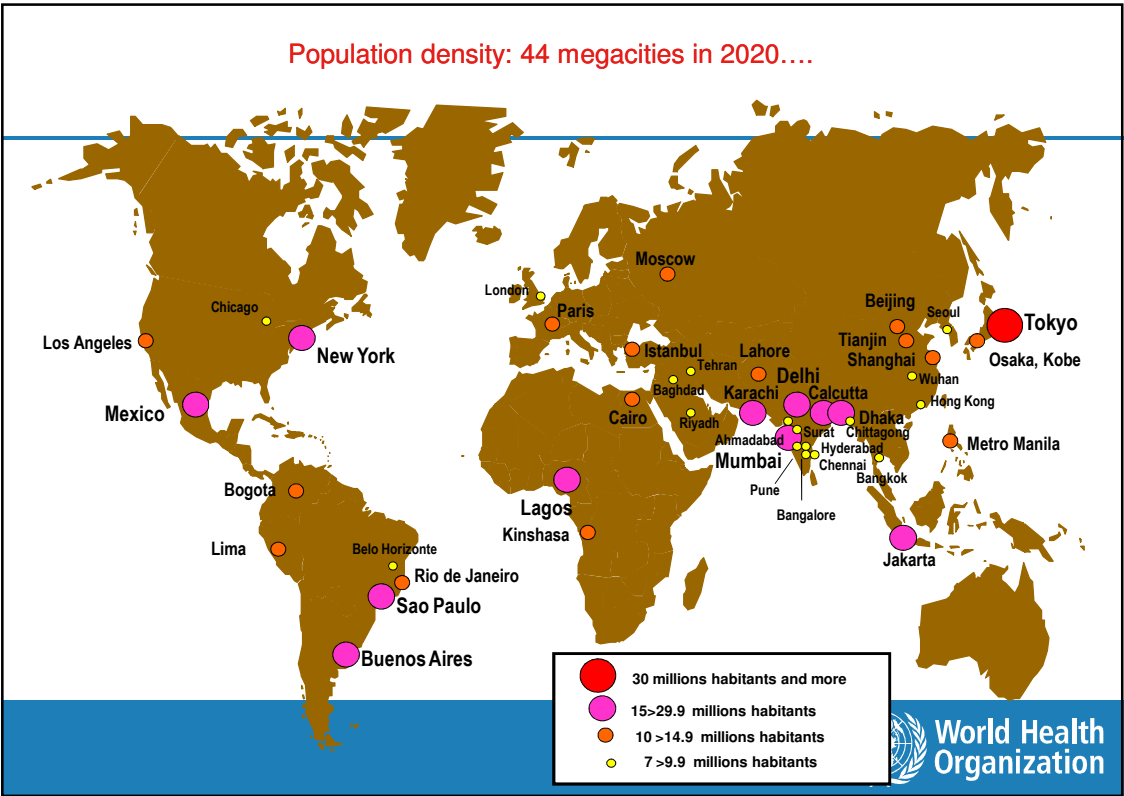


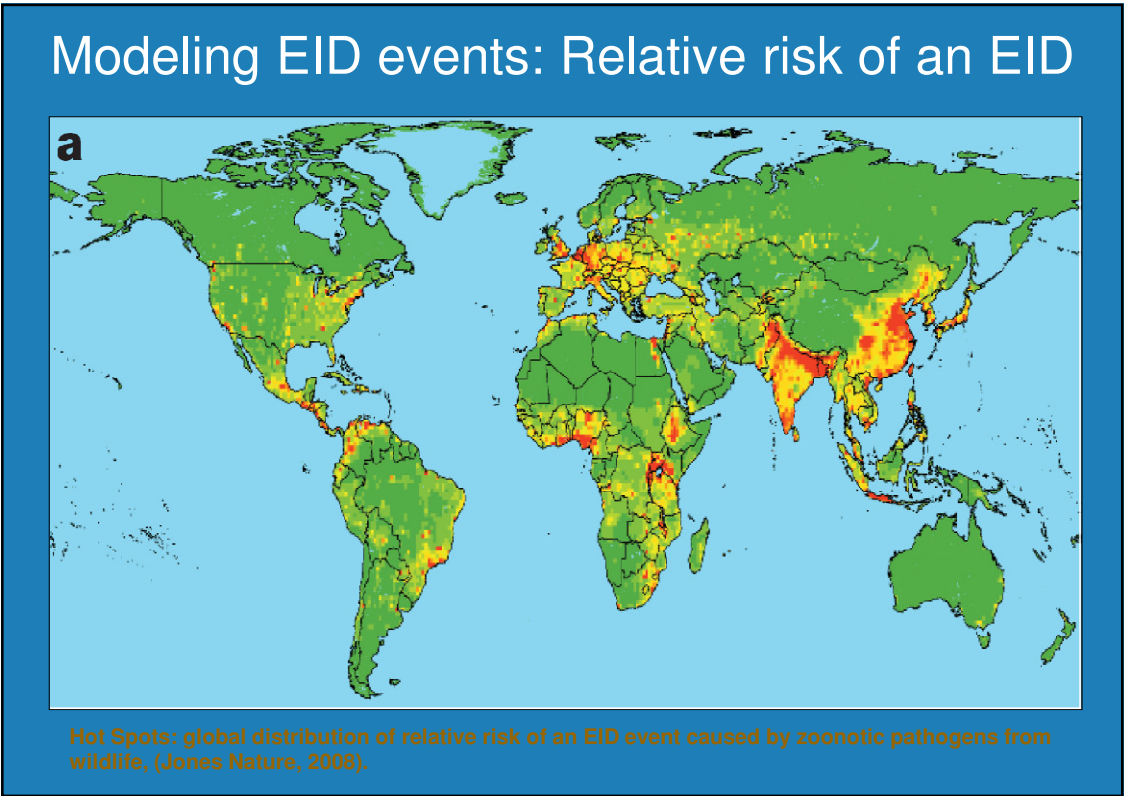
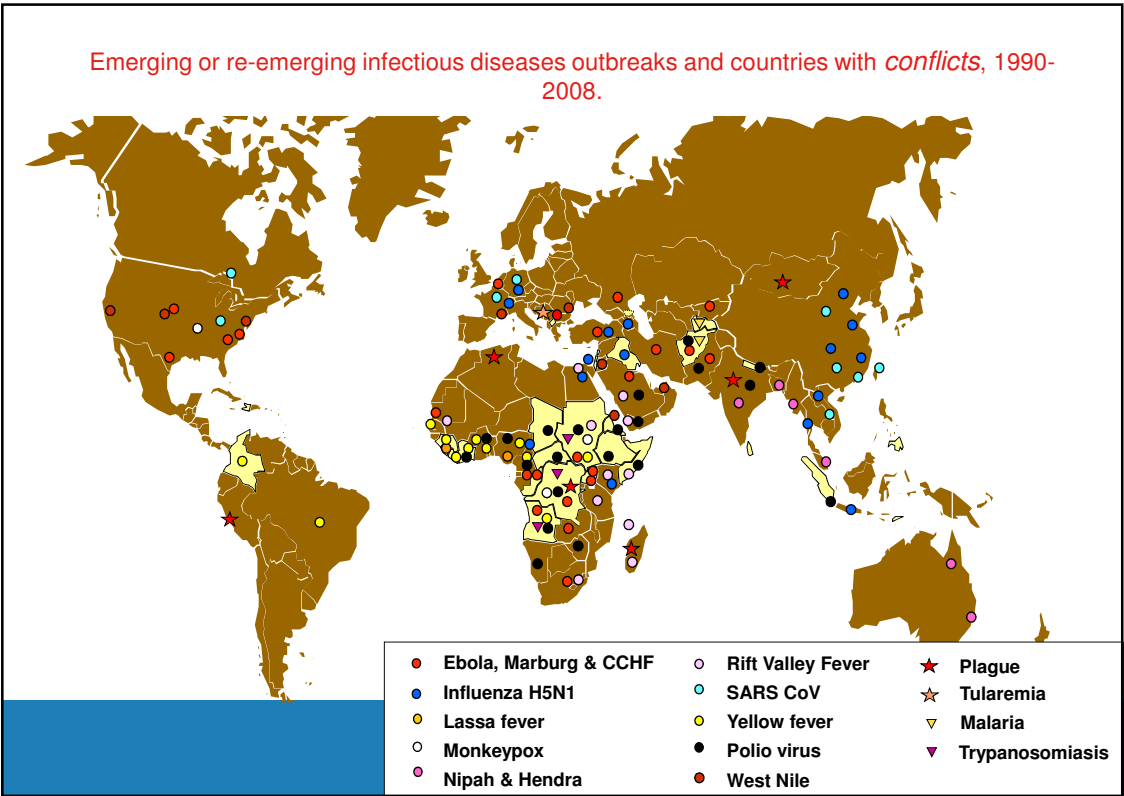
Epidemic Threats in 2010: Context

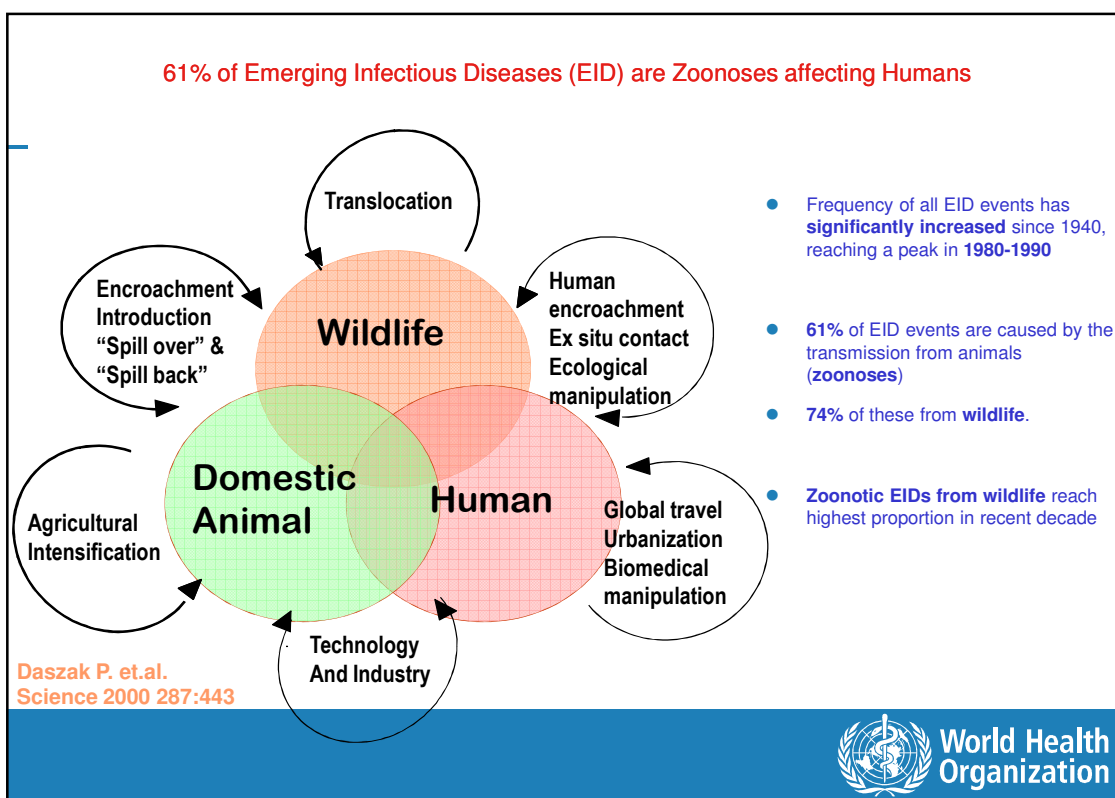
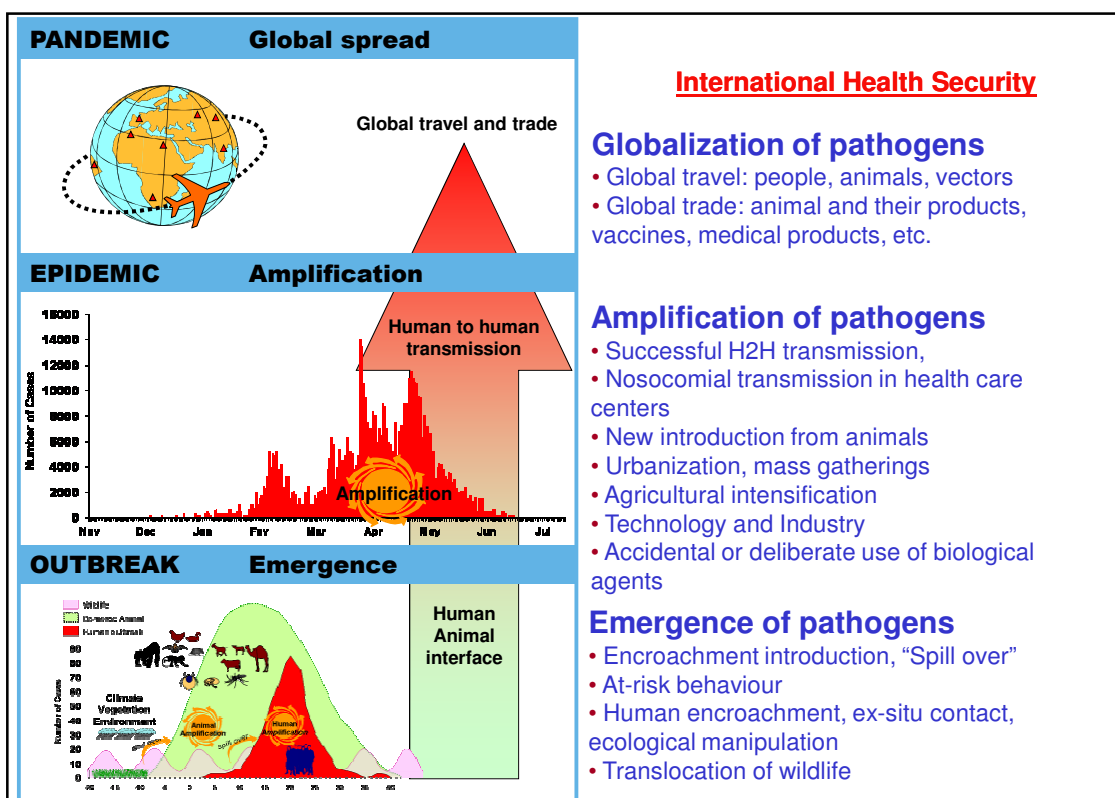
- **Emergence** of new or newly recognised pathogens (e.g. Avian flu (H5N1), SARS, Ebola, Marburg, H1N1)
- **Resurgence** of well characterized outbreak-prone diseases (e.g. cholera, dengue, measles, meningitis, shigellosis, yellow fever)
- **Release** (accidental or deliberate) of a biological agent (e.g. BSE /v CJD, smallpox, SARS, anthrax)

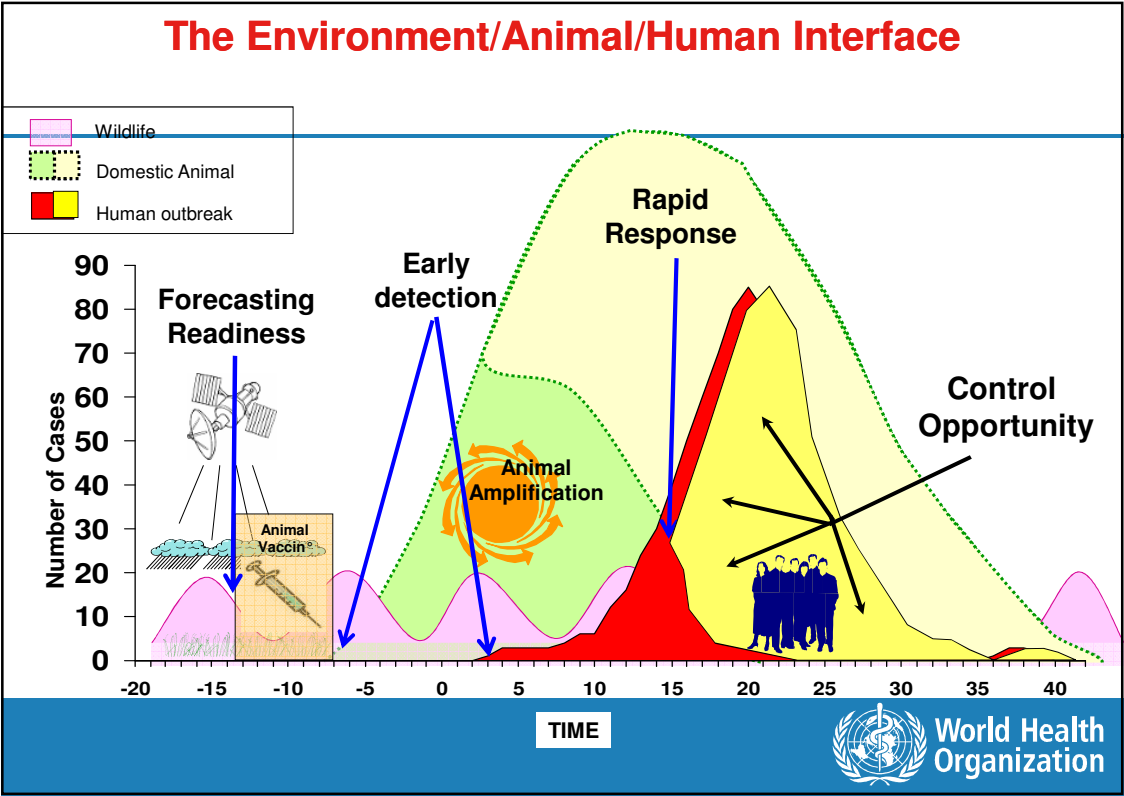
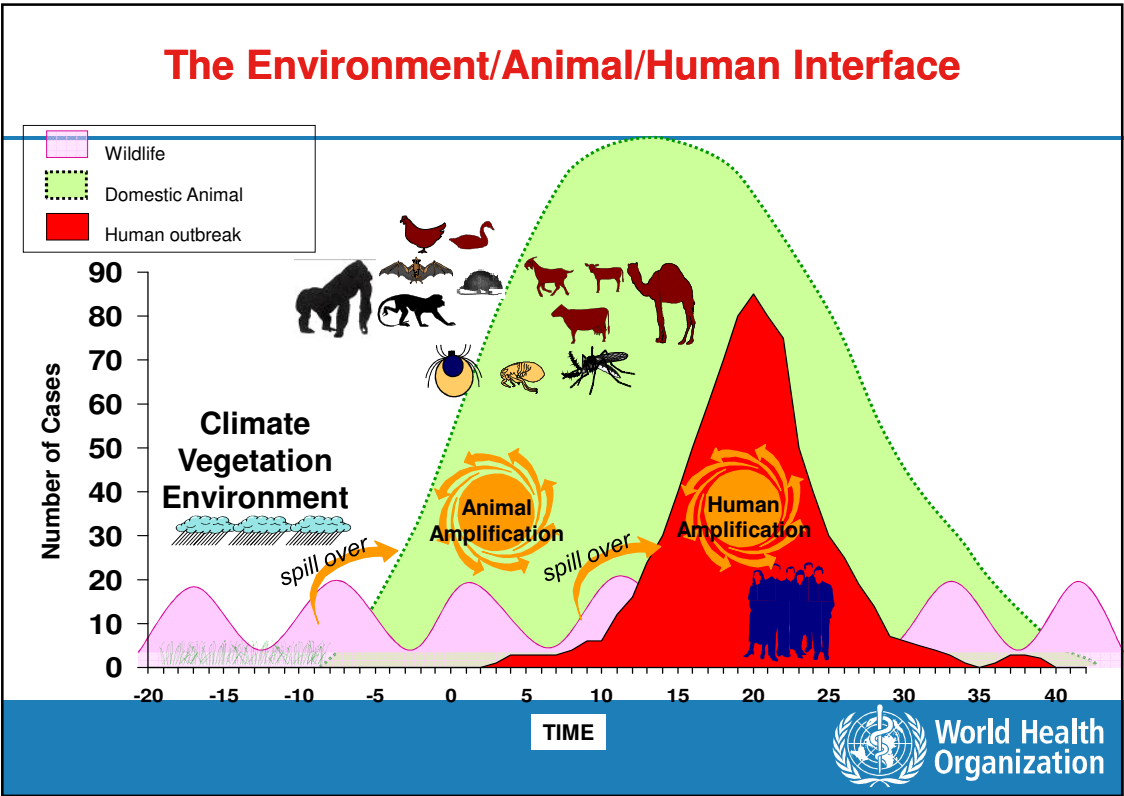


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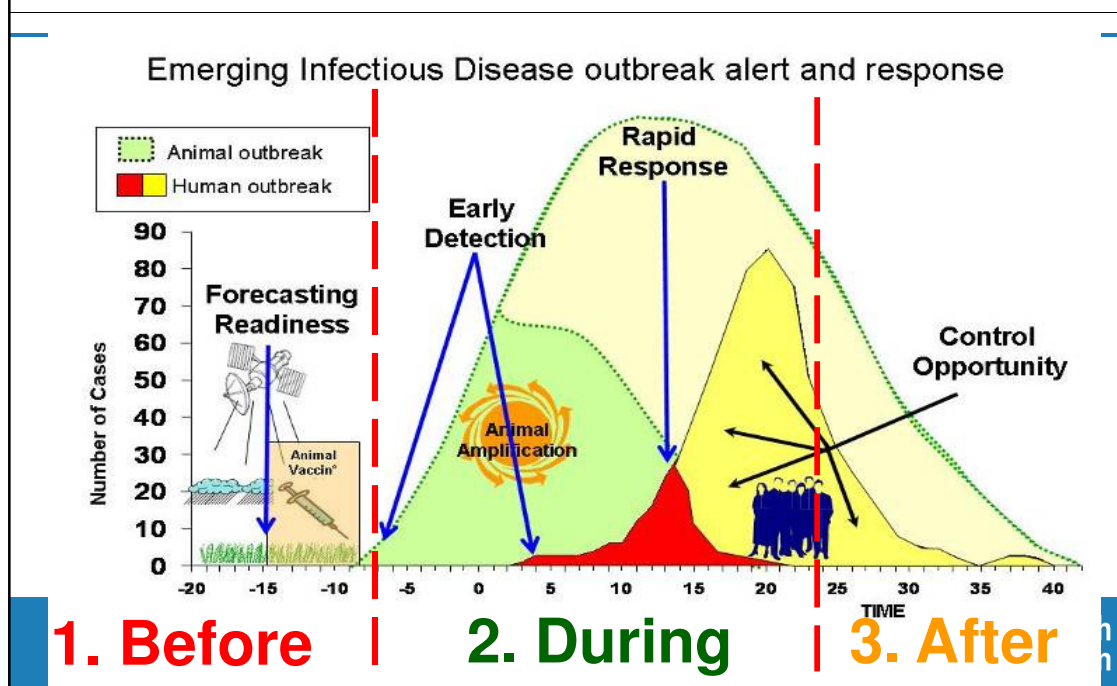






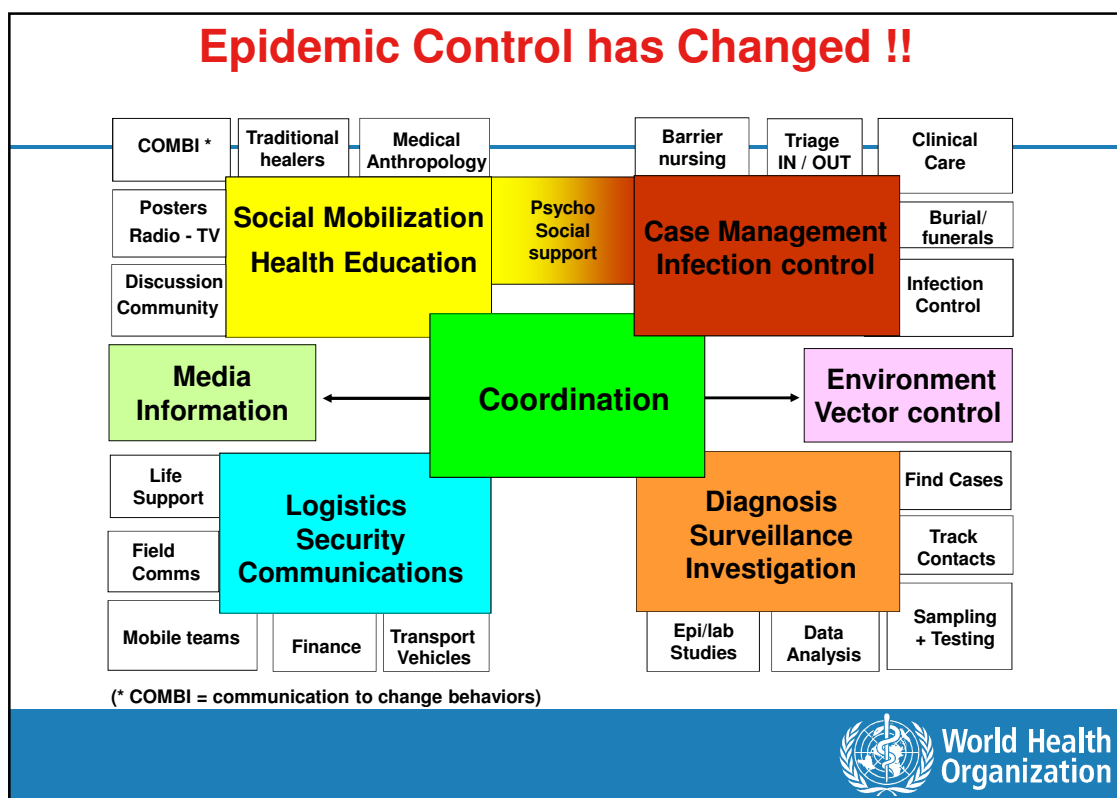


The Environment/Animal/Human Interface



The reality – we are vulnerable !

- Epidemic diseases and other public health threats will continue to occur because of
 - Efficient adaptation of the microbial world
 - Vulnerability and poor adaptation of the human world,
- Epidemics and other public health emergencies present a major threat to life, economies and security in an increasing inter-connected and inter-dependant world
- These events often
 - expose existing weaknesses in public health and systems; and the need for rapid response drains resources, staff, and supplies away from other health priorities.
 - Stress social and political systems, often leading to inappropriate and ineffective adaptive behaviours.
- Convergent risks require coherent responses



Challenge

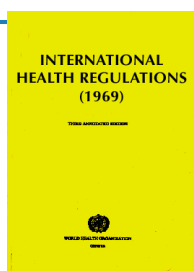
- ☐ Ensure that States and the their communities are on the alert and ready to cope with major biological risks and events.
- ☐ Ensure that the international community can rapidly detect and contain major biological risk/events with potential for international consequences
- ☐ Get immediate access to the appropriate expertise and interventions and utilise and focus these resources to support countries and communities facing disease threats in time to make a difference



**No single institution
has all the capacity!**



The legal framework has changed:



International Health Security IHR(2005), an international paradigm shift



International traffic, trade and tourism



From **three diseases** to **all public health threats**

From **preset measures** to **risk assessment response**

From **control of borders** to, also, **containment at source**



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Risk/Event Management under IHR

- WHO and its Member States have new and explicit obligations to collectively approach the prevention, detection, and timely response to public health emergencies of international concern.
 - IHR defines a risk management process where Member States work together and through WHO to collectively manage acute public health threats
 - Increased responsibilities, greater scrutiny !
 - The key functions of this global system are to
 - Identify
 - Assess
 - Assist
 - Inform
-Plus, in extra-ordinary circumstances, DG can declare a PHEIC and make global recommendations



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Effective Global Alert and Response

- **Strong national public health systems** able to maintain active surveillance of diseases and public health events; investigate detected events; report; assess public health risk; share information; and implement control measures. and
- **Effective global systems, networks and tools** for containing public health threats, able to carry out continuous global risk assessment, and prepared to respond to unexpected events with the potential for international relevance



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Framework for Collaboration

- **Enhance the Existing Global Alert and Response System**
 - Enhanced risk/event identification, assessment, decision support and information sharing. Effective WHO operations to manage and contain public health risks of potential international importance. Effective management of biological risks/events of intentional origin. Effective risk communication.
- **Support Implementation of the IHR (2005)**
 - Implemented IHR (2005) core capacities plan through each country assessing, developing, operationalizing, and reporting annually to WHO. Active National Focal Points functioning, sharing and disseminating information. Effective national legislation in place in support of the IHR. Access to training on IHR.
- **Strengthen Global, Regional and National Public Health Networks for Managing Public Health Risks of Potential International Concern**
 - Strengthened Global Outbreak Alert and Response Network (GOARN). Innovative Global Specialist Networks for risk reduction, readiness and intervention. Maintained IHR-function specific networks and knowledge platforms. Established national early warning systems



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Framework for Collaboration

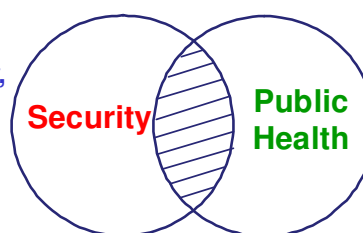
- **Enhance Knowledge Generation, Innovation, Tools and Training for Improved Management of Public Health Risks of International Concern**
 - Effective collaboration, coordination, innovation and targeted efforts to improve characterization, risk mapping, forecasting, surveillance and control of specific biological risks/dangerous pathogens. Management of infectious diseases through standardisation and dissemination of biosafety.
- **Enhance Global, Regional and National Inter-sectoral Co-operations for Management of Public Health Risks of International Concern**
 - Effective management of potential public health risks of international concern during mass gatherings (high visibility/high consequence events). Managed biological risks in humanitarian, conflict and disaster situations. Managed public health risks at the animal-human interface, at ports, airports and ground crossings and by strengthening national laboratory capacity in line with regional and national initiatives.
- **Global Health Leadership, Collaboration and Partnership**
 - Coordinated activities with WHO Member States. Provision of guidance to other UN agencies, programmes and to specialized intergovernmental organizations. Provision of technical support to civil society and NGOs



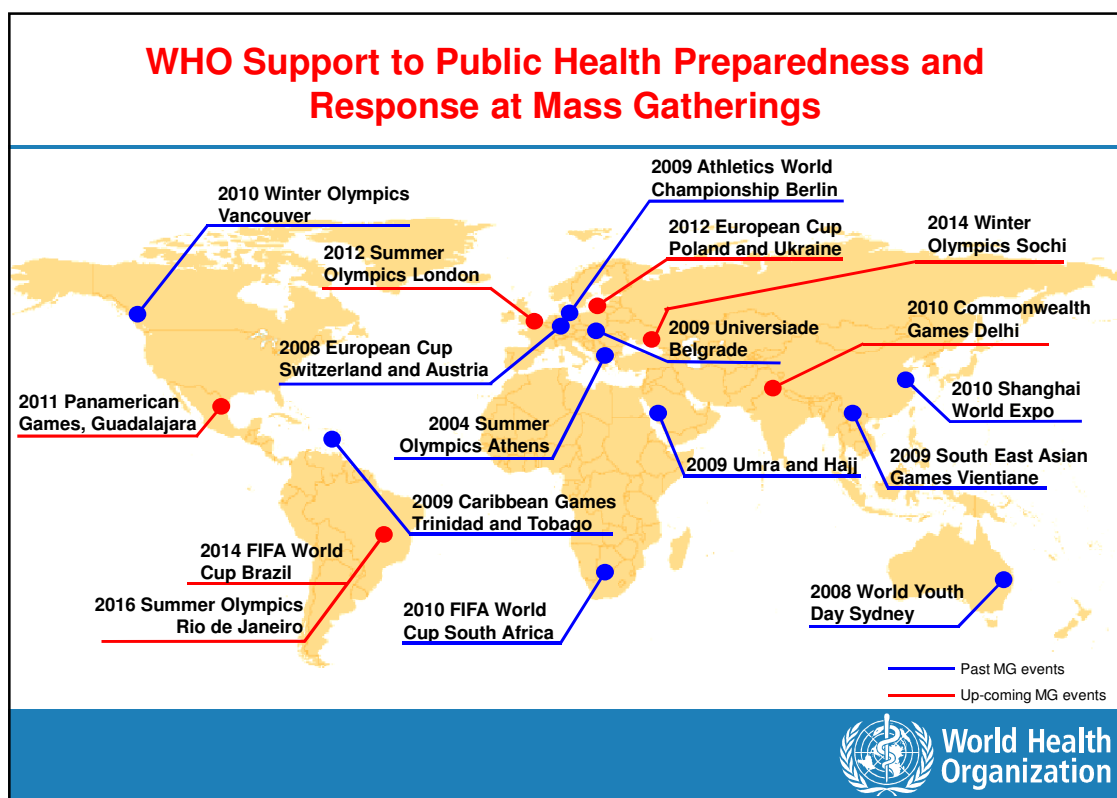
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Transforming Gaps into Opportunities

- Build strong national and international public health systems that reduces the threat but also improves detection, assessment and response (e.g. bio-safety, diagnostic networks)
- Build strong networks of excellence for capacity strengthening, alert, readiness and response
- Develop tools and interventions for severe epidemic and emerging diseases through scientific and public health collaboration in the field
- Adapt emerging technologies for enhanced control of severe and unpredictable disease emergencies
- Share guidance and assemble knowledge on high-consequence or high visibility events such as **mass gatherings** (Hajj, FIFA World Cup, Olympics..)



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Responding to the intentional release of a biological agent

- WHO's role will be to manage the public health consequences and communicate real-time public health risk assessments and recommendations
- WHO has developed and tested specific SOPs for response to an alleged use, including specific indicators of non-natural sources of infection.

WHO and alleged use

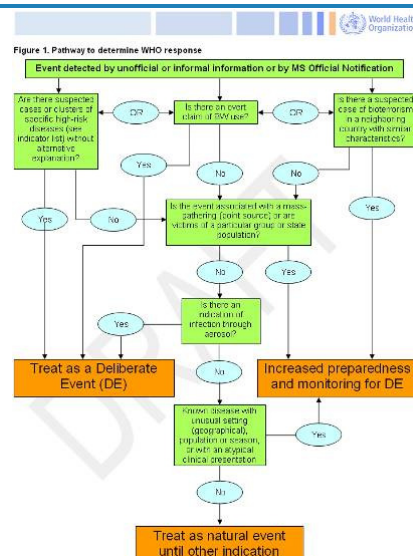
- WHO is the specialized UN agency for health with the technical and scientific capacity for detection, characterization, risk assessment and containment of epidemics
- WHO has a commitment (WHA 54.14 and WHA55.16) to build capacity towards CBRN preparedness in Member States. WHO's approach is through public health system improvement and implementation of the capacity strengthening component of IHR
- In addition WHO recognizes it's role to provide technical support to the UN and international community in the investigations of alleged use as well
- The UN Office for Disarmament Affairs (UNODA), has been mandated by the UN General Assembly Resolution 60/288 (2006) to coordinated the activities to strengthen the secretary-general's capabilities, emphasizing the need for strengthening the biological area.
- WHO is working to support UNODA in this area



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GAR deliberate event indicators and SOPs

- WHO is developing internal strategies,
 - Alert and response procedures would be largely the same in cases of natural vs. deliberate events. Context of the intervention changes...
- Differentiating between a natural and deliberate events
 - Alert signals (claims and hoaxes)
 - Clinical and epidemiological findings
 - Laboratory findings
 - Specific high-risk diseases
 - Evidence of biological agent dissemination (munitions)
- Decision-making for deliberate events treatment:
 - Treat as deliberate event
 - Increased preparedness and monitoring
 - Treat as natural event



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WHO-UNODA collaboration

Development of the collaboration

- June 2008 – May 2009 exchange of letters between ODA and WHO agreeing support
- May 2009 - endorsement of agreed WHO-UNODA roadmap
- August 2010 - signing of MoU between WHO and ODA

Roadmap

- Harmonization of relevant operational procedures.
- Educational/ Training activities.
 - Exchange of invitations to observe/participate in the respective training.
 - Exchange of visits to share experience, information and promote cooperation on a working level:
 - Identification of skills and expertise in relevant Rosters
- Endeavor to assist in conducting field operations including equipment, information, and seconding technical experts



WHO-UNODA collaboration (cont.)

The Memorandum of Understanding being signed in August 2010

- Formalizes the areas of collaboration and roles of each Party, which were developed in the roadmap
- Ensures institutionalization of these agreements

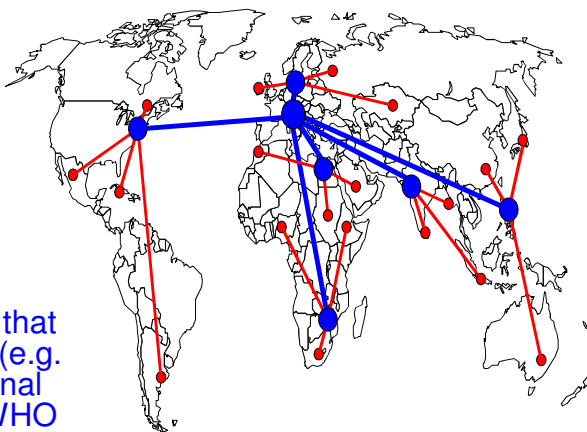
Objectives

- Assisting UNODA to develop the technical/operational capabilities to conduct an investigation of deliberate biological events



WHO strengths and structures

- **Mandate** and International Agreement (IHR 2005)
- **WHO Decentralized Structure & Capacity**
 - 6 regional and 142 country offices
- Our collective **Experience** in managing public health events
- The **Networks and Partnerships** that we have developed and rely on (e.g. GOARN, regional and sub-regional networks, specialist networks, WHO CCs, GISN.....)



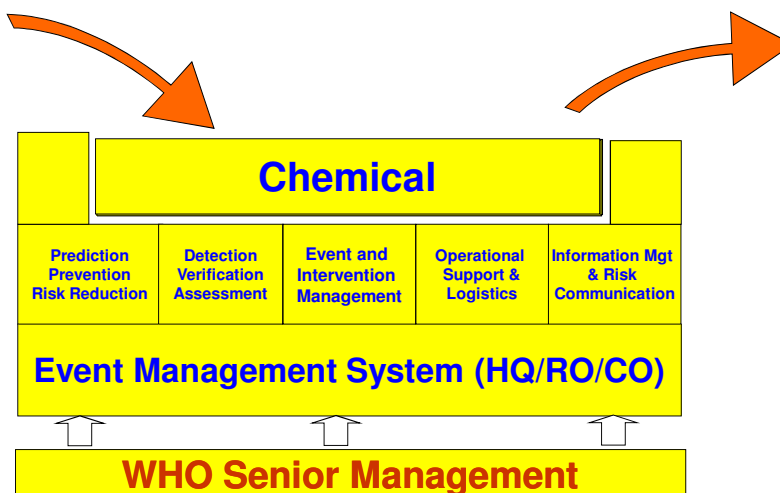
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Specialist Programmes

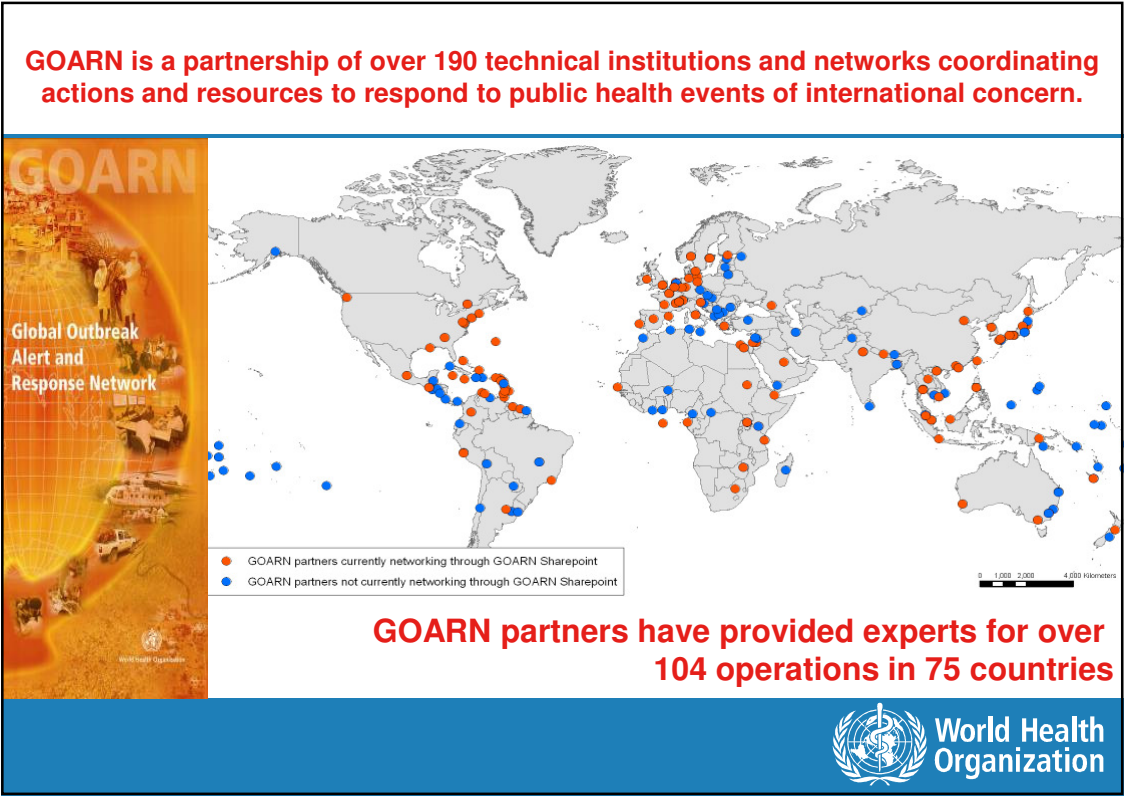
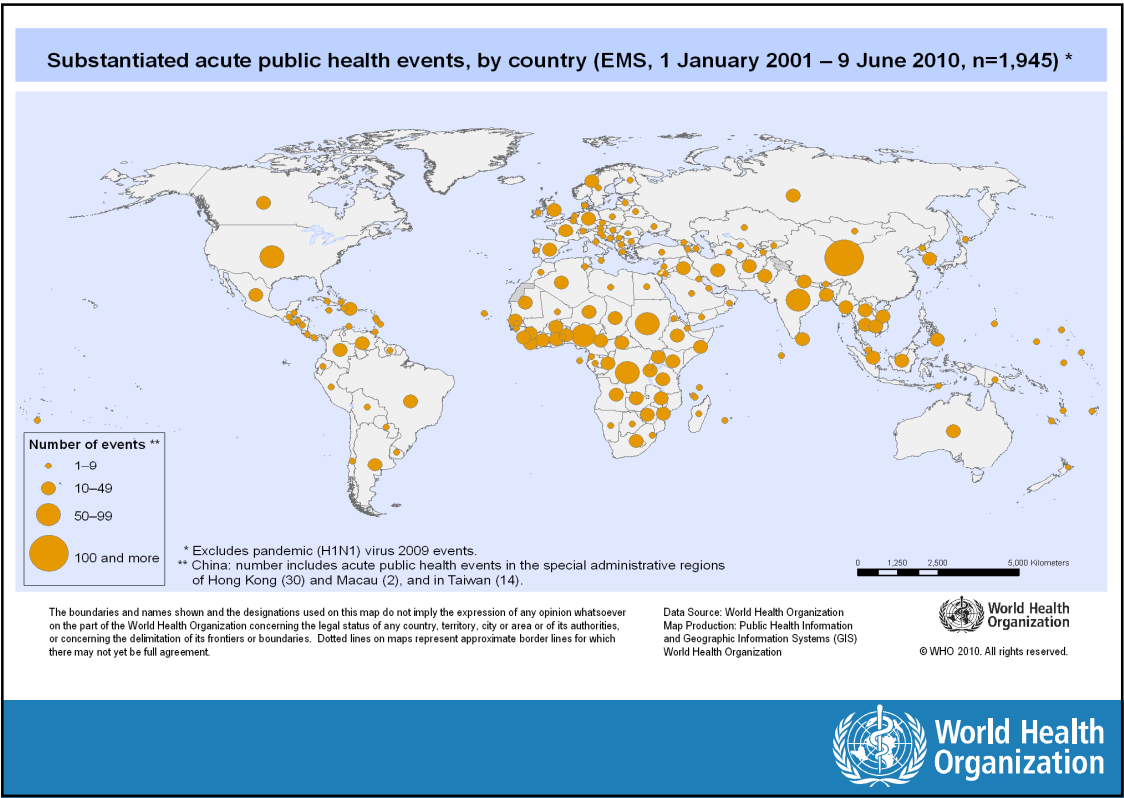
- CHEMICAL
- RADIATION
- FOOD
- EPIDEMIC

Public Health Event Response under the International Health Regulations

"Payload and Platform" concept of operations



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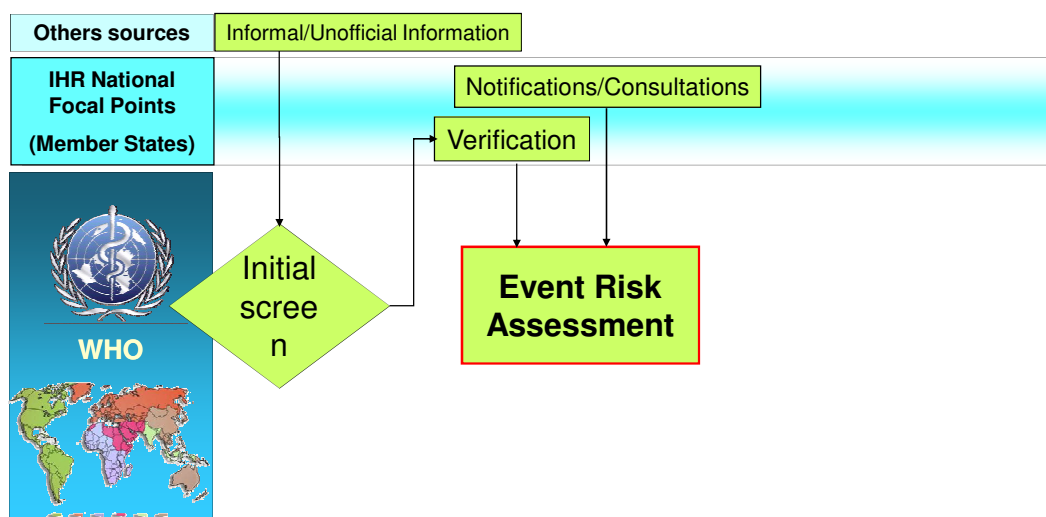


GOARN and Specialist Networks

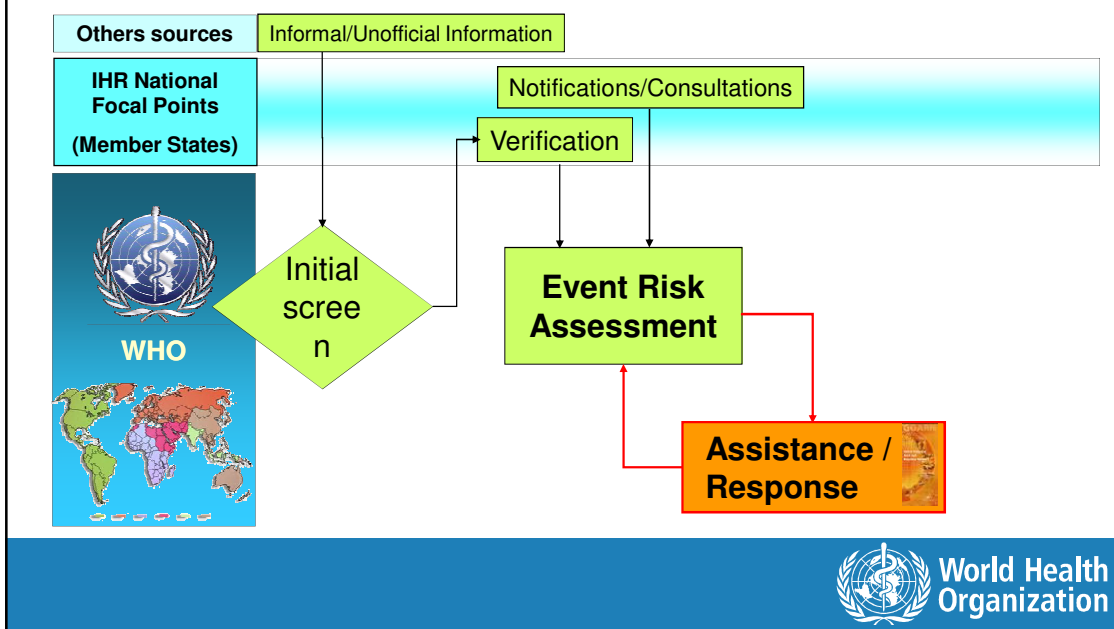
Multinational responses have best illustrated the need for specialised craft network in a variety of disciplines: epidemiology, modelling, clinical management, infection prevention and control, Health promotion (COMBI), risk communications, logistics, laboratory, ICT, facility design, mass gathering, Ops centres, ecology...



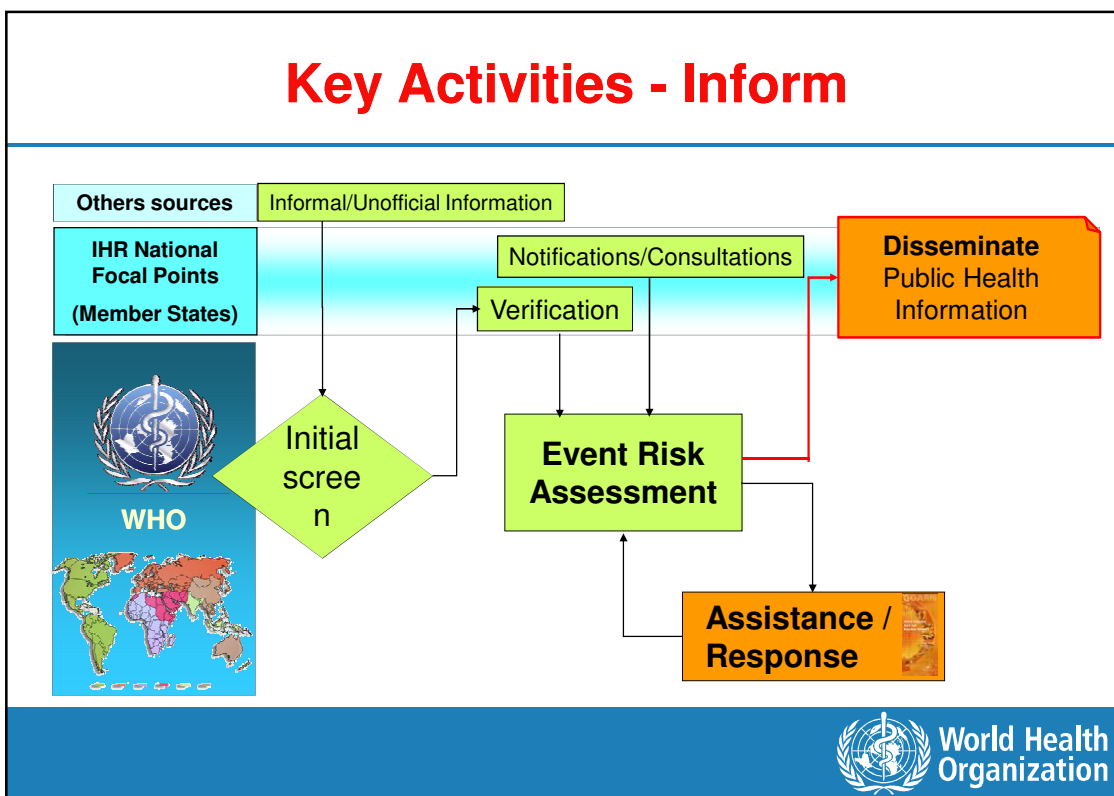
Key Activities - Assess

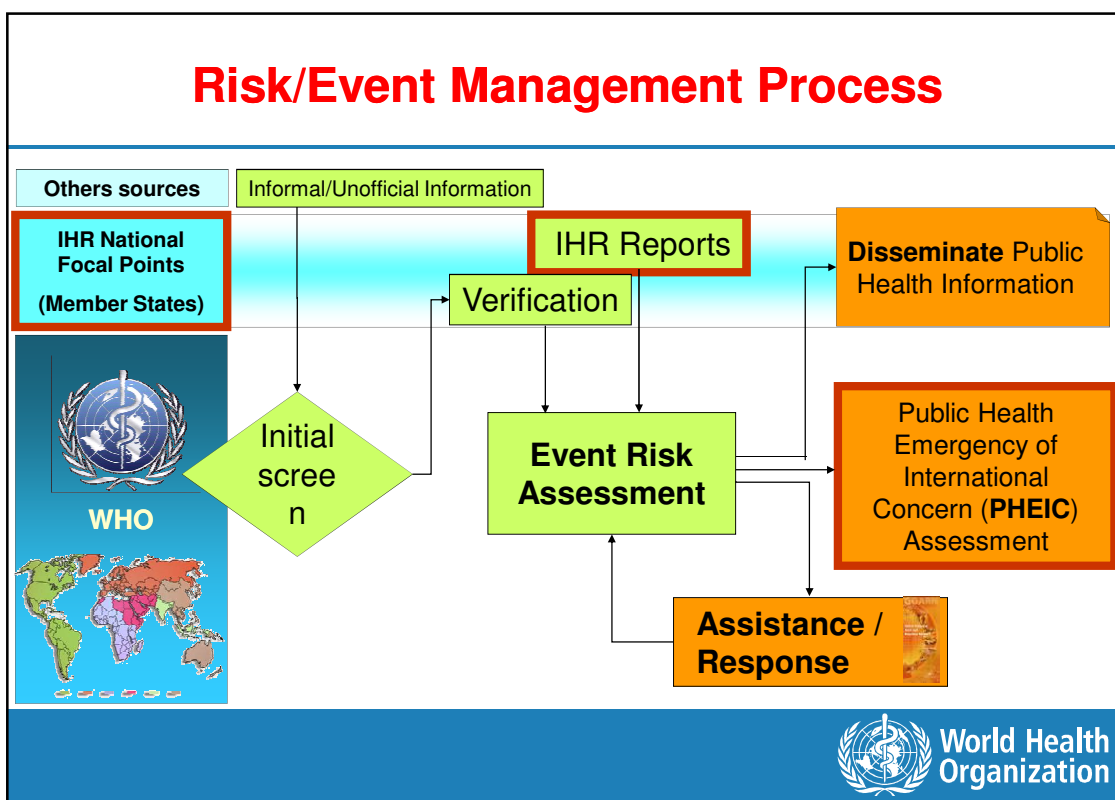


Key Activities – Assist



Key Activities - Inform





EMS beta World Health Organization

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Global Summary

Go to Country
Go to Country

Global Summary Map

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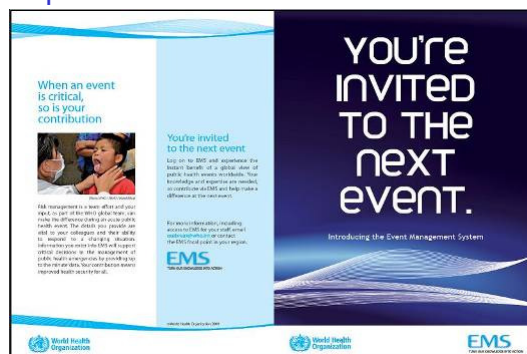
Overview of Ongoing Events

Events: 285
Public Health Risks: 59
PHEICs: 193
Countries Affected: 201
Requests for Assistance: 11
Deployments: 25

Hazard	Total Events
Infectious	265
Animal	5
Undetermined	5
Natural Disaster	3
Nutritional deficiency	2
Chemical	2
Food Safety	2
Product	1
Radionuclear	0

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- WHO internal tool for public health event-based information management
- Secure platform
- Custom-built for decision support
- Being rolled-out to 3 levels of WHO
- IHR (2005) compliant
- All-hazards approach



- EMS feeds information to the Event Information Site for IHR National Focal Points, the Global Outbreak Alert and Response Network (GOARN) and the public




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Global Alert and Response (GAR)

Home > Response > Alerts > GOARN

GOARN - Global Outbreak Alert and Response Network

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Event Information Site for the 10th National Food Forum

Home > Response > Alerts > GOARN

GOARN - Global Outbreak Alert and Response Network

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WHO activities in the evolving risk management concept of infectious disease

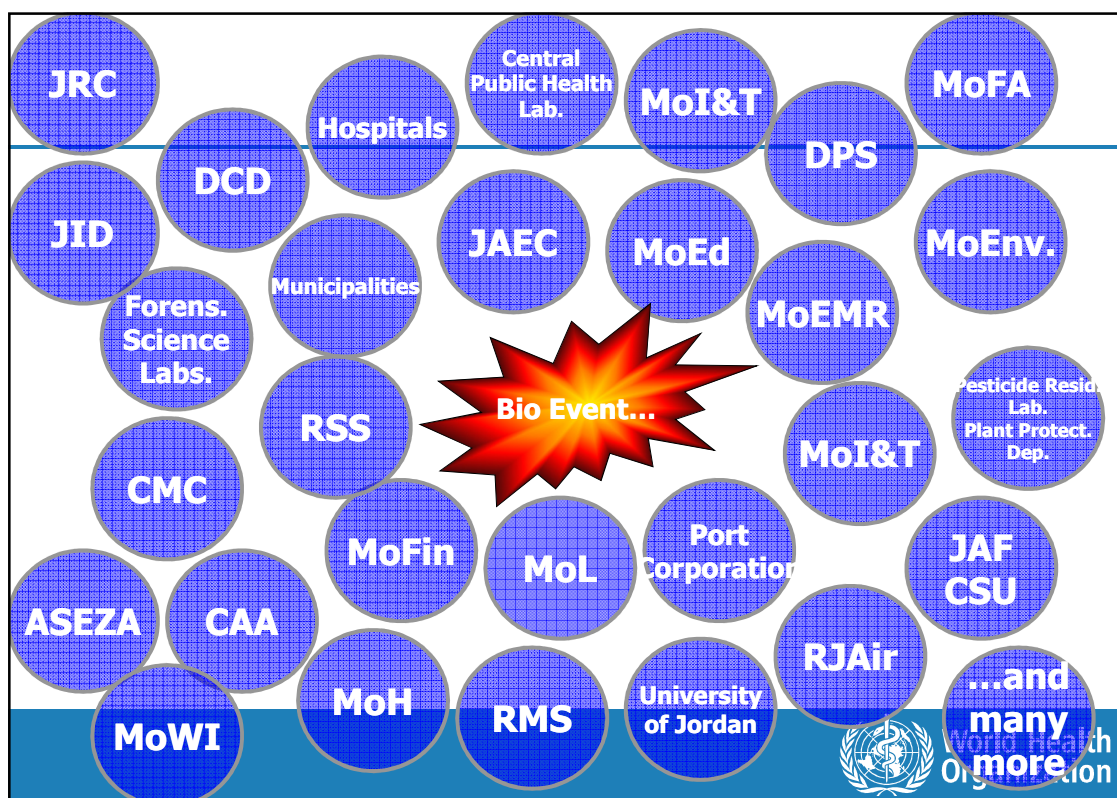
- Enhance the existing Global Alert and Response System (The Operational arm of the International Health Regulations)
- Build Global and Regional Networks for Managing Biological Risks
- Enhance Inter-sectoral Cooperation for Management of Biological Risks
- Strengthen National Capacities in disease prevention, surveillance and response (IHR department)
- Global Health Leadership, Collaboration and Partnership



Assessment of National Health Preparedness, Mitigation, and Response to Natural and Man-made Disasters



**The Hashemite Kingdom of Jordan,
March 28 – April 6th, 2004**



Conclusions - I

- The convergence of risk creates a need for the coherence in response
- Sophisticated Tools, Networks and Systems have been developed by WHO and it's partners for managing biological risks of any origin
- WHO's primary role in response to an accidental or intentional release of a biological agent will be to manage the public health consequences and communicate real-time public health risk assessments and recommendations

Conclusions - II

- WHO is most effective when it works through partnership and in a co-ordinated fashion with
 - Member States and other international Organizations
 - technical partners in the public, academic and private sector
- Effective working relationships have been forged when collaboratively dealing with major threats/events
- These relationships have been based on mutual need, collective responsibility, solidarity, transparency, personal commitment, and pride in our organizations and systems
- This is not reproducible or sustainable without a major investment in national, regional and global public health infrastructure



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THANK YOU !

Mike Ryan
Nicolas Isla
Mark Nunn
Katie Smallwood
James Oakes
Angela Merianos
Pat Drury
Tom Grein
Stella Chungong
Vernon Lee
Guen  l Rodier



outbreak@who.int



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