



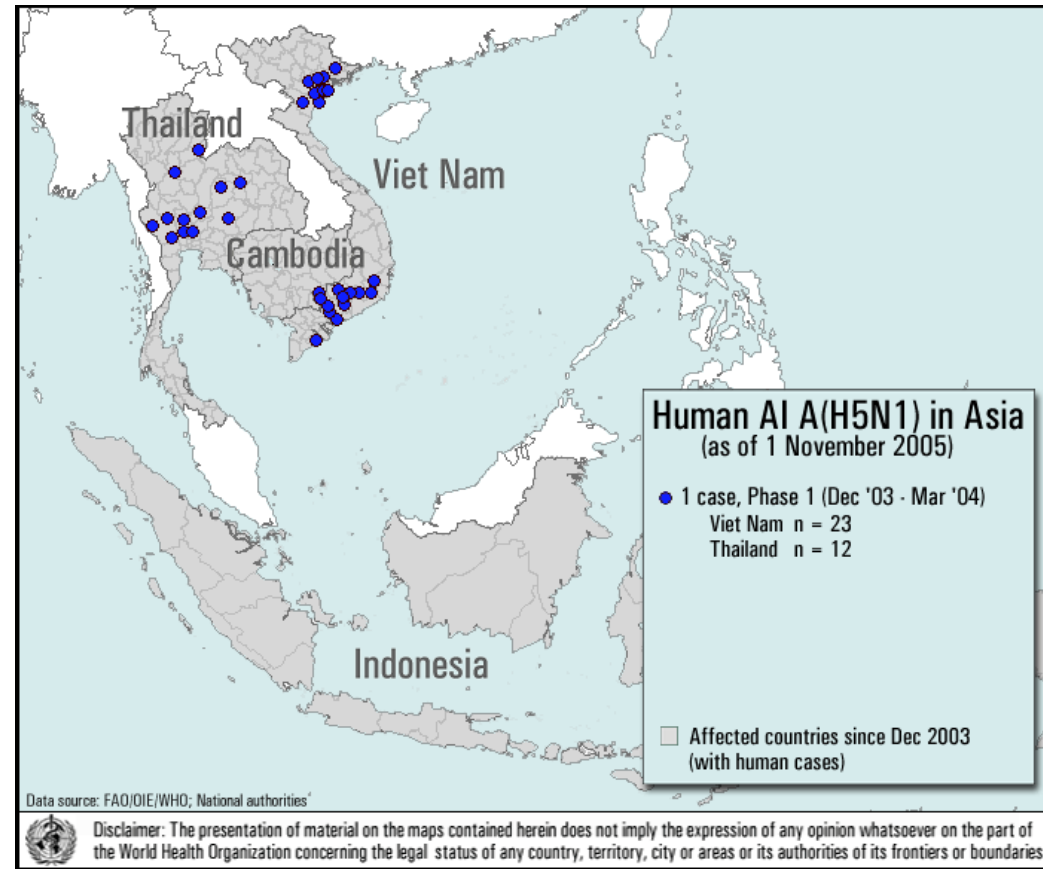
Status Of Human Health Preparedness & Response

Dr. Mike Ryan, Director, Epidemic and Pandemic Alert and Response (CDS/EPR)

Meeting on Avian & Human Pandemic Influenza, WHO Headquarters, Geneva, November 7-9 2005

Current Situation

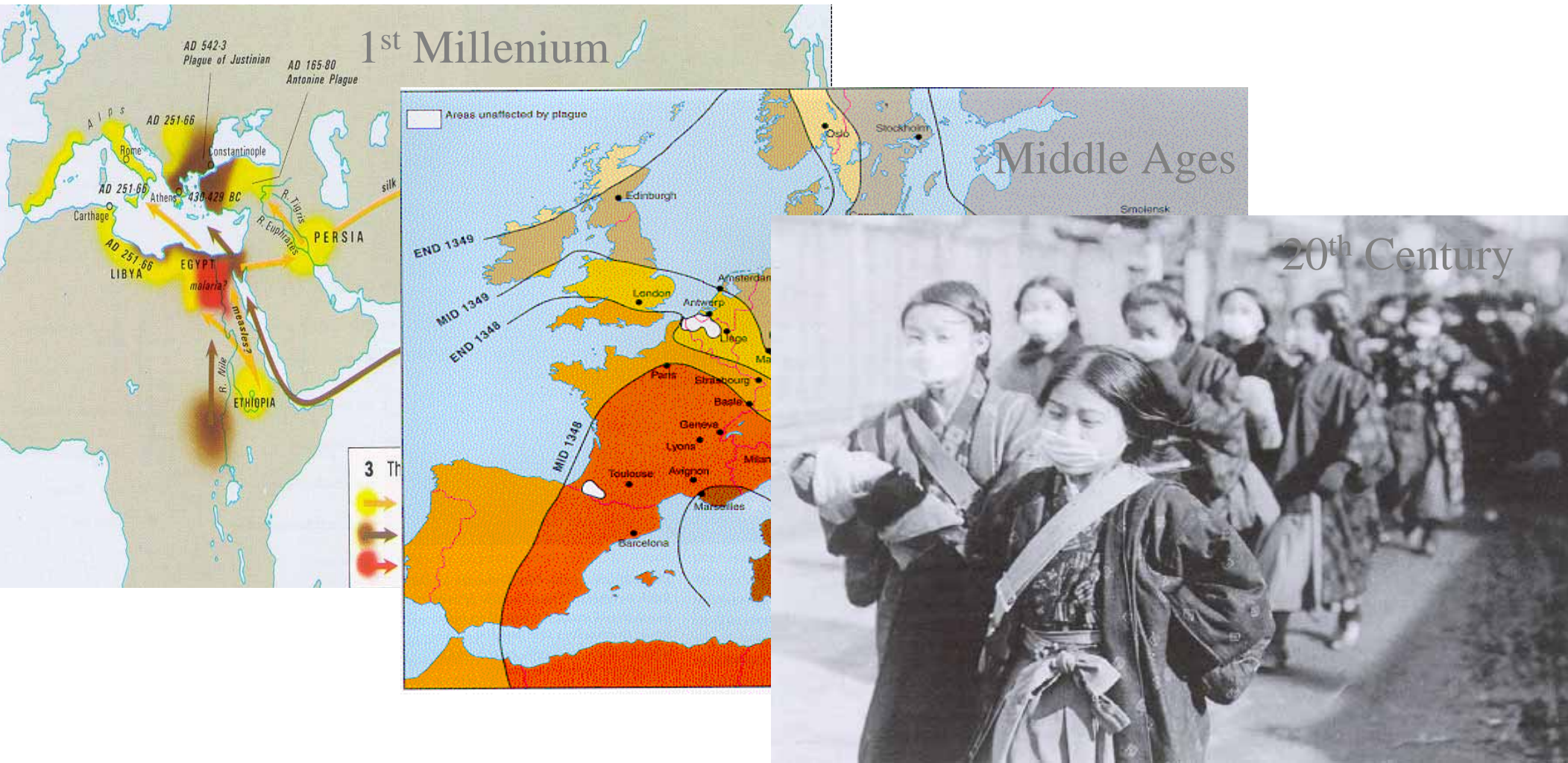
- The H5N1 virus is now present in birds in 12 countries
- The virus has crossed the species barrier on multiple occasions to infect 124 people in 4 countries
- The virus causes severe disseminated disease affecting multiple organs and systems with fatal infection in more than half those affected
- Most cases have occurred in previously healthy children and young adults
- As no virus of the H5 sub-type has ever circulated widely in humans, vulnerability to infection with a pandemic H5 strain will be universal



Risk Assessment

- The risk of a pandemic is great
- The risk will persist
- The evolution of the threat cannot be predicted
- A pandemic will cause significant disease, death and will stress health, social and economic systems
- We have a window of opportunity to prepare !
- We have a chance to fundamentally strengthen national and international public health systems to deal with epidemics !

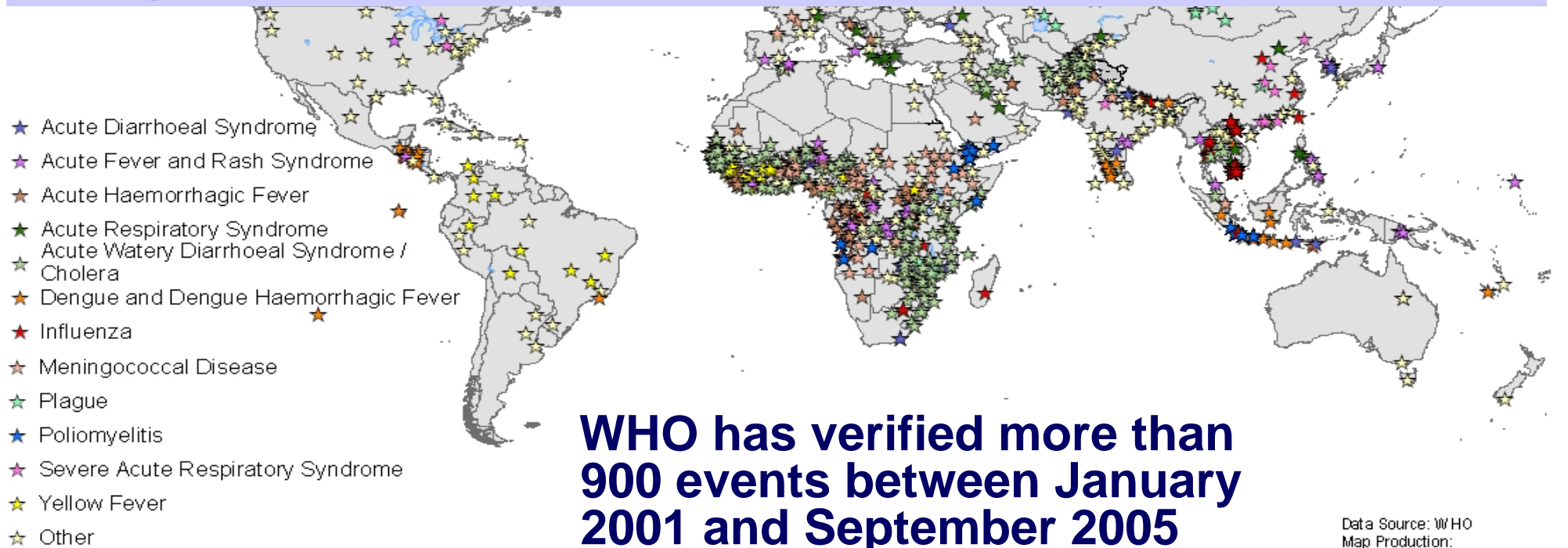
Epidemics and Pandemics have shaped our history...



They continue to threaten us..

...and place sudden intense demands on national and international health systems

....on some occasions have brought systems to the point of collapse



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: WHO
Map Production:
Public Health Mapping and GIS
Communicable Diseases
World Health Organization
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Epidemic/Pandemic Control requires

1. Strong national public health systems and capacity
2. Specific preparedness for key priority disease threats (e.g. diagnostics, therapies, vaccines, containment measures)
3. An effective international system and partnership for co-ordinated alert and response

Key Strategic Actions for Human Pandemic Influenza

1.	Reduce human exposure to H5N1	Education
2.	Strengthen the early warning system	National/Regional/Global
3.	Intensify rapid containment operations	In response to human cases/clusters - Rapid field investigation
4.	Build capacity to cope with a pandemic	National/regional/global preparedness requires Commitment
5.	Co-ordinate global science & research including acceleration of vaccine development & expansion of production capacity	Improve the ability of the world to develop, produce and deliver vaccine to large numbers of people in a timely manner Strengthen WHO's capacity to gather real-time scientific data , access global expertise and translate into vital advice and guidance

WHO is Supporting Countries Utilising its...

● International Mandate

- Close collaboration with WHO member states under the framework of the revised International Health Regulations

● Decentralised Structure & Capacity

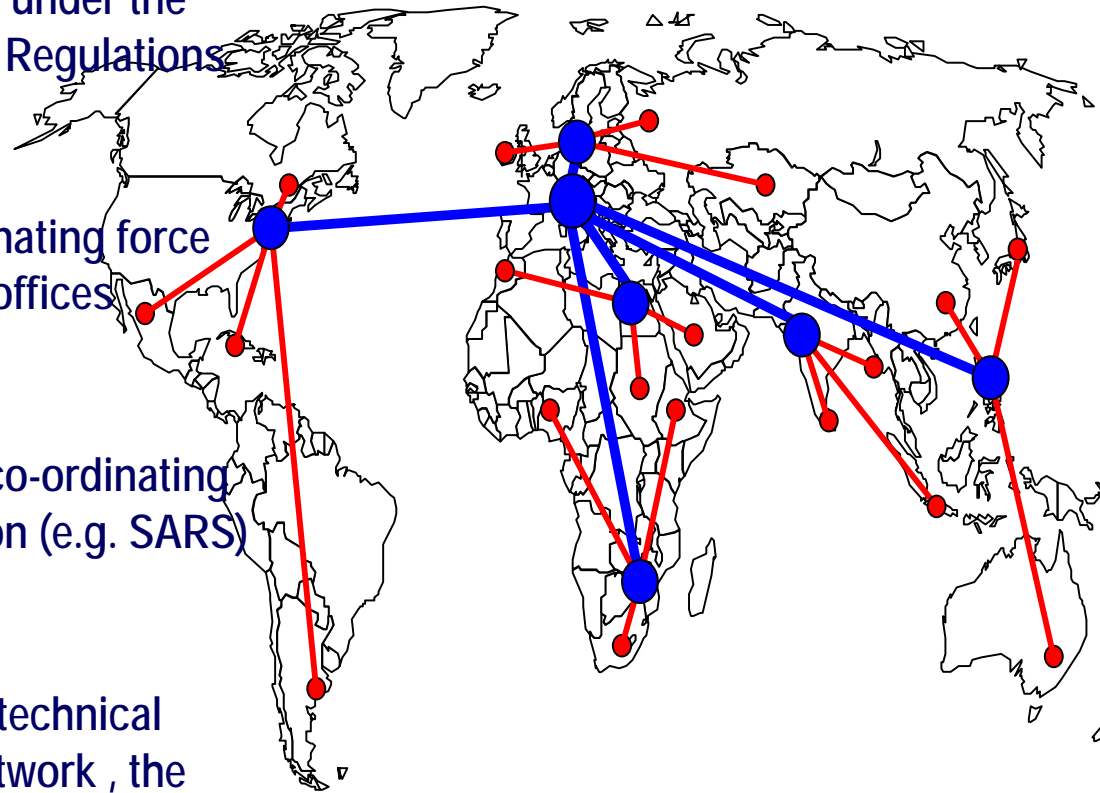
- Ability to act as a regional and global co-ordinating force with 6 Regional Office hubs and 142 country offices

● Experience

- Building national public health capacity and co-ordinating urgent international action and communication (e.g. SARS)

● Partnerships

- Networking with and mobilization of the best technical institutions including the Global Influenza Network , the Global Outbreak Alert and Response Network (GOARN) and key regional networks



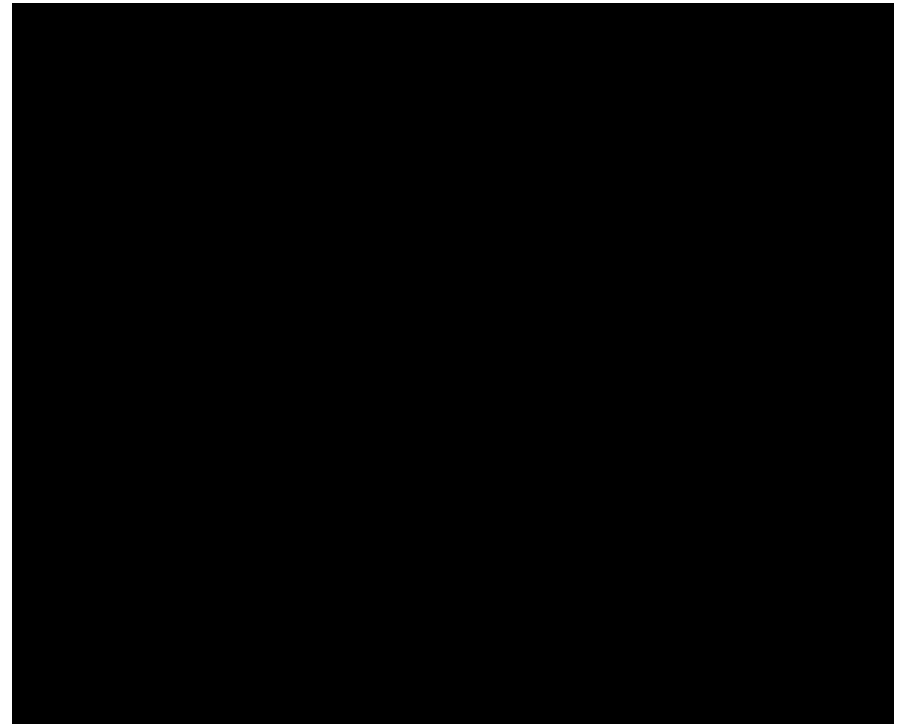
National Pandemic Preparedness

- Building on a Regionally implemented strategy for strengthening national early warning and response systems
- Rapid increase in number of countries with plans or with plans in preparation
- From < 50 countries 6 months ago to approx 120/194 today (60%)
- We can't stop here...!
 - Operationalisation and implementation
 - Exercises/Rehearsals
 - International co-ordination of plans (e.g. borders, stockpiles)

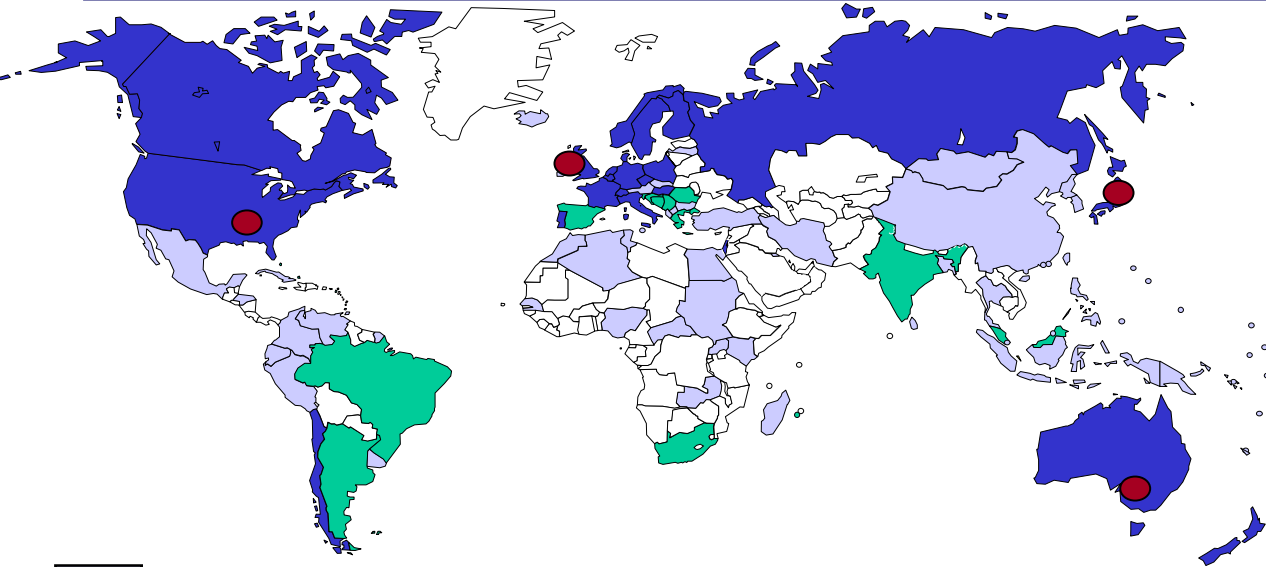


WHO Operational Support for a Pandemic....

- Real-time global coordination using the Strategic Health Operations Centre and Regional office hubs/teams
- Sensitive global disease intelligence gathering and verification
- Collaborative risk assessment, effective information management and rapid risk communication
- Ongoing modelling & tracking of disease spread
- Rapid provision of technical support and deployment of field response teams from GOARN and regional network mechanisms.
- Immediate advice on control measures as epidemiological potential of the virus evolves
- Co-ordination of the development of new technologies/interventions as needed



WHO Global Surveillance System for Human Influenza



- 1 laboratory
- >1 laboratory
- national network

Annual output

- ~ 175,000-220,000k samples;
- 15,00-40,000 isolates;
- 2,000- 10 000 viruses characterized



Lessons Learned in the Trenches Of Epidemic Response !

- 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 disease threats e.g.
 - Ebola, meningitis, yellow fever, Marburg, Lassa, plague
 - SARS, Avian Influenza and Nipah
- These relationships have been based on mutual need, collective responsibility, transparency, personal commitment, and pride in our organizations and systems
- This is not reproducible or sustainable in the context of pandemic influenza without a major investment in national, regional and global public health



Key Strategic Actions for Pandemic Influenza

1. Reduce human exposure to H5N1
2. Strengthen the early warning system
3. Intensify rapid containment operations
4. Build capacity to cope with a pandemic
5. Co-ordinate global science and accelerate vaccine development & expansion of production capacity

Building public health capacity to deal with influenza will lead to stronger national systems for alert and response linked to a comprehensive global alert and response system that will serve to protect us from whatever nature has in store for us in the future !

Thank You !

