

Greater Mekong Subregion (GMS) Public Health Forum on  
Regional Cooperation in Communicable Diseases Control (CDC) and  
Health System Development

# Capacity Assessment: A Tool for Developing Systemic Capacity

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# Asian Disaster Preparedness Center (ADPC)

## ADPC's *vision*:

- Safer communities and sustainable development through disaster risk reduction

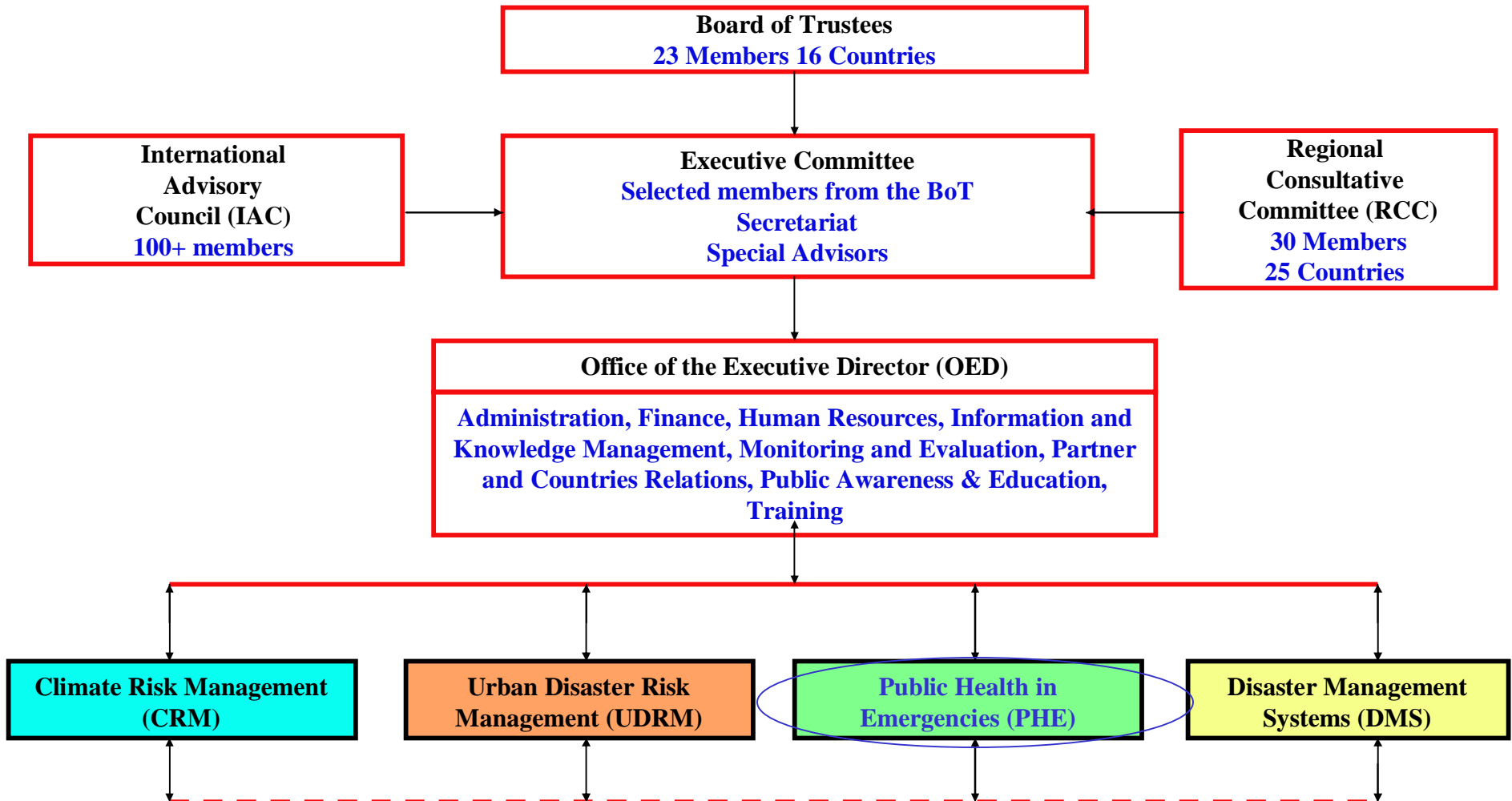
## ADPC's *mission*:

- Reduce the impact of disasters on communities and countries in Asia and the Pacific by:

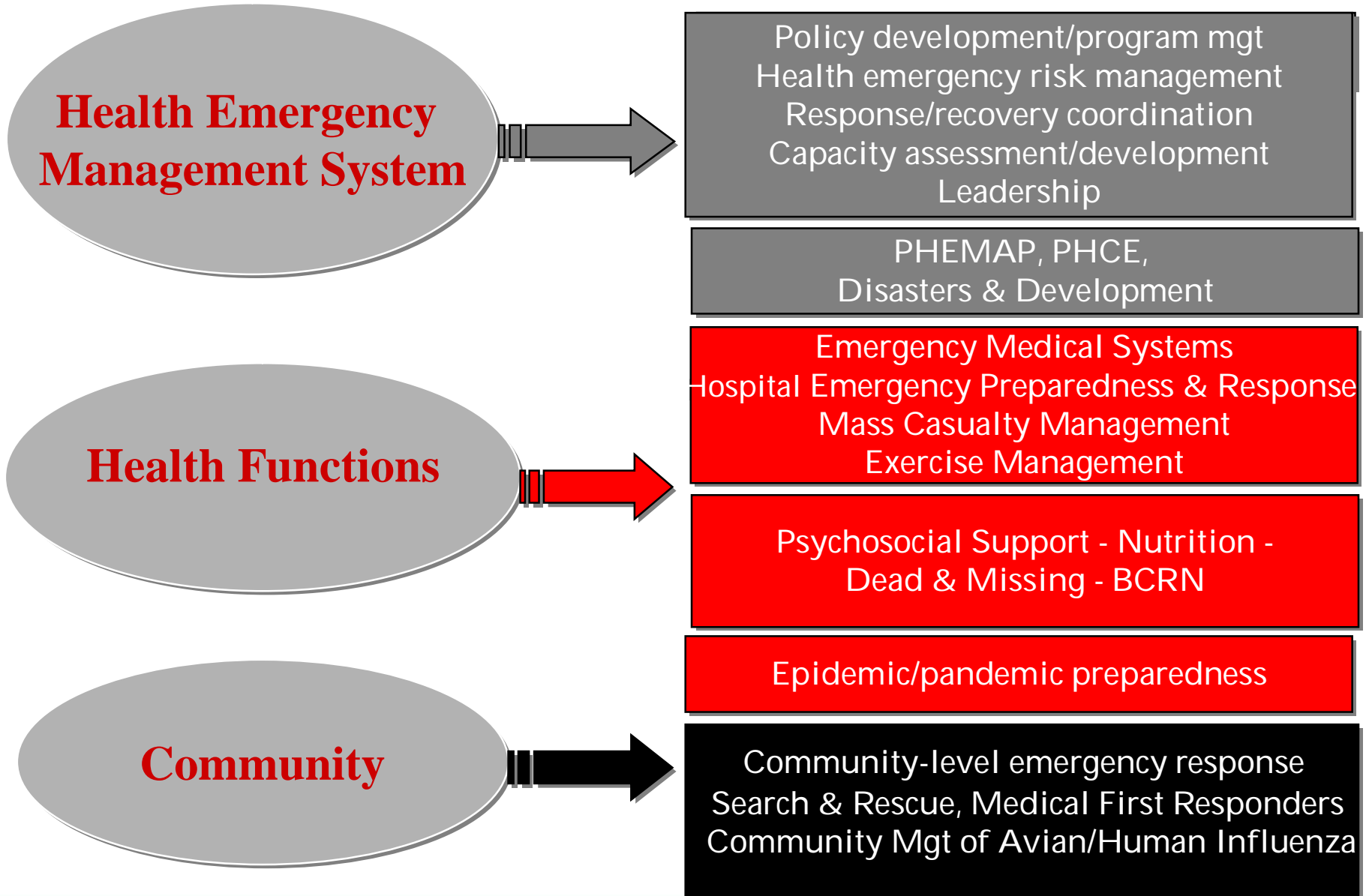
## ADPC's *strategies*:

- raising awareness and enhancing knowledge
- developing and strengthening sustainable institutional mechanisms
- facilitating exchange of information, experience and expertise; and
- developing and demonstrating innovative disaster reduction practices

# ADPC Organization Chart



## PHE Activities & Programs





Australian Government  
Department of Agriculture,  
Fisheries and Forestry

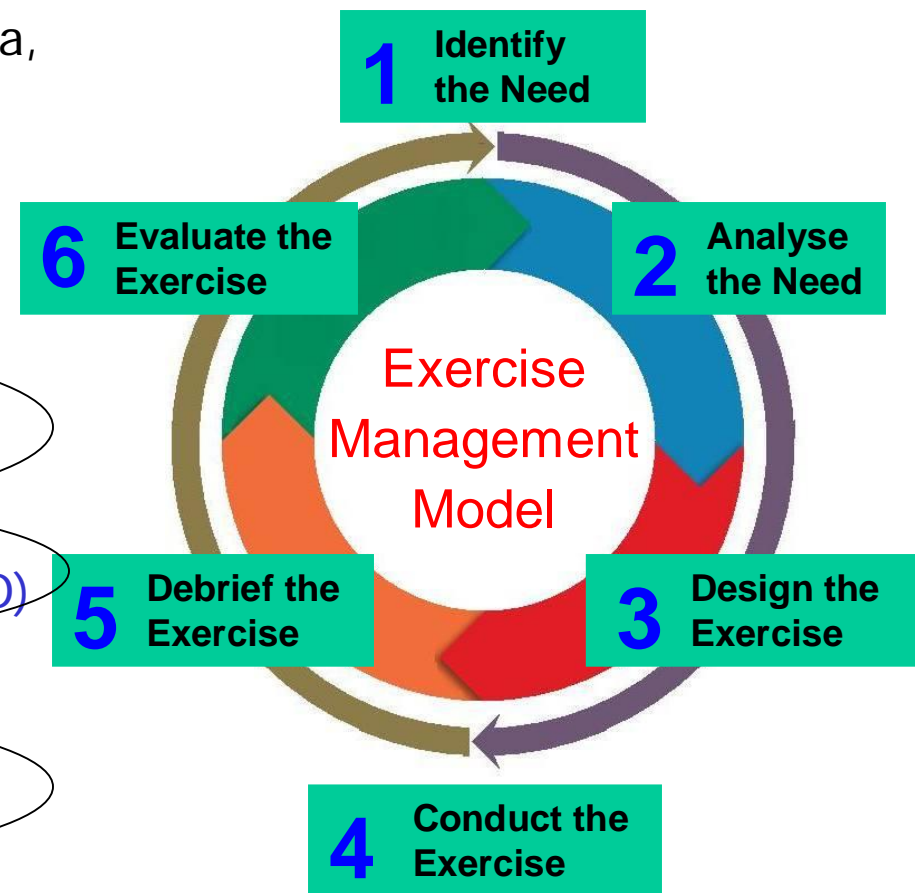


Australian Government  
AusAID



## Epidemic and Pandemic Preparedness Activities

- Exercise Management Training Program (APEC, AusAID, ASEAN, Kenan Inst Asia, USAID)
- Health Care Facility Emergency Preparedness and Response for Epidemics and Pandemics, using the model of pandemic influenza (WHO)
- Emerging Zoonotic Disease Capacity Assessment (WHO, AusAID)
- Managing Health Risks of Biological, Chemical and Radiological Agents (WHO)
- Life Science Research Seminar (WHO)
- Community-based Avian and Human Influenza (ADB, IFRC, CARE, IRC)



# Acknowledgements

## WHO

- Communicable Disease Surveillance and Response, WHO-WPRO & SEARO
- Epidemic and Pandemic Alert and Response, WHO Geneva
- WHO Country Office – Cambodia

## FAO

- East Asia and Pacific Regional Office
- Country Office Cambodia

Ministries in Cambodia (Health, Agric, NDMC) & Partners (Pasteur, Medicam)

Dr John Herbold, University of Texas School of Public Health, USA

Dr Betsy Miranda, Philippines

Dr Guy Freeman, UK



# Presentation

- Setting the context
- Why conduct capacity assessment?
- What is capacity?
- Capacity for what – managing risks?
- What is capacity development?
- How to conduct capacity assessment?
- Risk and capacity assessment for emerging zoonotic diseases
- Community Management of AHI (AHI-NGO-RC/RC Asia Partnership Project with ADB)

# Setting the context: Strategies

*APSED is a road map for countries to strengthen core capacity for effective preparedness planning, prevention, prompt detection, containment and control of emerging infectious diseases*

It is anticipated that countries ... will use the Strategy:

- As a strategic document to guide the development or strengthening of the national capacities required for health protection from emerging diseases.
- As a framework for the development of stronger collaboration with neighbouring countries, subregional, regional and global networks and other technical partners to build a regional safety net from emerging diseases.
- To meet the core capacity requirements for surveillance and response under IHR(2005)

# Problems with Capacity Development

- One-off isolated or short-term activities –not programmatic
- No follow-up
- Duplication of activities –focused on functional areas
- Often single sector
- Supply driven
- Activities which are not priorities
- Diverting resources/time

So what is needed:

- Capacity development plan based on capacity assessment

# APSED Guiding principles

- *The primary focus of the Strategy is on country activities supported by partnerships between countries and at subregional, regional and global levels.*
- *The actions taken are sustainable and build on existing structures.*
- *The actions are based on a combination of knowledge and experience of effective public health policies and practices.*
- *Networks and partnerships are the mechanisms most likely to optimize the use of limited resources*
- *Consultation, collaboration and the support from regional solidarity are keys to success.*
- *The achievement of self-reliance for the Asia Pacific Region.*
- ... to accelerate the timeframe for achieving the targeted outcomes, countries and regional partners should consider novel ways to map existing national and regional resources and gaps in capacity.

# Why Conduct Capacity Assessment?

- to assess current capacity of systems and organizations to manage health risks
- identify priority strategies for strengthening capacity to manage the health risks
- to assess and review the resources available for strengthening capacity

# Why Conduct Capacity Assessment?

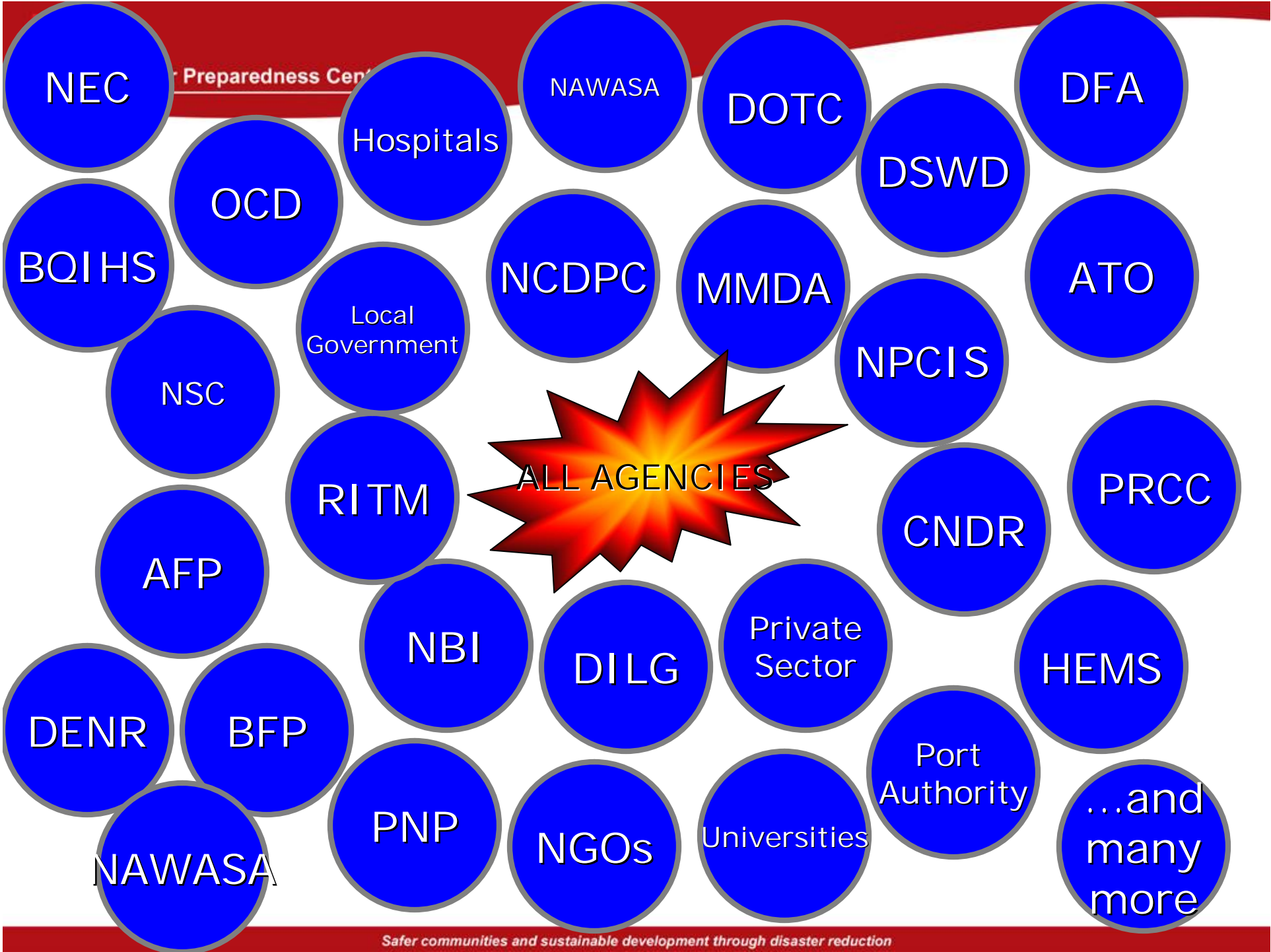
- to identify the gaps and opportunities for strengthening the capacity to manage the health risks
- to provide a baseline on capacity that allows monitoring and review of strategies, and repeatable and continuous assessment
- to enable a plan of action to be developed that sets priorities based on the assessment findings and resources available

# 1st: What is capacity?

- Who or what provides capacity?
  - Systems
  - Organizations
  - People
- These elements are interdependent and interoperating

# Systems to Manage Health Risks of Emergencies

- **Systems**
  - systems operating at each administrative level
  - systems in specific sectors
  - systems to manage specific types of risks
  - systems for specific functions or services



# Organizations

- Organizations contribute to systems by providing:
  - coordination (eg. health emergency management)
  - the capacity to perform functions (eg. health service delivery functions)

# People

People contribute to organizations and systems by providing:

- skills, knowledge and attitudes
- competency
- People may be:
  - Career (or paid), volunteer and community
  - Managers, coordinators, operators

# Capacity for Managing Health Risks

– policy development and coordination

– risk assessment

**RISK** is proportion to **HAZARD** X **VULNERABILITIES** -----

**READINESS/CAPACITY**

– risk management functions:

- coordination of emergency response and emergency recovery planning and operations;
- general and cross-cutting functions;
- prevention, mitigation and preparedness;
- specific emergency response and emergency recovery functions.

– capacity development and training

– monitoring and evaluation

# General or Cross-cutting Functions

- Communication and transport
- Information management
- Health surveillance
- Mental health
- Reproductive health
- Environmental health
- Food safety, emergency feeding and nutrition

# General or Cross-cutting Functions

- Risk communication
- Occupational health and safety
- Facility design
- Organization-based disaster planning
- Managing critical supplies and protecting infrastructure
- Water supply management
- Waste management

# Hazard reduction, vulnerability reduction and preparedness functions

- Biosafety in laboratories and health facilities
- Biosecurity for laboratories and health facilities
- Infection control
- Quarantine
- Early warning
- Environmental detection and monitoring
- Sampling and analysis
- Vaccination and prophylaxis

# Specific Emergency Response Emergency Recovery Functions

- First aid, self-aid and first-responder health assistance
- Incident site management
- Assessing needs
- Mass-casualty management
- Decontamination
- Epidemiological investigation

# Specific Emergency Response Emergency Recovery Functions

- Forensic investigation
- Fatality management
- Shelter and temporary accommodation (including evacuation shelters)
- Community support
- Longer-term issues (health effects, recovery, rehabilitation, reconstruction)

# How can we develop capacity?

- *“efforts aimed to develop the human skills or societal infrastructures within a community or organization needed to reduce the level of risk”*

# Capacity Development

- Increase capability of systems, organizations and people
- Apply to policy development, risk assessment, emergency response and recovery planning and coordination, and risk management and health service delivery functions
- Build relationships and arrangements to produce more effective systems and organizations
- Training activities, development of good practice guidelines, research, university courses
- Analysis of training needs is coordinated within sectors and between sectors

# Capacity Development

- Capacity development is based on capacity assessment at the following levels:
  - Each level of administration
  - The health sector and other sectors
  - Specific functions
  - Organizations
  - For all types of risks and for specific risks
  - With international organizations

# Capacity Development

- Capacity development plans address current and projected needs
- Lessons learned are incorporated into capacity development planning
- Activities or initiatives to enhance capacity to manage risks are implemented, such as training, equipment, logistics, exercises, research (such as field studies), conferences, production and dissemination of technical materials

# Capacity Development

- Analysis of training needs is coordinated within sectors and between sectors
- Training needs assessment is conducted of the workforce and the personnel competencies required to manage risks
- Emergency management and risk management training is conducted for the health sector
  - comprehensive, multi-hazard training (eg. PHEMAP)
  - for management of specific risks
  - specific functions in the health sector (such as health surveillance, mass-casualty management and mental health)

# Capacity Development

- A profile of training providers and participants has been prepared (such as what organizations and professions)
- Relevant graduate and postgraduate training is available
- Organizations and academic institutions collaborate on training and capacity development
- Training and educational activities on managing risks for the general public

# How Can We Assess Capacity?

- Benchmarking
- Reports and other documentation
- Surveys (including inventories)
- Workshops
- Interviews
- Observations
- Operations (and evaluations)
- Exercises /Tests (and evaluations)
- Comprehensive assessment

# Managing and Conducting an Assessment (1)

- Project planning
- Define the objectives of the assessment
- Determine the approach to assessment
  - Scope (system or organization)
  - Type (strategic or functional)
  
- Establish assessment team (preferably multidisciplinary and multisectoral)
- Identify participating organizations (from which to obtain information)

# Managing and Conducting an Assessment (2)

- Prepare and conduct activities
  - Preliminary research
  - Surveys
  - Workshops
  - Interviews and Field visits
  
- Develop assessment questions and considerations (what indicators of capacity based on good practice will be used)

# Managing and Conducting an Assessment (3)

- Data management and analysis
- Report development and recommendations
- Approval processes
- Develop and implement a plan of action
  - Capacity development
- Monitoring and review of implementation
- Follow-up capacity assessment

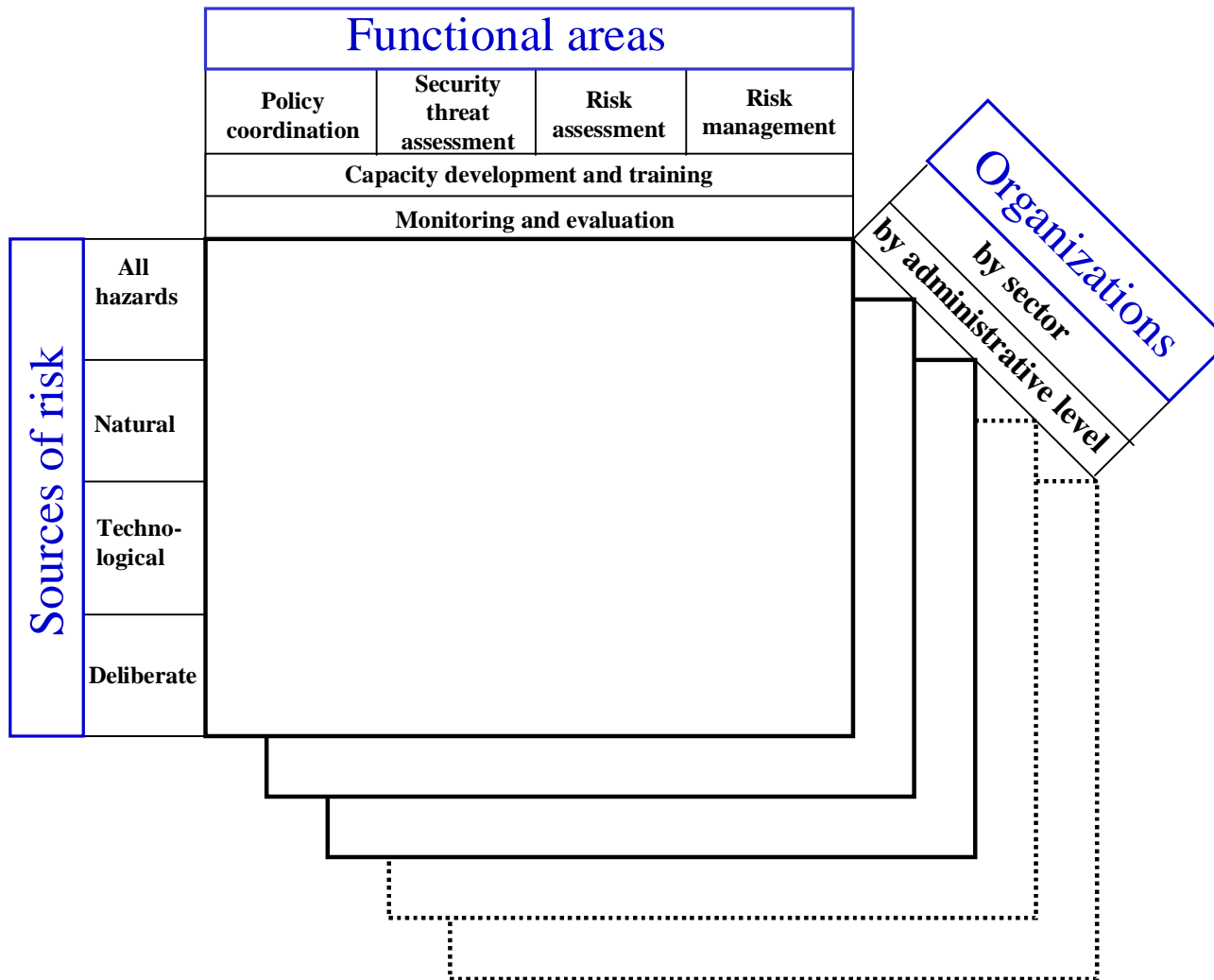
# Defining Capacity Assessment

- *Stakeholders confirm goals or objectives*
- *Map their existing capacity*
- *Identify gaps between available capacity and capacity needed to meet their goals*
  
- *Where are we now?*
- *Where do we want to be?*
- *How can we get there?*

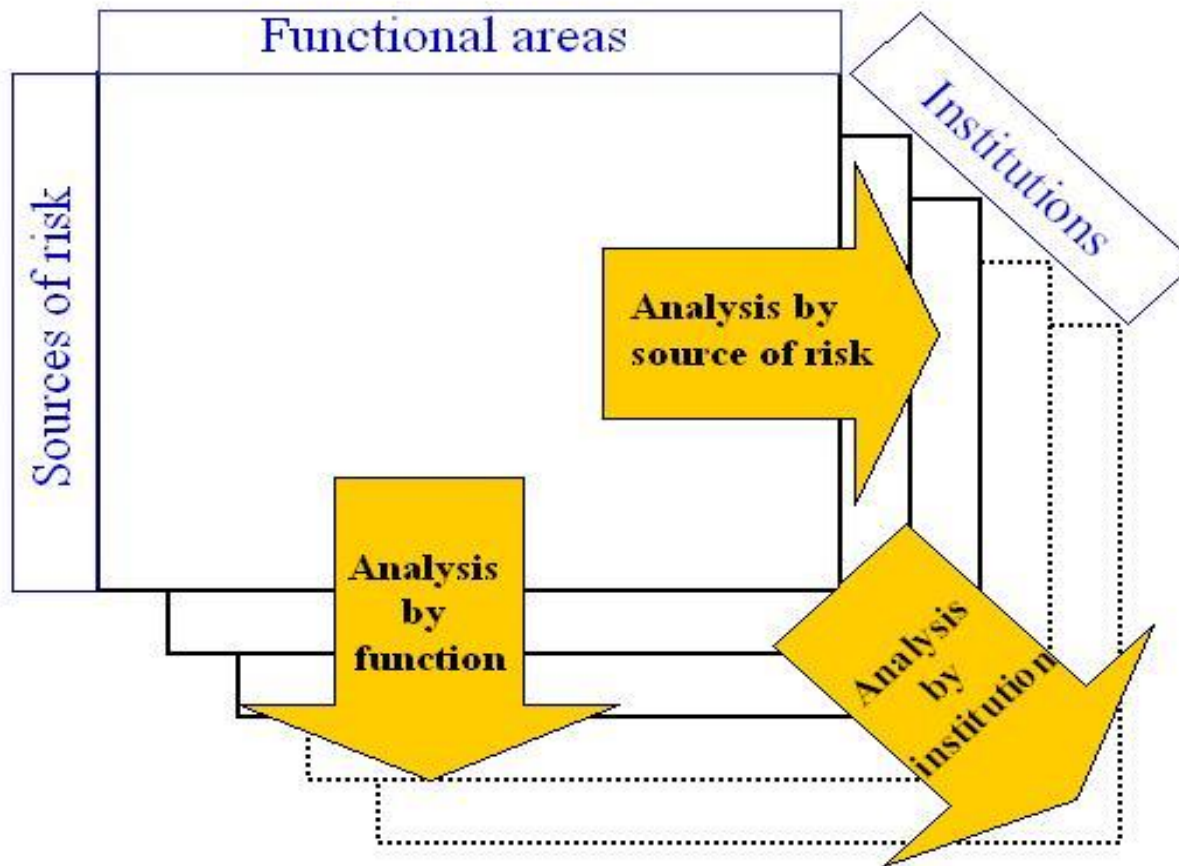
# Comprehensive Assessment – key questions

- What health risks of emergencies need to be managed? – RISK ASSESSMENT
- What system(s) manages these risks and how are they intended to function?
- Which organizations contribute to managing these risks and what are their respective roles and responsibilities?
- How do the systems and organizations function in practice?
- What is not functioning as intended and why?
- What strategies or actions are recommended to strengthen capacity?
  - *Where are we now?*
  - *Where do we want to be?*
  - *How can we get there?*

## Structure of the relational database



## Data analysis



# Generic Questions

- *How are this organization's functions coordinated within the organization and with other organizations?*
- *How would the organization provide this function in response to or in the recovery from an emergency?*
- *How would this organization increase capacity in an emergency (such as surge capacity)?*

# Generic Questions

- *What are the challenges and gaps in fulfilling the roles of the organization?*
- *What other capability could this organization provide to manage risks?*
- *What budget, personnel and resources are allocated to performing these functions?*
- *In an emergency, how would this organization obtain resources for its functions?*

# Specific Questions Examples

## Risk Communication

- *How does this organization communicate with the community?*  
For example:
  - risk awareness
  - community education about precautionary measures
  - warning systems
  - during an emergency
- *How are the mass media integrated into risk communication strategies and arrangements to manage risk?*

# Assessing Risk and Capacity for Zoonotic Diseases

- A. Risk Assessment
- B. Agriculture and Animal Health
- C. Human Health
- D. Cross Sector, Multi-agency and International
- E. Towards an Integrative Plan

# Risk Assessment

- Has a risk assessment been conducted to identify and prioritise zoonotic diseases in your country
- Are any of the following zoonotic diseases of concern to your country? In each of the following transmission modalities:
  - Animal-human (rabies, nipah, leptospirosis)
  - Animal-vector-human (eg hantavirus, JE)
  - Animal Product/Food – Human (eg. cysticercosis, brucellosis)
  - Animal-Human-Human (eg. SARS)
- Burden of disease studies?

# Agriculture and Animal Health

## – Risk Assessment

- What percentages of livestock and poultry farming in industrial, large/small commercial, backyard?
- Dog population – what percentage vaccinated in calendar year?
- Cross-border movements of live animals, meat, hides, milk, eggs, feathers?
- Live animal markets and meat consumption?
- Increases in risk due to deforestation, urbanization, climate variability and change?
- Studies of wildlife a vector or reservoir zoonotic diseases?

# Agriculture and Animal Health - Capacity Assessment

- Rabies prevention and control strategies for dogs?
- Vaccinations routinely used (dog rabies, leptospirosis, brucellosis)?
- Programs of personal protection for animal industry workers?
- Inspection and certification programs (domestic, imported and exported animal products)?

# Agriculture and Animal Health - Capacity Assessment (2)

- Biosecurity programs?
- Surveillance (notifiable disease list?, mandatory reporting, hotline, assessment of labs and surveillance systems?)
- Wildlife disease monitoring and testing programs?
- Response plan, forums, procedures?
- Policy, legislation, forum?
- Agencies, workforce, role of local health workers + certification?

# Human Health – Risk Factors

- Co-habitation of people with animals?
- Access to potable water/basic sanitation?
- Food culture (eg, consumption of raw meat, wildlife, dogs)?
- Studies of levels of community awareness of risks to humans from (dog bites, mosquitoes, contact with livestock, meat consumption)?

## Human health – capacity assessment

- Pre and post exposure rabies vaccinations
- Assessment of surveillance system conducted
- List of notifiable disease/mandatory reporting requirement
- Reporting of influenza-like illness
- Assessment of laboratories
- Focal point for IHR
- Hotlines

## Human health – capacity assessment (2)

- Incentives for health workers to comply with reporting requirements?
- Response plan? Forum? Facilities? Policies include zoonotic disease
- Plans for mass vaccination, isolation of communities, emergency medical care?
- Resources – role of health authorities, workforce, role of community health workers – certification programs?

# Cross sector, multi-agency, international

- Continuing education and training programs for whom?
  - Training needs assessment conducted
  - Training on personal protection
  - Joint training between health and animal health
  - Training for other sectors
  - Publications/newsletters
- Community education (for whom? by whom? what?)
- University education (veterinary health, general medicine, public health)?
- Water and sanitation, vector control?
- Inventory, certification and licensing of laboratories?

## Cross sector, multi-agency, international (2)

- Arrangements for exchanging disease information between health and animal health laboratories?
- Forum or body where zoonotic disease information is discussed?
- Are other agencies involved in surveillance (eg. private sector, environment, wildlife agencies, tourism, local government, NGOs)?
- Inter-agency body for response, national field epidemiology teams –multiagency?)
- International and cross-border information sharing arrangements
- Inventory of NGO resources and capabilities
- What involvement of international and regional partners
- Budget for capacity development, response, cross-agency funding?

# Towards an Integrative Plan for Managing Zoonotic Disease

- What are your primary concerns regarding endemic and/or emergent zoonotic diseases in your country?
- What animal human interface scenarios are important in your country and geographic region?
- What has been achieved to improve national capacity for managing zoonotic diseases?
- What strategies have proven most effective for reducing risk of zoonotic diseases:
  - in animals?
  - in humans?

# Towards an Integrative Plan for Managing Zoonotic Disease (2)

- Given the recent attention to AI and human pandemic influenza planning, what opportunities for collaboration between public health and animal health sectors have opened?
- What barriers have become evident in the following areas:
  - prevention and control in animals and humans
  - human and animal surveillance of zoonotic diseases
  - laboratory diagnosis of zoonotic diseases
  - field response to zoonotic diseases
  - coordination of multi-sectoral activities
  - other (eg. policy development, planning etc)

# Towards an Integrative Plan for Managing Zoonotic Disease (3)

- Which agencies/organizations for discussions regarding:
  - human impact of animal disease response
  - animal impact of human response
  - economic impact on both human and animal sectors?
- What activities have been taken recently to strengthen relationships among:
  - government agencies
  - Red Cross and Red Crescent movement, NGOs
  - UN and other international organizations
  - private sector
  - all of the above?
- Given your risks, resources and experience, where should efforts and resources be focused in the future for the management of zoonotic diseases (i.e. what are the priorities for effective management)?

## Learnings – Cross-sectoral Capacity Building and Partnerships

- Support the development of communicable disease strategy which includes zoonotic diseases
- Conduct base-line studies on the burden of diseases
- Develop activities with cross-sectoral representation and joint facilitation on common issues which affect the health, animal health and other sectors –eg. biosecurity, exercise management, response planning, intersectoral collaboration
- Strengthen engagement with major NGOs and Red Cross in management of zoonotic diseases and other communicable diseases

# Learnings

## Assessments

- Support for conducting zoonotic disease risk and capacity assessments

## Advocacy

- Seize opportunity provided by focus on AI and associated funding to:
  - Provide advocacy to donors on the need to strengthen health infrastructure for the management of zoonotic diseases in general
  - Eg. advocacy document entitled “Avian Influenza and other Zoonotic Diseases”

## Next steps

- Refinement of the instrument
- Integration and complementarity with APSED/ IHR and other assessment tools
- Development of guidelines to support application of the instruments
- Field tests of capacity assessment tool
- Finalisation and dissemination

# More Information

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Health System Development

# Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia

Project Announcement

AHI-NGO-RC/RC Asia Partnership  
5 November 2007

## Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia

### Project Rationale:



International Federation  
of Red Cross and Red Crescent Societies

- NGO/CBO experience not systematically documented, collected, disseminated  
Regular meetings
- Limited opportunity for collective sharing of experience - workshops
- Limited availability of evaluations, training material and courses for community based AHI practitioners
- Regional AHI Forum – desire for value-adding to this experience

**Result:** Formation of the AHI-NGO-RC/RC Asia Partnership and proposal to Asian Development Bank

## Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia



### Project Benefits



International Federation  
of Red Cross and Red Crescent Societies

- Community-based AHI practitioners can share best practices
- Strengthening of community based and national surveillance
- Facilitate communication and collaboration between:
  - health and animal health
  - Ministries and local counterparts
- Strengthening capacities of national NGOs and CBOs, cross-border, regionally
- Serving as a bridge between technical fields and sectors

For: AHI practitioners working with communities in Asia

# Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia

## Objectives/Activities:



International Federation  
of Red Cross and Red Crescent Societies

- Develop a regional tool-kit for community-based management of AHI from the experiences of countries in the Asian region
- Conduct regional training workshops and study tours to build capacity and share experience of community- based control and prevention of AHI in Asia
- Strengthen communication and coordination of community level organizations in the management of AHI in Asia (regional forum, newsletter, web-page)

**Target Countries:** Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand, Vietnam

## Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia

We invite you to:



International Federation  
of Red Cross and Red Crescent Societies

- Identify community practices of AHI from Asia
- Share guidance on community approaches to AHI
- Take a project briefing document
- Share information about this project with your partners
- Provide your contact details
- Contact us for more information

## Strengthening Community Based Approaches to Management of Avian and Human Influenza (AHI) in Asia

More Information



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