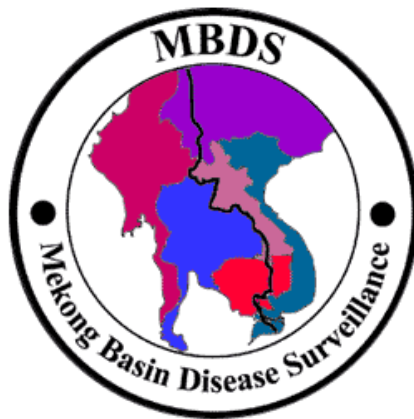


Mekong Basin Disease Surveillance (MBDS) Cooperation



Action Plan (2008-2013)

January 25, 2008

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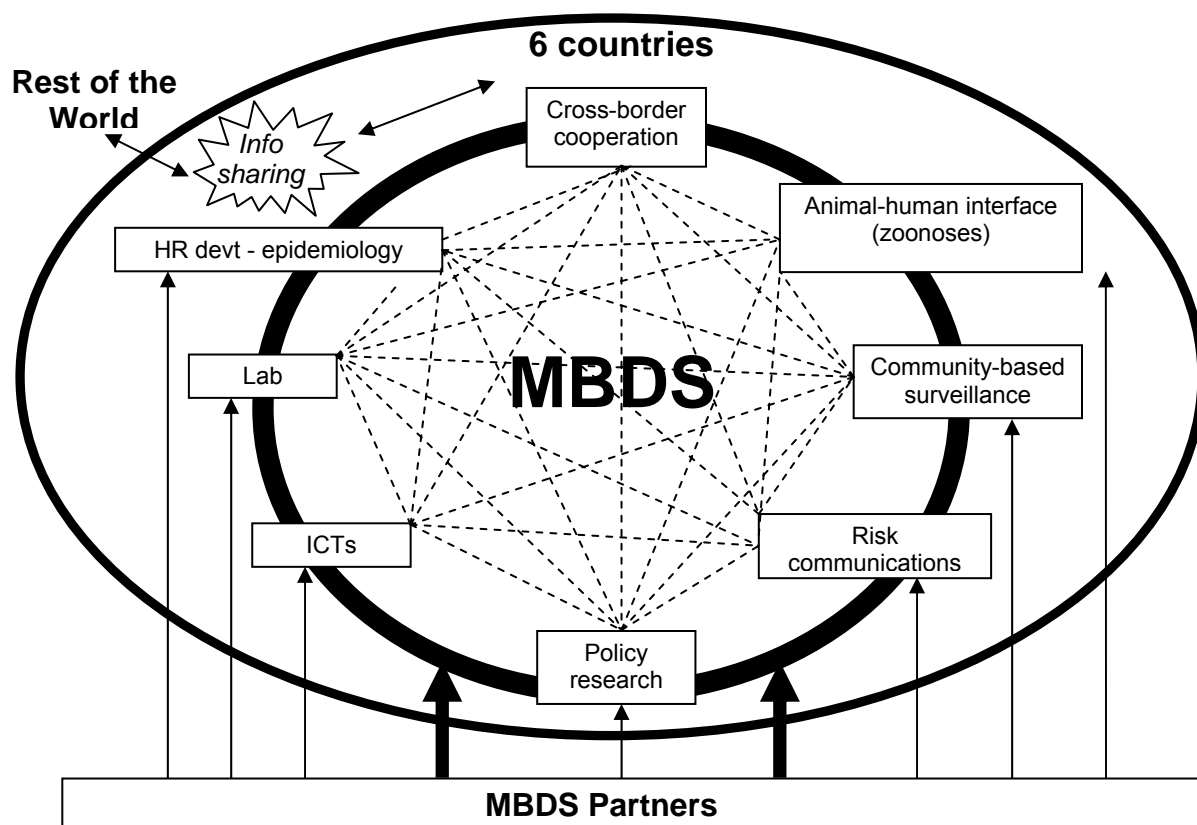
Acronyms

ADB	Asian Development Bank
AFP	Acute flaccid paralysis
ASEAN	Association of Southeast Asian Nations
EID	Emerging infectious disease
HIV	Human immunodeficiency virus
ICT	Information and communications technologies
IHR	International Health Regulations
MBDS	Mekong Basin Disease Surveillance
MOU	Memorandum of understanding
NTI	Nuclear Threat Initiative
PHEIC	Public health emergency of international concern
RF	Rockefeller Foundation
SARS	Severe Acute Respiratory Syndrome
TB	Tuberculosis
TTX	Tabletop exercise
UNSIC	United Nations System Influenza Coordination
USAID	United States Agency for International Development
WHO	World Health Organization
XB	Cross-border

Introduction

1. Brief history of the Mekong Basin Disease Surveillance (MBDS) Cooperation:
 - a. Initial vision: reduce morbidity caused by outbreak-prone priority diseases
 - b. Mission: strengthen national and sub-regional capabilities in infectious disease surveillance and outbreak response, especially for priority diseases, to rapidly and effectively control them
 - c. Goals:
 - i. Reduce morbidity and mortality from communicable diseases, particularly amongst marginalized people living in the Mekong region, by developing an integrated approach to disease surveillance and response across borders
 - ii. Establish partnerships with other existing cooperation mechanisms
 - d. General Objectives:
 - i. Develop mechanisms within a conceptual model for building strong cross border programs and implement in 5 pilot sites.
 - ii. Develop tools and skills among key stakeholders to solve issues and problems in a coordinated way.
 - e. Specific Objectives:
 - i. Enhance activities for information exchange across borders.
 - ii. Develop and conduct training courses to strengthen capacities for disease surveillance.
 - iii. Develop a strategy for joint cross-border outbreak investigation and response.
 - iv. Share experiences in dealing with surveillance as well as solving border health issues by a coordinated team.
 - v. Rationalize cross border laboratory capacity to support surveillance activities.
 - vi. Develop indicators for monitoring progress.
 - vii. Use of planning process (plan-implement-evaluate-act-plan) to promote team development.
 - viii. Develop research knowledge and skills for further strengthening and development of a concrete model for disease surveillance and control of communicable diseases along the border areas.
 - f. Core values: mutual trust, transparency, cooperative spirit
 - g. Priority diseases addressed: Severe Acute Respiratory Syndrome (SARS), avian influenza, malaria, dengue, human immunodeficiency virus (HIV), cholera, acute flaccid paralysis (AFP), typhoid, measles, tuberculosis (TB)
 - h. Achievements:
 - i. Capacity building: applied epidemiology and GIS at central and provincial levels
 - ii. Piloting of cross-border cooperation: Regular information exchange, joint outbreak investigation, cross-border meetings, monitoring and evaluation, multi-sector engagement (especially immigration, local authorities), cross-border epidemiologic case history, cross-border

Figure 1. Interrelated nature of the six MBDS core strategies



General Objective 1: Implement Seven Core Strategies

Over 2008-2013, MBDS partners will focus on the implementation of seven inter-related core strategies identified by MBDS leadership:

1. Maintain and expand cross-border cooperation
2. Improve human-animal sector interface and strengthen community-based surveillance
3. Strengthen epidemiology capacity
4. Strengthen Information and Communications Technologies (ICT) capacity
5. Strengthen laboratory capacity
6. Strengthen risk communications
7. Conduct and apply policy research

General Objective 2: Improve Pandemic Influenza Preparedness in the Region

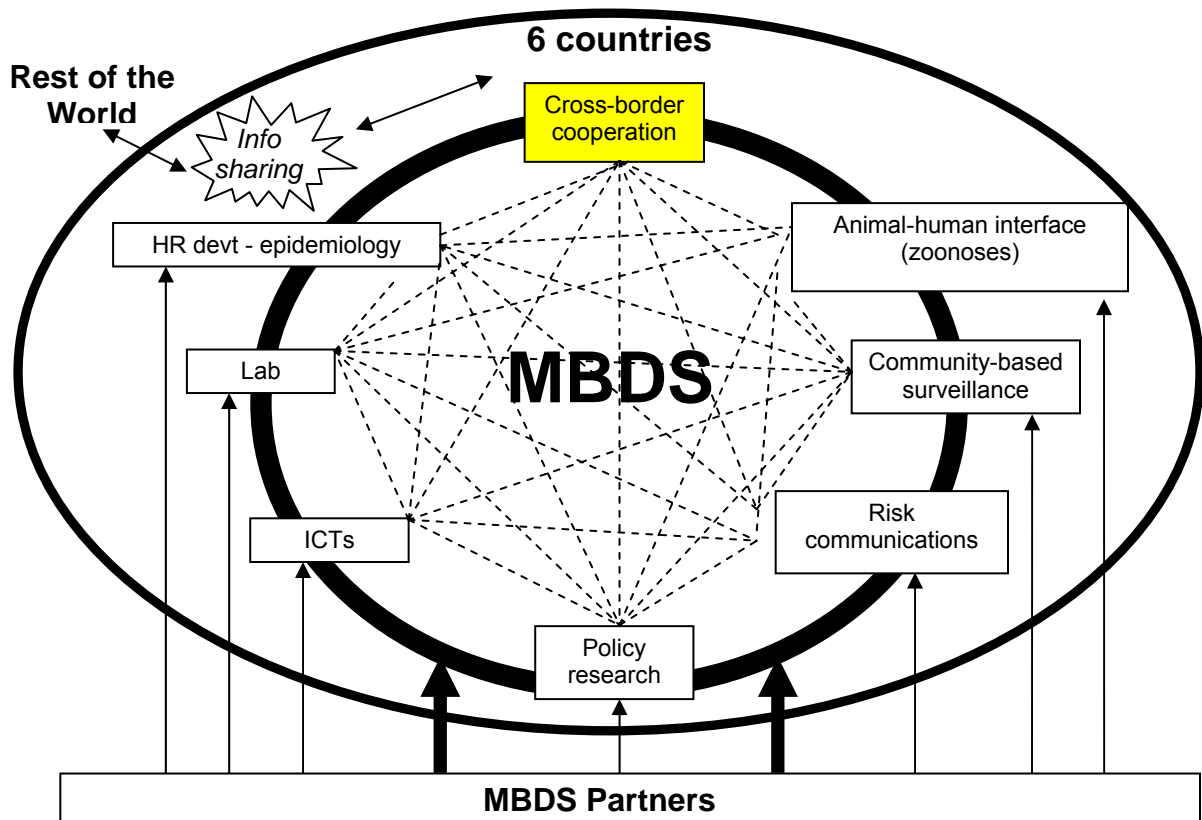
In 2006, all six MBDS countries conducted a pandemic influenza exercise. These country exercises were followed by a regional exercise. All of the exercises revealed pandemic preparedness areas needing improvement. Based on these exercises, countries will revise their own plans and will cooperate regionally to improve pandemic preparedness through activities linked to relevant core strategies.

Core Strategy 1: Maintain and Expand Cross-Border Cooperation

Background

- Infectious diseases do not respect borders
- Globalization has increased the risk of international disease spread
- Diseases can cause significant economic impact in affected countries
- Experiences and lessons from SARS: unprecedented worldwide cooperation led to a successful response, multi-country outbreaks need better coordination and cooperation,
- Nature of avian influenza
- Questions usually asked about cross-border cooperation:
 - Why is it important?
 - How to initiate/develop cross-border health cooperation?
 - What is the minimum package of activities to include?
 - How to motivate/encourage decision making in each country to support/facilitate cross-border cooperation?

Figure 2. Cross-border cooperation in relation to the other core strategies



Goal

Use cross-border cooperation as a key mechanism for effective and comprehensive disease prevention and control at key border areas.

Objectives

- 1.1. From 2008-2013, maintain and expand cross-border sites and implement a “basic package” of activities at each site.
- 1.2. During 2008 and thereafter as appropriate, follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

Objective 1.1: From 2008-2013, maintain and expand cross-border sites and implement a “basic package” of activities at each site.

Activities

- 1.1.1 Identify new MBDS cross-border sites to be established from 2008-2013, based upon the principle of 2 new sites per country per year and relevant orientation meetings (provincial and district level) and situation analysis of potential sites.
 - *Indicator: 1 – Situation analysis reports*
 - 2 -- *Finalized list of all new XB sites and approved timeline for their implementation.*
- 1.1.2 Complete resource mapping of all MBDS and other (non-MBDS) XB sites, along relevant dimensions (e.g., organization, project, current/future, funding, nature and status of relevant activities), and use this on an ongoing basis as a monitoring mechanism
 - *Indicator: 1 – Resource mapping of XB sites is updated at least twice per year and made available to all MBDS coordinators.*
- 1.1.3 Finalize “basic package” of activities and Terms of Reference for each XB site
 - *Indicator: 1 – Completion of a brief document that clearly describes and defines the basic activities and terms of reference for each XB site.*
- 1.1.4 Establish 2 new XB sites per country per year, consistent with plan (See Activity #1), and implement package of activities at these sites
 - *Indicator: 1 – Documentation of the establishment and programming at new XB sites.*
- 1.1.5 Exchange disease information based on agreed upon package of diseases and frequency of reporting (24 hours, weekly, monthly, quarterly)
 - *Indicators: 1 – Documented regular use of telephone, email, and/or internet for information exchange at XB sites*

2 – Disease reporting is documented according to schedule across borders at each XB site and posted at the Coordinating Provincial Office

- 1.1.6 Continue to build epidemiology capacity (see Strategy 3)
- *Indicator: 1 – Guidelines are developed and put in place at each XB site for outbreak investigation, reporting and control*
 - 2 – Documentation of completed local training, including epidemiology, IT, GIS, data analysis, and disease risk factor awareness*
- 1.1.7 Participants and leaders in XB sites meet regularly to discuss their progress and share experiences across sites.
- *Indicator: 1 – Meetings of XB sites are held as scheduled.*
- 1.1.8 Conduct monitoring and supervision as per agreed upon schedule
- *Indicator: 1 – Supervision guidelines are developed and made available for each XB site*
 - 2 – A supervision schedule is developed and followed*
 - 3 – Problems identified through supervision are documented and satisfactorily addressed*
- 1.1.9 Test and evaluate the ability of each XB site to appropriately respond to a pandemic influenza emergency, i.e., through investigation of an outbreak or a simulated TTX or drill. (in conjunction with items 1.2.9, 2.3 and 3.4.2)
- *Indicator: 1 – Joint investigation teams are established and trained at each XB site*
 - 2 – Guidelines are developed and put in place for XB outbreak investigation, reporting, and disease control measures, including border quarantine and others*
 - 3 – Documented completion of at least one outbreak investigation or exercise at each XB each year.*
 - 4 – Documented use of outbreak investigation or exercise for quality improvement purposes.*

Objective 1.2: During 2008 and thereafter as appropriate, follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

- 1.2.1 Establish functional community-based surveillance at all XB sites
- *Indicator: At least 90% of expected reports are submitted each year.*
- 1.2.2 Strengthen border health quarantine at check points, consistent with WHO or other relevant guidelines
- *Indicators: 1 – Complete a border quarantine protocol by the end of 2008*
 - 2 – Test protocol annually at each XB site.*
- 1.2.3 Assure appropriate clinic capacity (public or private) in border areas, based on the number of people in local population and expected to cross borders for care
- *Indicators: 1 – By the end of 2008, MBDS consensus agreement reached on standard, i.e., what constitutes “appropriate” clinical capacity*

2 –Reported achievement of this standard annually by each XB site.

1.2.4 Train healthcare workers in clinical and public health management of pandemic influenza.

- *Indicators:* 1 – A joint training curriculum is developed.
2 - At least one joint training or refresher training is held annually at each XB site (could be held in conjunction with other trainings).
3 – All medical and nursing staff demonstrate adequate clinical proficiency, assessed annually based on relevant national or international standards

1.2.5 Procure and distribute PPE for healthcare workers and train them in its use.

- *Indicators:* 1 –Annual training or refresher training held on the appropriate use of PPE for healthcare workers at each XB site (could be held in conjunction with other trainings).
2 – PPE supplies at each XB site meet relevant national or international standards in terms of quality and quantity

1.2.6 Assure adequate infection control procedures in medical care facilities, especially hospitals: training, supplies (disinfectants)

- *Indicator:* 1 – All hospitals have an infection control plan that is approved by appropriate government authorities
2 – All hospitals have met relevant national or international standards for infection control

1.2.7 Assure capacity for patient isolation for human cases of avian influenza or any other relevant emerging diseases

- *Indicator:* 1 – Each XB site has at least one approved isolation facility
2 – All isolation facilities have plan/procedures in place that are consistent with relevant national or international standards, based on annual assessment.

1.2.8 Assure capacity for quarantine of contacts for human cases of avian influenza or any other relevant emerging diseases

- *Indicator:* Each XB site has plan approved by appropriate government authorities for quarantine of contacts.

1.2.9 Assure adequate local planning for rapid containment of an emerging influenza pandemic and response to a declared pandemic, consistent with WHO or other guidelines; exercise/drill or practice at least annually through an actual outbreak response. ¹ (in conjunction with items 1.1.9, 2.3 and 3.4.2)

- *Indicators:* 1 – Documented plan for rapid containment and pandemic mitigation at each XB site within one year of establishment of site

¹ Guidelines for containment - isolation and quarantine, designation of containment and buffer zones, antiviral drugs, movement restrictions, hygiene measures; for pandemic – patient management and surge medical capacity, school closures and restrictions in public gatherings, hygiene measures. Note that exercises of these measures can be included within exercises conducted for other purposes, to increase efficiency.

2—For each year thereafter, completed After Action Report from an exercise or a documented review of an actual response.

1.2.10 Assure adequate local medical surge capacity planning in each XB site, consistent with relevant national or international guidelines or standards.

➤ *Indicator: Written plan in place within 1 year of establishment of XB site*

1.2.11 Stockpile appropriate (or critical) medial and/or non medical materials, and drill annually in each XB site.

➤ *Indicator: Documented plan (or materials) and exercise/drill related to stockpile distribution, based on annual review.*

Simplified Monitoring and Evaluation (M&E)

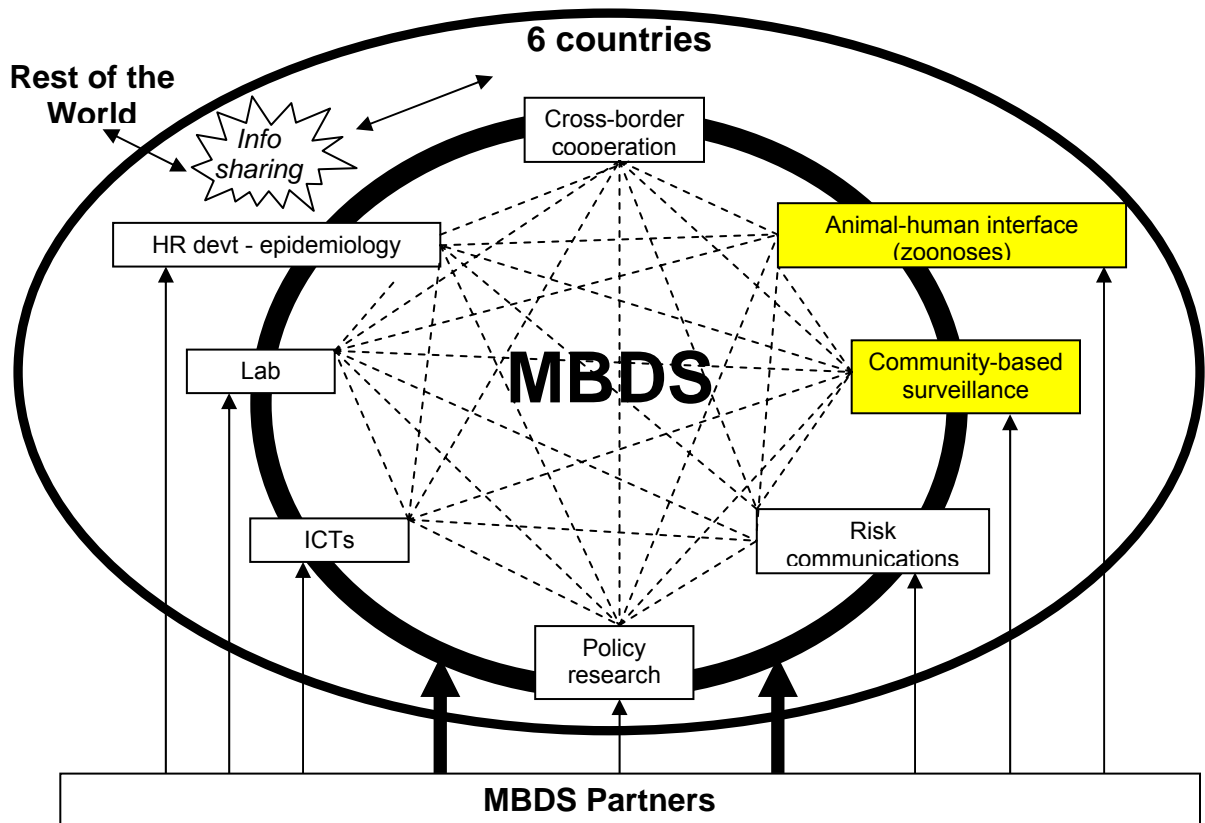
- Were the activities carried out as planned (timetable, resources, design)? What problems were encountered?
- Were problems solved? In which countries/settings are lessons applicable? In which have they been applied? What are the challenges to application of lessons?
- What were the results of XB cooperation? (were health systems or health outcomes improved)?
- Were lessons related to XB cooperation shared beyond MBDS, e.g., via publication or presentation?

Core Strategy 2: Improve Human-Animal Sector Interface and Strengthen Community-Based Surveillance

Background

- Zoonoses have been increasing in recent years, such as SARS, influenza A H5N1, rabies, *Stepcoccus suis*, Nipah virus
- Ministries of Health and Agriculture are not collaborating closely enough to control diseases.
- Information sharing (especially from Ministries of Agriculture) does not currently occur regularly and is generally only done when requested.
- Community-based surveillance has not been done systematically and effectively

Figure 3. Animal-human interface and community based surveillance in relation to the other core strategies



Goal

Strengthen national and sub regional collaboration on the interface between human and animal health, i.e., between Ministries of Health and Agriculture, to rapidly and effectively detect and control communicable diseases that are spread by poultry and animals and may affect humans.

Objectives

- 2.1 Strengthen collaboration between the Ministry of Health and Ministry of Agriculture in each country.
- 2.2 Share information between departments of human and animal public health and related ministries.
- 2.3 Conduct at least one joint outbreak investigation or TTX per year in each XB site (*See also Activity #9 under Objective 1.1 and consider meeting both objectives through the same investigations or exercises*) (in conjunction with items 1.1.9, 1.2.9 and 3.4.2)
- 2.4 Improve community-based surveillance

Activities

Objective 2.1: Strengthen collaboration between the Ministry of Health and Ministry of Agriculture in each country.

Activities:

- 2.1.1 Develop mechanism for collaboration
 - *Indicator: 1 – At least one meeting or collaborative activity is held jointly between the Ministry of Health and the Ministry of Agriculture in each country by 2010.*
- 2.1.2 Identify priority diseases and relevant partners. (*in conjunction with item 2.4.1.*)
 - *Indicator: 1 – Written documentation of the priority diseases and relevant partners identified.*
- 2.1.3 Apply policy research, surveillance, epi., lab., ICT, risk communications to strengthen local capacity. (*in conjunction with item 7.2*)
 - *Indicator: 1 - At least one study completed per year, with written report*

Objective 2.2: Share information between departments of human and animal public health and related ministries.

Activities:

- 2.2.1 Convene a national workshop on information sharing.
 - *Indicator: 1 - Written report from workshop*
- 2.2.2 Develop mechanism for sharing information at all levels: National, province, district.
 - *Indicator: 1 - Written report/document*
- 2.2.3 Convene a regional (all MBDS countries) workshop on animal-human interface.
 - *Indicator: 1 - Written report from workshop, including recommendations*

Objective 2.3: Conduct at least one TTX or one joint outbreak investigation per year in each XB site (in conjunction with items 1.1.9, 1.2.9 and 3.4.2)

Activities:

- 2.3.1 Design model TTX at province level.
 - *Indicator: Model TTX developed*
- 2.3.2 Conduct TTX at 2 provinces by year. Totally 6 province will conduct TTX.
 - *Indicator: All TTXs completed on schedule, as evidenced by After Action Reports*
- 2.3.3 Develop CD with TTX, printing and distribution CD to all provinces.
 - *Indicator: CD and accompanying materials distributed to all relevant provinces in each country*
- 2.3.4 Develop a detailed plan/protocol for joint outbreak investigation (NOTE: draw from existing guidance, e.g., WHO, Thai FETP, US-CDC).
 - *Indicator: Written protocol developed*
- 2.3.5 Prepare logistics and technical procedures/steps
 - *Indicator: Written protocol includes these features*
- 2.3.6 Conduct joint outbreak investigation (preferably on zoonotic disease)
 - *Indicator: Each XB site has conducted at least one joint investigation (or exercise) each year*

Objective 2.4: Improve community-based surveillance

Activities:

- 2.4.1 Decide on specific/selected zoonotic diseases (or more generic) . (in conjunction with item 2.1.2)
 - *Indicator: Documentation of decision on this matter*
- 2.4.2 Review and, where necessary, develop guidelines for community-based surveillance of selected zoonotic diseases, through coordination between departments responsible for human and animal health
 - *Indicator: Guidelines developed, either de novo or based on adaptation from relevant existing guidance, e.g., from WHO*
- 2.4.3 Build model for community-based surveillance in at least at 2 XB sites per country in 2008 year, then evaluate and complete model. Conduct regional conference
 - *Indicator: Models completed*
- 2.4.4 Implement community-based surveillance for the early detection of common zoonoses
 - *Indicator:*
- 2.4.5 Strengthen EWARS, data collection and reporting
 - *Indicator:*

Simplified Monitoring and Evaluation (M&E) – general questions

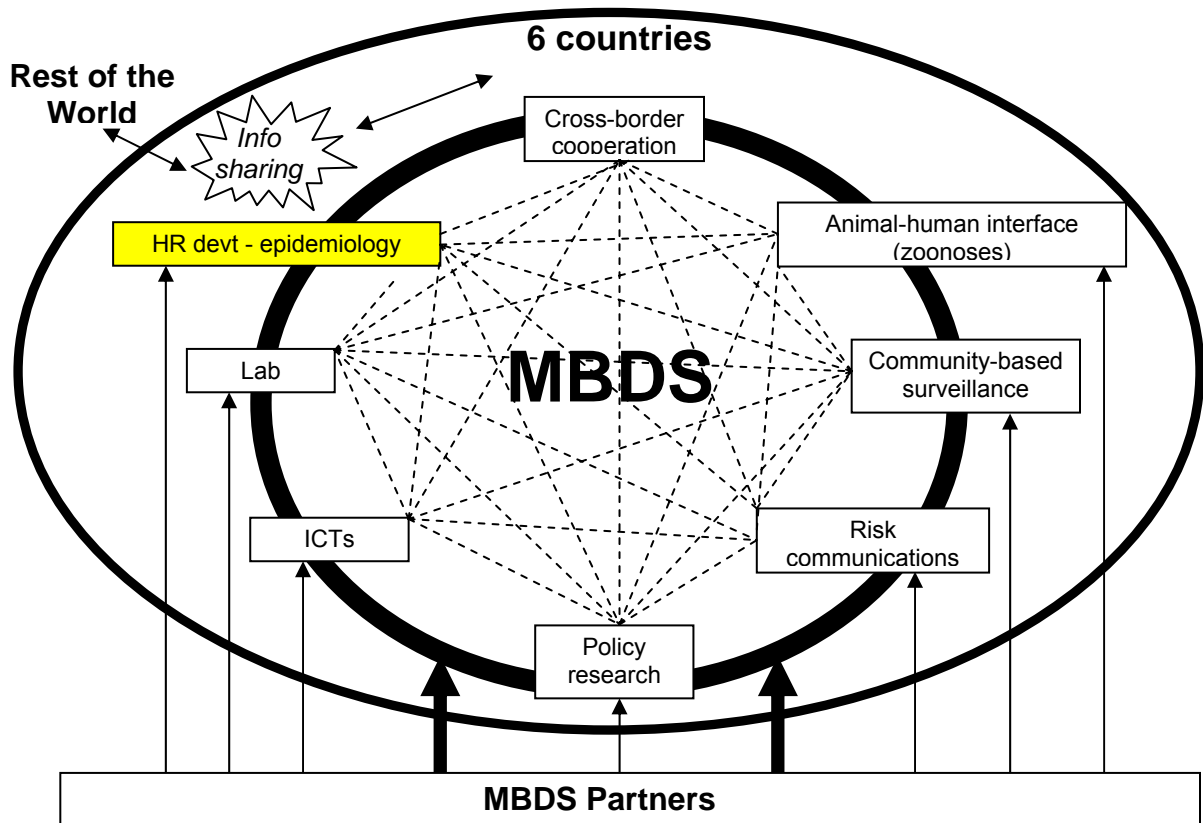
- Is the collaboration carried out as planned (timetable, resources, design)? What problems were encountered?
- Did the collaboration reduce the risk of zoonoses?
- In which countries/settings the collaboration are typical examples?
- What are the challenges to overcome in the human and animal health sectors?
- What further and closer collaboration is needed?
- What are good models for collaboration between human and animal health sectors?
- Is EWARS implemented effectively?
- Is information shared/exchanged on time and as planned?

Core Strategy 3: Strengthen Epidemiology Capacity

Background

The emerging infectious diseases respect no boundaries. Most of the known emerging diseases in the past years have been within MBDS and the South East Asian region, and Avian Flu has become regional in its course (with a potential for global pandemic). This calls for a regional response and calls not only for national preparedness but for a regional preparedness. To continue the MBDS network whose has been proved very useful for rapid, effective and friendly communication.

Figure 4. Epidemiology capacity in relation to the other core strategies



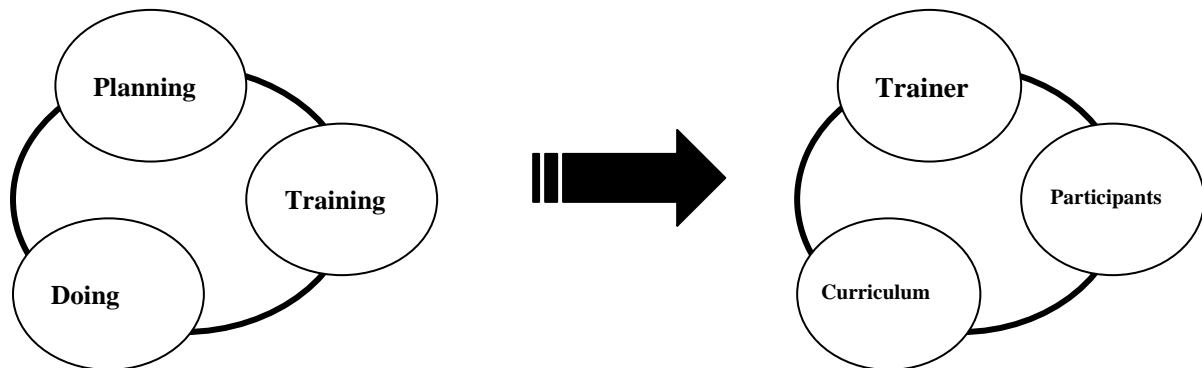
Goal

Each member country in the Mekong Subregion has improved their capacity in epidemiological surveillance, and health emergency response both at local and national level. A long-term training for Field Epidemiology is developed and sustained which will continue to train in-country human capacity for surveillance and response

Objectives

- 3.1 Strengthen capacity of field epidemiology in potential countries
- 3.2 Strengthen and support epidemiological network in MBDS countries
- 3.3 Develop capacity and promote collaboration among human and animal health sectors
- 3.4 Improve capacity for early detection and response to disease outbreaks

Figure 5. Action plan framework for strengthening epidemiology capacity - at national, provincial and local/cross-border levels



Activities

Objective 3.1: Strengthen capacity of field epidemiology in potential countries

Activities:

- 3.1.1 Nominate coordinator for capacity building of each country
 - *Indicator:* 1 - Coordinator named for each country
 - 2 – Framework for epidemiology and response capacity development completed for each country

- 3.1.2 Review human resource in epidemiology of the country at all levels in conjunction with IHR/APSED country assessment
 - *Indicator: 1 - Review and needs assessment completed*
- 3.1.3 Conduct “Co-meeting of needs assessment for potential countries”
 - *Indicator: 1 - Meeting held 30-31 Jan 08*
- 3.1.4 Develop country plan for capacity building in conjunction with IHR/APSED workplan
 - *Indicator: 1 - Plan completed for each country*
- 3.1.5 Provide seed funding to support potential countries to set-up the training program
 - *Indicator: 1 - Seed funding received for program establishment*
 - *1 - Seed funding received for training supervisor/coordinator*
- 3.1.6 Train FETP alumni to be young training staff for potential countries (TOT)
 - *Indicator: 1 – 2 persons/country trained per year*
- 3.1.7 Visit and assess progress by expert and coordinator team
 - *Indicator: 1 - Visit completed [per country]*

Objective 3.2: Strengthen and support epidemiological network in MBDS countries

Activities:

- 3.2.1 Enhance short-course training in each member country by supporting curriculum design and some lecturers/experts
 - *Indicator: 1 - Short-course training course on surveillance and response held every year, rotating country, taught by 2 alumni*
- 3.2.2 Conduct MBDS annual academic meeting of RRT and FETP (EB meeting)
 - *Indicator: 1 - Meeting completed every year*
 - *2 - Chairmanship rotated each year*

Objective 3.3: Develop capacity and promote collaboration among human and animal health sectors

Activities

- 3.3.1 Support health officer/MD/DVM to attend “Surveillance and Rapid Response for Public Health Emergency Course” (TOT)
 - *Indicator: 1 – Training module (including case stud,#3.4.1) developed*
 - *2 – 4-week course is held every year, “Surveillance and Rapid response for Public Health Emergency Course”*
 - *3 - 1 person/ country/ per year is trained → 6 graduates from “Surveillance and Rapid Response for Public Health Emergency Course”*
- 3.3.2 Support MD/DVM to attend 2 years program (TOT)
 - *Indicator: 1 – 1 MD or DVM sponsored every year (1 person need to work for the country while receiving training for two year, including 16 weeks in Thailand)*
 - *Note: For degree acquisition need 6-10 months more*

*2 – 1-2 Outbreak Investigation, 1-2 Surveillance system evaluation,
1-2 Research/epi study /country(numbers of these output depended on numbers of people trained in 2-years course)*

Objective 3.4: Improve capacity for early detection and response to disease outbreaks

Activities

- 3.4.1 Conduct workshop to develop case study (cross border disease outbreak investigation)
- *Indicator:* 1 – Workshop completed Nov 07, Chiang Mai (two epidemiologists per country participate)
2 – Cross-border outbreak investigation case study completed
3 – Joint outbreak investigation model developed
- 3.4.2 Conduct joint outbreak investigation RRT/FETP (in conjunction with items 1.1.9, 1.2.9 and 2.3)
- *Indicator:* 1 - Event based, at least one joint investigation per year
- 3.4.3 Support participants from member countries to existing workshop on laboratory and GIS
- *Indicator:* 1 – Training for 1-2 rapid response team members per country
- 3.4.4 Use resource mapping as a mechanism for monitoring epidemiology capacity at local, provincial and possibly central levels.
- *Indicator:*

Simplified Monitoring and Evaluation (M&E) – general questions

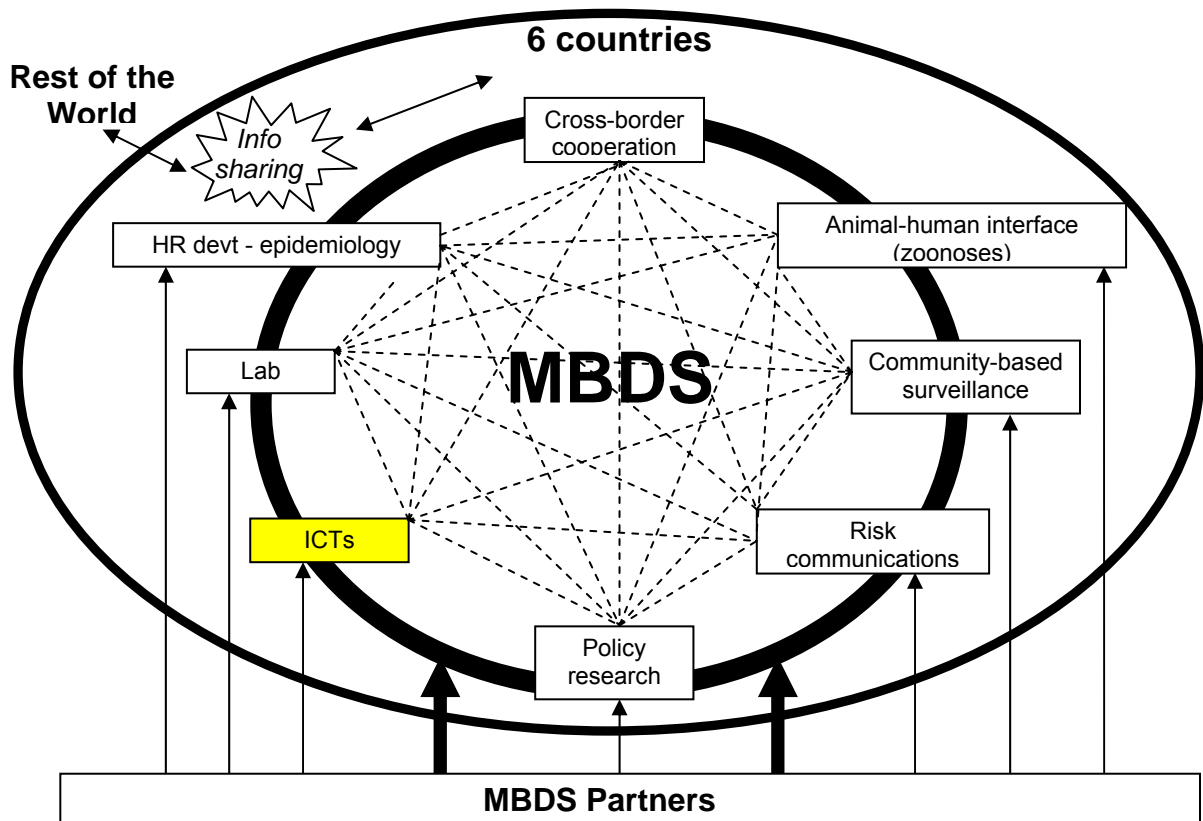
- Were the activities carried out as planned (timeline, locations, resources, design)? What problems were encountered?
- Were problems solved? In which countries/settings are lessons applicable? In which have they been applied? What are the challenges to application of lessons?
- What were the results of epidemiology capacity building? (were health systems or health outcomes improved)?
- Were lessons related to epidemiology capacity building shared beyond MBDS, e.g., via publication or presentation?

Core Strategy 4: Strengthen ICT Capacity

Background

- Issues in ICT: sustainability, mobilization and e-services, technology, capacity building, community ownership
- Importance of event-based surveillance in EID and national context (limited use of public health facilities)
- Timeliness of surveillance: key to ensure an effective Rapid Containment of Influenza Pandemic (PI/NPI)
- Prevalence of backyard poultry rearing practice in the region
- Technical content in health and agriculture (interface)
- ICT is a bottom line for surveillance and response but still a great divide between rural and urban areas: Sustainability, Partnership, Local relevance

Figure 6. ICT capacity in relation to the other core strategies



Goal

Strengthen early warning and regional cooperation for emerging diseases through ICT at all MBDS cross-border sites and relevant provincial and central offices.

Objectives

- 4.1 Establish ICT in MBDS cross-border sites within 1 year
- 4.2 Connect to central and sub-regional level within 1 year
- 4.3 Establish regional policy for ICT procurement, licensing, application and sharing, within 3 years
- 4.4 Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

Objective 4.1: Establish ICT in MBDS cross-border sites within 1 year

Activities

- 4.1.1 Policy advocacy: Present proposal for approval (consistent with NFP/IHR, identifying relevance to different stakeholders, enhancing multi-sector collaboration, identifying key role of ICT in the network)
 - *Indicator:*
- 4.1.2 Invite investment partners to assess technical capacity and needs (RF, NTI, Google)
 - *Indicators:* 1 - RF ICT assessment completed
 - 2 NTI/Google assessments completed
 - 3 - Meetings among stakeholders convened at prescribed frequency
- 4.1.3 Agree upon basic contents of ICT content and applications, among relevant stakeholders
 - *Indicators:* 1 - Detailed content and applications specified
 - 2 Common package of activities identified
- 4.1.4 Support ICT capacity development as needed in each country/area – equipment/supplies, training
 - *Indicators:* 1 - Training needs identified in each country/area
 - 2 - Curriculum developed for each country/area
 - 3 - Trainers/institutions identified
 - 4 - Training completed for each country/area
 - 5 - Hardware, software, systems installed in specified areas consistent with plan
- 4.1.5 Use resource mapping to monitor status of ICT capacity in relevant project areas.

- *Indicator: 1 – Resource mapping completed (2008) and updated at least annually (2009-2013)*

Objective 4.2: Connect to central and sub-regional level within 1 year

Activities

- 4.2.1 Use 2-way communications between local, provincial and central levels as part of routine work
 - *Indicator:*

Objective 4.3: Establish regional policy for ICT procurement, licensing, application and sharing, within 3 years

Activities

- 4.3.1 Approach private sector (especially ICT sector) to support hardware, software, systems development, training, etc., as needed in each country/area
 - *Indicator:*

Objective 4.4: Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities:

- 4.4.1 Develop an internet-based system for MBDS early warning and sharing of surveillance and other information.
 - *Indicators: 1 – System is established by end of 2008*
2 – System function is tested at least quarterly.
- 4.4.2 Procure equipment and establish protocols and instructions for reliable non-internet communications systems for sharing surveillance and other information – e.g., satellite telephones, telephone hotline, email, designation of country focal points (new full-time assistant CC)
 - *Indicator: 1 – Procurements completed based on plan/schedule*
2 – Protocols and instructions for using equipment developed
- 4.4.3 By the end of 2008, determine if MBDS emergency communications center is warranted to handle potential regional emergencies, and if so, pursue activities to establish and exercise this.
 - *Indicators: 1 – Determination made; center established (if determined to be warranted)*
2 – System function is tested at least annually
- 4.4.4 Operationally test communications across MBDS countries at a frequency to be determined by MBDS members.
 - *Indicator: At least 90% of planned tests are conducted, and any operational problems addressed.*

Simplified Monitoring and Evaluation (M&E)

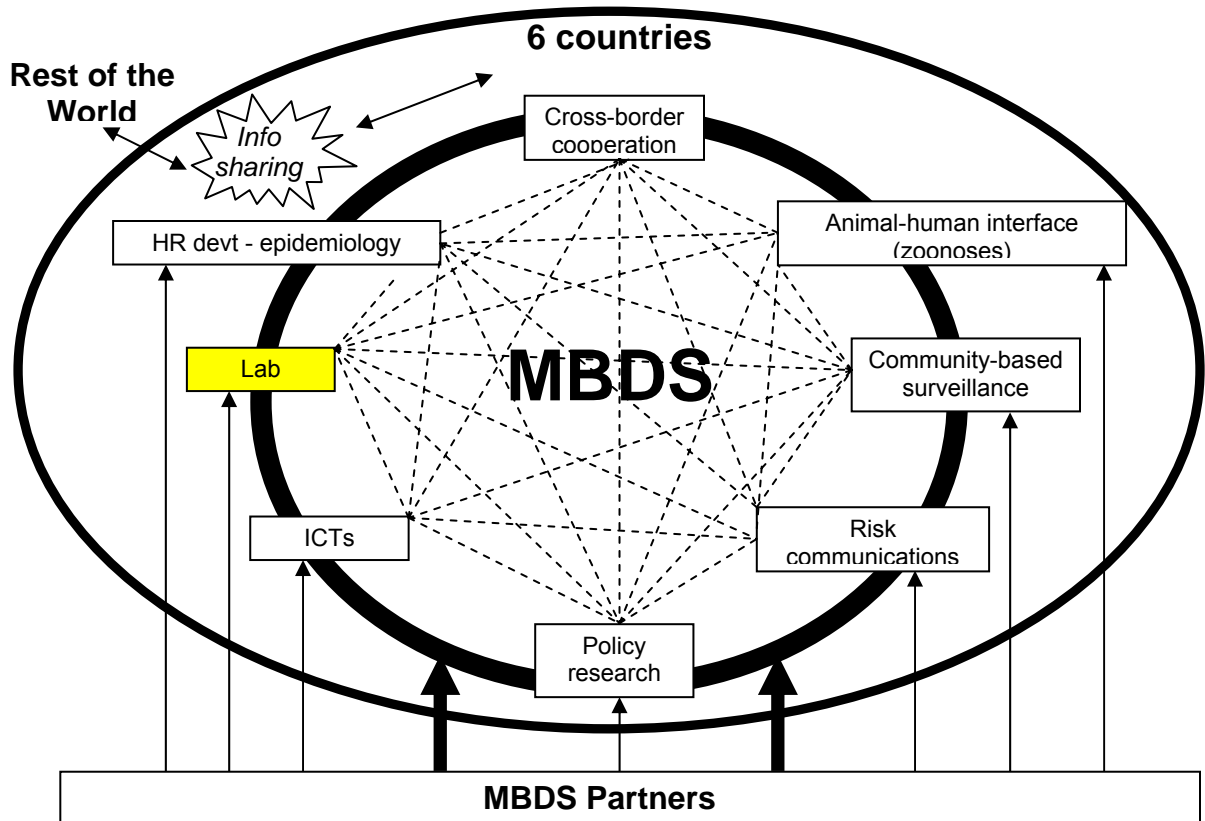
- Were the activities carried out as planned (timetable, resources, design)? What problems were encountered?
- Were problems solved? In which countries/settings are lessons applicable? In which have they been applied? What are the challenges to application of lessons?
- What were the results of ICT capacity building? (were health systems or health outcomes improved)?
- Were lessons related to ICT capacity building shared beyond MBDS, e.g., via publication or presentation?

Core Strategy 5: Strengthen Laboratory Capacity

Background

- Laboratory analysis is a fundamental basis for disease control and prevention
- Laboratory tests provide support to rapid containment and response to public health emergencies
- MBDS sub-region's laboratory network need to be strengthened in the near future to confront outbreaks of priority diseases in this area

Figure 7. Laboratory capacity in relation to the other core strategies



Goal

Strengthen laboratory capacity, to provide laboratory-based evidence for outbreak investigation and response, and to provide laboratory data for routine surveillance and control of some core diseases.

Objectives

- 5.1 Assess lab and bio-safety capacity needs at cross-border sites in conjunction with IHR/APSED country assessment
- 5.2 Support lab capacity development for core diseases
- 5.3 Improve lab testing proficiency for core diseases
- 5.4 To develop regional protocol for specimen identification, collection and transport for reference testing
- 5.5 Promote adoption of new diagnostic technologies (e.g., PFGE)
- 5.6 Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

Objective 5.1: Assess lab and bio-safety capacity and needs at cross-border sites in conjunction with IHR/APSED country assessment

Activities

- 5.1.1 Identify core diseases (for laboratory purposes) in each country/area
 - *Indicator: Core diseases identified*
- 5.1.2 Conduct assessment at the first year
 - *Indicator: Assessment completed*
- 5.1.3 Convene workshop to discuss assessments and recommend actions
 - *Indicator: Workshop completed*

Objective 5.2: Support lab capacity development for core diseases

Activities

- 5.2.1 Supply equipment and reagents
 - *Indicator: 1 - Equipment provided as needed in designated laboratories within 1 year of establishment of XB area*
 - *Indicator: 2 - Supplies provided every year*
- 5.2.2 Training lab testing of core diseases
 - *Indicator: Training completed*

- 5.2.3 Monitor laboratory network through resource mapping, to depict such elements as primary and reference laboratory capacity, by pathogen, organization, and other relevant parameters.
- *Indicator: Initial resource mapping completed (2008) and updated at least annually, or in conjunction with other relevant MBDS program activities*

Objective 5.3: Improve lab testing proficiency for core diseases

Activities

- 5.3.1 Set up laboratory following Good Laboratory Practices (GLP)
- *Indicator: All laboratories serving XB project sites follow GLP standards*
- 5.3.2 Conduct proficiency testing at least annually, using blind specimens
- *Indicator 1 – Proficiency testing conducted at least annually for each relevant laboratory*
 - *2 – Laboratories meet proficiency testing standards or are evaluated and retested until proficiency is documented*
- 5.3.3 Conduct annual lab workshop to share experiences
- *Indicator: Workshops convened at least once annually*
- 5.3.4 Conduct laboratory evaluation within two years for each laboratory
- *Indicator: Each relevant laboratory is evaluated every 2 years*

Objective 5.4: Develop regional protocol for specimen collection, identification, transport, and reference testing

Activities

- 5.4.1 Develop draft protocols for specimen collection, identification and transport, consistent with WHO guidelines
- *Indicator: Written protocol/s developed and disseminated across MBDS*
- 5.4.2 Complete laboratory resource mapping across MBDS countries, and relevant reference laboratories outside MBDS (e.g., national or WHO reference laboratories)
- *Indicator: Initial resource mapping completed (2008) and updated at least annually (2009-2013)*
- 5.4.3 Identify relevant in-country and reference laboratories for each MBDS priority disease
- *Indicator: List of reference laboratories, including specific pathogens and coverage across relevant MBDS countries, completed and disseminated*

Objective 5.5: Promote adoption new diagnostic technologies

Activities

- 5.5.1 Identify new diagnostic technologies relevant to MBDS priority diseases, e.g, RT-PCR for influenza A/H5, PFGE
- *Indicator:*
- 5.5.2 Identify appropriate laboratory/-ies in MBDS countries for new technology
- *Indicator: Annually (or more frequent) updated documentation of technologies (for priority diseases) incorporated in all relevant MBDS laboratories, and disseminated across MBDS*
- 5.5.3 Provide training to relevant laboratories

- *Indicator: Training and resulting proficiency documented for each new technology incorporated into each relevant laboratory*
- 5.5.4 Adopt standard testing protocol
 - *Indicator: Documentation of adoption/use of standard protocols*
- 5.5.5 Procure and distribute new diagnostic test reagents
 - *Indicator: Laboratories have all relevant reagents, as documented at least*
- 5.5.6 Add new diagnostic tests to regular proficiency testing program
 - *Indicator: Documentation that all relevant technologies are included in proficiency testing in MBDS project laboratories*

Objective 5.6: Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities:

- 5.6.1 Assess laboratory capacity in each country, and capacity available to each XB site, for priority diseases including influenza (*see also 5.1.2*)
 - *Indicator: By the end of 2008, brief report completed that highlights the findings from the assessments*
- 5.6.2 Establish procedures to assure rapid diagnostic testing for each border and screening area.
 - *Indicators: 1 – By the end of 2008, standard (desired procedures) have been defined for rapid diagnostic testing at each XB site
2—Rapid diagnostic procedures are followed at each XB site, based on annual review or other method of ascertainment*
- 5.6.3 Ensure rapid diagnostic test materials are available for all designated laboratories. (*See also 5.2.1, 5.5.5*)
 - *Indicator: Supplies and equipment at each laboratory are sufficient to conduct rapid diagnostic tests as demonstrated by laboratory records.*
- 5.6.4 Assure proficiency of laboratory personnel through initial and refresher training and regular proficiency testing.
 - *Indicators: 1 – All designated laboratory personnel receive documented training or refresher courses at least once annually,
2 – All laboratory personnel demonstrate proficiency through testing at least annually by a relevant international proficiency testing program, e.g., U.S. CDC or WHO reference laboratory*
- 5.6.5 Identify MBDS country laboratories that can provide initial or reference diagnostic services to XB sites in one or more other MBDS countries where laboratory services are not available.
 - *Indicator: Cross-country laboratories identified and clearly specified in a document shared with all XB sites.*

5.6.1 Implement rapid diagnostic testing at border and screening areas, when feasible and appropriate based on available tests and adequate material and human resources (including training) are in place.

➤ *Indicator:*

Simplified Monitoring and Evaluation (M&E)

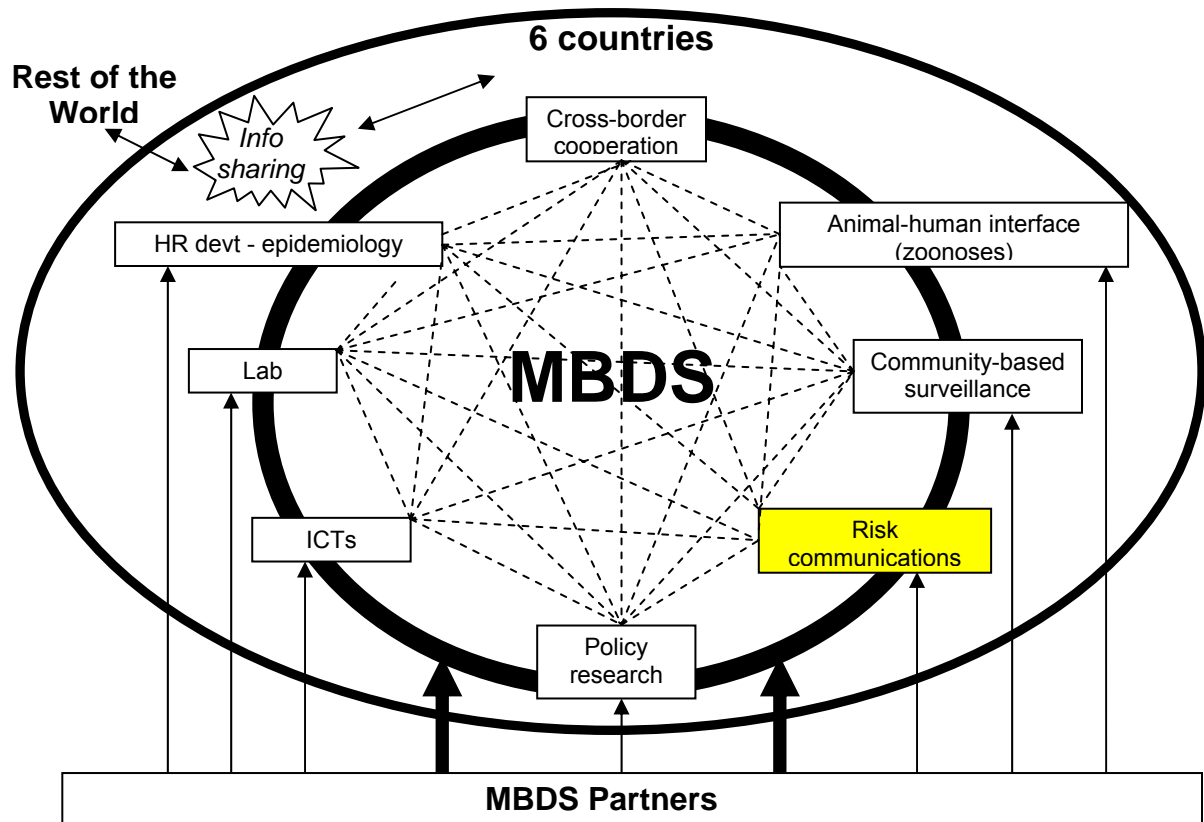
- Were the activities carried out as planned (timetable, resources, design)? What problems were encountered?
- Were problems solved? In which countries/settings are lessons applicable? In which have they been applied? What are the challenges to application of lessons?
- What were the results of improving laboratory capacity? (were health systems or health outcomes improved)?
- Were lessons related to building laboratory capacity shared beyond MBDS, e.g., via publication or presentation?

Core Strategy 6: Strengthen risk communications

Background

- Increasing need to better communicate on EIDs
- Intricate combination of medical and socio-political context → IHR(2005)
- Different but related levels of risk/outbreak communication
- Key elements in risk communications: Trust, timeliness, transparency, understanding the public, planning

Figure 8. Risk communications in relation to the other core strategies



Goal

Improve risk communications planning and coordination in the region for priority diseases including PHEICs

Objectives

- 6.1 Develop a MBDS risk communication framework? for EIDs in conjunction with ASEAN plus three EID project, and APSED.
- 6.2 Develop curriculum for risk communication in conjunction with APSED workplan
- 6.3 Train a critical mass of risk communicators at different levels of the health system: At cross-border sites, provincial level and national level (NFP/IHR)
- 6.4 Develop and test risk communications messages for the public
- 6.5 Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

Objective 6.1: Develop a MBDS risk communication framework for EIDs in conjunction with ASEAN plus three EID project and APSED

Activities

- 6.1.1 Formation of overall communication framework within the region by conducting Workshop (Communication specialist, representatives from MBDS member countries) taking into account the evolution of ASEAN plus three Risk Communication Strategy and APSED
 - *Indicator: Implemetation of workshop*
- 6.1.2 Establishment of risk communication task force/ Working group (high level officials, experts and publications, and dissemination)
 - *Indicator: Designation of task force/ working group)*
- 6.1.3 Designate POC/s for communications within and across MBDS countries
 - *Indicator:*
- 6.1.4 Complete risk communications planning process within and across countries
 - *Indicator:*
- 6.1.5 Establish public health emergency telephone hotlines
 - *Indicator:*
- 6.1.6 Procure satellite phones with interoperability across MBDS countries
 - *Indicator:*
- 6.1.7 Operationally test communications across MBDS countries, e.g., weekly information sharing
 - *Indicator:*

Objective 6.2: Develop curriculum for risk communication in conjunction with APSED workplan

Activities

- 6.2.1 Development of risk communication curriculum by taskforce committee (communication specialist) in cooperation with WHO
- *Indicators:* 1--*Workshop for development of curriculum for risk communication*
2- *Availability of risk communication strategy for EDs*
- 6.2.2 Identification of communication channels (for development of strategies?)
- *Indicator:* *Availability of specific communication channel*
- 6.4.1 Pre testing of curriculum at existing national health education program
- *Indicator:* *Number of health education program including the risk communication of EDs*

Objective 6.3: Train a critical mass of risk communicators at different levels of the health system: XB sites, provincial level, national level

Activities

- 6.3.1 Training for facilitators using training materials
- *Indicator: No of training workshops conducted*
- 6.3.2 Training at different level, different categories of audience
- *Indicator: No of training conducted within one year*

Objective 6.4: Develop and test risk communications messages for the public

- 6.4.1 Assessment on KAP on risk communication for EDs for health staff and public
Situation assessment, rapid surveys and audience segmentation/analysis, Dissemination of assessment results and Sensitization of , governments, health personnel, teachers and other stakeholders:
- *Indicator: Report of assessment for KAP on risk communication for EDs to MBDS coordinating Office*
- 6.4.2 Development of communications materials and activities
- 1) Production and broadcast of TV, Radio Spots & print tools/materials
 - *Indicators: No of broadcast on TV*
 - 2) Pre-testing and revision/finalization of the materials
 - *Indicators: Availability of printed material*
 - 3) Adaptation of TV/video and radio/audio messages in local languages
 - 4) Adaptation of print materials, including posters and brochures
- 6.4.3 Implementation of communication project
- 1) Airtime for TV/media spots

- 2) Printing and distribution of posters/brochures
 - 3) Media training/briefing for national and international media
 - 4) Campaigns in high-risk areas
 - 5) Social mobilization, including community outreach by frontline workers
 - *Indicators:*
- 6.4.4 Development Radio and TV Risk communication materials
- *Indicators:*
- 6.4.5 Evaluation, documentation and dissemination
- 1) Post-campaign KAP survey and in-depth interviews in the field
 - 2) Documentation of the project processes and impacts
 - 3) Dissemination of the results, including policy-makers/experts meetings
 - *Indicators:*
- 6.4.6 Community mobilization implementation in the whole country
- *Indicators:*
- 6.4.7 Media involvement in production and implantation (all levels)
- *Indicators:*
- 6.4.8 Integration into existing national dissemination of information (health education system)
- *Indicators:*

Objective 6.5: Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities:

- 6.5.1 Designate points of contact (POC/s) for communications within and across MBDS countries
- *Indicator: POC and back-up for AI/PI communications identified for each country*
- 6.5.2 Designate spokesperson/s for risk communications in each country
- *Indicator: Spokesperson and back-up for AI/PI communications identified for each country*
- 6.5.3 Complete risk communications planning process within and across countries, including development and testing of relevant messages for the public
- *Indicators: 1 – MBDS AI/PI risk communication plan completed, including tested messages and proposed procedures for using them during an evolving or actual pandemic emergency*
2 – Risk communication plan tested during an actual emergency situation or in an exercise at least annually
- 6.5.4 Establish public health emergency telephone hotlines, with the capability to expand to accommodate a surge in call volumes
- *Indicators: 1 –Hotline/s established in each country for communicating across MBDS countries*

2 –Capabilities, protocols and procedures established in each country for communicating across MBDS countries

Monitoring and Evaluation (M&E)

Effectiveness of risk communication framework implemented within the region would be monitored and evaluated measurable outcome and applied the learned lesson for improvement in risk communication activities within the region.

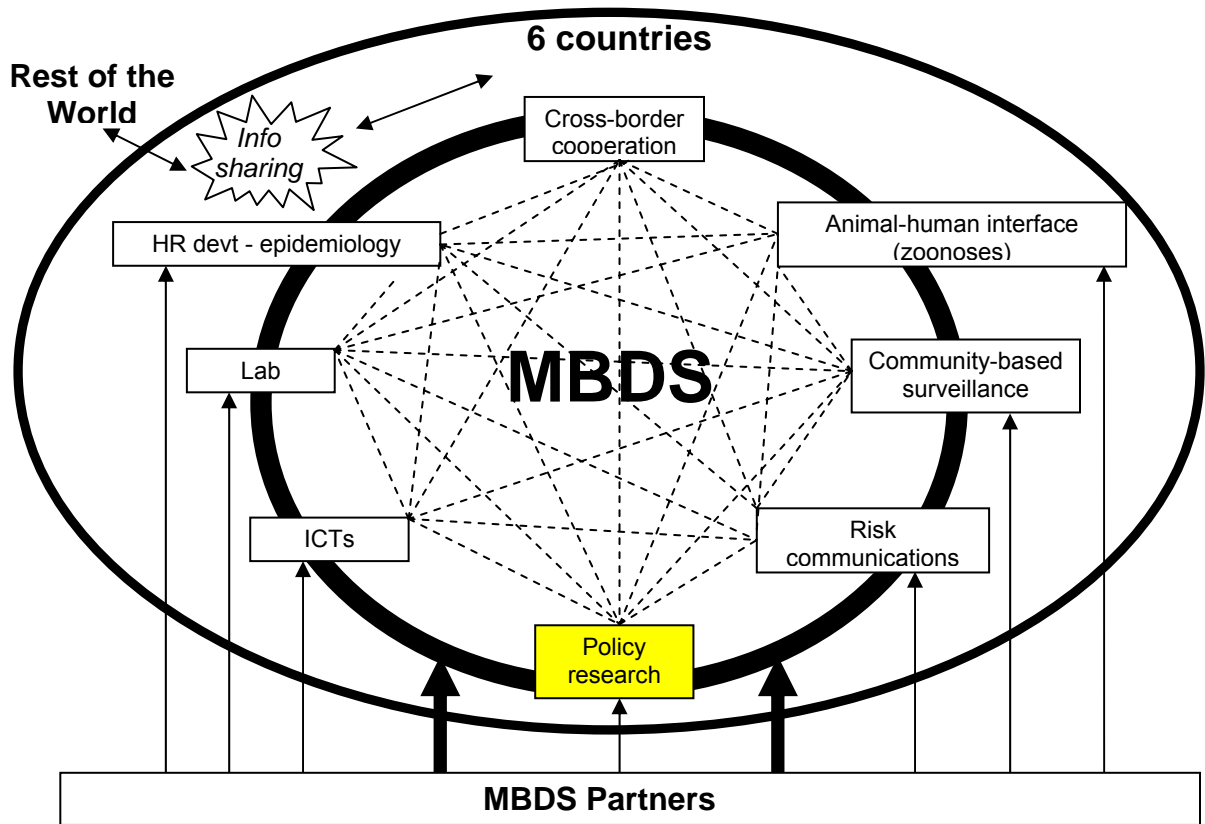
- Were the activities carried out as planned (timetable, resources, design)? What problems were encountered?
- What are the final pre-planned messages for the public?
- Is further communications planning warranted? What kind?
- In which countries/settings are these messages now applicable? If not all countries (yet), how will this work be shared and applied in other MBDS countries? What are the challenges to this?
- Is there any evidence of measurable outcomes from this work, e.g., improvements in communications planning or delivery, changes in knowledge, attitudes and/or behaviors among populations where the messages have been tested? What are the plans to further evaluate outcomes related to risk communications?

Core Strategy 7: Conduct and Apply Policy Research

Background

- Policy underlies strategic planning and public health programming.
- Research can help answer practical questions and improve the policy environment for public health programs.

Figure 9. Policy research in relation to the other core strategies



Goal

Conduct research relevant to MBDS and apply results to improve MBDS programming.

Objectives

- 7.1 Establish process for approval of MBDS research protocols and funding
- 7.2 Conduct at least one research study per year and per country to answer practical questions related to MBDS core strategies and PH/pandemic preparedness (*in conjunction with item 2.1.3*)
- 7.3 Disseminate results of all research projects across MBDS countries and apply results where appropriate
- 7.4 Disseminate research with external partners on a case by case basis.
- 7.5 Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities

Objective 7.1: Establish process for approval of MBDS research protocols and funding

Activities:

- 7.1.1 Develop draft proposal of process for MBDS research approval, including process for review of protocol design, ethical concerns (human subjects protection), funding, etc.
 - *Indicator: Draft protocol developed*
- 7.1.2 Convene MBDS meeting (or discuss at first appropriate CC meeting) to review and approve this process
 - *Indicator: Process approved*

Objective 7.2: Conduct at least one research study per year and per country to answer practical questions related to MBDS core strategies and PH/pandemic preparedness (*In conjunction with item 2.1.3*)

Activities

- 7.2.1 Complete relevant resource mapping, e.g., related to ICT, laboratories, manpower
 - *Indicator: Initial resource mapping completed (2008)*
- 7.2.2 Each country shall identify at least one priority for research each year, e.g., related to core strategy and/or pandemic preparedness (follow up from TTX)
 - *Indicator: Annual list of proposed/pending research projects (updated when appropriate)*
- 7.2.3 Frame research question(s)
- 7.2.4 Determine if any technical assistance is needed and potential source of TA, e.g., from another MBDS country or an external partner, for protocol design, implementation, analysis and/or write up

- 7.2.5 Design study protocol (background and justification, proposed study design, analysis plan, dissemination plan, timeline, resource requirements)
- 7.2.6 Seek/obtain funding
- 7.2.7 Conduct study, analyze results, write up
 - *Indicator: At least 1 study/country/year completed and documented in a written report, including: introduction/background, methods, results, discussion*

Objective 7.3: Disseminate research results across MBDS countries and apply where appropriate

Activities

- 7.3.1 Determine appropriate mechanism and timing for sharing research results across MBDS countries.
 - *Indicator: Explicit decision regarding dissemination plan for each study*
- 7.3.2 Disseminate research results
 - *Indicator: Dissemination completed (for each study), as per plan*
- 7.3.3 Determine where results should be applied
 - *Indicator: Explicit determination of applicability, documented in writing*
- 7.3.4 Apply results
 - *Indicator: Written documentation of application of research findings, and results*
- 7.3.5 Measure outcomes
 - *Indicator: Plan, methods and measurement results documented*

Objective 7.4: Disseminate research with external partners on a case by case basis, e.g., through publication or presentation.

Activities

- 7.4.1 Determine if appropriate to disseminate results outside MBDS
- 7.4.2 If dissemination is appropriate, determine best way, e.g., through publication, presentation at meetings
- 7.4.3 Determine if technical assistance is needed and potential source, e.g., to support preparation of written manuscript for publication or presentation at meeting
- 7.4.4 Prepare product for external dissemination, e.g., manuscript for publication, presentation for international meeting
 - *Indicator: MBDS archive (maintained by Coordinating Office) of all relevant dissemination products*

Objective 7.5: Follow up on specific priority actions from national and regional pandemic preparedness TTXs.

Activities:

7.5.1 Identify research priorities related to pandemic preparedness and develop and implement research studies to address these.

- *Indicators:*
- 1 – Research priorities are identified, clearly defined and revisited at least annually*
 - 2–Results of research studies are shared across MBDS*
 - 3 – Results of research studies are applied to improve policy or programming*

Simplified Monitoring and Evaluation (M&E) - for each study

- Was the study carried out as planned (timetable, resources, design)? What problems were encountered?
- Did the study answer the research question?
- In which countries/settings are results applicable? In which have they been applied? What are the challenges to application of study results?
- Did the study raise any new questions, i.e., warranting further research?
- What were the results of application of study results (were health systems or health outcomes improved)?
- Were study results shared beyond MBDS, e.g., via publication or presentation?

Improve Pandemic Influenza Preparedness in the Region

Background

- Pandemic influenza preparedness tabletop exercises (TTXs) were conducted in each country during 2006
- Regional MBDS TTX was conducted in March 2007 (Siem Reap, Cambodia)
- TTXs are part of a larger preparedness cycle, and results must be evaluated and incorporated into planning to help improve preparedness
- Exercises identified gaps in preparedness in all areas tested
- Initial action planning to address these gaps was done at the conclusion of each exercise

Principles

- Countries will revise and possibly retest their plans (e.g., through exercises) to help close the gaps identified during their exercise
- This MBDS plan addresses the major priorities identified in the regional exercise, which focused on (a) surveillance and information sharing, (b) disease prevention and mitigation and (c) communications
- Plan is oriented toward joint/MBDS-wide actions, which focus in particular on cross-border cooperation, and with open communications across countries
- These actions are consistent with the MBDS core strategies and with WHO guidance (including the most recent International Health Regulations-IHR-2005)

Figure 10: Results from exercises must be applied to improve preparedness

Planning and Preparedness Cycle

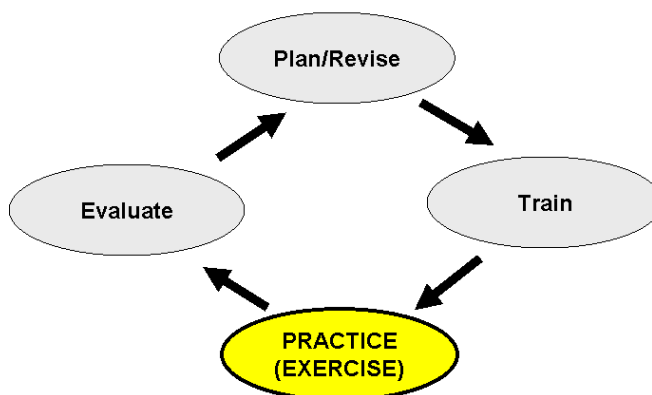
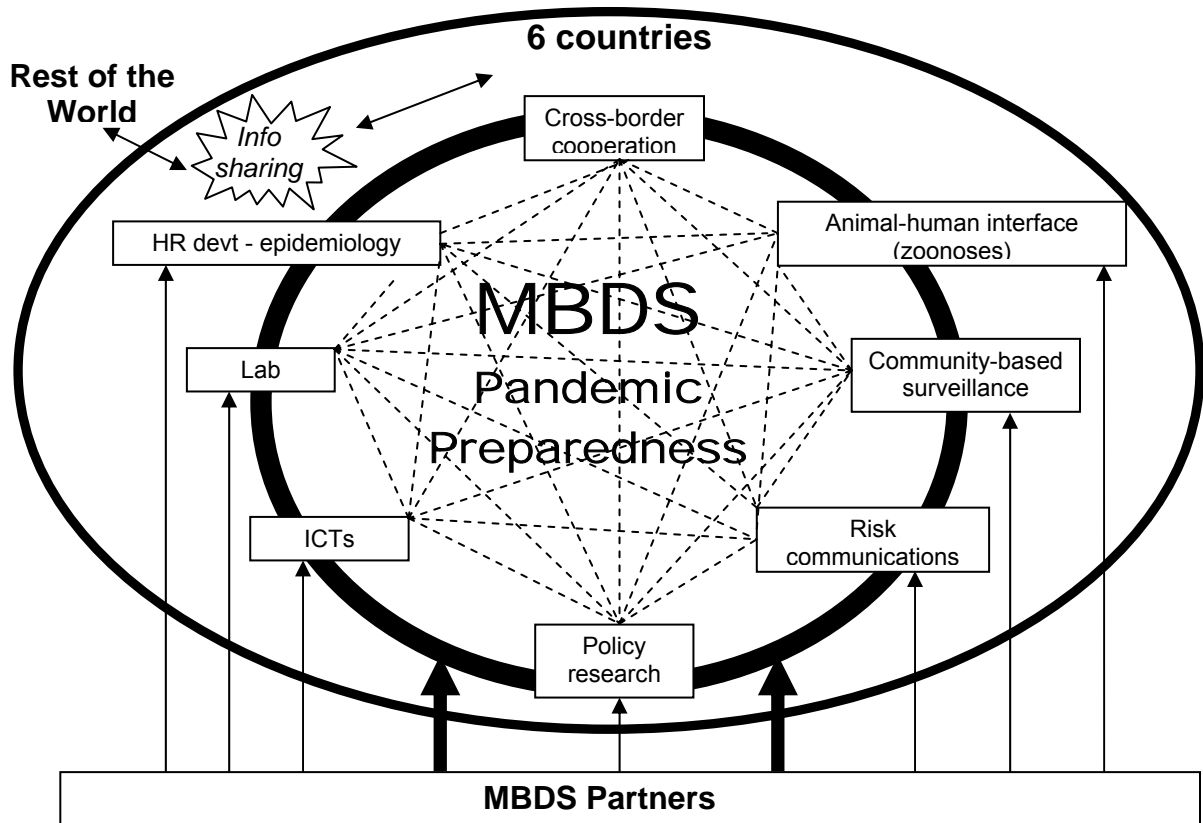


Figure 11: MBDS core strategies contribute to regional pandemic preparedness



Goal

Improve public health and pandemic preparedness by addressing priority actions/needs identified during the 2006-2007 national and regional MBDS TTXs.

Objectives

1. By the end of 2008, build upon the initial action planning started at the end of each TTX to revise national AI/PI plans
2. By the end of 2008 and on an ongoing basis as appropriate, jointly implement priority actions identified during the regional TTX, within the context of new MBDS core strategies

Activities

Objective 1: By the end of 2008, build upon the initial action planning started at the end of each TTX to revise national AI/PI plans

- *Indicator: Each MBDS country submits a brief report that summarizes the problem identified from the exercise and changes made to its national AI/PI plan in response.*

Objective 2: By the end of 2008 and on an ongoing basis as appropriate, jointly implement priority actions identified during the regional TTX, within the context of new MBDS core strategies, and maintain these on an annual basis

Activities

See activities related to TTX follow up in the preceding chapters, i.e., for each core strategy

Annex 1: MBDS Action Plan – Illustrative Progress Summary

For: [MONTH] [YEAR]

Strategy and Objective	2008	2009	2010	2011	2012	2013
STRATEGY 1: Maintain and expand cross-border cooperation						
1.1 - Maintain & expand sites	oooooooo	oooooooo	oooooooo	oooooooo	oooooooo	oooooooo
1.2 - Follow up on priorities from TTX	oooooooo	oooooooo	oooooooo	oooooooo	oooooooo	oooooooo
STRATEGY 2: Improve human-animal sector interface and strengthen community surveillance						
2.1 - Strengthen MOH-MOA collaboration	ooo	oo	oo	oo	oo	oo
2.2 - Share information across sectors	ooo					
2.3 - Annual joint investigation or TTX	oooo	oo	oo	ooo	oo	oo
2.4 - Improve community-based surveillance	oooo	ooo	oo	oo	oo	oo
STRATEGY 3: Strengthen epidemiology capacity						
3.1 - Strengthen field epidemiology	oooooo	oo	oo	oo	oo	oo
3.2 - Strengthen MBDS epi network	oo	oo	oo	oo	oo	oo
3.3 - Strengthen animal health sector epi	oo	oo	oo	oo	oo	oo
3.4 - Improve early detection & response	oooo	ooo	ooo	ooo	ooo	ooo
STRATEGY 4: Strengthen ICT capacity						
4.1 - Establish ICT in each XB site	ooooo	oo	oo	oo	oo	oo
4.2 - Connect to provincial & central levels	o	o	o	o	o	o
4.3 - Regional policy for procurement, etc	o	o	o			
4.4 - Follow up on priorities from TTX	oooo	o	o	o	o	o
STRATEGY 5: Strengthen laboratory capacity						
5.1 - Assess lab capacity/needs for XB sites	ooo					
5.2 - Support lab capacity development	ooo	ooo	ooo	ooo	ooo	ooo
5.3 - Improve lab proficiency	oooo	oooo	oooo	oooo	oooo	oooo
5.4 - Develop regional protocols -	ooo	oo	oo	oo	oo	oo

Strategy and Objective	2008	2009	2010	2011	2012	2013
specimens						
5.5 - Promote new diagnostic technologies	oooooo	oooooo	oooooo	oooooo	oooooo	oooooo
5.6 - Follow up on priorities from TTX	o	o	o	o	o	o
STRATEGY 6: Strengthen risk communications						
6.1 - Develop RC strategy, curriculum						
6.2 - Train risk communicators						
6.3 - Develop and test messages						
6.4 - Follow up on priorities from TTX	oooooo	o	o	o	o	o
STRATEGY 7: Conduct and apply policy research						
7.1 - Establish process for MBDS approval	oo					
7.2 - Conduct ≥1 study/year/country	ooo	ooo	ooo	ooo	ooo	ooo
7.3 - Disseminate & apply results - MBDS	oooooo	oooooo	oooooo	oooooo	oooooo	oooooo
7.4 - Disseminate results - external	o	o	o	o	o	o
7.5 - Follow up on priorities from TTX	o	o	o	o	o	o