



**Asia-Pacific  
Economic Cooperation**

**International Symposium on Human  
Resources for Health of Health  
Emergency Preparedness and  
Response in Asia-Pacific Region**

**APEC Health Working Group**

**November 2011**

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# International Symposium on Human Resources for Health of Health

## Emergency Preparedness and Response in Asia-pacific Region

### Agenda

21-22 May 2011, Nanning, China

Time	Content	Moderator
<b>21 May 2011</b>		
<b>Opening Ceremony</b>		
9:00-9:35	<p>Address of Dr. Wannian Liang Director-General of Office of Health Emergency, Ministry of Health , P.R.China</p> <p>Address of Dr. Peizhou Wang Director of Key Project Office, Health Human Resources Development Center of the Ministry of Health, P.R.China</p> <p>Address of Dr. Yong Wang Deputy Director-General of Health Department of Guangxi Zhuang Autonomous Region, P.R.China</p> <p>Address of Dr. Bo Wei Party Secretary of CPC of Guangxi Medical University, P.R.China</p> <p>Address of Mr. Steve Chen Program Director, APEC Secretariat</p>	Dr. Jinmin Zhao, Vice President of Guangxi Medical University, P.R.China
9:35-9:50	<b>Tea &amp; Coffee Break</b>	
9:50-11:50	<p><i>Health Emergency Practice in China</i> --Dr. Wannian Liang, Director-General of Office of Health Emergency, Ministry of Health , P.R.China</p> <p><i>Public Health Emergency Management in Thailand</i> --Dr. Pornpitak Panlar, Chief of Public Health Emergency Response Center, Department of Disease Control, Ministry of Public Health, Thailand</p>	Professor. Lee Shiu Hung, the Chinese University of Hong Kong, P.R.China

	<p><i>Experience in Developing the National Health Emergency System and Plan in Peru</i></p> <p>--Dr. Víctor Choquehuanca Vilca, Manager General, General Office of National Defense, Ministry of Health, Peru</p>	
12:00-13:30	<b>Lunch</b>	
13:30-15:00	<p><i>Medical Assistance of Liquidation of Emergency Situations</i></p> <p>--Dr. Velichko Maxim Nicolaevich, Officer of Federal Medical Biological Agency of Russia Siberian Clinical Center, Russia</p> <p><i>Regional Cooperation and Coordination System of Health Emergency</i></p> <p>--Dr. Tie Song. Director, Office of Health Emergency, Centre for Disease Control and Prevention of Guangdong Province, P.R.China</p> <p><i>Training on Health Emergency of Primary Trauma in China</i></p> <p>--Dr. Ying Yan, Director-General, National Institute of Hospital Administration, P.R.China</p>	<p>Dr. Qiang Xiao, Dean of School of International Education, Guangxi Medical University, P.R.China</p>
15:00-15:20	<b>Tea &amp; Coffee Break</b>	
15:20-17:00	<p><i>Experience in Strengthening the Hospital Emergency Competence</i></p> <p>Dr. Jinmin Zhao, Vice President of Guangxi Medical University, President of The First Affiliated Hospital of Guangxi Medical University, P.R.China</p> <p><i>Flood Relief (Health Response) in State of Kedah Malaysia: 2010 Experience</i></p> <p>--Dr. Shareh Azizan Bin Shareh Ali, Senior Assistant Director, Occupational and Environmental Health Unit, Kedah State Health Department, Malaysia</p> <p><i>Health Emergency System and Case Study in Zibo City</i></p> <p>--Dr. Min Li. Director-General, Health Bureau of Zibo City, Shandong Province, P.R.China</p>	<p>Dr. Qiming Feng Dean of Department of Health Management, School of Public Health, Guangxi Medical University, P.R.China</p>
<b>22 May 2011</b>		
<b>Time</b>	<b>Content</b>	<b>Moderator</b>


9:00-10:50	<p><i>Health Emergency and Risk Evaluation</i> --Dr. Zhongming Gao, Director, Office of Health Emergency, Department of Health of Hubei Province, P.R.China</p> <p><i>The preparation of the public health emergency staff and equipment</i> --Dr. Zhuang Shen, Director, the Public Health Emergency Office of Beijing Center for Disease Control and Prevention</p> <p><i>Experience in Developing the Health Emergency System and Plan in Hong Kong</i> --Professor Lee Shiu Hung, the Chinese University of Hong Kong</p> <p><i>National Focal Point for the International Health Regulations in Peru</i> --Dr. Jeronimo Canahuri Ayerbe, Chief of Outbreaks and Health Preparation, Ministry of Health, Peru</p>	Dr. Anne Ancia, Facility Technical Director, China-Australia Health and HIV/AIDS Facility
10:50-11:00	<b>Tea &amp; Coffee Break</b>	
11:00-12:00	<p><i>Disaster Risk Reduction Program for Health Sector in Indonesia</i> --Dr. Mudji Mudjiharto, Chief of Crisis Center, Ministry of Health, Indonesia</p> <p><i>Tondo Medical Center Preparedness and Response Plan- "A Philippine National Hospital Experience"</i> -- Dr. Myrna T. Rivera, Medical Specialist III/HEMS Coordinator Head, Emergency Department Services, DOH-TONDO Medical Center, Philippines</p>	Dr. Qiang Xiao, Dean of School of International Education, Guangxi Medical University, P.R.China
12:00-13:30	<b>Lunch</b>	
13:30-15:00	<p><i>Case Analysis and Study of Management on Public Emergence Event Preparedness and Response in Chile</i> --Dr. Patricio Cortes Picazo, Chief of SAMU of Santiago of Chile, Subsecretary of Heath Network, Ministry of Health, Chile</p> <p><i>Establishment and Deliberation of Public Health Emergency Response System in Guangxi, China</i> --Dr. Faqin Chen, Director of Disease Control Division, Health Department of Guangxi Zhuang Autonomous Region, P.R.China</p> <p><i>Experience in Developing Hospital Emergency Preparedness, Response and Recovery Plan in Malaysia</i></p>	Dr. Yan Shang, Deputy Director of Key Project Office, Health Human Resources Development Center of the Ministry of Health, P.R.China

	--Dr. Hj. Fatahul Laham Bin Mahamed, Emergency Medicine Physician, Hospital Sultanah Bahiyah, Ministry of Health, Malaysia	
15:00-15:20	<b>Tea &amp; Coffee Break</b>	
15:20-17:00	<p><i>Hospital Management and Response to the Health Emergency-“Safe Hospitals in Emergencies &amp; Disasters”</i></p> <p>--Ms. Maria Belinda Bisa-Evangelista, ER Nurse Supervisor, National Kidney and Transplant Institute, Philippines</p> <p><i>APEC Project Management</i></p> <p>--Mr. Steve Chen, Program Director, APEC Secretariat</p> <p><i>Summary and Conclusion</i></p> <p>--Dr. Faqin Chen, Director of Disease Control Division, Health Department of Guangxi Zhuang Autonomous Region, P.R.China</p>	<p>Dr. Faqin Chen, Director of Disease Control Division, Health Department of Guangxi Zhuang Autonomous Region, P.R.China</p>

# Health Emergency Practice in China

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**Dr. Wannian Liang,**  
**Office of Health Emergency,**  
**Ministry of Health, P.R.China**  
**21 May 2011**




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## Content

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- I. Challenges
- II. Health Emergency Practice
- III. Few Thoughts



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### I. Challenges

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▣ In recent years, with rapid economic and social development, global economic integration process, global warming and many other factors, global natural disasters, accidents, disasters, public health incidents and social safety incidents and other public emergencies have been emerged with feature of high frequency, large scale, extensive influence, and serious losses.



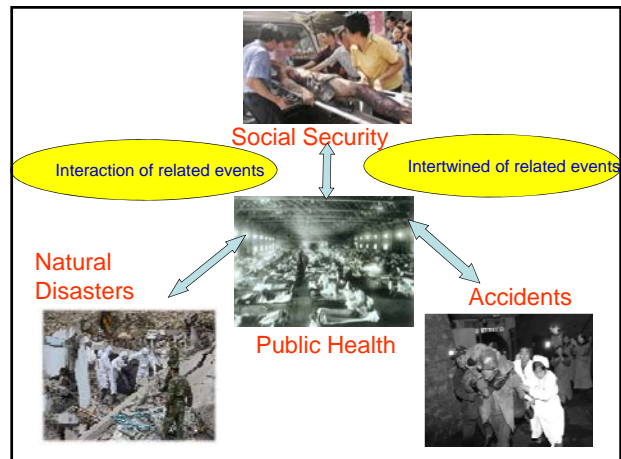
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In 2010, there were totally 1,336 public health emergencies incidents reported in 31 provinces in the Chinese mainland. Among which, there were 46,501 reported cases and 399 reported death cases.




Sichuan Earthquake  
 福州发生公交车爆炸事件



## II. Health emergency practice

**Current Status I:**

- ✓ Developing economy, large population, high density, strong liquidity
- ✓ Limited healthcare resources
- ✓ The health emergency system is still weak




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## II. Health emergency practice

**Current Status II:**

- ✓ Public health emergencies caused by acute infectious diseases happened occasionally.
- ✓ China is one of the countries in the world that most affected by natural disasters.
- ✓ Increasing No. of public health emergencies along with social and economic development.
- ✓ Threat of terrorism and extremism exists in reality.




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## II. Health emergency practice

**Current Status III:**

- ✓ The Chinese Government highly recognizes the great importance of health emergency
- ✓ In recent years, the work of public health emergency had made new progress through strengthening related law, system, mechanism, alert system, capacity-building of health emergency. At present, public health emergency response command system and emergency management network have been initially established.




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## Function of health emergency practice in China

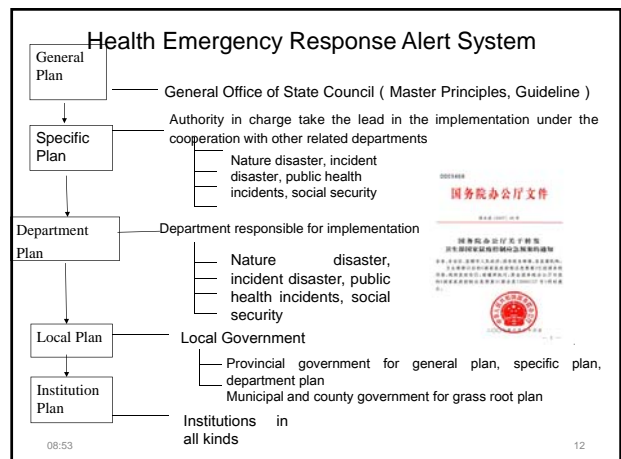
**It includes :**

- I. Response of public health emergencies.
- II. Medical and health relief of natural disasters, disastrous accidents, social security incidents and other public emergencies.
- III. Medical and Health security for major events.



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**(1) Related law and alert system of health emergency have been consistently strengthened**

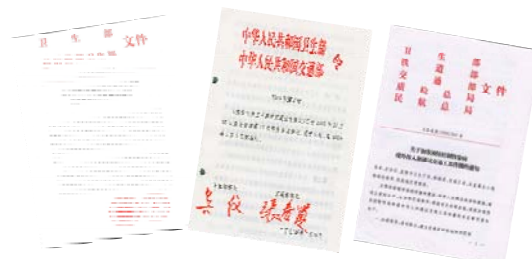


( 2 ) public health emergency system has been initially established

- ❑ March 2004, MOH established the office of health emergency, in charge of the management and coordination of health emergency response and preparedness.
- ❑ Currently, all health departments at provincial level have established the office of health emergency; China CDC and partial of CDCs at provincial level have also established the specific department for health emergency.

( 3 ) The health emergency coordination mechanisms have been established and improved gradually

- ❑ To establish various health emergency coordination mechanisms for different health emergency situations



( 4 ) Capacity for health emergency monitoring and early warning has been strengthened gradually

- ❑ January 2004, China officially launched the infectious disease and health emergency information reporting system based on the cases of infectious diseases .
- ❑ By the end of 2010, the economy has 100% of CDC institutions, 97% of medical institutions at or above the county level and 82% of township hospitals had achieved direct reporting of the infectious diseases and public health emergencies.
- ❑ Established national, provincial, municipal 3 tier public health emergency command and decision-making system construction

( 5 ) Health emergency preparedness and response, and the workforce of that have been continuously strengthened

- ❑ Expert Advisory Committee for Health Emergencies has been established in the health departments at all levels
- ❑ Established Expert Database for Health Emergencies
- ❑ Clarified the deployment and reserve mechanism for health emergency supplies
- ❑ MOH established 11 health emergency teams in 4 categories
- ❑ Developed the basic equipment standard and equipment management practices for national health emergency rescue teams
- ❑ Established a national network for pathogens laboratory for health emergency



( 6 ) Standardized management on information dissemination and communication system

- ❑ Information Publication Scheme for Legal Infectious Diseases and Public Health Emergencies decreed by MOH in 2006:
- ✓ MOH provides the information on the legal infectious diseases and public health emergencies in regular or irregular manner
- ✓ Regarding to the significant and particularly important public health emergency case, MOH will initialize the emergency response plan, and publiz the relevant situation and matter of prevention and control measures through government website and Official Gazette.

( 7 ) International and regional cooperation has been developed gradually

- ❑ To obey and implement the International Health Regulation ( 2005 )
- ❑ To actively participate in international health emergency response event and share the relevant experience in China
- ❑ To strengthen the intentional communication and exchange, absorb the advance experience and practice from overseas



**( 8 ) Health emergency command system has been initially established**

■ In recent years, China has effectively responded the A H1N1 influenza, plague, SARS, human infection with highly pathogenic avian influenza, human infection with streptococcus suis, all types of poisoning and other major public health emergencies, actively and effectively carried out various types of medical and healthcare relief on natural disasters, accidents, and other incidents, protected the public interest, maintained the social stability, and minimized the hazards of the event.

**III. Few Thoughts**

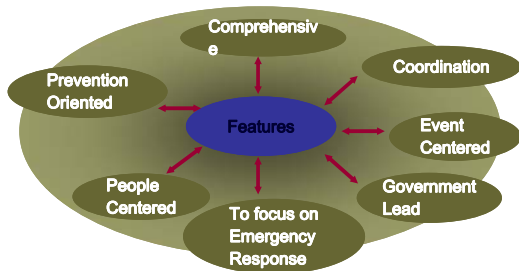
Health emergency response system is an important part of the national emergency response system. It is responsible for responding effectively to public health emergencies, carrying out the urgent public emergency medical rescue, and maintaining public health and safety and social and economic sustainable development.

- To strengthen the workforce-strengthen the carders
- To strengthen the capacity building in health emergency support-solid fundamental
- To strengthen health emergency information management-strengthen its sprit
- To strengthen health emergency coordination mechanism-refine its body



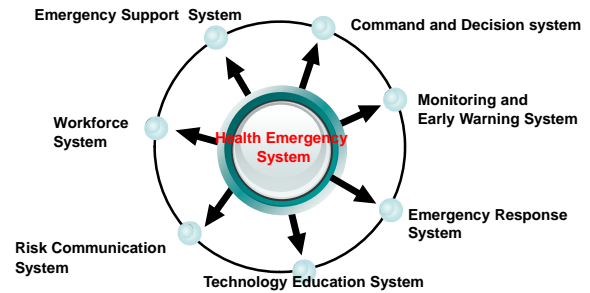
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*Basic Features of Health Emergency*



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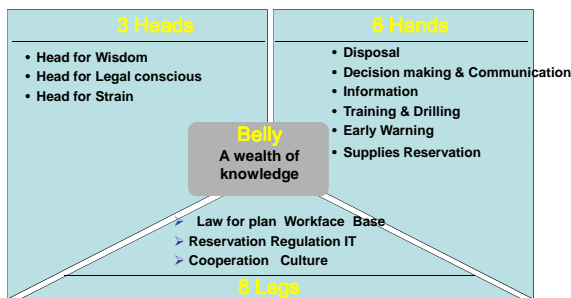
**Health Emergency System**



Health emergency response system is an important part of the national emergency response system and an important part of health system.

22

*Workforce of Health Emergency*



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➤ Objective for 2015

- To establish and strengthen all types of workforce for health emergency
- To improve the working mechanism, to improve the 5 systems of organization, command and decision making, monitoring and early warning, material storage and transporting, and scientific support.
- To form a health emergency response system with features of unified commanded, reasonably deployed, effectively responded and operated, and well supported. Public health emergency management capabilities significantly will be improved in great to meet the requirement of prevention, monitoring and early warning, emergency response and recovery assessments.

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## Major Objectives and Missions

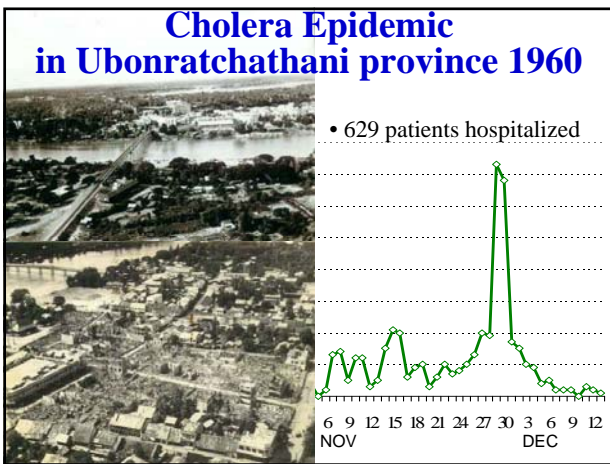


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### Thailand

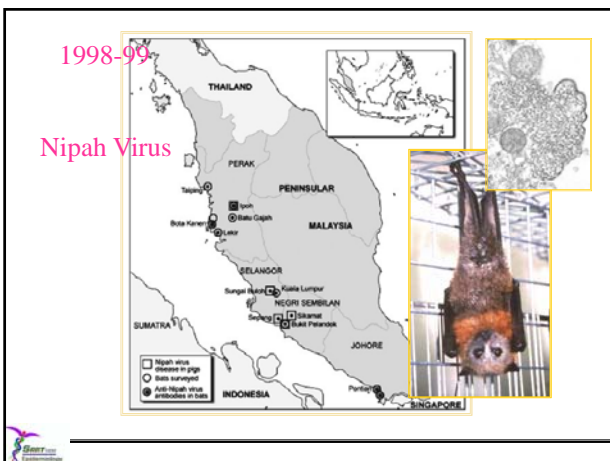
- Area : 198,114 square miles.
- Population (as of 2003): 64.2 million, about 8 million live in the capital city of Bangkok
- Ethnics: Thai (80%), Chinese (10%), Malay (3%), the rest - minorities (Mons, Khmers, hill tribes)
- Religions : Buddhism 95% of population
- Languages : Thai
- Climate : warm and humid



### กรณีจดหมายใส่ผงขาว “แอนแทรกซ์” Anthrax mail hoaxes in Thailand (16 Oct 01 - 22 Feb 02)

Anthrax tests on 217 suspected letters/ objects were all negative !

Public confidence in public security was finally restored.



### 2003 SARS

Source: Ministry of Health, China, WHO

### 2004 Avian Flu epidemic

### 26th December 2004 TSUNAMI in Thailand

8,457 injured 5,388 died 3,120 missed

### Response in Public Health Emergency

## BUTOLISM 2004

### Emerging and re-emerging zoonoses 1996-present

*Recent outbreaks*

- Influenza / Madagascar
- CCHF / Afghanistan, Iran
- Tularemia / USA, Kosovo
- Yellow fever / Ivory Coast
- Brucellosis / Mongolia
- E. coli O157 / Canada
- Hantavirus / US
- BSE vCJD / UK
- Nipah virus / Malaysia/Bangladesh/India
- Avian Influenza / Hong Kong
- West Nile / USA, Canada
- Ebola / Gabon, Congo
- BSE /Canada
- Monkeypox / DRC/ US
- SARS / Global
- Avian Influenza H5N1/Asia
- Strep suis type 2/China
- Japanese Encephalitis/India

### What we are facing now

OUTBREAK OF ENDEMIC DISEASE	EMERGING DISEASE
Public Health Emergency	
NATURAL DISASTER	MAN MADE DISASTER

### MAJOR EVENT

- Super Typhoon Karen, Nov.-Dec. 1962; killed ~900
- Flood Southern, November 1963; killed 374
- Typhoon Gay Southern, November 1989; killed >600
- LPG Explosion, Bangkok, September 1989; Killed 81
- Doll Factory on fire, May 1993; killed 188
- Hotel Collapse, Korat, August 1993; killed 132
- SARS Dec. 03 – Jun. 2004; economic loss \$ 4.5 billion
- Tsunami, December 2004; killed 15,400
- Avian Influenza 2004; Pandemic threat

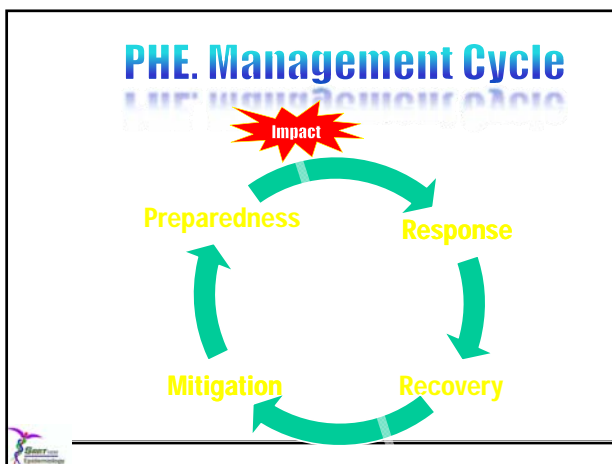
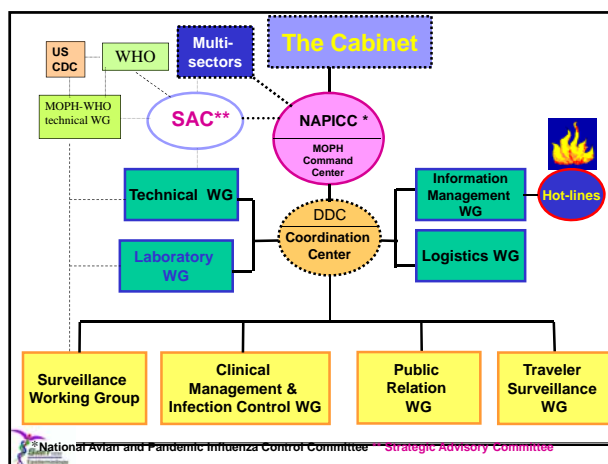
### Natural Disasters in Thailand

<http://www.unisdr.org/eng/country-inform/thailand-disaster.htm>

**Top 10 Natural Disaster**

Number of people killed			Number of people affected		
Disaster	Date	Killed	Disaster	Date	Affected
Wave / Surge	26-Dec-2004	8,345	Drought	Jan-1999	6,000,000
Wind Storm	27-Oct-1962	769	Flood	Jun-1996	5,000,000
Flood	18-Nov-1988	664	Drought	Feb-2002	5,000,000
Wave / Surge	Jun-1955	500	Flood	8-Sep-1995	4,280,964
Wind Storm	3-Nov-1989	458	Flood	Oct-2002	3,289,420
Flood	3-Jan-1975	239	Flood	3-Jan-1975	3,000,093
Flood	8-Sep-1995	231	Drought	Mar-1991	2,500,000
Flood	28-Oct-1995	200	Wind Storm	Jul-2000	2,500,000
Flood	Oct-2002	154	Wind Storm	17-Aug-1991	1,894,238
Flood	11-Aug-2001	104	Flood	Aug-1978	1,628,400

Source : OCHA/CRED International Disaster Database / Nov-3-2005 - Data version: v05.10

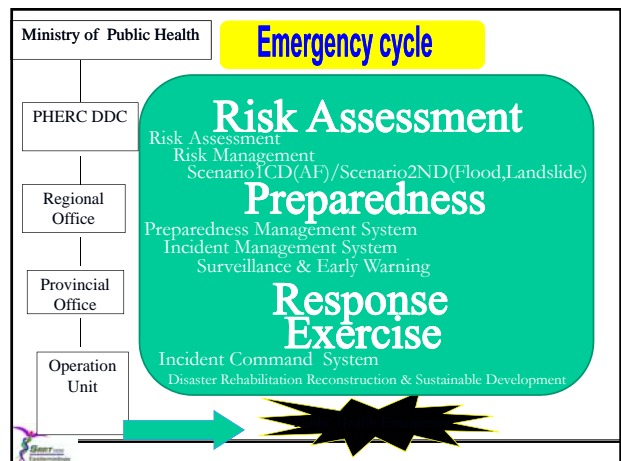
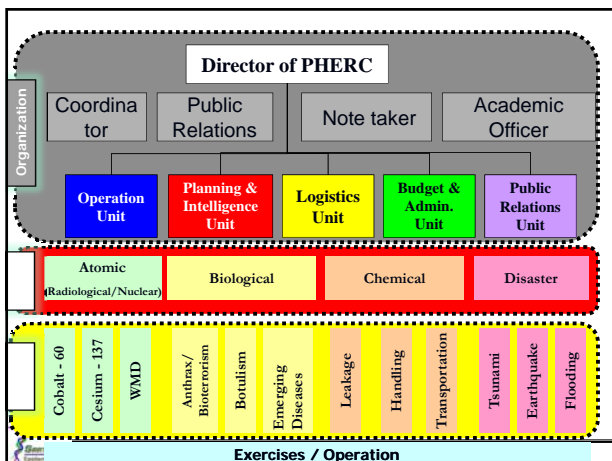
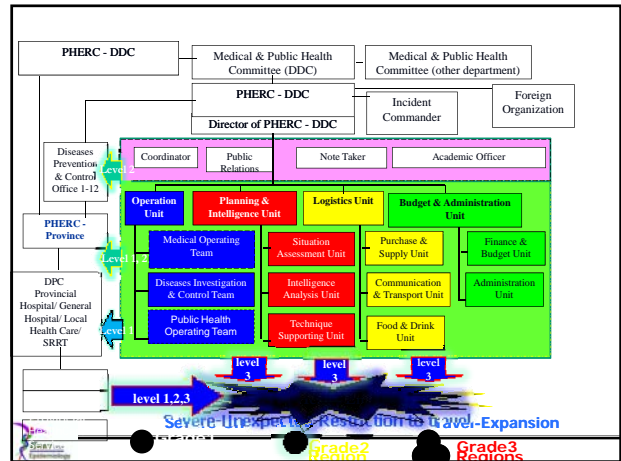
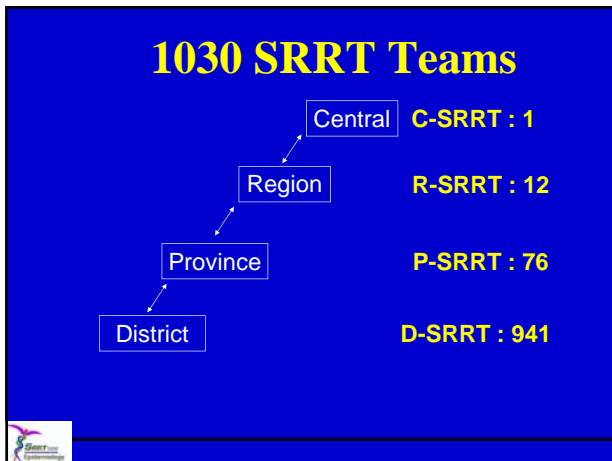


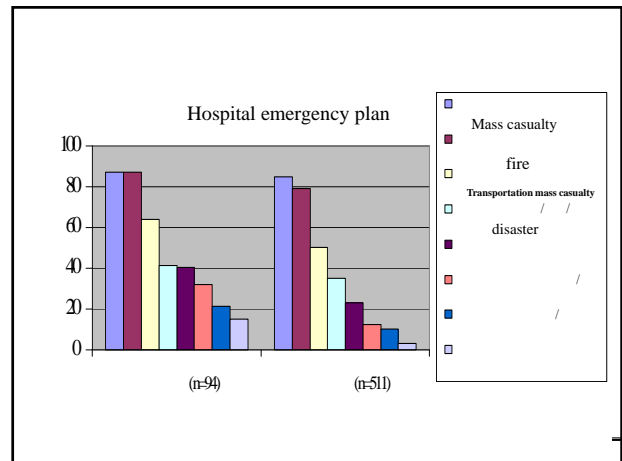
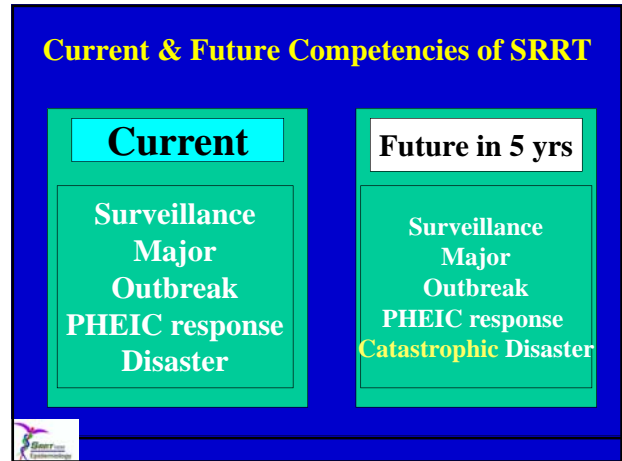
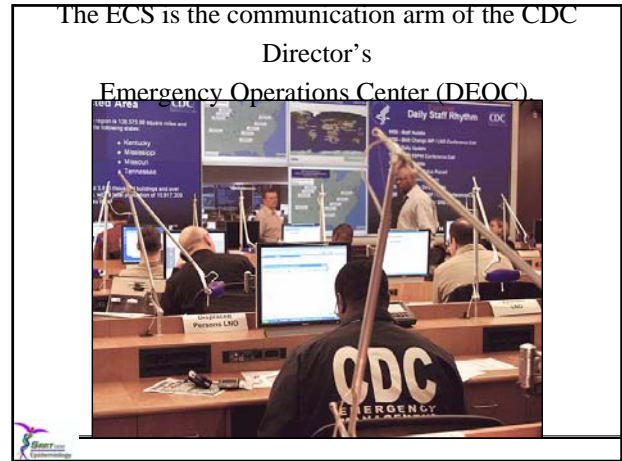
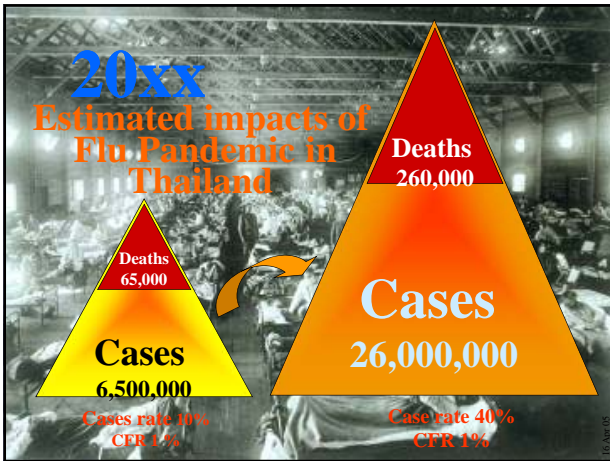
## How can we cope?

## Surveillance and Rapid Response Team (SRRT)

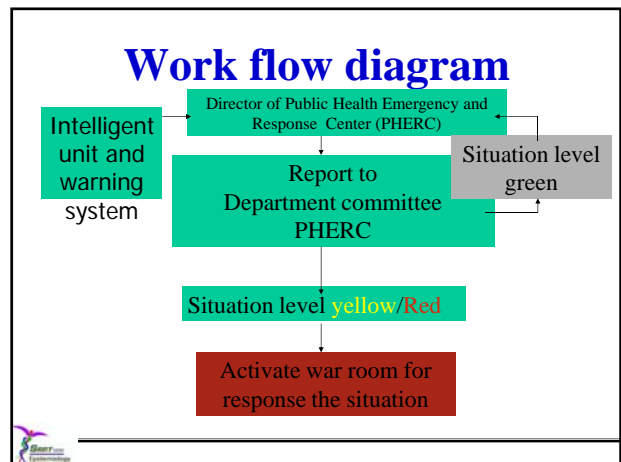
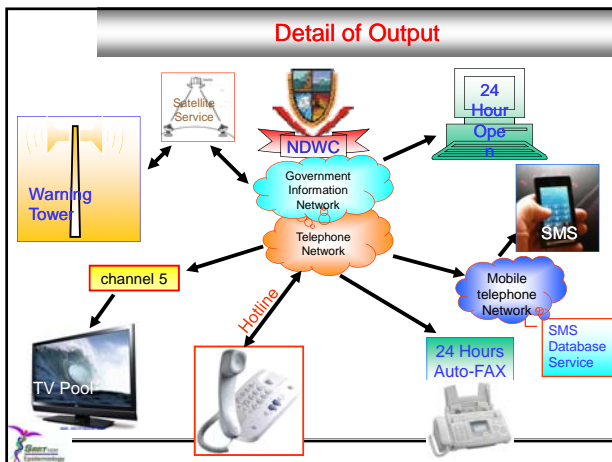
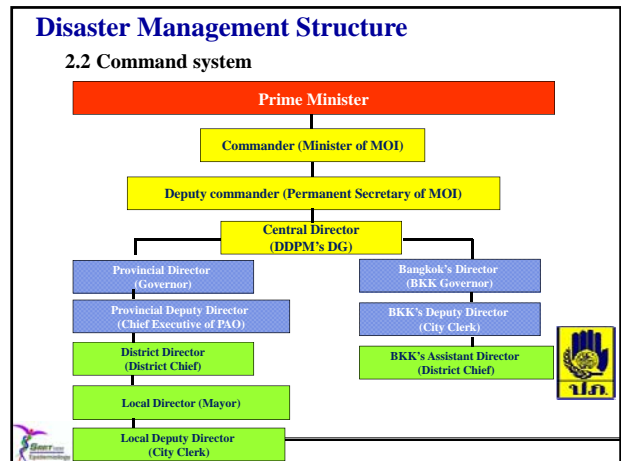
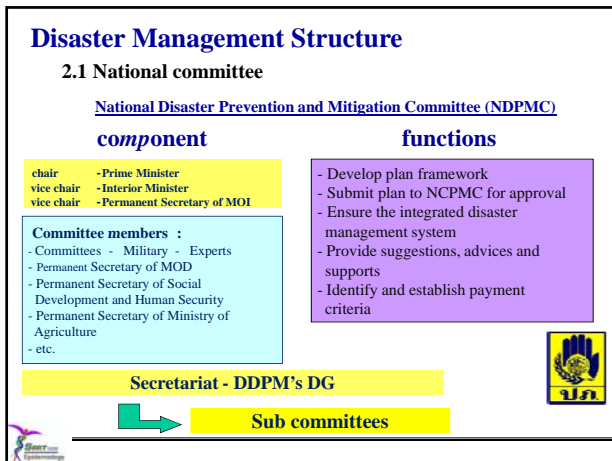
### ROLE

- Surveillance of severe, rapidly spread infectious disease.
- Detection of public health emergency
- Rapid and effective outbreak investigation
- Outbreak control
- Report and surveillance data exchange



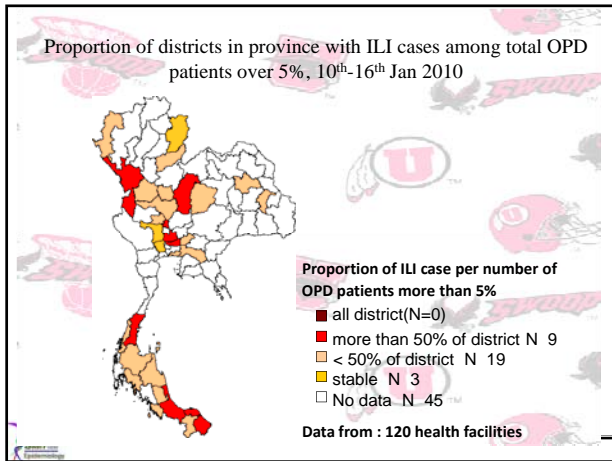
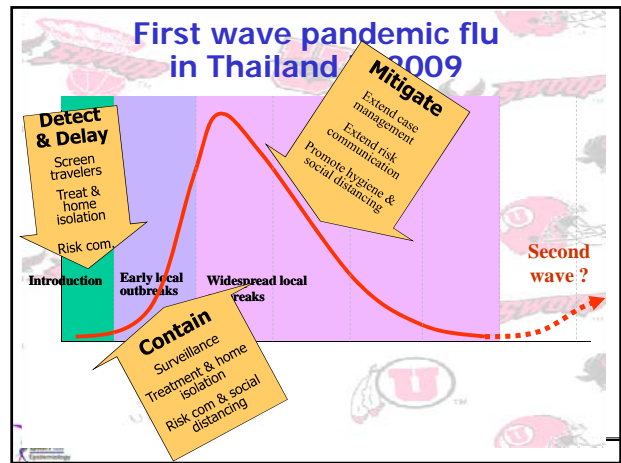
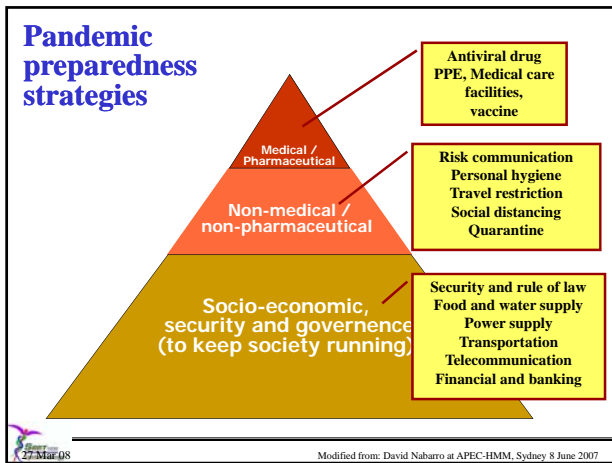






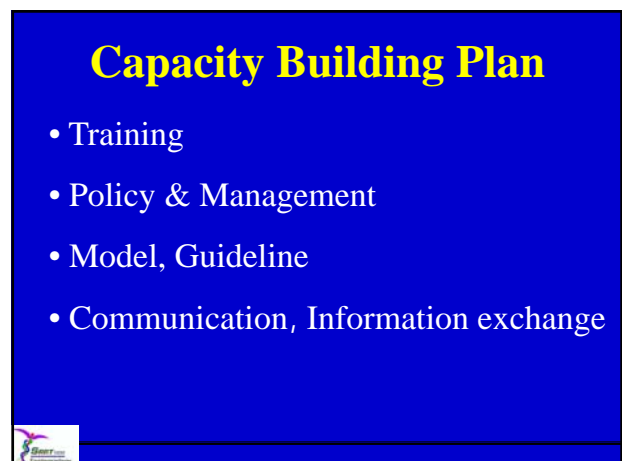
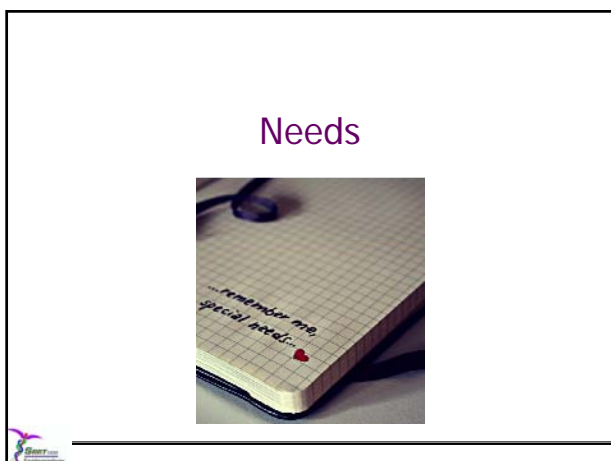
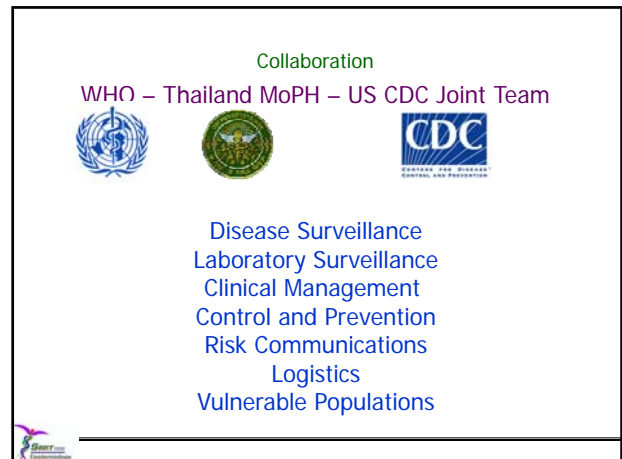
### Lessons from Avian Influenza

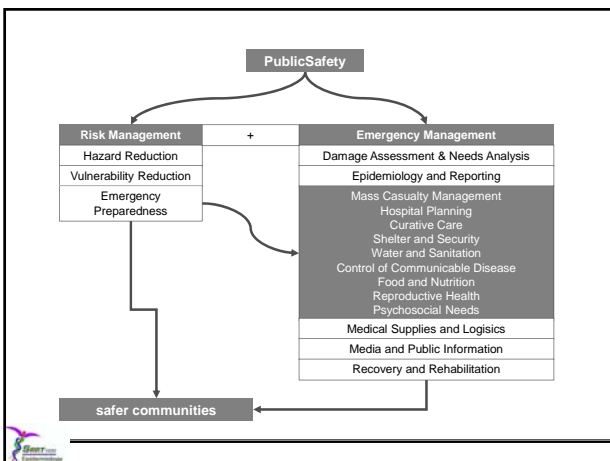
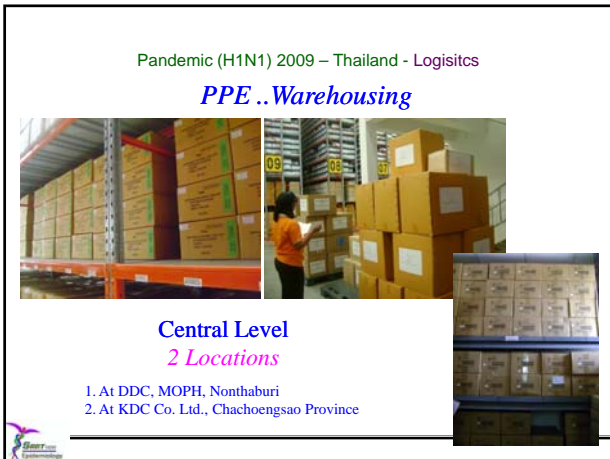
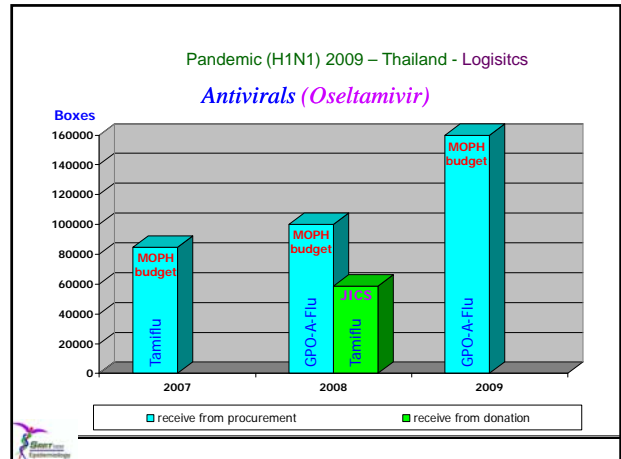
- An emerging infectious disease eg. AI can cause extensive and profound social & economic and political impacts.
- **Efficient command, control and management are the foundation of successful response to AI, emerging infectious diseases and public health emergencies.**
- Effective responses to AI including EIDs and PHEs are based upon the strength of existing infrastructure and manpower.
- **Public confidence and cooperation is crucial and the media has important role in this area.**
- **Inter-sector partnership and regional / international cooperation are essential.**




# ARE YOU READY







  
**“International Symposium of Health  
Emergency Preparedness and Response  
in Asia-pacific Region”**  
*Nanning - Guangxi – China  
21 May 2011*

  
**“Experience in Developing the National  
Health Emergency System and  
Plan in Peru ”**  
*Dr. Víctor Choquehuanca Vilca  
Manager General  
General Office of National Defense  
Ministry of Health*

**LOCATION OF PERU**

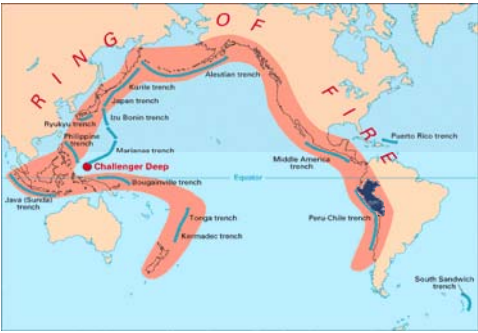



**LOCATION OF PERU**






**RING OF FIRE**






**MAP OF PERU**



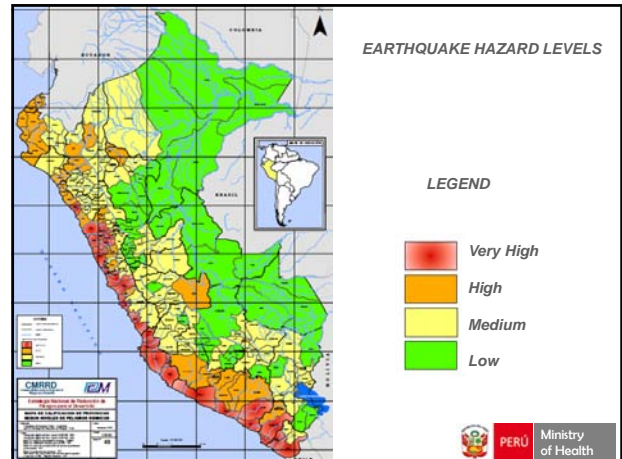
24 Departamentos  
1 Constitutional Province  
Population: 29 791,853 inhabitants

Three great regions: the coast, the andes, the amazonian jungle and presence in the Antarctic

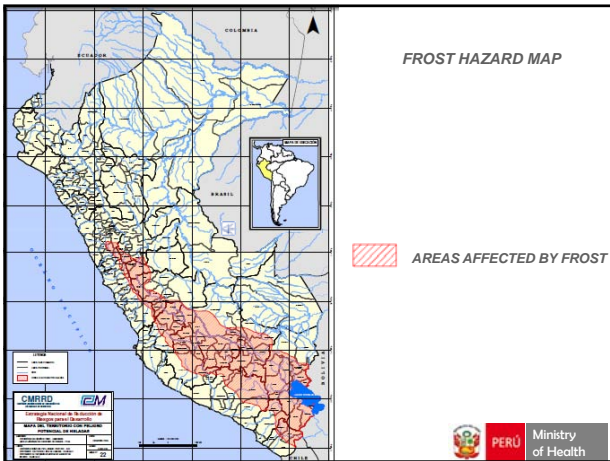
\*XI National Census of Population – 2007  
National Institute of Statistics and Information



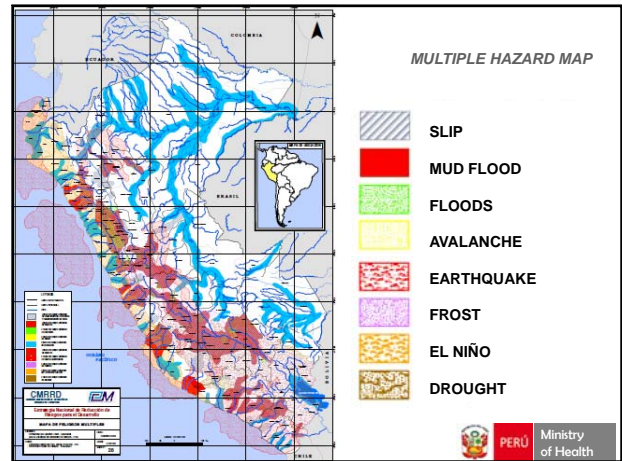
## HAZARD MAPS



## FROST HAZARD MAP



## MULTIPLE HAZARD MAP



## HISTORY OF DISASTERS IN PERU



## EARTHQUAKE ANCASH 1970



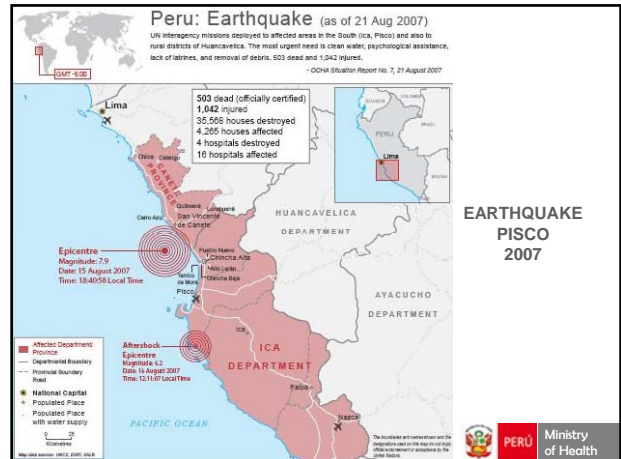
*The 8.0 Richter scale earthquake and avalanche that buried the Andean towns of Yungay and Ranrahirca, in the region of Ancash, killing an estimated 70,000 people.*



### EARTHQUAKE ANCASH 1970



The Ancash earthquake is one of the deadliest in Peru's history, and is currently considered as the second deadliest in Latin America



### EARTHQUAKE PISCO 2007



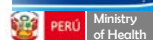
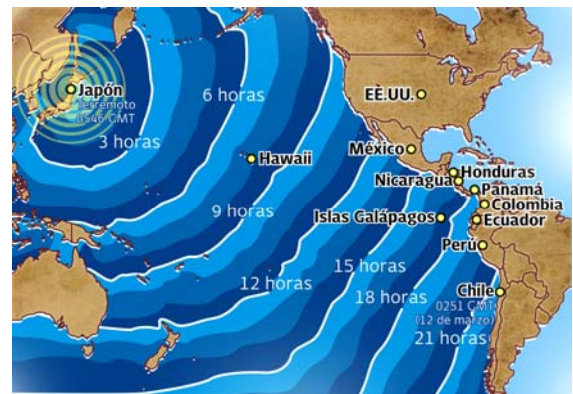
STRUCTURAL COLLAPSE OF HOSPITAL - MINISTRY OF HEALTH  
PISCO - PERU - 2007



STRUCTURAL COLLAPSE OF HOSPITAL - ESSALUD (SOCIAL SECURITY)  
PISCO - PERU  
2007



### JAPAN EARTHQUAKE AFFECTING THE PACIFIC COAST INCLUDING MEXICO, CENTRAL AND SOUTH AMERICA



## NATIONAL CONTEXT



### FRAMEWORK



**NATIONAL ACCORD**  
State Policies



**THIRTY SECOND STATE POLICY**  
*Disaster Risk Management*

Sets  
32  
State  
Policies



**THIRTY SECOND STATE POLICY**  
*Disaster Risk Management*

*Prioritize and guide the policies of risk estimation and disaster reduction in accordance with national development objectives set out in the plans, policies and projects at all levels of government;*


*Shall ensure compliance with international agreements approved by the Peruvian State on Disaster Risk Management;*

*Will consider the International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action, agreed within the United Nations (UN) and the Andean Strategy for Disaster Prevention by the Andean Committee for Prevention and Disaster Attention (CAPRADE) of the Andean Community of Nations (CAN).*



### LAW N° 29664 NATIONAL SYSTEM OF DISASTER RISK MANAGEMENT

*Interinstitutional synergistic system, decentralized, participatory and that runs across, in order to identify and reduce risks associated with hazards or minimize their effects, avoids the generation of new risks; preparation and attention to disasters through the establishment of principles policy guidelines, components, processes and tools for Disaster Risk Management.*



### LAW N° 29664

**NATIONAL POLICY OF DISASTER RISK MANAGEMENT**

*Risk Estimating*

*Prevention and Risk Reduction*

*Preparedness, Response and Rehabilitation*

*Reconstruction*



## SECTOR HEALTH CONTEXT







**SECTORAL COMMISSION OF DISASTER RISK MANAGEMENT IN HEALTH  
(MINISTERIAL RESOLUTION N° 071-2011-MINISTRY OF HEALTH)**

- Drafting the proposal of National Policy on Disaster Risk Management in Health
- Coordinate with different levels of government to adopt the National Policy on Disaster Risk Management in Health and its implementation and development through processes: Health Risk Estimation, Risk Reduction Disaster Health, Response Health and Rehabilitation, and Reconstruction
- Propose the formulation of rules and plans for disaster risk management from adverse events and the incorporation of its activities in the institutional strategic and operational plans of the agencies and health services at different levels of government.

PERÚ Ministry of Health

**Rule of National Committee on Safe Hospitals  
Ministerial Resolution N° 623-2009 – MINISTRY OF HEALTH**

- Drafting the proposal for National Policy on Safe Hospitals from Disasters.
- Coordinate at regional government level, the adoption of the strategy of safe hospitals and accompany the process of implementation and development.
- The formulation of rules and plans for disaster risk management from adverse events and the incorporation of its activities in the institutional strategic and operational plan of the agencies and health services, to ensure the functioning of health facilities after an adverse event.
- To impel the evaluation of health facilities to determine their degree of security against disasters.

PERÚ Ministry of Health

**National Policy on Safe Hospitals from Disasters  
2010 - 2015  
DECRETO SUPREMO N° 009-2010-SA**

"The National Policy of Safe Hospitals aims to reduce disaster risk in health facilities to ensure its operation with maximum installed capacity and in their own infrastructure, during and after an adverse event, thus fulfilling the State duty to protect people's lives permanently even immediately after a disaster."

PERÚ Ministry of Health

**Strategies of the National Policy of Hospitals Safe from Disasters  
2010 - 2015**

- Review the rules, tools and indicators over safeness in health facilities
- Incorporate criteria for safe hospitals from disasters in pre-investment processes, investment performance, security and quality management in health.
- Improve levels of security against disasters on existing health facilities.
- Strengthen preparedness in emergencies and disasters
- Expand the program of safe hospitals from disasters to other health organizations and other sectors.

PERÚ Ministry of Health

**Safe Hospitals from Disasters**

*ADVANCES  
Action Plan  
2010 - 2015*

PERÚ Ministry of Health

**GOALS FOR THE YEAR 2011**

100% Evaluation of Hospitals

Evaluation of facilities of medium and low complexity


Evaluation of facilities of medium and low complexity



**PROJECT WITH DIPECHO/OPS 2011-2012**

- **ACTIVITY**  
*Evaluation the safe hospital index and improvement in functional and non-structural component of the facilities.*
- **INTERVENTION UNITS**  
*08 health facilities in three districts of Peru, in the provinces of Cañete, Huaura and Trujillo.*
- **BENEFICIARY POPULATION**  
*68,755 inhabitants*

**130.000 EUROS - ESTIMATED COST FOR 4 MONTHS PERIOD.**



**PROJECT TO DEVELOP 2011-2012**  
**MINISTRY OF ECONOMY AND FINANCE**

- **ACTIVITY**  
*Evaluation through the Safe Hospital Index and intervention on the functional and the non structural component.*
- **INTERVENTION UNITS**  
*Facilities in the city of Lima*

**ESTIMATED COST : 1.8 MILLION DOLLARS**



**GOALS 2011 to 2015**

2011	2012	2013	2015
It has standards for safe Facility.	It has the design and construction of standards	100% of Level I facilities have been evaluated with the Safe Hospital Index.	25% of facilities assessed have improved their Structural safety
It has the Technical Guide for Safe Hospital criteria in Pre-investment projects.	100% of pre-investment studies meets with the safe hospital standards .	100% of Level I facilities have been evaluated with the Safe Hospital Index	50% of facilities assessed have improved their Nonstructural safety
Elaboration and diffusion of accreditation standards for safe facilities.	100% of hospitals have been evaluated with the Safe Hospital Index.		100% of facilities assessed have improved their Functional Safety
100% of organizations working with the health sector are acquainted of the Hospital Safe Program.	100% of hospitals have Improvement Plans for Safe Hospital Index .		50% of the programs incorporate the issues of safe buildings.


*Macha Piccha to the World*



*Thank You*



Paper from "International Symposium on Human Resources for Health of Health Emergency Preparedness and Response in Asia-pacific Region", [APEC#HWG 01/2010A], (c) 2011 APEC Secretariat



  
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ  
УЧРЕЖДЕНИЕ ЗДРАВООХРАНЕНИЯ  
**СИБИРСКИЙ  
КЛИНИЧЕСКИЙ  
ЦЕНТР**  
ФМБА РОССИИ

## Readiness of the Federal Medical-Biological Agency (FMBA) to liquidate consequences of emergencies

Dubimsova A.N., May 21-22 2011



play

### Coordination Center of Siberian Federal District of Russia




play

### Coordination Center of Siberian Federal District of Russia



play


### Emergency Management Center of the EMERCOM of Russia


Duty Officer  
of The Siberian Clinical Center  
of Federal Medical-Biological Agency (FMBA)  
of Russia

play

### Liquidation of the consequences of the accident at the Sayano-Shushenskaya Hydroelectric power station



Sayano-Shushenskaya  
Hydroelectric Power Station  
August 2009

play

### Liquidation of the consequences of the accident at the Rapsadskaya Mine



Министерство здравоохранения Российской Федерации  
Федеральное государственное учреждение «Центральный научно-исследовательский институт неотложной помощи при катастрофах и чрезвычайных ситуациях»

Исследования по теме №0077. АН 0213  
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Исследования по теме №0077. АН 0213  
Исследования по теме №0077. АН 0213



### Work of medical brigades



Министерство здравоохранения Российской Федерации  
Федеральное государственное учреждение «Центральный научно-исследовательский институт неотложной помощи при катастрофах и чрезвычайных ситуациях»

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### Work of medical brigades



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### Mobile hospital



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Факс: +7 (812) 476-1111  
E-mail: info@nii-neo.ru

### Mobile hospital



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play

### Mobile hospital Operating room

- Equipment
- multifunctional surgical table
  - oxygen concentrator
  - anesthetic breathing unit
  - defibrillator
  - intensivists' monitor
  - perfusor (syringe metering device)
  - set for emergency surgical aid



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### Mobile hospital resuscitation

- Equipment
- artificial lung ventilation apparatus (3 pcs.)
  - intensivists' monitor (4 pcs.)
  - defibrillator
  - vacuum aspirator (4 pcs.)
  - perfusor (2 pcs.)
  - transfusion station (2 pcs.)
  - resuscitation sets (2 pcs.)
  - set of infusion solutions
  - sets for traumatological emergency aid and transportation of traumatologically injured (3 sets)
  - equipment for ultrasonic investigations
  - portable clinical laboratory



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play

### Mobile hospital staff car

- Equipment
- staff's resting place
  - satellite communications unit



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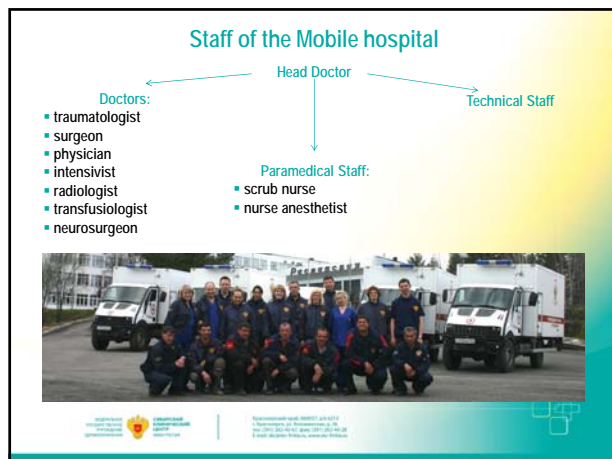
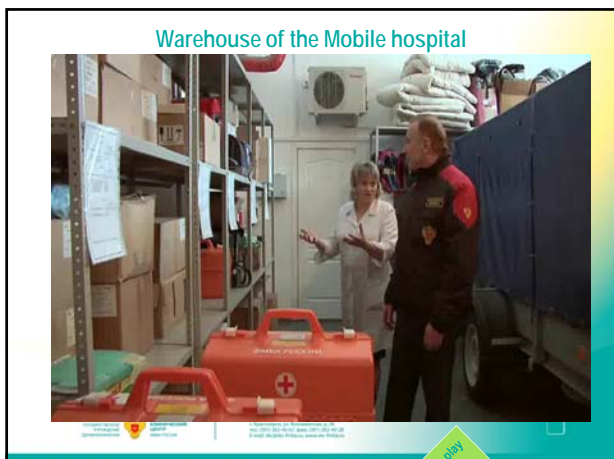
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play




Thank you for attention!

play

**Regional Cooperation and Coordination System of Health Emergency**  
**Introduction of health emergency cooperation situation in Guangdong, Hong Kong, China; and Macao**

Dr. Tie Song  
 Guangdong Center for Disease Control and Prevention  
 21 May 2011, Guangxi



09 22 33 Center for Disease Control and Prevention of Guangdong Province

**Contents**

- Background
- Main contents of cooperation agreement
- Cooperative achievements
- Case study

09 22 33

**Background**

- ❖ SARS—a severe infection which the first time outbreaked in the 21th century, promoted cooperation and coordination among inter-regional and inter-departmental
- ❖ strengthen regional cooperation—reduce and eliminate bad influence of critical infectious diseases and then improve our region’s ability to respond regarding health and development.
  - International level: UN, WHO, IHR
  - National level: laws and regulations, preplan, work plans
  - Regional level: Guangdong; Hong Kong, China; and Macau, pan-pearl river delta area

09 22 33

**Background**

- ❖ International level
  - The UN Security Council passed the 58/3 resolution of improving construction of ability of global public health on October 27<sup>th</sup> 2003.
  - The International Health Regulations (2005)
  - Asia-Pacific Regional Strategy on Emerging Infectious Diseases
- ❖ National level
  - The Ministry of Health, The Hong Kong special administrative region government health welfare and food bureau and The Macao special administrative region government social culture department formulated the cooperation agreement on the public health emergency management system.
  - The Ministry of Health, The Hong Kong special administrative region government cooperation agreement on the public health emergency management system.
  - China Sudden onset of acute infectious disease prevention and control strategies
  - working mechanism of Unite preventive and control

09 22 33

**Background**

- ❖ Regional legal basis for cooperation and collaboration
  - Emergency Response Law of the People's Republic
    - Article 15 The PRC government ... Cooperate and exchange with foreign governments and relevant international organizations
    - Article 37 The State Council established a unified national emergency information system ...To achieve interoperability, strengthening cross-sectoral, cross-regional information exchange and intelligence cooperation
  - Regulation on the Urgent Handling of Public Health Emergencies
    - Article 5 Urgent handling the emergencies should depend on the principle of scientist and cooperation.
    - Article 7 The state encourages and supports emergency monitoring, early warning, response handling international exchanges and cooperation in technology.

09 22 33

**Background**

- ❖ Regional level
  - the reporting mechanism of communication and cooperation for influenza pandemic
    - The reporting mechanism for the influenza pandemic which was signed during SARS by the three places was standardized and extended to the prevention of other infectious diseases.
  - Pan-PRD Regional Cooperation Frame Agreement was signed by 9 provinces/regions and the 2 SARS leaders on June 3rd, 2004
    - Sanitation and epidemic prevention----all parties reached a consensus to set up collaborative mechanism of sanitation and epidemic prevention. Once the flu outbreak, all parties should be announced faithfully and promptly, and cooperate with the Prevention and Control of Epidemics Organization and epidemic treatment

09 22 33

**Background**

- ❖ Regional level
  - "The Agreement of Cooperation on Emergency Public Health Incidents in the Three Places" on June 29th, 2006
    - The Agreement clearly defined the purpose, principle, field of cooperation, information notification, prevention alarm, joint coordinate, emergency aid, technique and personnel exchanging and cooperation mechanism
  - "Reform and Development of the Pearl River Delta Plan"
    - The outline aims at set up a high quality living environment---inspire the cooperation among education, medical treatment, community guarantee, culture, emergency administration, intellectual property protection, and provide conveniences both in work and life for the people who work in mainland.

09 22 33

**Background**

- ❖ Regional level
  - Emergency Management Pearl River Delta Region Cooperation Agreement March 30th, 2009
    - The Pearl River Delta Region (including Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, and Zhaoqing) joint the first emergency management cooperation.
    - Cooperation field: Emergency communications, emergency resource sharing, collaborative emergency disposal, emergency joint exercise
  - The twelve five-year plan of Guangdong Province
    - Improve communications and infectious diseases joint prevention and control mechanisms to strengthen public health emergency management co-operation.
    - Improve emergency coordination mechanism, establish a sudden emergency management system of cooperation

09 22 33

**The Main Content of Health Emergency Cooperation Agreement**

- ❖ The agreement of cooperation on emergency public health incidents in three places
  - Cooperation principle
    - Equal and voluntary, legal and scientific, benefit complementary
  - Cooperation field
    - Information notification
    - Monitoring and early-warning
    - Joint coordination and emergency aids
    - Technique and personnel exchanging

09 22 33

**The Main Content of Health Emergency Cooperation Agreement**

- ❖ Information notification
  - Regularly notify
    - Infectious disease surveillance information, including the statutory three month exchange of infectious disease data, and the annual summary report
  - Emergency notify
    - Public health emergency occurs, it should be according to existing mechanisms, according to promptly inform the other cooperating parties faithfully
  - Information publish
    - In addition to one's own area or residents directly involved in the case, was informed of notified parties shall not be published alternative
  - Other information
    - Caused by rumors of regional concern and rumors, such as the one proposed inquiry should be as involved parties to help provide information about the real situation
  - Requirement for privacy
    - For confidentiality, the notification shall specify the requirement of confidentiality on the data

09 22 33

**The Main Content of Health Emergency Cooperation Agreement**

- ❖ Monitoring and warning
  - The content of monitoring
    - Infectious diseases: Focus on infectious disease surveillance, integrated syndromic surveillance, the establishment of laboratory networks
    - Other public health surveillance: Monitoring of food poisoning, hospital infection surveillance
  - Warning
    - The three places establishes the risk assessment project through the "Guangdong, Hong Kong Expert Group on Prevention of Infectious diseases to strengthen the focus on issues such as analysis and forecasting of infectious diseases, infectious diseases around the world, a major public health emergencies such as monitoring and tracking.


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**The Main Content of Health Emergency Cooperation Agreement**

- ❖ Joint coordination
  - If the same public health emergencies occur at all three places or affect only one of them, it is likely that the other two areas would be jeopardized too. Thus, the 3 areas have to coordinate well together and unite in order to control over any emergency in time.
    1. Through the response coordination, the three places Guangdong; Macao; and Hong Kong, China will establish an exchange and notification mechanism for the prevention and cure of infectious diseases.
    2. If a sudden outburst of public health emergencies happen to occur in all of the three areas or two out of them happen to propagate, all three have to urgently start the mutual emergent mechanism in order to handle the threat and initialize stability within the group.
    3. The Emergency Coordination Group should be able to use different possible and appropriate communication methods, including conferencing, video conferencing, telephone, email, fax, etc to ensure an uninterrupted 24-hour contact so that relevant parties can quickly and effectively share any intelligence information and collaborate assess the situation in order to stipulate defensive and tactful measures to control the health emergency.


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 **The Main Content of Health Emergency Cooperation Agreement**


- ❖ **Joint coordination**
  4. The Emergency Coordination Group, in addition to the jurisdiction of the relevant parties in the emergency response efforts, based on the actual situation requires can carry out prevention and control cross-border joint or coordinated actions, can take health and quarantine measures like: suspecting infected people or contact tracing, tracing suspected contaminated products.
  5. Relevant parties in the process of emergency response can invite some partners to participate in the investigation related to professional and technical personnel, event evaluation, review and exchange experiences.
  6. When necessary experts from the three areas and government administrators based on the situation together with the approval from the respective relevant departments can unite to hold news conferences.

09 22 33

 **The Main Content of Health Emergency Cooperation Agreement**


- ❖ **Health Emergency Supporting**
  - If some major incident outbreak occur in one of the 3's public health sector, it can ask one or both allies to supply him with personnel, technologies or materials in order to support itself.
    1. The personnel dispatched should be professionals in the field of that particular incident and would do assessments, investigations, detection controls, handling of sick patients by doing diagnosis and treatments, etc on the site.
    2. Technical support will include the provision of advisory, consultancy, testing, treatment, handling of the emergency threat and other services.
    3. Material support will be in response to the urgent needs of the incident site, supply-related drugs, specialized equipment, reagents and so on.
    4. The relevant parties supporting the emergency situation after mutual consultations can set up plans to make arrangements to alleviate expenditure burdens or if parties consider necessary, may agree to set up a special working group responsible for the implementation of specific plans and follow-up support for action.
    5. As for a quick response to already formulated measure to the emergency, each of the relevant parties should prepare in advance related resources especially including where to find the needed experts in the administrative regions at any time and their technological resource information, etc.

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 **The Main Content of Health Emergency Cooperation Agreement**


- ❖ **technical exchange**
  - **Monitoring, early warning and emergency management**
  - **Laboratory management and testing technology**
  - **Technical Field Epidemiology**
  - **Disease surveillance system technology**
  - **Medical treatment technologies**
- ❖ **Staff Training**
  - **Focus on strengthening laboratory testing, field epidemiology, emergency management and other technical and management training exchanges.**

09 22 33

 **The Main Content of Health Emergency Cooperation Agreement**

- ❖ **Emergency Practice Rehearsals**
  - **Invite partners to observe emergency practice rehearsals; and when the practices have reached the required level of accomplishment, all the three partners can unite to held combo emergency practice rehearsals.**
- ❖ **Sharing Information Resources**
  - **According to legal proceedings, each parties can cooperate to exploit rational and scientific knowledge on infectious diseases related to public health emergencies information.**
    - **As the information are obtained through media monitoring, the related parties can develop disease surveillance, communicable diseases control programs, corresponding contingency plans and so on.**

09 22 33

 **The Main Content of Health Emergency Cooperation Agreement**

- ❖ **Cooperation Mechanism**
  - **Establishment of a "Guangdong, Hong Kong, Macao joint conference on prevention and cure of infectious diseases" system.**
    - The original "Guangdong, Hong Kong, Macao Expert Group Meeting on prevention and cure of infectious diseases" changed to "Guangdong, Hong Kong, Macao joint conference on prevention and cure of infectious diseases"
    - In accordance with the "co-sponsors, contractor alternative turns" the conference is held once a year.
    - Emergency cooperation projects will be included in the meeting agenda, through meetings on the implementation of this agreement for periodic assessment and make necessary adjustments, and deciding on major issues in collaborative work to promote inter-regional emergency public health emergencies

09 22 33

 **The Main Content of Health Emergency Cooperation Agreement**

- **Designated contacts, liaison officers and liaison communication**
  - The three places, after already passing through the Guangdong, Hong-Kong, Macao bulletin on the prevention and cure of infectious disease exchange and notification mechanism will be responsible for the daily work of co-operation and emergency communication bulletins, coordinate the implementation of selected topics of the cooperation project in matters of cooperation in the development of thematic programs. If necessary, the number of original contact persons, liaison officers, based on the emergency response may be increased.
- **Establishment of cooperation projects departments in implementing the system**
  - Parties to instruct the relevant agencies to strengthen measures among cooperation projects, and develop detailed plans for cooperation in the implementation of issues raised by this agreement

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**The Main Content of Health Emergency Cooperation Agreement**

- ❖ **Expenditure Burden**
  - Referring to original agreement advanced communications, exchanges, information bulletin, emergency response coordination, and other collaborations, etc, each of the three respective groups have to act on each one's own financial burden.
  - Before the start cooperation projects like joint training, scientific research, technological development etc the relevant parties have to have a pre-agreed pattern on how to share the expenditure responsibility. Expenses shall be borne by the requestor in principle, but only decided to provide some or all of the expenses as a donation or be exempt of payment.
- ❖ In addition to the existing cooperation channels on infectious diseases, in case of emergency circumstances, administrative officials from the three health organizations can conduct at any time collaborative meetings to talk things over.

09 22 33

**Outcome of Health Emergency Cooperation**

- ❖ **Expert Group Meeting In 2003**
  - **The first expert meeting "Guangdong, Hong Kong and Macao Expert Group Conference on SARS prevention and treatment", was held on the 30th of May in Hong Kong.**
    - Expansion of the epidemic reporting system and the exchange of relevant counterpart units.
    - Strengthen the exchange of infectious disease information network, and to arrange exchange visits of experts.
    - As a target for treatment mechanism, the characteristics of infectious disease cases should be continuously explored and actively studied.

09 22 33

**Routine Meeting on the Cooperation Among Guangdong, Hong Kong, Macao**

- Strengthening infection control and the exchange of clinical data analysis: on the aspect of the SARS infection control and clinical medical treatment, especially the control of the infection inside hospitals, clinical medical treatment data should reach in time to analyze the epidemic situation.
- Expand the exchange of notification messages on other infectious diseases : including AIDS, dengue fever, influenza, tuberculosis, cholera and malaria. Bulletin should include details on cumulative number of reported cases, deaths, patients discharged etc. Circulate information at any time on any special situation.
- To strengthen research cooperation and exchange visits of experts and technology: to further strengthen cooperation in scientific research, and set up exchange visits of experts and technical programs, including epidemiologists ,pathologists and clinical treatments, and other experts and technical staff

09 22 33

**Routine Meeting on the Cooperation Among Guangdong, Hong Kong, Macao**

- ❖ **Expert Group Meeting In 2003**
  - The 2nd Expert Group Meeting "Guangdong, Hong Kong and Macao Expert Group Conference on SARS prevention and treatment", was signed on August 5 in Macao.
    - The formal establishment of the notification mechanism and exchanges on the prevention and control of infectious diseases between Guangdong and Hong Kong was made on September 8th.
    - The three parties have agreed to bulletin the major infectious diseases and to extend to other statutory reporting data exchange of infectious diseases on a monthly basis.
    - In response to circumstances, bulletin will be sent to pay attention on the extension of the infectious diseases and other aspects to the three areas. Three outbreaks have been reported to the health sector when the authorities copied to the other two local health departments. Under the coordination of the Ministry of Health, Guangdong, Hong Kong and Macao exchange and cooperation mechanism for prevention and treatment of infectious diseases will need constant improvements.
  - The 3rd Expert Group Meeting "Guangdong, Hong Kong and Macao Expert Group Conference on SARS prevention and treatment", was held on December 22-23 in Shenzhen.

09 22 33

**Outcome of Health Emergency Cooperation**

- ❖ **Expert Group Meeting In 2006**
  - **The 6th Tripartite Meeting of Guangdong- Hong Kong- Macao Expert Group on Prevention and Control of Communicable Diseases was held in Dongguan on June 28th and 29th----signed the cooperative agreement for handling public health emergencies**
    - Strengthen the response system for public health emergencies and major infectious disease by implementing thoroughly the agreement of cooperation on emergency public health incidents in the three places ;
    - Continue enhancing communication and cooperation in the preparedness for influenza pandemic;
    - Continue to improve the reporting mechanism and explore information platform of equation trend;
    - Carry on the exchanging and training cooperation of infectious disease professionals;
    - Propel the research cooperation about infectious disease prevention and control, including AIDS, flu, human cases of bird flu and dengue fever.

09 22 33

**Routine Meeting on the Cooperation Among Guangdong, Hong Kong, Macao**


- ❖ **Tripartite Survey on Infectious Diseases**
  - The survey aimed at comprehensively mastering the situation of the infectious diseases. To provide the basic data for effective controls, the survey will base on the suggestion of the experts of the infectious disease control and prevention in the three places, and gets down to form the following aspects: the cognition about the prevention towards flu of the citizens; the morbidity of flu samples or colds; the implementation of influenza vaccination and the treatment cases of suffering flu or cold.
  - The survey used telephones to interview citizens, and the telephone numbers were randomly selected by the computer. The result of the survey was publicly announced in groups, involving no personal information.
  - Participating in the survey were Guangdong centers for disease control and prevention organization, Hong Kong's health protection center, Macao health centers for disease control and prevention, Shenzhen and Zhuhai centers for disease control and prevention.

09 22 33

 **Routine Meeting on the Cooperation Among Guangdong, Hong Kong, Macao**


- ❖ 2010 expert group meeting
  - The 10<sup>th</sup> experts seminar: Tripartite Meeting of Guangdong Province, Hong Kong and Macao on the Prevention and Control of Infectious Diseases held in Hong Kong on January 11<sup>th</sup> and 12<sup>th</sup>
    - The meeting had in-depth discussion on the surveillance and prevention experience of important infectious diseases, such as H1N1, HFMD, dengue fever and measles; focused on how to prevent and control the Influenza A (H1N1) and exchanging the experience in the implementation of influenza vaccination, and discussed the contingency plans (including vaccine development, medication storage and relevance drill) about the possibility of the pandemic flu.
    - During the 2-day meeting, experts summed up their collaboration in the surveillance, the notification system of prevention and control of infectious diseases, the situation of enter virus infection, the communicable disease information systems and the work on measles elimination and discussed the development of the prevention of infectious diseases in the future.

09 22 33

 **Case Study of Health Emergency Cooperation**


- ❖ H1N1 influenza pandemic
  - Case tracking and follow-up
  - Epidemic information timely inform
  - Prevention and control strategy adjustment
  - Experts seminar

09 22 33

 **Case Study of Health Emergency Cooperation**


- ❖ Media Monitors
  - Media monitoring briefing exchanges in Guangdong Province, Hong Kong and Macao
  - Media monitoring network platform development and application

09 22 33

 **Case Study of Health Emergency Cooperation**

- ❖ Routine information bulletin
  - Suspicious cases report
  - Information feedback mechanism


09 22 33



**Cherishing life Guarding Health**

[www.cdcp.org.cn](http://www.cdcp.org.cn)

**Thank You !**




09 22 33 Center for Disease Control and Prevention of Guangdong Province

## Training on Health Emergency of Primary Trauma in China

Dr. Ying Yan,  
National Institute of Hospital  
Administration, P.R.China

## Part 1

### Introduction of primary Trauma Care Training




### Preface


- ❖ In recent decades, the occur of various types of incidents around the world, which makes tramua become the "world's first public nuisance".Almost ten million people die from traumatic injuries each year global ,Most of them died of multiple injuries. In the United States, trauma is the main cause of death under the age of 45.
- ❖ In 2l century, tsunam, typhoons, earthquakes and other major disasters have frequently occured, and have continued to expand the trend worldwide, which makes a serious affection on human survive and development.

- ❖ With China's rapid economic development, traffic accidents and other calamities of the death rate has increased, which threatening the national existence as "the first killer".According to the 2004 statistics show that all types of emergencies occurred nationwide 5.61 million, causing 21 people dead, 175 people injured and direct economic loss of over 4550 billion.
- ❖ Although humans can not completely avoid the disaster, but how to effectively improve disaster response capacity of medical personnel and treatment efficiency, minimize the mortality of trauma patients,lower level against loss of control is needed in response to the problem.

### volcanic eruption




### earthquake



### 9-11

crashing down ,  
New York's  
World  
Trade  
Center





**what's trauma**

**Definition of Trauma**  
 Trauma caused by mechanical factors is human tissue or organ damage. Severe trauma can cause systemic reactions, local manifestations of injury pain, swelling, tenderness; fracture-dislocation when deformity and dysfunction. Severe trauma may also have fatal bleeding, shock, choking and unconsciousness.

**Classification of Trauma**  
 The full extent of injury by the skin, divided into blunt trauma, open wounds trauma.

**Blunt Trauma**  
 Maintain the integrity of the skin, sometimes despite wounds, but not with skin breakdown and external bleeding, may have skin bruising (bleeding under the skin, also known as petechiae or ecchymosis) if the deeper site of injury, the injured party after a few days see blue.

**Classification of Blunt trauma**

**open wounds trauma**

Rupture associated with skin and mucous membranes and external bleeding. Invasive bacteria easily from the wound, causing infection. Therefore, timely and open wounds and required debridement.

**Classification of open wounds trauma**

**What's primary Trauma care**

Primary trauma care is correct, timely and effective use of the site of trauma patients a simple apparatus, system disposal, to save the lives of patients win precious time and improve the success rate to save trauma patients, while reducing disability rates and reduce deaths Rate.

**The Introduction of Primary Trauma Care Training**

Primary Trauma Care Training management system is a robust, flexible cascade training model, the primary trauma care Foundation . Primary trauma care, including 2-day training course and 1 day courses for teachers, designed to train health care workers face the emergency treatment of patients with severe trauma capabilities, helping them to manage severe trauma patients.

### Background of primary trauma care training

In 1996, Oxford University Anesthesiology and Intensive Care Medicine expert, Dr. Douglas Wilkinson (Dr. Douglas Wilkinson) and remote rural areas of developing countries concerned about the situation. Designed a set of trauma care training programs and teaching methods, teaching life-saving medical and technical support staff. This is an international committee to promote the primary trauma care in primary trauma care course (referred to as PTC).

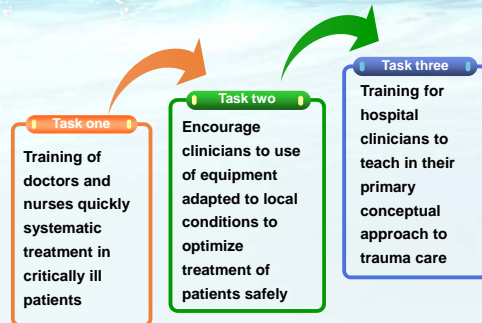
Commission on the primary trauma care in the world and actively promote the World Health Organization (WHO) with support for the first time held in the Republic of Fiji Islands 2 trauma care teaching and training courses. Since then, the course in India, East Africa, Nigeria, Indonesia, South America and the South Pacific region have been held in 48 countries. Aims to reduce the incidence of injury around the world and mortality, improve third world countries where the level of trauma patients.

- ❖ Training based on the experience of these countries world primary trauma care training materials prepared by the Committee, called the primary trauma training course (Primary Trauma Care Course, referred to as PTC). As the usefulness of this course, recognized by the World Health Organization, while training itself was a lot of support from foreign aid committee.
- ❖ Like World Federation of Societies of Anaesthesiologists, Royal College of Surgeons and Anaesthetists UK, Netherlands Anaesthesiology Institute and Australian Society of Anaesthetists ).

### Purposes of primary trauma care training

- ❖ Early effective treatment can reduce morbidity and mortality in trauma. Primary trauma care training is through lectures and practical skills training so that students master a set of general wound management measures, but also for medical and related health workers to provide some simple, just the basic equipment necessary for the trauma management of the basic knowledge and basic skills.
- ❖ Number of primary trauma care through training the backbone of the training, the establishment of the training of primary trauma care network, the primary trauma care training in our medical staff to get popular, and ultimately improve the overall treatment of the level of injury and reduce mortality rates of trauma And disability.

### The task of primary trauma care training



### The contents of the primary trauma care training

- ❖ PTC training courses and students are divided into two days, one day instructor course. Imparting to the participants after the accident the first time to achieve effective treatment techniques. Steps to trauma care, airway management, circulation management, different parts of the barrier were damaged trachea how to rescue, are the contents of the training.
- ❖ The training of students in addition to the church in response to severe trauma such as chest injury, brain injury, spinal cord injury and other skills, but more important is to teach them how to aid the team to form a rescue system, orderly, Efficient completion of first aid. Specific training table.

### The contents of the primary trauma care training(students courses)

Primary Survey	Secondary Survey	Major types	Special cases
Airway , A	Head examination	Chest Injuries	Trauma in Children
Breathing , B	Neck	Abdominal Trauma	Trauma in Pregnancy
Circulation , C	Neurological examination	Head Trauma	Burns
Disability , D	Chest	Spinal Trauma	
Exposure , E	Abdomen	Limb Trauma	
	Extremities		
	Log Roll		
	X-Rays		

The contents of the primary trauma care training(teacher courses)

overview	lecture
HOW ADULTS LEARN	GENERAL INTRODUCTION
ASKING QUESTIONS	PRESENTATION STYLES — LECTURE
FEEDBACK	PRESENTATION STYLES — DISCUSSION GROUP
	TEACHING A SKILL
	SCENARIOS



part2

## Situation of primary trauma care training in China

Background of Primary Trauma Care Training in China

- In 2001, PTCF President Dr. Douglas Wilkinson, appointed by the WHO in China, made an academic conference entitled "The primary trauma care and blood safety," the report.

PTC Committee in May the same year, the Asia-Pacific regional director Stephen Swallow, Dr. for the first time in Beijing, presented at the International Anesthesia PTC course, consider this course is particularly suitable to China's national conditions.

May 2002 Chairman of the world's primary trauma care, Dr. Douglas, Dr. Shi Walao head of the Asia Pacific region and his party more than 10 people Xi'an, Beijing, Shanghai and Kunming 4 successfully hosted the primary trauma care (PTC) training, and received Good results.

In view of the practicality and effectiveness of the training, the World Health Organization's initiative and motivated by the Kadoorie Charitable Foundation in Hong Kong, China under the auspices of the Ministry of Health commissioned the Institute of Hospital Management, the primary trauma care and the World Foundation (PTCF), which culminated in January 2010 signed a memorandum on the project in the comprehensive promotion of China reached a three-year cooperation agreement.

World Junior former Chairman of the Committee trauma care at the launch ceremony, Mr Douglas

The progress of primary trauma care training in China

- China's primary trauma care training program at the September 5, 2010 was officially launched in Wuhan, Hubei Province, 2010 September 6 to September 27, the first phase of training, from Henan, Liaoning, Hubei, Guangxi Zhuang Autonomous Region 4 students selected to go to the national training center in Wuhan, central training, taught himself to accept foreign experts.

The second and third phase of training, in October 2010 to May 2011 at four national training centers in the province stepped training trainees, the second phase of the four national training center, the first Three-phase four national training center in the prefecture belong to. Currently, the primary trauma care training in the first year of the task is about to end.

**2010年9月5日中国初级创伤救治培训启动仪式**



❖ In order to do the primary trauma care training in China, which will help in the future sustainable development of the training, the Ministry of Health set up a "Chinese Primary trauma care committee", the President 2, 2 Deputy Director-General 2, 12 members of the Standing Committee And the members 40. Meanwhile, the four national training centers were established in their respective local-level city organizational structure of the PTC. By the Chinese Society of Anesthesiology physicians and emergency physicians Doctor Association President-branch president, and fully mobilize the enthusiasm of the two sectors.

As of April 26, 2011, China's primary trauma care training project training of medical personnel in China, 1987. Which anesthesia professional 937, 950 emergency professionals, other professional 100. So far, 344 people, 593 people participated in PTC training for Chinese teachers.

**Instruction provided by foreign trainer**



**The second annual meeting of primary trauma care in China-preparatory work**

❖ April 26, 2011 China's primary trauma care training in the second year of preparatory work in Beijing. Institute of Hospital Management leadership, China's chief primary trauma care committee of experts, the first annual National Training Center for 4 people, the second year training program to be carried out in 11 provinces of the Center for the project team members, a total of 37 Attended the meeting.

Yan won the first meeting by the director of primary trauma care in China introduced the purpose and significance of training programs, and project background. Subsequently, Huang Yuguang, and Xue-Zhong Yu Chairman of the first year of training to do a comprehensive summary. YAO Shang-Vice-Chairman introduced the second year of the training plan and proposed job requirements. 4 National Training Center for the centers for training the first year summary report. Finally, the second year of training to be carried out in 11 provinces of the Center for all the participating experts and training programs for the second year to start a discussion.

**The second annual meeting of primary trauma care in China-preparatory work**



**Effect of Primary trauma care training carried out in China**

Since the primary trauma care training has been carried out since the general concern of society, and by participation in training of medical personnel is widely recognized. China Central Television, China Daily, Health News and other media coverage. Many non-narcotic, professional emergency medical personnel took the initiative to participate as attend training.

Training of students agreed that the applicability of the systematic and strong training program, after a three-day training course, students formed a systematic treatment of ideas, to make up for past lack of pre-hospital first aid knowledge gaps, future work will be on Have a good role in promoting.

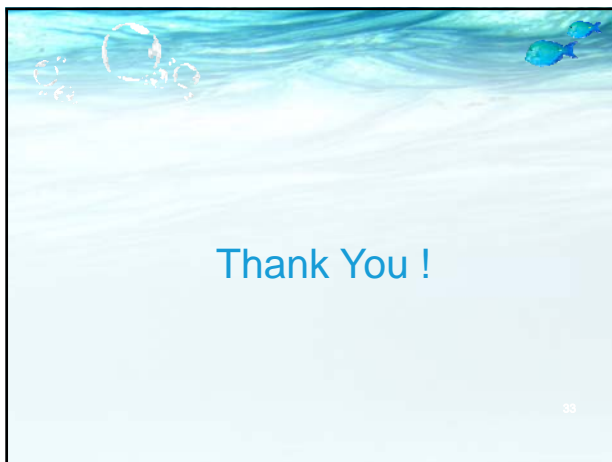




### Primary trauma care training program

- ❖ The training will cover to the county hospital, is expected to nearly 50,000 in China training with the qualification of anesthesia, emergency physicians, primary trauma care in China to meet the needs of the work to improve the rescue and disposal of proficiency; to explore a set for China Conditions of primary trauma care training mode, until the spread to China's vast rural areas.

After successful completion of three years of training, the Ministry of Health intends to put the project into the industry standard training in the implementation of medical institutions at all levels, and depending on the training effect to consider the basic skills training into the education of medical students after graduation The basic training course. At the same time, through training and further strengthen the Anesthesiology and Department of Emergency, and improve primary health care institutions in the two disciplines in the basic clinical skills and standards.





## Medical Equipment



PET/CT



1.5T, 3.0T MRI



DSA



Gamma




Spiral CT

Our hospital equipped with world-class advanced equipment, such as PACS/RIS, PET/CT, 16 slice CT, 1.5T, 3.0T magnetic resonance imaging (MRI), Siemens linear accelerator, HIFU, DSA, DR, CR, all Digital imaging devices, Beckman automatic biochemical analyzer, flow cytometry, and so on. 广西医科大学 第一附属医院

## Introduction of Emergency Department

- established in Guangxi in 1986, and is one hospital of the early initiators for emergency medicine in China
- It contains the East and the West emergency departments. As an important component of Nanning Emergency Response System, it is one of the emergency treatment center with emergency response, medical care, teaching and research.



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- Emergency department is the only affiliated unit of quality control center for emergency medicine in Guangxi.
- It is one of China's primary training base for trauma care (4 in total in domestic).
- It is the training base of American Heart Association (AHA).
- Emergency medicine department of Guangxi was established in 2009, and won the advanced management in 2010.




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### Public Health Emergency

Public health emergency is major infectious diseases which happen suddenly, cause or may cause serious harm to public health, mass unexplained diseases, major food and occupational poisoning, and other serious events which affect public health.

### Hospital emergency management

Hospital emergency management is an important part of emergency management of the whole society. Handling emergencies properly has great significant in maintaining social stability, and promoting social harmonious development.

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- We have accumulated some experience from providing healthcare for patients of Sichuan earthquake, emergency response to factory explosion and preventing from communicable diseases in recent years.




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President, Zhao Jingmin, deployed tasks to the medical team who went to Wenchuan to rescue the victims



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**I Improve hospital emergency management system and promote hospital emergency response capacity continuously**

Emergencies often are involved with people's lives. Hospitals not only complete their own medical practices, but also learn how to properly respond to various emergencies that may occur. In disposing the emergency events, we need to focus on key points, and improve the hospital's emergency management, which mainly includes "developing plan, strengthening supervision and enhancing training".

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**( I ) Developing contingency plans for emergencies**

In April 2006, the State Council issued " Views of the work on the overall strengthening of emergency management " , and proposed to strengthen the work of the specific measures "one case, three systems ". Here "one case" refers to the emergency plan; "three systems" refers to "emergency system, emergency mechanisms, and emergency rule of law ". "One case" lies in the first place.

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**Since 2006 Emergency Plans in our hospital**

- Natural Disaster
- Public Health
- Radiology
- Hospital Emergency Department

**Purpose**

- ✓ Keep in mind
- ✓ Clear process
- ✓ Well coordination



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**( II ) Enhancing Supervision**

- Check workforce and equipment regularly
- **Health emergency taskforce**
  - ✓ Team led by president and composed of all kinds of health professionals
  - ✓ Regular meeting for experience sharing and better improvement

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**( III ) Strengthening Training**



- **Quality of workforce of health emergency is the key for the improvement**
  - ✓ Training provided
  - ✓ Drill

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**Emergency Medicine**

- key component since 2008
- responsible for Guangxi Emergency Medicine Rescue and Quality Control Center since 2009

Training

Graduates


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- **Regular and International Training**
- ✓ work with the American Heart Association for training cardiopulmonary resuscitation and emergency cardiovascular care
- ✓ Work with International Association of Trauma for training of the initial treatment of trauma




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**Drill**

- **Once / Twice per year**
- **Purpose :**
- ✓ **Training**
- ✓ **Evaluation of the outcome**


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## II、Cases in Recent years


- **Features of Public health emergency**  
emergency, complex, compulsory, public, charity and disaster
- **Our hospital takes the responsibility of emergency response in Guangxi, other provinces round China and even countries around South-east Asia.**

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### ( 1 ) Active treatment of the wounded in the earthquake

- On May 22, 2008, our hospital received a total of 100 wounded in Wenchuan earthquake who received follow-up treatment in Guangxi.
- In order to treat the wounded with the best conditions, our hospital set up different groups for leading, treatment, care and logistics.
- In addition to gather specialists of orthopedics, neurology, emergency treatment, our hospital set up human services, which were to increase a psychological counseling expert group for injured people and their families with psychological counseling treatment.




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### ( 2 ) Factory explosion

- In August 2008, Organic plant of Guangxi Vinylon Group Co. Ltd. had an explosion. 20 people were killed and 60 injured.
- This was a more serious explosion in China's chemical industry over the past decade.
- Our hospital staff treated them in accordance with normalized rescue process timely, and there were non-hospital deaths.



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### ( 3 ) Mass poisoning

- **Mass poisoning**  
occur with the characteristics of sudden.  
How to organize and coordinate health care resources effectively in a short time, and treat patients orderly and timely, is worthy of concern.

**Our hospital has been successfully disposed of several mass poisonings**

which demonstrates our hospital's good emergency capacity, and high efficiency and high level of rescue, and these were also the results of our hospital's scientific management and standard management.

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### ( 4 ) Epidemic prevention and treatment

- **Designated our hospital** as admitted hospital to treat foreigners and compatriots from Hong Kong, China; Macao; and Chinese Taipei suffering from SARS, as autonomous region class and admitted hospital for severe cases of a flow of H1N1.
- **Since 2009, our hospital has treated 158 cases with hand, foot and mouth disease, and 20 patients with a flow of H1N1.**




我院医务人员与已治愈的甲流外籍船员合照

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### ( 5 ) Hospital linkage with police

- In September 2006, Public Security Department and the Traffic Police Detachment of Highway Administration of Guangxi Zhuang Autonomous Region and our hospital have signed a "Channel green life for traffic emergency " agreement.
- Our hospital became a rear base for the rescue of the wounded in highway traffic accidents, and provided preferential treatment to the wounded in the referral, consultation and other areas. The traffic police department would ensure that ambulance accessed in priority.
- This Green Channel of "Hospital linkage police" can save morevaluable time for traffic accident injuries.



交通事故急救绿色通道

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### III、 Hospital emergency medical treatment has a long way to go

Although our hospital has made some achievements in emergency and first aid, our hospital are in the tireless efforts for patients' health and safety of people.

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### ( 1 ) Training and Education is the key to Develop World Emergency Medicine

- Our hospital was cooperated with the American Heart Association for training of cardiopulmonary resuscitation and emergency cardiovascular care, and the International Association for training of the initial treatment of trauma. They trained our hospital and other emergency personnel internationally in Guangxi, which created a large number of emergency first-aid personnel. Next, we should get out to learn. We should go to advanced countries to learn in field, absorb lessons, and continuously improve our treatment capabilities.




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- Emergency treatment physician should be further strengthened learning, particularly learn from the success of first aid, emergency medical outcomes in the domestic and abroad to improve personal quality and professional level, so as to achieve all the industry's progress. Our hospital has achieved preliminary results in the way of introduction.
- **At the same time, international cooperation of emergency treatment physician speed up the use popularization, and promotion of the latest medical results and methods, and also provides more cases. learning the results of integration from each other, patients get the biggest benefit.**


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### ( 2 ) Enhance the level of hospital emergency management, cooperate with superiors or other departments for emergency treatment.

The lead agency of pre-hospital emergency rescue was clear : president, vice-president in charge of medical, health ministers, nursing director, emergency department director and heads of relevant departments had responsibility for the coordination of pre-hospital rescue.



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- Recent years, under the leadership of emergency treatment, our hospital responds to a number of emergency relief and medical work quickly, efficiently, and orderly, to minimize casualties and health hazards, protect people's health and safety, and maintain social stability
- However, in the process of treatment, we also found that many information in the field can not be feedback to the hospital timely, which brought some difficulties for treatment. Therefore, hospitals should be in close cooperation with relevant units and keep in touch with the community that may occur public health emergency.

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### Linkage of various department

- In 2006, Public Security Department and the Traffic Police Detachment of Highway Administration of Guangxi Zhuang Autonomous Region and our hospital have signed the "Channel green life for traffic emergency" agreement. Over several years, our hospital has accumulated some experiences in treatment of traffic accidents.
- As an example, this can be extended to the stations, shopping malls where populated densely. And we can perform a certain amount of training of health emergency medical treatment under the coordination of some departments

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### Linkage of various department

- The pre-hospital emergency medical rescue plan between our hospital and Nanning International Airport, Wuxu, is established. Since 2008, our hospital has had the training of emergency medical rescue and pre-hospital emergency medical treatment for response to large-scale disaster events in public with the airport once a year before they occur.



医院与普航联动

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- **Emergency treatment physician should apply their professional knowledge fully, go out of hospital for the community;**
- universal the public knowledge for first aid, popularizing knowledge and skills of disaster prevention, improving the public capabilities for self-help and mutual help, universal basic knowledge and skills of CPR, it is the responsibility for emergency treatment physician.
- **At the same time, all sectors of society can cooperate with hospitals better, and be in well-coordinated with medical staff to deal with related issues in public health emergency events.**

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# Thank You !

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## FLOOD RELIEF (HEALTH RESPONSE) IN STATE OF KEDAH, MALAYSIA: 2010 EXPERIENCE

Dr Shareh Azizan Shareh Ali  
Principal Assistant Director  
Occupational & Environmental Health Unit  
Kedah State Health Department  
Ministry of Health Malaysia



## Outline of Presentation

- Introduction
- Health Response
- Challenges
- Areas of improvement



## Introduction

- State of Kedah is located at the Northern part of Peninsular Malaysia
- Consist of 11 districts
- Populations : 2 millions
- Economical activities : agricultural & industrial



## Introduction

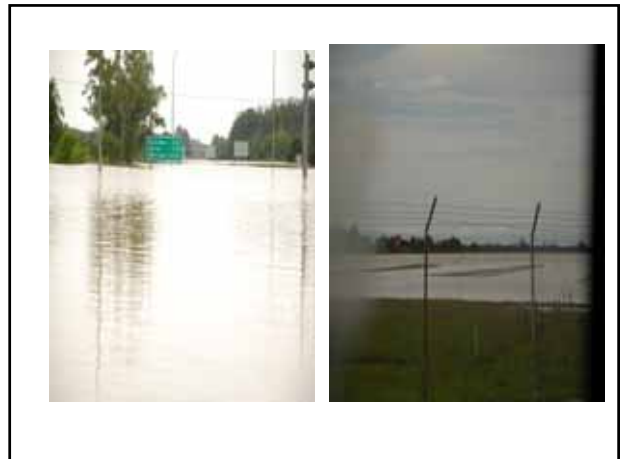
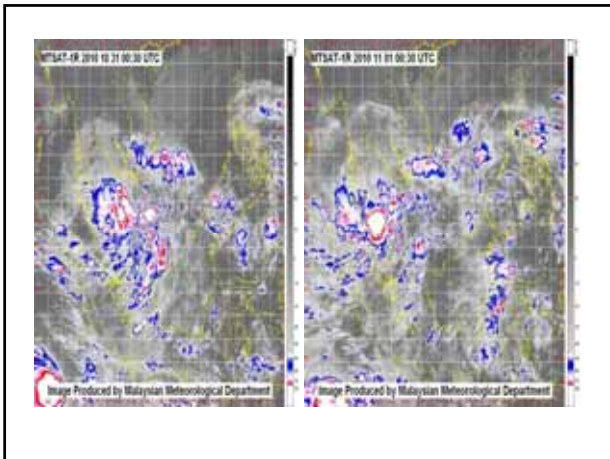
- Flood started on 31 October 2011 following heavy rainfall few days before (The rainfall amount for this heavy rain episode was more than the monthly mean rainfall for the months of October and November )
- 4 districts been affected
- 192 relief centers with 62,243 victims



## Introduction

- The floods affected transportation in and around Kedah and Perlis, shutting down rail and closing roads including the North-South Expressway
- Alor Setar's Sultan Abdul Halim Airport was also closed after its runway was flooded
- Water supply in certain areas were interrupted due to shut down of water treatment plant operation
- Health facilities also affected





### Health Response – during flood

- Assessment of relief center
  - Food safety & quality
  - Water supply
  - Sanitation
  - Vector control
- Medical assessment of the flood victim
- Medical surveillance of diseases related to flood
- Health promotion

### Health Response – after flood

- Assessment of flood area
  - Sanitation
  - Vector control
- Medical surveillance of diseases related to flood
- Health promotion



## Challenges

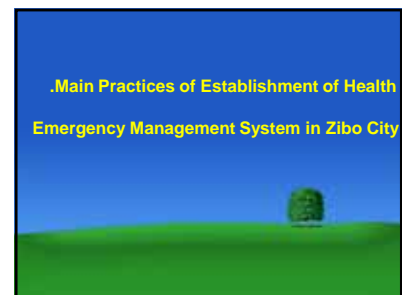
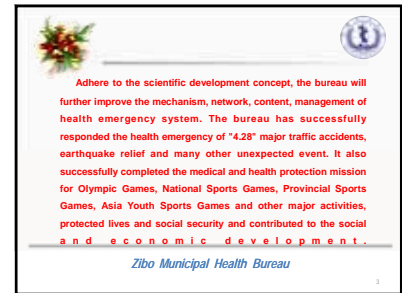
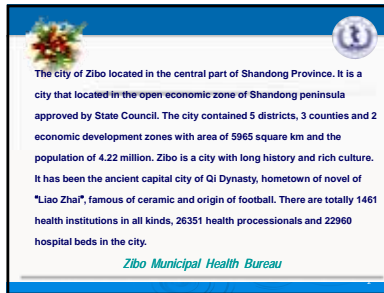
- Water supply interruption due to shut down of a water treatment plant
  - Affected areas : hospitals, health clinics, residential areas & evacuation centers
- Limited human resource
- Waste disposal
  - Source of vectors breeding
- Health service interruption

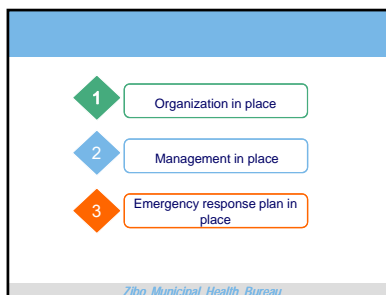
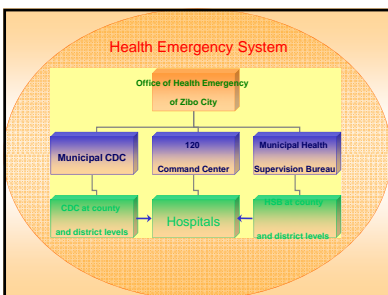
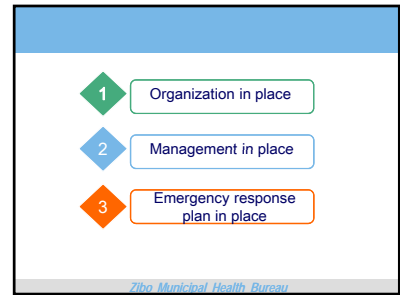
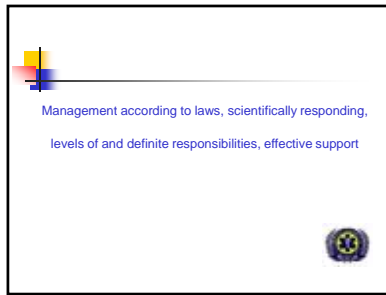
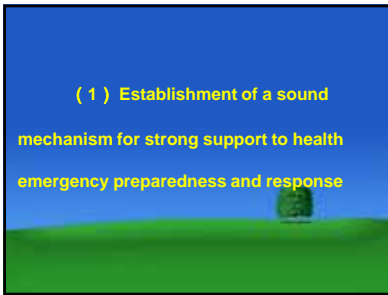


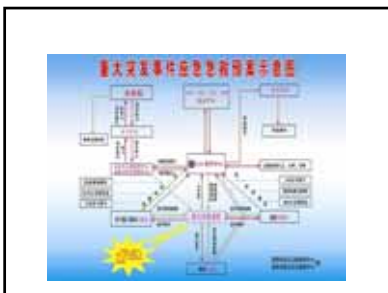
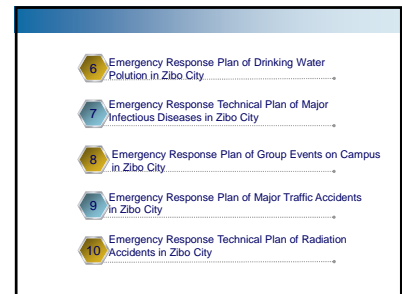
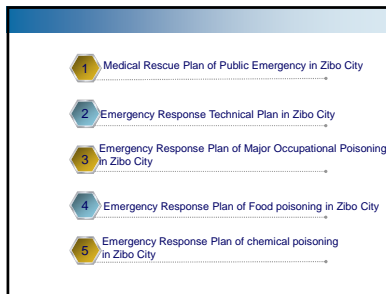
## Areas of improvement

- Early warning system
- Public empowerment on early and appropriate response
- Strengthening of multi-agency coordination & response

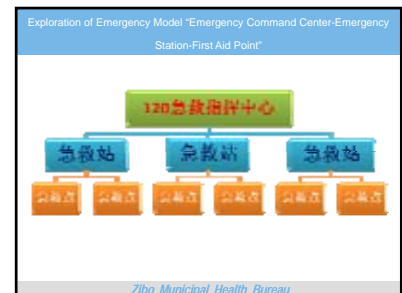






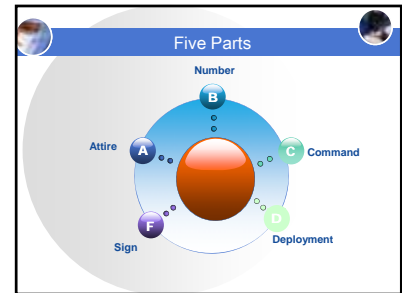


( ) Resources Integration, establishment of health emergency network across urban and rural areas



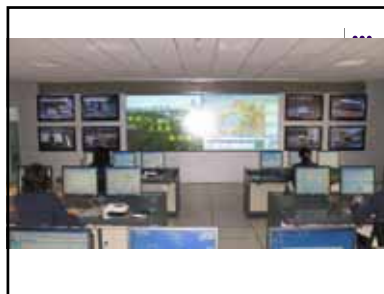
- 1 Establishment of unified medical aid network
- 2 Enhancement of coordination and linkage among different units
- 3 Improvement of communicable diseases early warning system
- 4 Training health emergency response professionals and establishment of expert database
- 5 Strengthening hardware levels of health emergency response

Medical emergency system covers one "120 emergency center", 36 emergency stations and 4 first aid point, including 90 ambulances, 998 medical emergency staff and more than 700 emergency equipments.



Alarm and rescue timely

This block contains three images: a computer monitor displaying a map with various markers, a white ambulance, and a medical professional in a blue uniform attending to a patient lying on a stretcher.

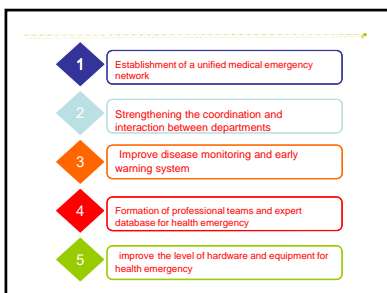
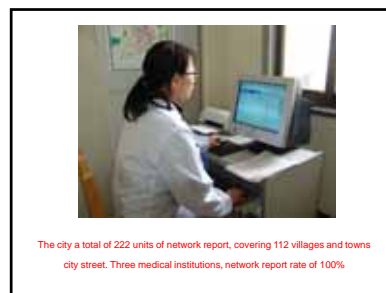
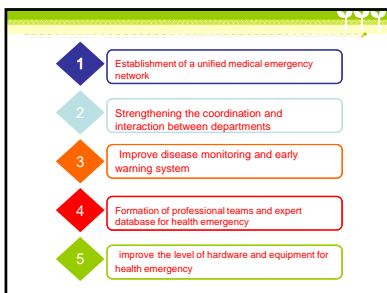
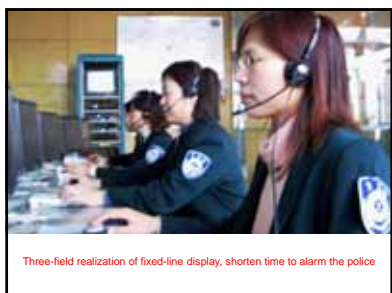
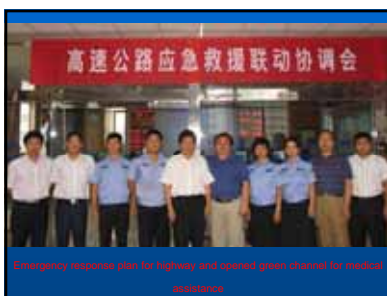


All-weather operation, the functions such as display the position, automatic recording, GPS location

This block shows a screenshot of a software interface. It features a map on the right side and various data fields and buttons on the left. The text below the screenshot describes the system's capabilities: 'All-weather operation, the functions such as display the position, automatic recording, GPS location'.

- 1 Establishment of a unified medical emergency network
- 2 Strengthening the coordination and interaction between departments
- 3 Improve disease monitoring and early warning system
- 4 Formation of professional teams and expert database for health emergency
- 5 Improve the level of hardware and equipment for health emergency



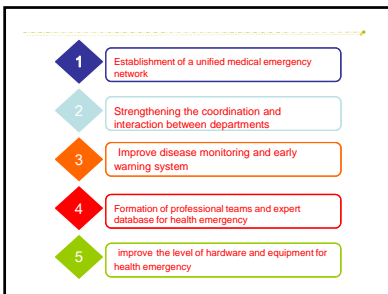




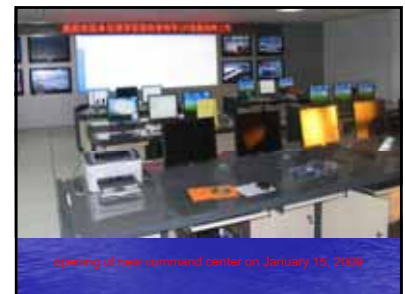
The city set up 18 emergency health task force



76 emergency health experts for more than 20 professions, including infectious diseases immunization, epidemiological survey, etc.



Investment of 21.6 million yuan for new high health emergency medical team construction center of 2,000 square meters



opening of new command center on January 13, 2010



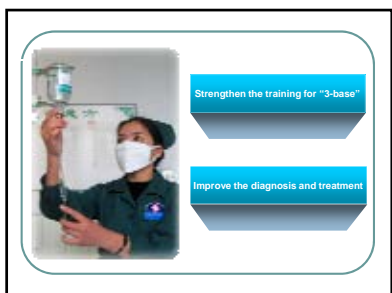
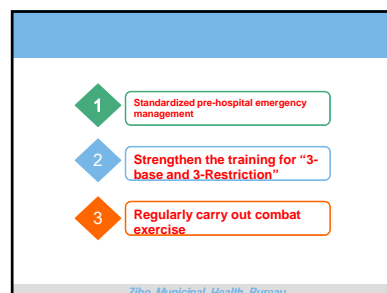
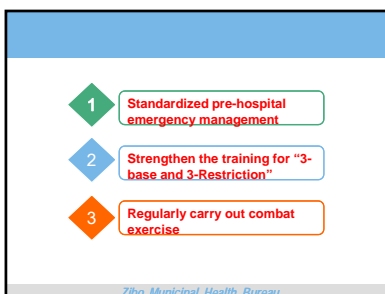
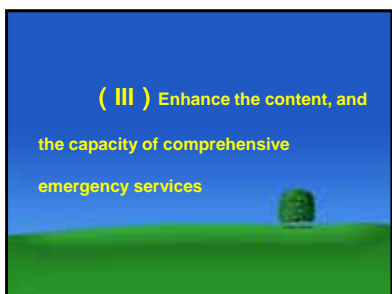
the location for help device, automatic recording, and GPS positioning



Strengthen the capacity of public health protection







- 1 Standardized pre-hospital emergency management
- 2 Strengthen the training for "3-base and 3-Restriction"
- 3 Regularly carry out combat exercise

Zibo Municipal Health Bureau



## II. Zibo city health emergency rescue success cases



At 4:41:03 on April 28,

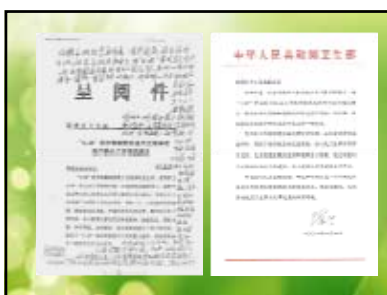


Vice Premier Zhang  
Dejiang, Shandong  
Provincial CPC  
Secretary Jiang Yong  
vice health minister Liu  
Qian visit accident  
casualties






Vice Premier Zhang Dejiang said: "The rescue work in Zibo is in the quick action and go all out, good coordination, ability to work with excellent staff and technology for the first time to rescue the wounded, and made important contributions"



**A letter sent to Zibo City Council from Health Minister Chen Zhu:**  
 "under the guidance of Shandong Health department, the Zibo health bureau has made extraordinary efforts to medical rescue of '4.28' accident, showed great character and follow the scientific attitude moved by the admiration. This is our emergency medicine and disaster medicine in the history of a song of victory. Your work has been highly recognized by vice Prime Minister and the Ministry of Health."

**(1) quick response, timely and effective mand and dispatch**

- ↕First, dispatch quickly
- ↕Second, scientific control
- ↕Third, place quickly

**(1) quick response, timely and effective command and dispatch**

- First, dispatch quickly
- Second, scientific control
- Third, place quickly

4:41:03: received a report, issued a scheduling order

4:41:03: received a report, issued a scheduling order  
 4:42:21: Now the police, ambulance dispatched

1 minute 18 seconds out of the time

4:41:03 Alarm

4:42:21 end of the police

( I ) quick response, timely and effective mand and dispatch

- First, dispatch quickly
- Second, scientific control
- Third, place quickly

4:41:03: received a report, issued a scheduling order  
 4:42:21: Now the police, ambulance dispatched  
 4:45:10: quick decisions, start emergency plans

Scheduling the city's 34 medical aid stations and 70 ambulances

( I ) quick response, timely and effective mand and dispatch

- First, dispatch quickly
- Second, scientific control
- Third, place quickly

4:41:03: received a report, issued a scheduling order  
 4:42:21: Now the police, ambulance dispatched  
 4:45:00: quick decisions, start emergency plans  
 5:17:07: front-line command, the command center set up

Prompt start of the emergency plan



Command was established on-site




132 ambulance trips out, rescuing more than 720 health care workers

( II ) Properly disposed of, on-site first aid in an orderly manner

- First, accurate and rigorous screening
- Second, the aid measures in place
- Third, rapid transit time

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( III ) Comprehensive and treatment, vital treatment guidelines Sciences

- First, the rapid rescue, consultation
- Second, the injury differentiation
- Third is an orderly organization transferred the wounded
- Fourth, timely psychological comfort

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**( IV ) System linkage, security system and  
ent operation**

- ◆First, a strong organization and leadership
- ◆Second, system linkage, and concerted efforts
- ◆Third, the smooth flow of information reporting, timely
- ◆Fourth, to actively assist with the rehabilitation work
- ◆Fifth, warm and considerate service

**Leading Group for medical treatment**



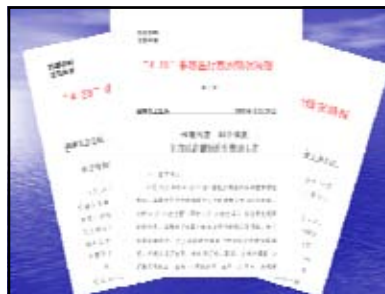
- Medical treatment group
- Epidemic prevention and supervision of the Working Group
- Integrated Information Working Group
- Logistical support of the Working Group

**( IV ) System linkage, security system and  
ent operation**

- ◆First, a strong organization and leadership
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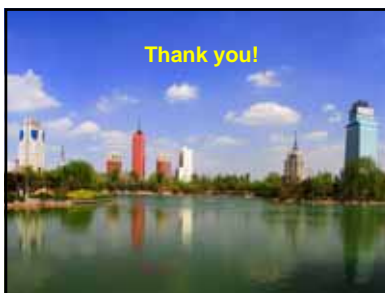
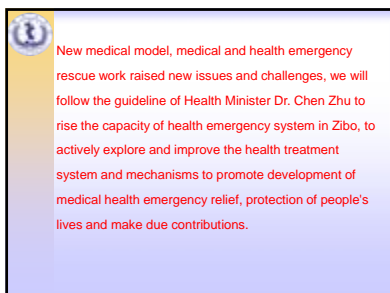
- With the wounded and to contact relatives of the deceased in a timely manner
- Accompanying family members to the hospital where the wounded
- Provide medical services to send funeral
- The wounded and the families of the victims thought to divert

**( IV ) System linkage, security system and  
ent operation**

- ◆First, a strong organization and leadership
- ◆Second, system linkage, and concerted efforts
- ◆Third, the smooth flow of information reporting, timely
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- ◆Fifth, warm and considerate service



To ensure the treatment, the treatment for each hospital to arrange one cadres for one wounded.



HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA

## Indonesia's Preparedness Plan Disaster Risk Reduction Programme for Health Sector Indonesia (DRR-PHS)

**Mr. Mudjiharto**  
Head of Crisis Center,  
MOH-Indonesia



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REPUBLIC OF INDONESIA

### PROFILE OF INDONESIA



- Over 230 million population
- World's largest Archipelago
- More than 17,000 islands
- 500 Rivers
- 200 Ethnic groups
- Indonesian language with 583 local dialects
- 33 province, 540 Districts and Municipalities
- 3 Time zones



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### The Geographic Nature of Indonesia



Indonesia located on moving tectonic Plates, Daily, average of 5 Earth quakes (> 5 RS) and Ring of Fire where 126 active volcanoes are located



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### Hazards



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REPUBLIC OF INDONESIA

### Major Lessons Learnt from Disasters from 2004 to 2010



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REPUBLIC OF INDONESIA

### Emergency and Disaster Incidence 2004-2010

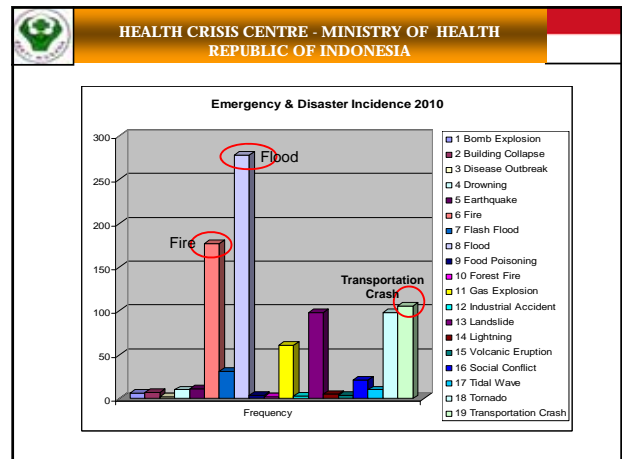
No	Year	Emergency & Disaster Incidence	Number of Provinces Affected	Number of Districts Affected	Death	Injured	IDP	Missing
1	2004	37	18	81	129,103	173,452	570,185	0
2	2005	45	21	40	96,985	12,591	80,611	407
3	2006	162	27	101	7,679	291,110	2,485,953	712
4	2007	205	28	156	642	355,336	870,708	507
5	2008	457	30	162	299	75,457	288,323	82
6	2009	415	30	493	310	11,974	215,896	133
7	2010	935	33	457	1,341	4,382	395,306	412
<b>TOTAL</b>		<b>2,256</b>	<b>187</b>	<b>1,490</b>	<b>236,359</b>	<b>929,283</b>	<b>4,941,096</b>	<b>2,271</b>



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### Emergency & Disaster Incidence During 2010

No	Type of Disaster	Frequency	Dead	Major Injury	Minor Injury	IDP	Missing
1	Bomb Explosion	6	3	6	0	0	0
2	Building Collapse	7	4	11	6	0	0
3	Disease Outbreak	2	5	190	0	0	0
4	Drowning	10	10	0	0	0	0
5	Earthquake	11	458	40	44	15,233	105
6	Fire	177	43	45	6	3,457	6
7	Flash Flood	31	147	190	553	4,611	140
8	Flood	278	57	81	752	29,914	23
9	Food Poisoning	4	21	6	115	0	0
10	Forest Fire	2	0	0	0	0	0
11	Gas Explosion	61	10	89	11	0	3
12	Industrial Accident	3	3	4	0	0	0
13	Landslide	98	115	56	43	618	33
14	Lightning	5	4	4	4	0	0
15	Volcanic Eruption	4	179	653	2	341,473	4
16	Social Conflict	21	28	252	121	0	3
17	Tidal Wave	10	20	0	0	0	19
18	Tornado	98	21	14	53	0	4
19	Transportation Crash	106	213	436	171	0	72
	<b>Total</b>	<b>934</b>	<b>1,341</b>	<b>2,077</b>	<b>1,881</b>	<b>395,306</b>	<b>412</b>



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REPUBLIC OF INDONESIA

### Damaged - HEALTH FACILITIES 2010

No	Health Facilities	Unit	Proportion
1	Health Offices	2 unit	0,1%
2	Pharmaceutical Instalation	-	-
3	Health Officials Houses	41 unit	2,4%
4	Hospital	7 unit	0,4%
5	Health Centers	30 unit	1,8%
6	Supporting Health Centers	92 unit	5,4%
7	Village Health Centers	61 unit	3,6%
8	Doctors and Nurses Mess	1 unit	0,1%
9	Clinics	1 unit	0,1%
<b>Environmental Health Facilities</b>			
10	Clean Water Source	707 unit	41,6%
11	Family Latrine	756 unit	44,5%
	<b>Total</b>	<b>1,698 unit</b>	<b>100%</b>

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REPUBLIC OF INDONESIA

### Challenges for Health Sector

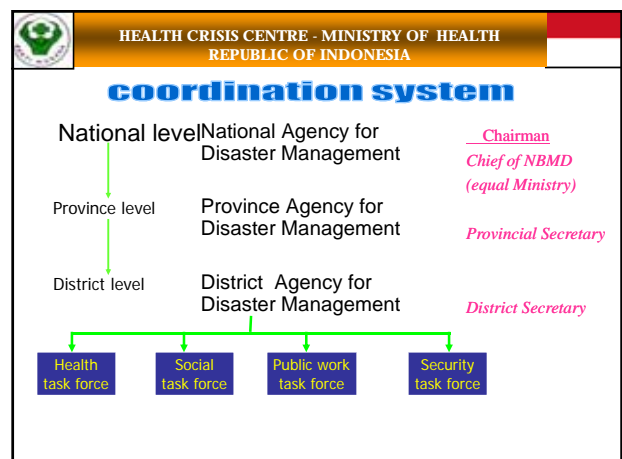
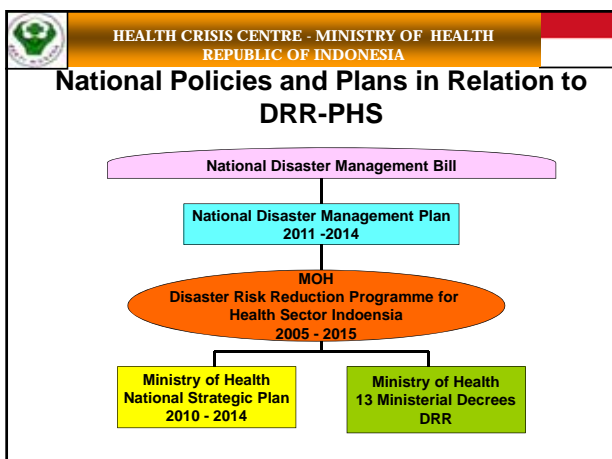
Death

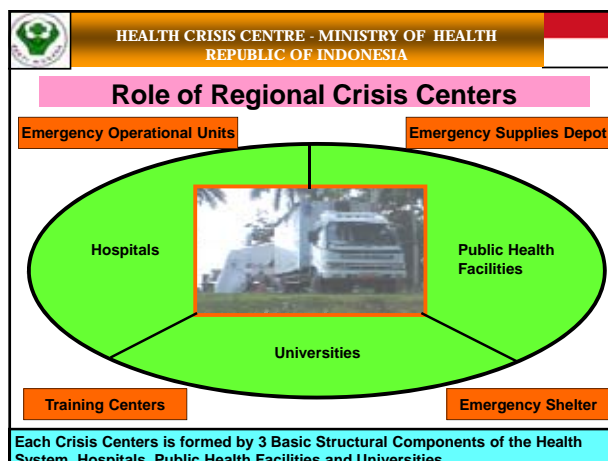
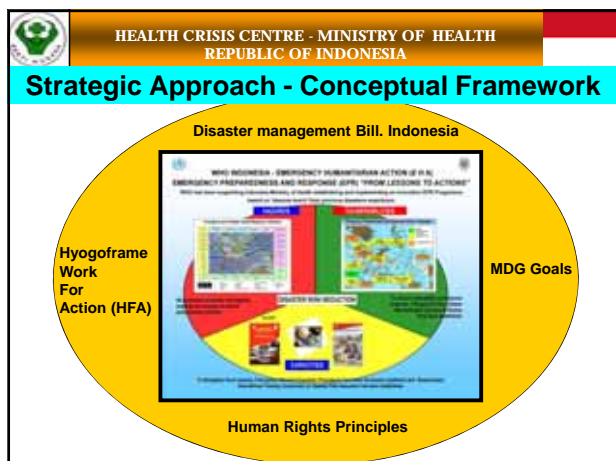
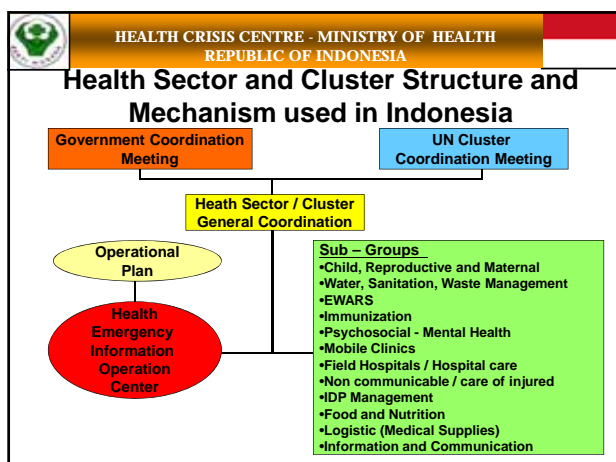
Injured and infected

Infrastructure / supplies

IDPs / Refuges

National Health Programmes / MDGs Effected





**HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA**

**Early warning** **Information**

**Health Crisis Center  
Control-Operation Unit  
MOH**

**Review, monitoring** **Coordination  
Resource Mobilization**

**HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA**

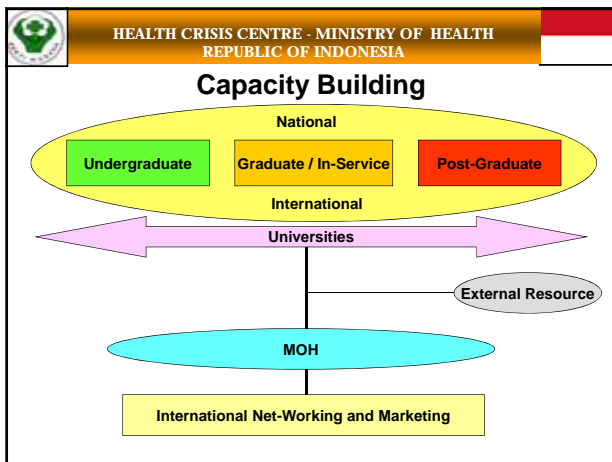
**Standard Operation Procedures (SOP),  
Guidelines and Training Materials and Aids**

**Supporting Guidelines**

1. Information and communication
2. Contingency planning
3. Assessment (Rapid / Health facilities / damage / recovery)
4. Field hospital
5. Recovery / rehabilitation / reconstruction phases management
6. Field operation
7. Health supplies
8. Health facilities preparedness
9. Early warning and rapid response (EWARS)
10. Emergencies and disaster management

Updated annually Since 2006

Supported by guidelines developed on specialized area of work



**HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA**

**ITC-DRR - Objective**

- Build capacity of professionals who are interested or involved in managing emergency and disasters to master their knowledge, skill and practice on Disaster Risk Reduction programme area of work and allowing to obtain PhD in their respected or interested specialized professional fields as integrated package.

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REPUBLIC OF INDONESIA**

**ITC-DRR – INTERNATIONAL TRAININGS**

CPR Communication Boat Rescue Media DVI - Bomb

ITC-DRR

1. Ministerial degree issued
2. Officially launched in September 2007
3. 1<sup>st</sup> International Training on Emergency and Disaster organized in November 2007
4. 2 Training of trainers courses organized in October 2007 and May 2008
5. 3 International Training Courses and 1 Study tour scheduled to organized in June, July, August and November 2008.
6. ITC-DRR training courses used interactive integrated participatory and skill base stimulatory circular modules.
7. It net-works with all institutes, universities, agencies around the world.

Vertical rescue Coordination Tele-Conference Field visit Fun-Joy

**HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA**

**International Emergency Health Services**

Mission to Myanmar Mission to China

Mission to Palestine Mission to Pakistan

HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA

DISASTER RISK REDUCTION PROGRAMME FOR HEALTH SECTOR  
Ministry of Health Republic of Indonesia  
Supported by WHO and Participating Agencies

HAZARDS	Disaster	Pre-disaster	Disaster	Post-disaster	Recovery	Rehabilitation
HAZARDS	Health services and systems	Disaster preparedness and response plans and training				
	Health services and systems	Disaster preparedness and response plans and training				
CAPACITIES	Health policies and regulations	Guidelines and standard operating procedures	Training materials and aids including ITC-DRR	Emergency disaster supplies and services	Multi-national training exercises, relations	Multi-national training exercises, relations
	Health policies and regulations	Guidelines and standard operating procedures	Training materials and aids including ITC-DRR	Emergency disaster supplies and services	Multi-national training exercises, relations	Multi-national training exercises, relations

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REPUBLIC OF INDONESIA

**WEBSITES & EMAIL**

www.ppk-depkas.org

Current

Upgrade

Regular email:  
[ppkdepkes@yahoo.com](mailto:ppkdepkes@yahoo.com)

ITC-DRR email:  
[itcdrr@gmail.com](mailto:itcdrr@gmail.com)

HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA



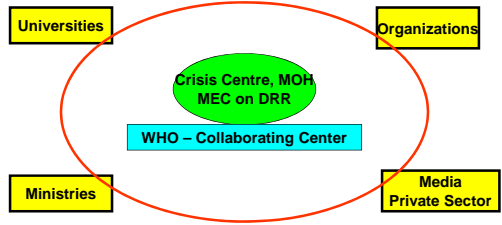
WHO COLLABORATING CENTRE  
FOR DISASTER RISK REDUCTION

**HEALTH CRISIS CENTRE- MINISTRY OF HEALTH  
WHO COLLABORATING CENTRE FOR  
DISASTER RISK REDUCTION  
ROAD MAP**

HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA

**Set up and Net-Working Nationally and Internationally**

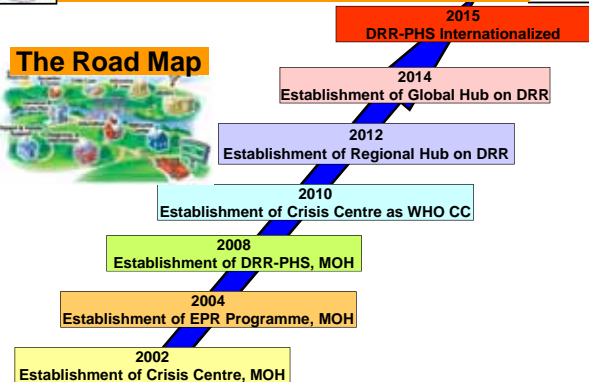
The MEC-DRR in its initial development phase will be located in the Crisis Center, MOH, and Indonesia.



The centre will have international relation activities as well as supporting for the ongoing training courses and e-learning capacity.

HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
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**The Road Map**



- 2015: DRR-PHS Internationalized
- 2014: Establishment of Global Hub on DRR
- 2012: Establishment of Regional Hub on DRR
- 2010: Establishment of Crisis Centre as WHO CC
- 2008: Establishment of DRR-PHS, MOH
- 2004: Establishment of EPR Programme, MOH
- 2002: Establishment of Crisis Centre, MOH

HEALTH CRISIS CENTRE - MINISTRY OF HEALTH  
REPUBLIC OF INDONESIA

**Terima Kasih**



**Thank You**


## 卫生应急与未知风险 Health Emergency and Unknown Risks

高忠明  
Zhongming Gao

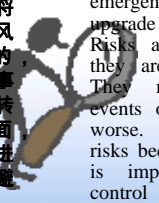
2011年5月21日  
21<sup>st</sup> May, 2011

湖北省卫生应急办公室  
Health Emergency Office of Hubei Province

- 随着全球气候异常变化和我国现代化建设发展全面提速，各种突发公共卫生事件风险在逐步增加，把握突发公共卫生事件风险的特点和规律，建立完备的风险预防控制机制，是有效应对突发公共卫生事件的前提和基础。
- Risks of public health emergency are increasing because of the abnormal change of global weather and the accelerated development of China's modernization. Understanding the features and rules of public health emergency risks and developing the risks prevention and control mechanism are the premise and foundation to efficiently response to and deal with the public health emergent events.



- 风险是突发事件或者是突发事件升级的“将来时”。在我们认识风险之前，它是未知的，但它有可能转化为事件或者可能使事件转化到更加不利的一面把未知变成已知，进而才能控制之、规避之。
- Risks are the future tense of emergent events or the upgrade of emergent events. Risks are unknown before they are identified by us. They may develop into events or make the events worse. Making unknown risks become identified ones is important to develop control and prevention strategies.



### 突发公共卫生事件风险无处不在

Risks of Public Health Emergent Events are Everywhere






### 卫生应急与突发事件风险

Health Emergency and Risks of Emergent Events

在中国，SARS的到来可以说是“各级政府危机管理的巨大助推器和转折点”。自此，我国卫生应急建设进入了史无前例的快速发展轨道！卫生应急的核心职能是突发公共卫生事件的应对和处置，预防为主，减少风险，是卫生应急的首要任务。

In china, the occurrence of SARS is the driving force and milestone of government Crisis Management. Since then, the development speed of Chinese Health Emergency is unprecedented fast. The health emergency system is response to the public health emergent events. The primary task of the emergency system is to prevent and respond to risks.



**要大力增强应对风险和突发事件的能力，经常性地做好应对风险和突发事件的思想准备、预案准备、机制准备和工作准备，坚持防患于未然。**  
—2003.7.28.

Improve the capacity to deal with risks and emergent events. Regularly do the mental preparation and the preparation of preplans, mechanism and work for the risks and emergent events. Work hard to prevent risks from developing into emergent events or causing unpredictable serious consequences.

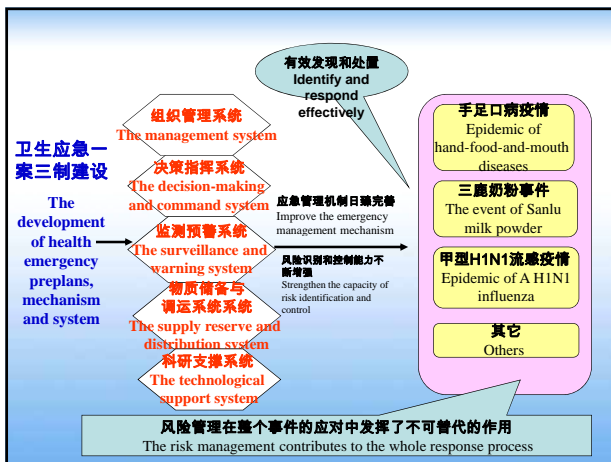


President Hu Jintao  
--- 28<sup>th</sup> July, 2003

2004年3月，十届人大二次会议审议通过的温家宝总理的《政府工作报告》明确提出：“各级政府要全面履行政府职能，在继续搞好经济调节、加强市场监管的同时，更加注重履行社会管理和公共服务职能。特别要加快建立健全各种突发事件应急机制，提高政府应对公共危机的能力”。




Prime minister, Wen Jiabao, indicated that ‘Governments at all levels must completely exercise the government functions. Government must more emphasize the implementation of the function of social management and public services while they work on economic adjustment and strengthen the market supervision. Especially, all kind of emergent events responding mechanisms should be built and improved in order to improve the government capacity to deal with crises.’ in his <Government Work Report>, which was adopted at the second session of the Tenth National People’s Congress, on March, 2004.




➤ 危险因素监测预警调查防范工作是有效预防和妥善处置各类突发公共事件的一项基础性工作。

➤ The surveillance, warning, investigation and prevention of risk factors are the foundation to prevent and deal with different public health emergent events.



➤ 建立科学而规范的风险管理体系，力争不发生，少发生事件，努力减少事件发生的几率，尽量减轻事件的破坏程度，是卫生应急当前和今后一个时期应当特别关注的重点。

➤ Developing a scientific and standardized risk management system is significant to prevent or decrease the occurrence of emergent events and reduce the damage of events. The development of risk management system should be given attention currently and in the next few years.



**突发公共卫生事件风险的客观性**  
The Objectivity of Risks in Public Health Emergent Events

## 风险在突发事件中的位置

### The Status of Risks in Emergent Event

- 风险一词，从广义上理解，可以定义为“某件事情预期后果估计的较为不利的一面”。突发事件整个过程，可分为事件前，事件中 and 事件后，各个阶段都存不同的风险，本文所要讨论的，主要指事件前的风险，是指突发公共卫生事件发生前的事实隐患。也就是说，如果任其发展，可能演变为事件。
- The risk can be generally defined as “the estimated disadvantaged aspect of expected consequence of the event”. The whole process of emergent event can be divided into three stages: before, during and after the event. Different risks exist in different stages. We are going to talking about the potential risks before the public health emergent event happens. These risks may develop into emergent event if there are no control strategies on them.

## 风险的范围和分类

### The Scope and Categorization of Risks

- 按事件性质划分：重大传染病疫情、群体性不明原因疾病、重大食物和职业中毒以及其他严重影响公众健康的事件风险。Based on the characteristics of the event, the risks can be categorized as major epidemic of infectious diseases, mass unidentified diseases, major food and occupational poisoning event, and other risks that seriously affect public health.
- 按控制目标划分：可确定和不可确定两类，等等。Based on the control purposes, the risks can be categorized as the certain one and un-certain one.
- 科学合理地划分突发公共卫生事件的范围和类别，可以针对不同对象采取不同的预防控制方式，达到化解风险的目的。Scientifically and reasonably determining the scope and categorization of public health emergent event is important to apply appropriate control and prevention strategies to different events. This will result in eliminating the risks.

## 突发公共卫生事件风险的特点

### The Features of Risks in Public Health Emergent Events

- 成因的多样性:各种烈性传染病，地震、洪涝等各种自然灾害；环境的污染、生态的破坏、交通的事故等事故灾害；社会安全事件（如生物恐怖等）；动物疫情；致病微生物、药品危险、食物中毒、职业危害等；公共卫生状况的恶化等。
- The variety of the causes: Infection diseases, natural disasters (such as earthquake, flood); the accident disasters (such as environment pollution, ecological damage, traffic accident); social security events (such as bio-terrorism); the epidemic of animal diseases; causative organisms, drugs, food poisoning, occupational damage; the deterioration of public health status.

## 突发公共卫生事件风险的特点

### The Features of Risks in Public Health Emergent Events

- 分布的差异性:在我们国家，南方北方，城市和农村，不同的地域、不同的时间段突发公共卫生事件发生的类别都存在不同的差异。不同的季节，传染病的发病率也会不同，南方和北方的传染病就不一样，此外还有人群分布差异等。
- The differences of the distribution: Public health emergent events are different between north and south area, between the city and the country, between different regions, between different times and between different population groups. The incidence rates of infection diseases are different among four seasons. The infectious diseases are different between north and south area.

## 突发公共卫生事件风险的特点

### The Features of Risks in Public Health Emergent Events

- 危害后果的隐蔽性和不可预见性:突发公共卫生事件的发生，往往有一个孕育过程，当达到一定条件时才演变为事件。在它开始酝酿阶段，往往不为人们所关注。
- The hidden and unpredictable features of the dangerous consequence: The occurrence of public health emergent events is a process. When the condition is ripe, the risks will develop into events. These risks cannot be realized at the incubation stage.

## 当前我们所面临的突发公共卫生事件风险

### Risks of Public Health Emergent Event that We Confront Currently

- 气候等自然生态环境变化带来的风险。
- Risks are caused by the weather change in the nature environment.
- 经济社会发展和人口流动日益频繁带来的风险。
- Risks are caused by the development of social economy and the increasing frequency of population mobility.
- 生态系统失衡，环境质量下降带来的风险。
- Risks are caused by the imbalance of ecological system and the deterioration of the environmental quality.
- 人类对资源需求的扩大，一些原本在动物间传播的动物疫病开始向人间传播，导致突发公共卫生事件风险发生。
- More resources are demanded by human being. Diseases that were transmitted among animals are transmitted to the population now. This increases the risks of public health emergent events.

### 当前我们所面临的突发公共卫生事件风险

#### Risks of Public Health Emergent Event that We

##### Confront Currently

- 经济发展不均衡、卫生状况和基础卫生设施差异带来的风险。
- Risks are caused by the imbalance of economic development, and the differences of health status and health infrastructures.
- 生活方式和饮食习惯不同带来的人畜共患病传播风险。
- Transmission risks of anthrozoosis are caused by the differences of life-style and eating-habit.

### 当前我们所面临的突发公共卫生事件风险

#### Risks of public health emergent event that we

##### confront currently

- 人类对传染病病原体的研究不断深入，生物安全管理漏洞对突发公共卫生事件风险发生和传播构成新的隐患。
- The research of epidemical pathogen is improved. The deficiency in bio-security management will become risks in public health emergent events and diseases transmission.
- 管理方式落后。一部分直接涉及人群身体健康和生命安全的企事业单位没有规范的管理手段，缺乏刚性措施，对风险视而不见。
- The management measures falls behind. There are no standardized management mechanisms in corporations or organizations that are related to public health and life security. These organizations do not have effective prevention and control strategies, and ignore the risks.

### 突发公共卫生事件风险管理的基本环节

#### The Basic Steps of Risk Management of Public

##### Health Emergent Events

- 风险识别：风险识别是确定何种风险可能会演变成事件，最重要的是量化不确定性的程度和每个风险可能造成损失的程度。
- Risk identification: Risk identification is identifying risks that may develop into events. Quantifying the degree of uncertainty and the possible lose of risks is the most important.
- 风险控制：我们认识到风险后，就应该采取相应措施来控制它。风险管理涉及的范围广，难度大，风险管理必须是系统的而不是零散的，不仅要有技术支撑，而且必须有强有力的政策保障，是一个功能完备的系统工程。
- Risk control: Strategies should be employed to control risks when they are identified. Risk management refers to a wide area and is a difficult subject. It must be built as a system. Technical support and powerful policy guaranty are necessary. Risk management is a systemic engineering with complete functions.

### 突发公共卫生事件风险管理的基本环节

#### The Basic Steps of Risk Management of Public

##### Health Emergent Events

- 规避风险：在既定目标不变的情况下，运用风险化解机制，从根本上消除特定的风险因素。要高度重视解决一些深层次的问题，比如社会体制、机制的问题，工作效能问题以及人群素质的问题，从加强抵御风险能力建设，从机制和能力上有效规避风险。
- Risk elimination: Risk elimination mechanism is applied to eliminate particular risk factors corresponding to the determined purpose. Deep-seated issues should be given extra attention to solve them, such as the issue of social system and mechanism, the issue of work efficiency, and the issue of population quality. The capacity of risk prevention and the development to system and mechanism are improved to eliminate risks.

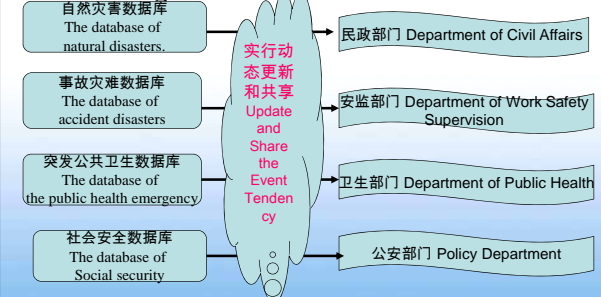
### 有效减少突发公共卫生事件风险的宏观思考

#### Macro-Consideration on Efficiently Reducing Risks of Public Health Emergent Events

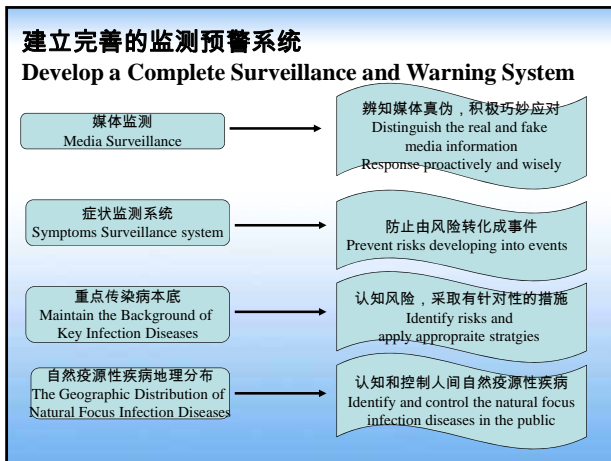
### 建立突发公共卫生事件风险隐患数据库

#### Develop a Database of Potential Risks of Public

##### Health Emergent Event







### 建立企事业单位强制性论证制度 Develop the Corporation's/Organization's Compulsive Demonstration Mechanism

凡是有突发公共卫生事件风险的企业均需制定“质量管理与质量保证”系列标准, 并通过强制论证。如药品生产和销售企业GMP、GSP论证。食品加工企业必须通过GMP、HACCP论证, 为防止医源性感染, 医院逐步引进国际上不同的论证标准, 如, JCI (国际医疗卫生机构认证联合委员会) 的医院认证, 实行论证管理。

Organizations with risks of public health emergent events must develop the standardization of 'quality management and quality guaranty' and pass the compulsive demonstration. For example, the corporations of pharmaceutical production and sales must past the GMP,GSP demonstration. The corporations of food production and processing must past the GMP, HACCP demonstration. Hospitals must apply different international demonstration standardization in order to prevent the nosocomial infections, such as the Hospital Demonstration by JCI (Joint Commission International).

### 建立科学的风险评估机制 Develop a Scientific Risk Evaluation Mechanism

- 建立层级风险评估制度。从省到乡镇, 都应建立突发公共卫生事件风险评估制度, 每年对本地区至少有一次评估, 并根据评估结果, 调整相应的应对措施。
- Develop a hierarchy evaluation system. The risk evaluation mechanism of public health emergent events should be developed from the province level to the town level. The evaluation should be done once a year in the area. The response strategies should be adjusted based on the result of the evaluation.
- 建立内部评估和外部评估制度。风险评估可以由政府及其部门内部组织进行, 还要建立外部评估制度, 以防止评估结果的偏差。
- Develop an internal and external evaluation system. Risk evaluation is conducted by the government and internal departments of the government. External evaluation mechanism should be developed in order to reduce the biases of the evaluation result.

### 建立科学的风险评估机制 Develop a Scientific Risk Evaluation Mechanism

- 建立定期风险评估制度。各级政府 and 部门制定突发公共卫生事件风险评估规定, 建立定期评估制度, 防止放任自由或评估流于形式。
- Develop a regular evaluation system. All different levels of government and departments must develop risk evaluation rules of public health emergent events and a regular evaluation mechanism. This will prevent the evaluation becoming formalism.
- 建立风险检查督办制度。对评估发现的问题, 要有反馈和整改机制, 确保风险的控制。
- Develop an examination and supervision system. A feedback and adjustment mechanism should be developed in order to effectively control the risks that are identified by the evaluation.

### 建立科学的风险评估机制 Develop a Scientific Risk Evaluation Mechanism

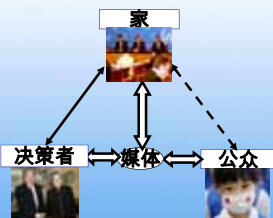
建立专项风险评估制度。各级政府及其部门还要建立不同行业和类别的风险评估制度, 增加风险应对的系统性。

Develop a risk evaluation system for particular subject. Different levels of government and departments must develop different risk evaluation systems for different industries and businesses.

- (1) 学校和托幼机构公共卫生风险评估制度。
- Public health risk evaluation system for schools and pre-schools.
- (2) 工矿企业公共卫生风险评估制度。
- Public health risk evaluation system for industries and mining corporations.

### 建立科学的风险评估机制 Develop a scientific risk evaluation mechanism

- (3) 重大工程公共卫生风险评估制度。  
Public health risk evaluation system for big projects.
- (4) 自然灾害公共卫生风险评估制度。  
Public health risk evaluation system for natural disasters.



### 建立不同的风险控制模板 Develop Different Models of Risk Control

- 建立一个尺度，以反映风险发生的可能性；  
Develop a scale to reflect the possibility of risks
- 描述风险的后果；  
Describe the consequence of risks
- 估算风险演变成事件的几率；  
Estimate the probability that risks may develop into event
- 标注风险预测的整体精确度；  
State the precision of the prediction of risks.
- 针对不同的风险等级，采取不同的控制方法，有效控制风险  
Apply different strategies to effectively control risks based on the level of risks.

### 完善风险控制保障措施 Complete the Risk Control and Guaranty Strategies

- 法律保障。中央政府制定各级政府突发公共卫生事件风险管理的规定，各级政府和部门制定相应的实施办法，形成风险管理的规范性文件体系。
- Legal guaranty. The central government develops regulations of public health emergent events management for different levels of government. These governments and departments will develop corresponding implementation measures. As a result, a official document system for the risk management is established.
- 规划保障。将风险评估的结果纳入各级国民经济和社会发展规划，统筹规划风险治理措施。
- Planning guaranty. The national economic and social development plans should consider the results of risk evaluation. Risk control strategies should be stated in these plans.

### 完善风险控制保障措施 Complete the Risk Control and Guaranty Strategies

- 经费保障。制定筹资政策，确保风险管理措施落实。
- Financial guaranty. Funding raising strategies are developed to ensure the implementation of risk management strategies.
- 纪律保障。对不履行风险管理职能的地区或单位，需承担相应的后果。
- Discipline guaranty. Regions or organizations that do not exercise the function of risk management will take the corresponding consequences.



## The preparation of the public health emergency staff and equipment

Zhuang Shen  
The public health emergency office  
Beijing center for disease control and prevention

## The preparation principle of emergency staff and equipment

The organization of public health emergency team has gain the eyes from the government and related departments, with increasing public health aids in China.

Kinds of emergency teams are organized over the administration areas mainland, with different staff numbers and equipments in the range of several to several hundred.

For example, in Wenchuan earthquake rescue, over 400 medical staff, 96 medical aid squads were assemble by health department of Sichuan province. So there are 4-5 people in a aid squad, with contrasting to the 85 people in a squad from China International Aid, mainly consisting of medical professionals from police hospital, and other scouring, earthquake mechanical specialists.

In the international level, the U.S.A is one of the nations most paying attention to medical aid organization, which require the capacities of emergency teams with beforehand organization, rational constitution, well equipment, high flexibility, the self-supply. Through scientific evaluation the headcount is 29 with mode assembly. Based on the requirement of 100,000 injured in big disaster, at least 150 special aid and transit medical units have been organized around the America. In German, there are 699 civil medical squads with 50 persons per squad and 28500 volunteer medical staff.

It is hard to standardize the staff numbers and equipment of public health emergency teams. So the effectives achieved in the public health emergency aids were different, which was the obstacle for the manipulation of health administration.

It is my pleasure to share the experiences of Beijing CDC public health emergency aids in SARS, Southeast Asia tsunami, Wenchuan earthquake, Flu H1N1 and public health supporting in 2008 Olympic, 60 years national celebrity.

## minimum work unit

According to the staff constitution, responsibility set-up, task objective and 7\*24 hr on-duty, the minimum work unit should be determined .



### longest working time

The longest working time should be verified according to working content and situation. The capacity of adaptive and psychological bearing are limited for emergency staff. So in the respect of physical strength and psychological bearing, the longest working time should be 14-16 days or so. The supporting supply should be under 14-16 days, the staff shift and recovery should be considered beyond the period.

### The largest task

The staff are allocated rationally in accordance with work content and process. The work units may be added and dispatched with the following supply. In this way, the limited human resource, supply would be used in the most degree, waste minimized.

### The most transportation capacity

Including the vehicle capacity and human convey out of the vehicle transportation

### The capacity and quality of health emergency staff

The comprehensive, professional, cool-head, coordinate. Wide and maybe not deep knowledge

The image of modern Ne-za ( a hero in ancient Chinese fairy tale) with three heads, six arms and eight legs is the description of public health emergency staffs' quality.

### The material and equipment of public health emergency team

## The species of material reserve

The material preparation and reserve are undergone in according to the task and responsibility.

### 1、modern information communication

Field emergency commander vehicle with Ku video satellite communication system and imarsat.



### 2、The vehicle with the function of field investigation and fast test



### 3、The vehicle with the function of environment washing and disinfection



### 4、The vehicle with the function of staff, material transportation and high risk sample carriage



### 5、The protection of staff



## material preparation and reserve quantity

The principle is the balance between enough-to-do and no-waste.

Evaluation and preparation according to route and objective, moreover, the local financial capacity.

## The manners of reserve

## material reserve

Not only the fundamental of public health emergency aids, but also the prompt response capacity.

## productive capacity reserve

Including technology, raw material, inventory and logistic speed.  
Need the evaluation of productive capacity and agreement with factory.

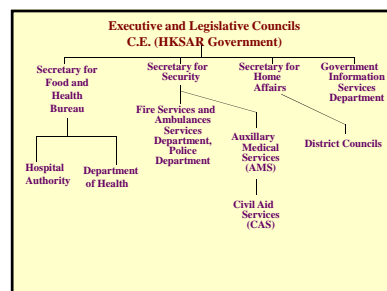
## Fund reserve

Fund preparation beforehand in case of emergency with consideration of price rising and policy changing.

Thank you for your attention!

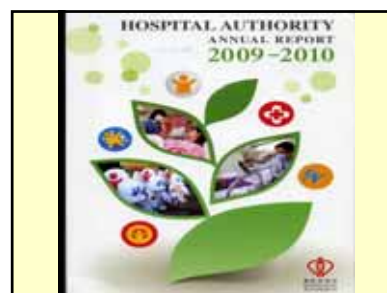
International Symposium of Health Emergency Preparedness and Response in Asia-Pacific Region  
 21-22, May 2011  
 Experience in Developing the Health Emergency System and Plan in Hong Kong, China  
 Nanning, Guangxi, China  
  
 Professor SH Lee Emeritus Professor of Community Medicine The Chinese University of Hong Kong

## Organization of the Health Emergency System and Plan in Hong Kong, China



### Function of the Key Departments in dealing with Health Emergency in Hong Kong

- (1) The Hospital Authority**
- Emergency Executive Committee
  - The Committee will come into action when the HA activates the Tier-Three Strategic Response to a major incident; such as the Human Swine Influenza pandemic (2009):
  - Serious Response Level (S2)
  - Emergency Response Level (E1)
  - Emergency Response Level (E2)

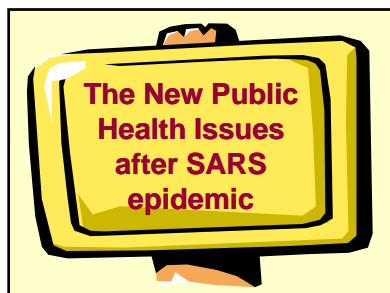
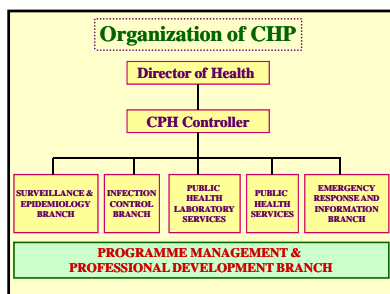


**(2) The Department of Health**



### The Emergency Response System to Infectious Diseases

- Function of Centre for Health Protection**
- Public health surveillance
  - Investigative capacity in communicable disease and environmental epidemiology
  - Analytical capacity in information technology, data management, and system development
  - Training
  - Surge capacity
  - Health education and evaluation
  - Applied research



**The New Public Health Issues after the SARS epidemic**

- Problems of collaboration, coordination and communication – for the academic professional, the government and the community
- Preparedness of the community and the health care sector for emerging infectious diseases
- System re-alignments and structural changes to upgrade the readiness for infectious disease outbreak control

**The New Public Health Issues after the SARS epidemic**

- Improvement to infection control measures and facilities
- Enhancement in surge capacity and Information/data management as well as surveillance
- Research and training
- Public health education
- Clinic management and treatment protocol



**Future Direction**

- Take and “up-stream” approach to tackle the total determinants of health
- Strong commitment by government to support public health
- Strong emphasis to health promotion and disease prevention
- Promote community partnership

**Future Direction**

- Recognize the “new normals”
  - Local threat → global impact
  - Global threat → local impact
  - Health, economy, security consequence
  - World getting smaller



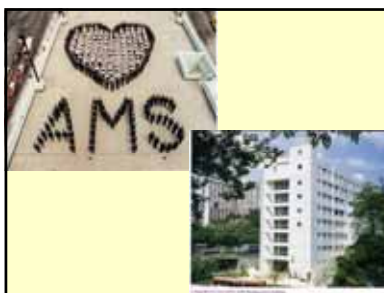


### Future Direction

- 4 "E"s
- Early detection
- Early response
- Early communication
- Early action
- Efficient integration

### (3) Other Supporting Departments and Agency

- The Auxiliary Medical Services (AMS)
- The Civil Aid Services (CAS)
- Fire Services and Ambulances Services Department
- Police Department



### (4) The Non-government Organization

- The Hong Kong Red Cross
- The Academies Institution and Professional Association
- The International Agencies
- e.g. M.S.F. 無國界醫生

### Public Health Problems after Tsunami Disasters

### Economic, Social and Public Health Impacts of Natural Disasters

#### Short-term effects

- Loss of human life
- Loss of private property
- Destruction of private and social capital
- Loss of jobs and livelihoods
- Destruction of physical and social infrastructure
- Damage to the environment
- Disruption of public administration

Source: International Conference on Issues Relating to Disaster Management: Challenges for Governance Reform in Asia, March 2005





**Medium-term impacts**

- Overcrowding
- Inadequate water and sanitation
- Poor environmental hygiene
- Disease outbreaks especially among more vulnerable groups
- Loss of household income
- Hunger and malnutrition, especially among children

**Medium-term impacts**

- Low birth weight babies being born to pregnant women
- School-aged children dropping out of school
- Difficulty of managing and distributing disaster relief
- Difficulty in undertaking long-term reconstruction due to disruption of public administration



**Long-term effects**

- Hunger and malnutrition
- Low birth weight
- Increased risk of death in infancy and childhood
- Schooling disruptions

(above adverse effects can last into adulthood)

**Long-term effect**

- Permanent damages to the environment
- Loss of independence for sub-national administration units due to disruption of public administration



**Critical gaps in Disaster Management and Future Governance**

Lessons learnt from the past:

- The system has to be very responsive and efficient in normal times. Only then, would administration be able to respond during and after disasters to carry out restoration work

**Critical gaps in Disaster Management and Future Governance**

- In disaster prone countries, there needs to be a very strong and standalone communication system and an effective information dissemination and warning system (The recent 2004 Tsunami exposed inadequacy in this regard)

**Critical gaps in Disaster Management and Future Governance**

- Availability of well-trained personnel at the grass root level at a very short notice is a prerequisite in disaster management
- Heavy dependency on distant response mechanism has led to significant deaths and damages to property

**Critical gaps in Disaster Management and Future Governance**

- Need for detailed and transparent policy documentation, outlining the response mechanism, relief and rehabilitation packages.
- Collective global efforts needed for disaster mitigation
- Environmental care and poverty reduction would directly mitigate disasters.

**Future Direction**

- New areas of importance to disaster risk management including chemical, biological and radio-nuclear risks
- The terms "risk management", "risk reduction", "vulnerability reduction", "capacity building" and "mitigation" began replacing the term "disaster management"

**Future Direction**

- Making pro-active disaster risk management in Asia part of the development agenda
- Goal is to shift from short-term, reactive, charity-driven response to long-term, proactive, developmental initiatives



**The Governance Issues in Disaster Relief: Lessons from the Tsunami Disaster**

- The civil society, military, governments and NGOs of foreign countries have played a vital role in the reconstructing and rebuilding phase



**The Governance Issues in Disaster Relief: Lessons from the Tsunami Disaster**

- Problems identified:
  - How funds and various kinds of donations have been accumulated and distributed
  - Coordination between government agencies, between government and non-government organizations, and between the government of the affected countries and government of foreign countries.

**The Governance Issues in Disaster Relief: Lessons from the Tsunami Disaster**

- The governance issues on the distribution of funds and various kinds of donations
- The failure of governments of affected countries in outlining what will and will not be acceptable aid

**The Governance Issues in Disaster Relief: Lessons from the Tsunami Disaster**

- Standard Operating Procedure (SOP) to improve coordination
  - Acceptance of non-related and deliveries should be withheld until an international assessment mission has been completed
  - For bi-lateral and multi-lateral governmental donors, they should speak to each other first before making their own arrangements

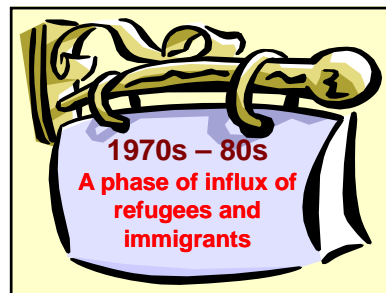
**The Governance Issues in Disaster Relief: Lessons from the Tsunami Disaster**

- For NGOs and other non-state actions, there should be renewed efforts and cooperation before sending aid and personnel

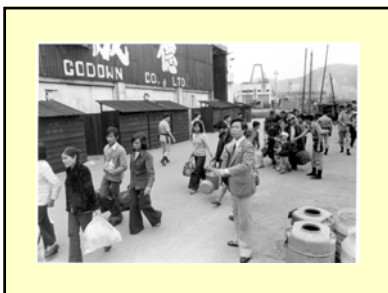


**Role of Civil Society in Hong Kong in Disaster Management**

- Hong Kong people donated generously after the Tsunami Disaster
- The relief came from many NGOs, schools, clubs, companies, churches and temples, etc
- The Auxiliary Medical Service (AMS) in Hong Kong had sent a total of 25 members to join the Hong Kong Support Team to Phuket in Thailand to provide care to the Hong Kong residents affected by the disaster



**Influx of Vietnamese Refugees (1970s)**



The Green Island, Kennedy Town  
Quarantine of Vietnamese Refugees on a



Inspection of Refugees Camps



Inspection of Refugees  
Camps



Inspection of Refugees  
Camps



Sichuan  
Earthquake, China  
2008



一點關懷  
支持四川大地震  
救災行動



李惠誠基金會與中環聯合作  
免費為斷肢災民配義肢



**Research & Training in Health  
Emergency Preparedness**

- The CERT-CUHK – Oxford University
- Centre for Disasters and Humanitarian Response (CCOU)
- 災害與人類救援研究所









**Public Health Humanitarian Initiative**

**PUBLIC SEMINAR SERIES**  
**Disaster Case Study Project**  
**The Forgotten Fire and related disasters: Relief and needs assessment in the Kingdom of Bhutan**

Date: 18<sup>th</sup> May 2011 (Wednesday)  
 Time: 13:00 - 14:00 (Light lunch will be served at 12:30)  
 Venue: Kai Chung Ting, G/F School of Public Health & Primary Care, Prince of Wales Hospital, Shatin, Hong Kong  
 Speakers: Prof. Emily Chan & Dr. Kevin Hung

**BACKGROUND**  
 This fire is ranked the most disaster prone region in the world in both natural and man-made disasters. Research and training in the Asia-Pacific region is limited. A better understanding of the epidemiological profile of diseases and the human health impact and economic, insurance, environmental, and religious the adverse human impacts in Bhutan.

The main objective of this project is to develop a case study of disaster medical and public health response in the region.

**OBJECTIVE**  
 In October 2010 there was a high fire in Bhutan which had a great human impact. In November 2010, the Public Health Humanitarian Initiative (PHHI) team members conducted a post disaster field assessment. The aim was to understand disaster preparedness and to document response in Bhutan.

**Speakers and Registration**  
 Please send your name and affiliation to register a place at the seminar by May 18<sup>th</sup> 2011.

Contact Person  
 Ms. James Roscoe  
 Centre Project Assistant  
 james.roscoe@gmail.com

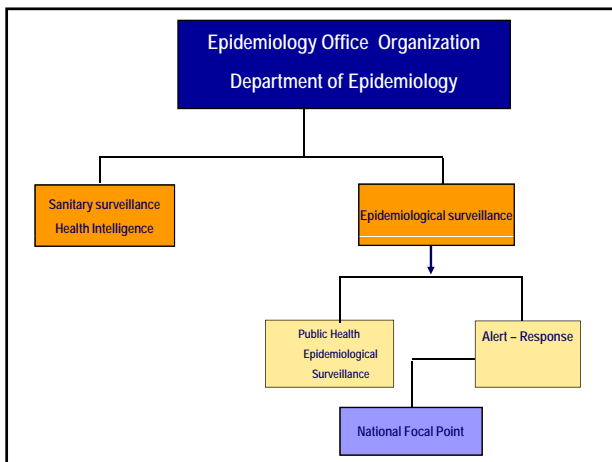
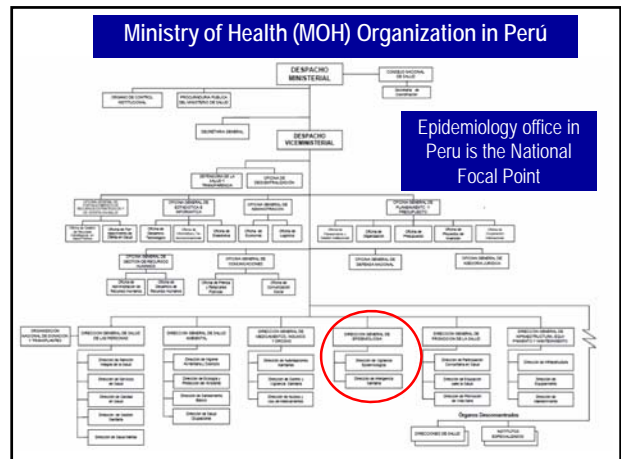


**THANK YOU**

## Department of Epidemiology

# National Focal Point for the International Health Regulations

Dr. Jeronimo Canahuiri Ayerbe  
Field Epidemiologist



### Ministerial Resolution: Setting of the National Focal Point, Perú

Legal Norm Setting

326634 Domingo 27 de agosto de 2006

**Crean el Centro Nacional de Enlace para el Reglamento Sanitario Internacional**

**RESOLUCIÓN MINISTERIAL N° 793-2006-MINSA**

Lima, 17 de agosto del 2006.

Visita el Expediente N° 06-00870-001, que contiene el Memorandum N° 1048-2006-DGDI-DIREVIGENCIA, cursado por la Dirección General de Epidemiología.

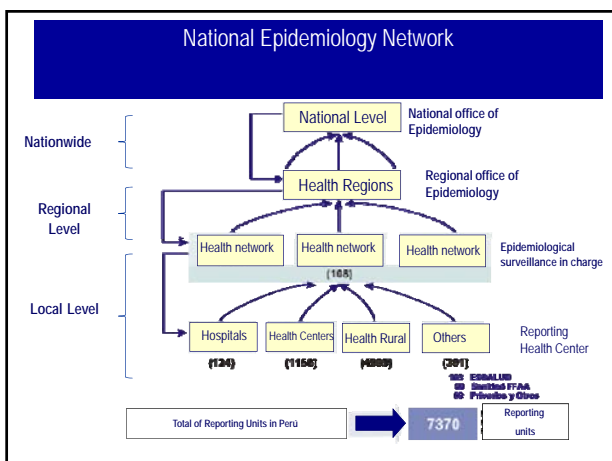
**CONSIDERANDO**

Que, la Ley General de Salud, Ley N° 26542, establece que la autoridad sanitaria es responsable de la vigilancia y control sanitario de los hospitales, así como de todos los puntos sanitarios, aerios, marítimos, lacustres o terrestres en el territorio nacional, así mismo dispone que los servicios de sanidad internacional se rigen por las disposiciones de más ley, sus reglamentos y las normas técnicas que emita la Autoridad de Salud de nivel nacional, del cual son los Estados y comités internacionales en los que el Perú es parte;

Que, el Reglamento Sanitario Internacional (RSI), aprobado durante la realización de la 30ª Asamblea Mundial de la Salud, el 25 de mayo del 2005, tiene por finalidad contrarrestar la máxima seguridad contra la propagación internacional de enfermedades, con el propósito de evitar el comercio internacional de bienes, personas y animales, así como el tránsito de mercancías, para hacer frente a las emergencias de salud de repercusión internacional y controlar mejor la propagación de epidemias de un país a otro garantizando una respuesta rápida de los sistemas de salud ante la eventualidad de brotes epidémicos.

DIPLOMADO EN SALUD PÚBLICA  
MAGISTER EN SALUD PÚBLICA  
MAGISTER EN EPIDEMIOLOGÍA Y SALUD COMUNITARIA

RM N° 793- 2006/ MINISTRY OF HEALTH (17/08/06)



### Communication Systems

- Data display
- Mobiles phones (Palm Treo)
- Internet
- Telephone access (X-Lite)
- Videoconference (Live-meeting).

➔ Nationwide


### Functions of National Focal Point



- Information Analysis
- Outbreaks and Sanitary Emergencies Detection.
- Media Surveillance

Human Resources Trained in Field Epidemiology constantly

- Assessment annex 2, RSI
- Verification of events
- Response coordination

### Teams of Nationwide Alert - Response

Detection of outbreaks /Epidemics (ESPII)



Media Surveillance

Outbreak Report by Web

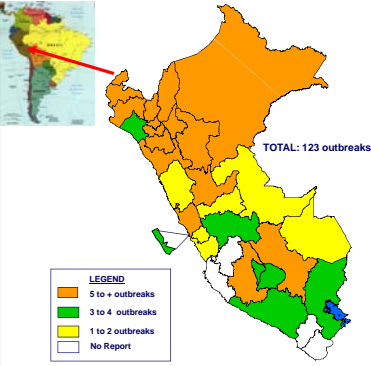
Notifying, Investigation and Control of Outbreaks

Assessment of risk and verification of events

Epidemiological Surveillance Post-disasters

### OUTBREAKS BY REGIONS IN PERU, JANUARY - DECEMBER, 2010



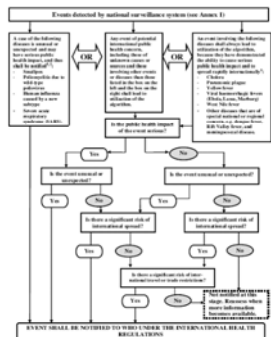
Regions	Outbreaks
PIURA	12
AYAUCUCHO	11
LORETO	10
HUANUCO	10
CUSCO	8
CAJAMARCA	8
LA LIBERTAD	7
TUMBES	6
SAN MARTIN	6
AMAZONAS	5
CALLAO	5
LIMA NORTE	4
JUNIN	4
PLUNO	3
PAISCO	3
LIMA CIUDAD	3
LAMBAYEQUE	3
AREQUIPA	3
APURIMAC	3
TACNA	2
MADRE DE DIOS	2
LIMA ESTE	2
LIMA SUR	1
ANCASH	1
YACHA	0
MOQUEGUA	0
ICA	0
HUANCAVELICA	0
<b>Total of outbreaks</b>	<b>123</b>

LEGEND


- 5 to + outbreaks
- 3 to 4 outbreaks
- 1 to 2 outbreaks
- No Report

### Risk assessment and verification of events


Annex 2  
DECISION INSTRUMENT FOR THE ASSESSMENT AND NOTIFICATION OF EVENTS THAT MAY CONSTITUTE A PUBLIC HEALTH EMERGENCY OF INTERNATIONAL CONCERN



Example: Unexplained deaths in China boat



Example: Imported Measles Case



### Rabies in indigenous communities





### Pneumonic and bubonic plague





### H1N1 Pandemic Influenza 2009-2010

Decisions Evidence Based

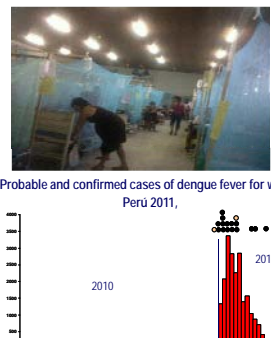


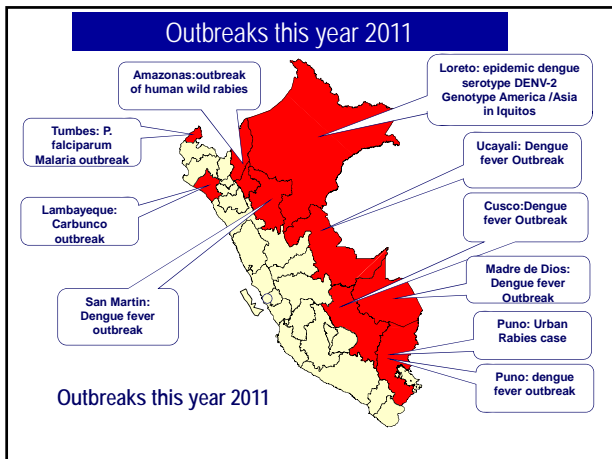
Quick Response



### Dengue in Region of Loreto 2010-2011

Probable and confirmed cases of dengue fever for weeks Peru 2011





### Epidemiologic Surveillance after Disasters in Peru

Manual para la Implementación de la Vigilancia Epidemiológica en Desastres  
2004

- Technical documents that guide how to organize and implement the epidemiological surveillance after disaster

### Epidemiological surveillance activities post-disaster

**Damage Assessment:**

- People affected, basic services, health and responsiveness
- Assessment of epidemic potential
- Monitoring implementation of tracers damage
- Implementing health "situation rooms"
- Immediate investigation of outbreaks and / or rumors
- Evaluation of health intervention measures.


#### Risk Assessment of Potential Epidemic diseases

#### Rapid Epidemiological Assessment

#### Implementation of epidemiological surveillance after disasters: Damage tracers

#### Establishment of the 'Situation Room' post-disaster





## Tondo Medical Center Preparedness and Response Plan "A Philippine National Hospital Experience"

**MYRNA T. RIVERA, MD, DTM&H, FPAFP, MHA**  
Medical Specialist III / Head, Emergency Department Services  
Health Emergency Management Staff (HEMS) Coordinator  
Tondo Medical Center  
Philippines


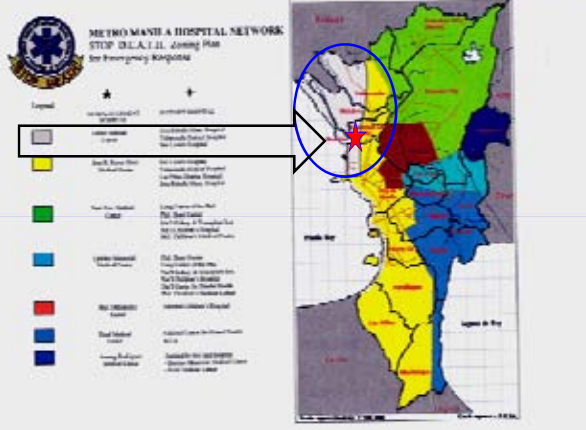
# Greetings from the Philippines!




**PHILIPPINES**


## Tondo Medical Center




- Department of Health Tertiary Teaching Training Hospital
- 200 beds (occupancy rate 85 %per day)
- Lead Hospital
  - a. Health Emergency Management Response Network and
  - b. National Blood Program covering Four ( 4) cities

**METRO MANILA HOSPITAL NETWORK**  
STEP 23.A.1.11. Zoning Plan for Emergency Response

## PHILIPPINE HAZARDS AND VULNERABILITIES



<p><b>Philippine Hazards and Vulnerabilities</b></p>	<p><b>Typhoon</b></p> 
	<p>Philippines is located along typhoon belt Light structured houses in the provinces Average of 22 typhoons occur in a year (7)</p>
<p><b>Volcanic Eruption</b></p> 	<p><b>Flood</b></p> 
<p>352 volcanoes, 22 of which are active, 27 are potentially active</p>	<p>Low lying areas; houses on river banks Denuded forest; illegal logging Poor waste management</p>

<p><b>Oil Spill</b></p> 	<p><b>Food Poisoning</b></p> 
<p>Weak shipping regulations No equipment for chemical emergencies Unclear "Clean up" policy</p>	<p>Low awareness of community on proper use and storage of pesticides No regulation on use of poisonous materials</p>
<p><b>Red Tide Phenomenon</b></p> 	<p><b>Trash-slide</b></p> 
<p>Pollution Shellfish from polluted waters Improper waste management</p>	<p>Presence of dumpsites in urban areas People insist residing in dumpsite areas Light material houses in dumpsite areas</p>

<p><b>Stampede</b></p> 	<p><b>Transport Accident</b></p> 
<p>Host of local and international events Large crowd for a small venue Unruly crowd, Lax security</p>	<p>Weak regulations in land transportation Weak aviation regulations Weak maritime regulations</p>
<p><b>Fire</b></p> 	<p><b>Bombing &amp; Armed Conflict</b></p> 
<p>Illegal electrical connections Non-observance to "building code" Poor health education</p>	<p>Political instability Presence of insurgents/terrorists</p>

<p><b>Drought</b></p> 	<p><b>Tsunami</b></p> 
<p>Inadequate food source/supply No alternate source of water during El Nino. Large number of impoverished population.</p>	<p>Longest coastline Houses built along coastal areas Low level awareness on signs of tsunami</p>
<p><b>Earthquake</b></p> 	<p><b>Landslide</b></p> 
<p>Located along the Pacific Ring of Fire, on top of 2 tectonic plates (Eurasian &amp; Pacific) volcanic and earthquake generators; active faults and trenches.</p>	<p>Denuded forest Change in land-use patterns Environmental degradation</p>

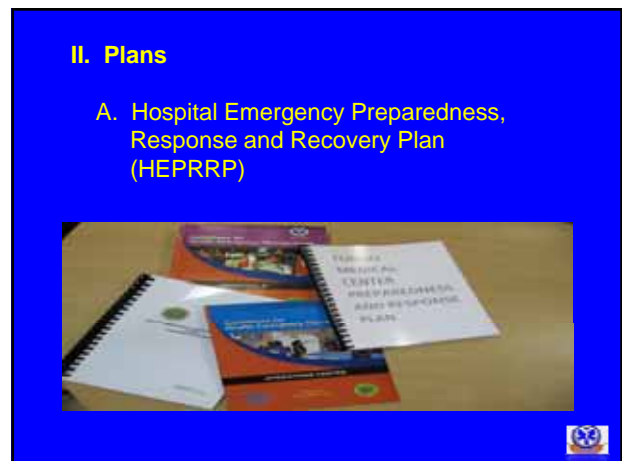
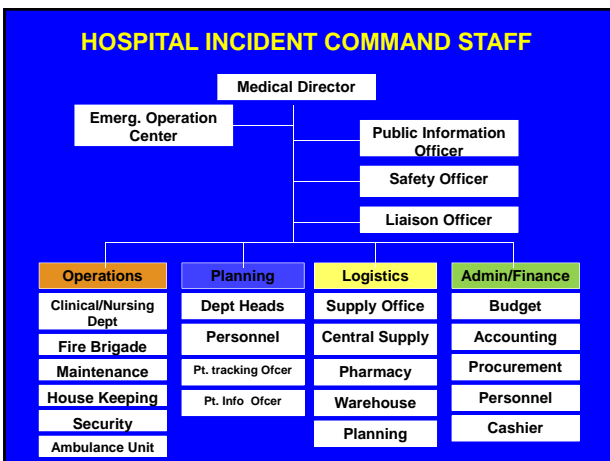
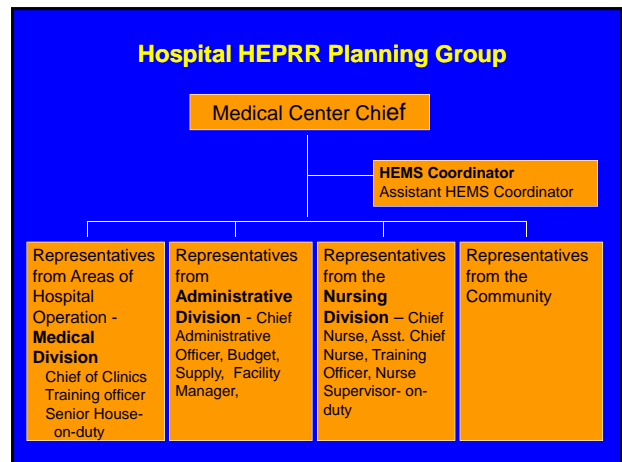
<p><b>Cherry Hill Tragedy</b></p> 	<p><b>Bombing Incident</b></p> 
<p><b>Payatas Trash-slide</b></p> 	<p><b>Armed Conflict in Mindanao</b></p> 

<p><b>Mass Casualty Incident</b></p> 
<ol style="list-style-type: none"> <li>1. Typhoon Megi "Juan"</li> <li>2. Mt. Mayon Eruption</li> <li>3. MV Princess of the Stars</li> <li>4. Earthquake of 1990</li> <li>5. Ultra Stampede "Wowowee"</li> <li>6. Laoag Aircraft Crash</li> <li>7. Mt. Pinatubo eruption in 1991</li> <li>8. Armed Conflict in Mindanao</li> <li>9. Rizal day bombing (Series of bombings)</li> <li>10. Landslide in Guinsaugon, Leyte</li> </ol>


# HOSPITAL PREPAREDNESS, RESPONSE & RECOVERY PLAN

- ## Framework for Health Emergency Management 10 P's
- I. Policy Formulation – policies, protocols, procedures and guidelines
  - II. Plans – HEPRR Plan
  - III. People - Capability Building
  - IV. Program Development
  - V. Physical Infrastructure Development (Facilities)
  - VI. Partnership Building – Networking
  - VII. Health Promotion and Advocacy
  - VIII. Practices
  - IX. Packages of Services
  - X. Peso and Logistics

- ## 10 "P"s
- ### I. Policy Formulation
- A. Institutionalization of Hospital Preparedness and Response Program
  - B. Organization
    - Crisis Management Committee Hospital
    - HEPRR Planning Committee
    - Hospital Incident Command Staff




- B. Identified Response Teams
  - \* In-hospital
  - \* Pre-hospital
- C. Systems Development
  - \* Early Warning and Alert System
  - \* Code Alert System



### III. People

- Human Resource Development (Training)
  - ✓ Basic Life Support (Basic and Training of Trainers)
  - ✓ Emergency Medical Technician (Basic and Training of Trainers)
  - ✓ Advanced Cardiac Life Support
  - ✓ Health Emergency Management (Basic)
  - ✓ Mass Casualty Management
  - ✓ Safe Hospital Training
  - ✓ Hospital Preparedness for Emergencies
  - ✓ Risk Communication Training




Risk Communication

Basic Life Support

### People cont.

- Personal Protective Equipments
- Health Insurance ( Phil Health)
- Meal Allowance during emergencies / disaster
- Others



### IV. Program Development

- Risk Reduction Program
- Environmental Sanitation Program
- Nutrition Program
- Occupational Health and Safety Program
- Voluntary Blood Donation Program and Networking
- Research





### V. Physical Infrastructure Development

- Emergency Department improvement and renovation :  
Triage area, Case Priority Treatment areas, Holding areas, Media Room, Decontamination area, Isolation room
- Establish HEM Office and Supply Room
- Set Up Operation Center



### VI. Partnership Building (Networking)



- Coordination meetings
- Planning meetings
- Multi sector drills and exercises
- Skills Benchmarking activities
- Multi sector Post-Incident Evaluation (PIE)
- Inter-agency referral system
- Memorandum of Agreement



### VII. Health Promotions

- Public Information at Out-Patient Department
- Information, Education, Communication (IEC) campaign
- Observance of National Events
  - ✓ National Disaster Consciousness Month Celebration (July)
  - ✓ Disaster Prevention Week (December)



### VIII. Practices

- Simulation exercises, Tabletop drills and Field Training Exercise
- Post-Incident Evaluation
- Post Mission Report
- Monitoring and Evaluation



### Simulation Exercise and Drills



### IX. Packages of Services

- Direct services: patient care
- Technical assistance
- Medical / Surgical / Dental services at Evacuation Centers
- Training Package



### X. Peso and Logistics

- Stock piling
  - ✓ Drugs and medicines
  - ✓ Medical supplies and equipment
- Sub-allotment from Department of Health
- Transport vehicles and ambulance
- Communication equipment
  - ✓ Base Radio
  - ✓ Mobile Base Radio ( Ambulance)
  - ✓ Handheld radio (2) with extra battery pack and charger
- Disaster Response Kit



### Issues and Concerns:

1. Retiring trained personnel
2. Need for training and retraining
3. Budget



### Challenges :

1. Rapid turn over of personnel
2. Expanding role of hospitals in health emergency management
3. Technological accidents
4. Terrorism
5. Funding



Hospitals play a very vital role in management of disasters since most victims would definitely arrive to seek medical attention.

The hospitals' main objective is to decrease mortality and morbidity, prevent disability and save infrastructure.

To be able to accomplish the above mentioned task, hospitals need to be prepared.



**Thank You  
and  
Mabuhay!**



## Fire Disaster

Case analysis and study of management on public emergence event preparedness and response in Chile




**Dr. Patricio CORTES PICAZO**  
 Chief SAMU Metropolitano Santiago de Chile (EMS)  
 Subsecretary of Health Network  
 Ministry of Health  
 2011

Case analysis and study of management on public emergence event preparedness and response in Chile


**Fire Disaster in Prison with 1,900 internals. Lessons Learned by SAMU in Medical Regulation of Scarce Resources at Health Emergency Network of, Prehospital Care, Patient Triage, Transportation, Casualty Distribution and Hospital- based Acute Care**

2011  
 SAMU Metropolitano Santiago de CHILE



## Contents

- Objective
- Background
- Method
- Results
- Discussion
- Conclusion



Ref.- Dra.Grove ,SAMU

## Purpose / Objective

- Analysis of management on public emergence event by Prehospital & Disaster Medical Centre [Medical Regulation Centre]
- Draw lessons from medical response to an event of Fire Mass Casualty Incident;
- Fortify the System

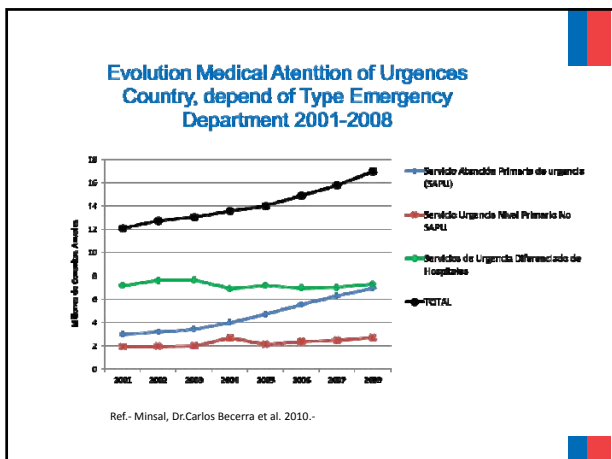


**Country/ Capital**  
 15 regions  
 3 Metropolitan Areas  
 Santiago : 7 million peoples  
 (641,4 km<sup>2</sup>)

## Background

- Country/ Capital
  - 15 regions/ Santiago of Chile
  - 7 million peoples (641,4 km<sup>2</sup>)
- System Health
  - Health Emergency Network
  - Nearly all hospitals had Preparedness Emergency Response Plans for MCI
  - Prehospital Care is command by SAMU
  - Transportation and Casualty Distribution is responsibility Emergency Prehospital Physician in SAMU
  - Hospital- based Acute Care





### Background

- Medical Regulation Centre SAMU
  - Is to avoid injury and death impacting on the mitigation DAYLIs (Dissability Adjusted Years Lost);
  - «Rigth time, righ patients, right place» ;
  - Control, Command & Coordination all resources of Health Emergency Network 24x7x365 days.

Gobierno de Chile | Ministerio del Interior

### Background

- INCIDENT
  - On December 8, 2010 at 6:12 AM, Fire Disaster Prison San Miguel;
  - 1,900 internals, with 466 patients;
  - 81 Dead;
  - 20 Critical Patients.

### Method

- Described the event : Disastrous Incidents Systematic Analysis Through-Components, Interactions and Results (DISAST-CIR) methodology


### Pre-Event Organization

- Health Emergency Network and Prehospital Care
- Medical Regulation Centre («Point of Contact»)
- Emergency Units
  - Ambulances ALS (16) and BLS (21) / Helicopters
  - Emergency Department Hospital ( 11 Adults & Pediatric)
  - Emergency Room Primary (> 100 SAPUs)
  - Privates Facilities
  - Hospital Speciality Care (i.e. Burn Centre HUAP)
- Organism Civilian Protection; ONEMI, Firefighters, Police.



### Hospital Status

	21Mar	21Apr	21May
Unusable	17	10	2
Recoverable	28	33	19



Ref. Dr.Luis Castillo, Minsal

### Bed Status



Critical Beds Lost: 297  
 Basic Beds Lost: 3.952  
 Total beds were lost: 4.249  
 Total surgical wards lost: 171

Ref. Dr.Luis Castillo, Minsal


### The Event

- Alarm of MCI is activated from Medical Regulation Centre
- All Hospital ; General & Burn Care received alarm
- Nearly all hospitals had preparedness emergency response plans for MCI
- Prehospital Care and Patient Triage is responsibility SAMU
- Transportation and Casualty Distribution
- Hospital- based Acute Care

### Post-Event

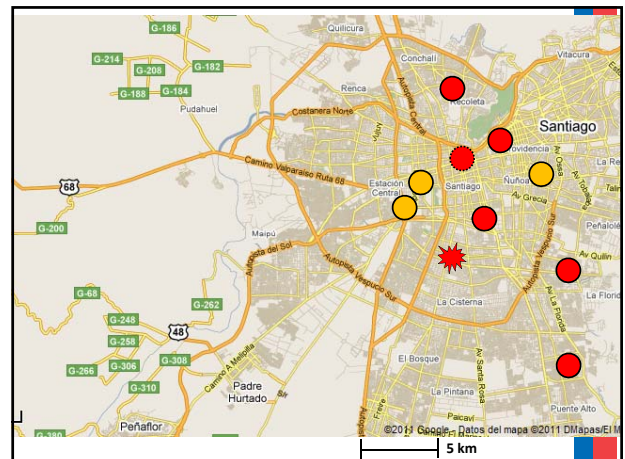
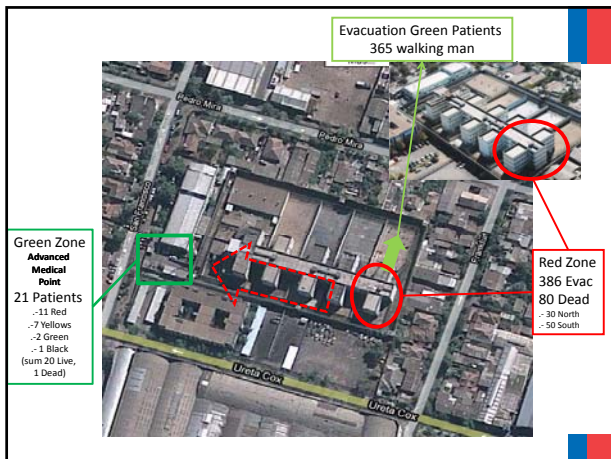
- SAMU Metro Headquarters
- Organizational levels
- Analysis SWOT
- DISAST-CIR

### Results



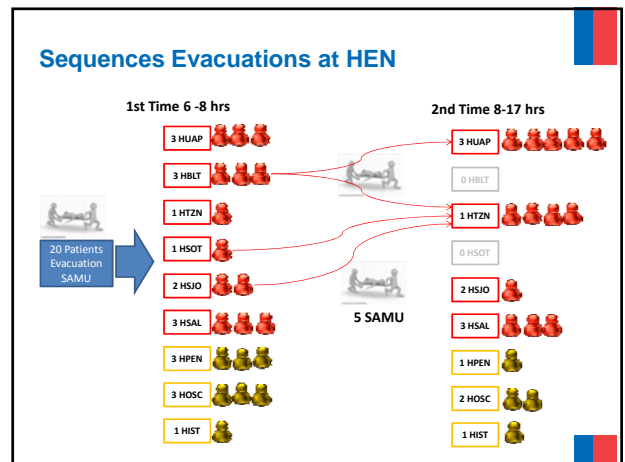
### Resources Health Emergency Network

Resources	Component
Medical Teams at Scene (SAMU)	<ul style="list-style-type: none"> <li>• 20 Ambulances (13 BLS y 7 ACLS),</li> <li>• 1 first responder vehicle,</li> <li>• 2 physicians (#),</li> <li>• 13 paramedics,</li> <li>• 12 reanimators, and</li> <li>• 20 drivers ambulances.</li> </ul>
Secondary Medical Institutions	<ul style="list-style-type: none"> <li>• 1 Hospital Speciality Burn Care (HUAP)</li> <li>• 5 General Hospitals</li> <li>• 2 SAMUs (V incluye 1 helicopter of alert and y VI Región)</li> <li>• 1 Army/Security Hospital with 1 UCI bed (*)</li> <li>• 6 Private Hospitals w 16 UCI beds(**)</li> <li>• 1 Team Helicopter of Police (Carabineros de Chile)</li> </ul>
Medical Command and Operations	<ul style="list-style-type: none"> <li>• 2 Physicians Regulators 24x24</li> <li>• 1 Chief Area Prehospital and Desaters Centre</li> <li>• 1 Nurse of Dispatch Centre</li> <li>• 5 Dispatch Emergency Personals</li> <li>• 1 Centre of Research Beds</li> <li>• 4 Health Authorities of Ministry (***)</li> </ul>



### Sequences of Mass Casualty Incident

Event	Time AM/PM	Time from Activation (minutes)
Activation EMS - SAMU	6:12	0
First Ambulance in situ (Advanced Life Support)	6:23	11
Alerts of Hospitals	6:30	18
Arrive first patient to Emergency Department (Hospital Barros Luco)	7:00	48
Last Evacuation from event	7:55	1:43
Evacuación Secundaria	8:00 a 16:00 hrs	
Identified of patients evacuated	10:00	3:48
Confirmation of identification	15:00	7:48



### Distribution Illness Patients

Hospital	Triage START SAMU/ Status Hospitalario				Recepción Evacuación Primaria	Recepción Secundaria (Nº Traslados 2dario SAMU)	Admisiones/ Operaciones
	Severo	Moderado	Leve	Total			
HUAP	3	0	0	3	3	2	5/0
HBLT	3	0	0	3	3	0	0/0
HTizné	1	0	0	1	1	3	4/0
HSotero del Rio	1	0	0	1	1	0	0/0
HSan Jose	2	0	0	2	2	0	1/0
HSalvador	1	2	0	3	3	0	3/0
HOSCAR	0	2	1	3	3	0	2/0
HPenitenciaro	0	2	1	3	3	0	1/0
IST	0	1	0	1	1	0	1/1
<b>TOTAL</b>	<b>11</b>	<b>7</b>	<b>2</b>	<b>20</b>	<b>20</b>	<b>5</b>	<b>17/1</b>

- ### Triage & Management
- Patients with indications of airway management : 11
    - Prehospital Arena ; 5 (45,4%)
    - E.R. and ICU; 6
  - Patients with indications of ICU bed; 13
  - Patients with management Hospital Bed; 4
  - Pts leaves Hospitals before 24 hrs; 3

## Types and Severity Injury

Type de Injury	N(%)
Inhalatory Injury	13
Thermal Injury	2
Skin Injury	2
Trauma soft	2
Ansiedad	2

## Discussion

- Lessons Learned
  - Fire Disasters was based only on principles
  - Adapt applying principles, SAMU & HE Network will be able to perform better task

## Discussion

- System / Health Emergency Network
  - Effective Coordination 3 Critical Areas of patient care
    - Prehospital Care
    - Casualty Distribution
    - Hospital Care
  - Medical Command

## Discussion

- Communication
  - Adequated coordination and communication between Prehospital Care – Medical Regulation Centre – Emergency Department
  - Back-up System
  - Disaster Location

## Discussion

- Access
  - Fire Disasters have impaired access



## Discussion

- TRIAGE and TREAT
  - Triage remains a major shortfall.
  - Medical Command have Classic Dilemma "Type Life Support v/s Rapid Evacuation"
  - Medical Command on-scene with permanent contact Medical Regulation Physician (First Ambulance ACLS *in situ*)
  - Treat Red Patients (required management airways with intubation endotracheal)

Multiple patients require airway management? Under hostile conditions, the use of personal protective equipment (PPE) may be necessary?

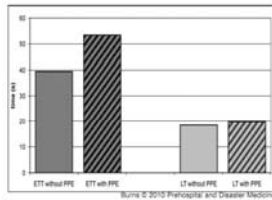


Figure 1—Comparison of mean time needed to place endotracheal tube and King LT supralaryngeal airway with and without protective equipment. Time for placement of LT was significantly shorter than ETT without PPE ( $p < 0.00005$ ) and with PPE ( $p < 0.00005$ ); ETT = endotracheal tube; LT = King LT; PPE = personal protective equipment)

Burns JB, Branson R, Barnes SL, Tsueli B: Emergency airway placement by EMS providers: Comparison between the King LT Supralaryngeal Airway and endotracheal intubation. *Prehosp Disaster Med* 2010;25(1):92–95.

### START Triage Algorithm

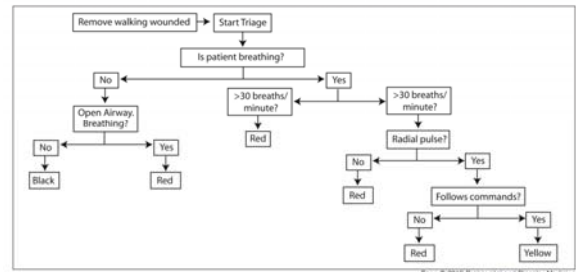


Figure 1—START Triage algorithm

### Discussion

- Staging and Identification of Key Areas
  - Triage and Evacuation Area
  - Medical Staff
  - Advanced Medical Point

### Discussion

- EVACUATION (*Hospital and Event Site Overload and Triage*)
  - Patient evacuation has been problematic within enclosed spaces

### Discussion

- EVACUATION (*Hospital and Event Site Overload and Triage*)
  - Is not had self-evacuate like others situations of difficult control;
  - “Walking wounded” were went to place inside prisons (365 internals);
  - Time of first ambulance ACLS in situ ( 11 min)

### Discussion

- EVACUATION (*Hospital and Event Site Overload and Triage*)
  - “Freelance” personnel created difficulties in burns disasters
  - It is not had *Disaster Tourists*
  - Lack of Personnel Experience
  - Treatment, resources and duration for burn injuries (Ej; 5 patients, 5xVVM, 5 ICU beds....)



## Discussion

- MEDICAL REGULATION ROLE
  - Staff Planning and Staff Roles, including Medical Command
  - Medical command was rapidly established in situ
  - Medical command was the receiving hospitals (Chief Shift)
  - Command Evacuation/ Distribution by Type of Injury: Medical Regulation Physician was know deficit ICU and Overcrowding ER



## Discussion

- SURGE CAPACITY
  - Has fallen short, «never enough»
  - ICU bed deficit (200 earthquaker)

## Discussion

- Patient Identification and Documentation
  - Many burn victims were severely charred
  - Prison people with different levels
  - Resources penals limited for go to each person
  - «An man is not a name»
  - ER were inundated with queries (Initial Updated 11:00)
  - Management of the mass media

## Discussion

- EDUCATION and TRAINING, more PREPARDNESS
  - Increased training Burn Experience
  - Emergency Management of Severe Burns and
  - Emergency Management of Severe Trauma, (others we are the Blasts, Bombs, and Bullets courses)
  - A standardized classification system: Region Burn Disaster Plan?

## Conclusion

- Fire Disasters are Technically Challenger
- The Criterial of Clinical Physician on the manage of a Network of oscillating behavior should be studied. (Medical Regulation Centre);
- Management of scarce resources should be included in the elements of prepardness and planning emergency.





Establishment and Deliberation of Public Health Emergency Response System in Guangxi, China

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Dr. Faqin Chen  
Health Department of Guangxi Zhuang Autonomous Region

2011.5.22

1

I. Situations of Public Health Emergencies in Guangxi

2

I. Situations of Public Health Emergencies in Guangxi

Guangxi, as a bridge to ASEAN countries, has frequent frontier trade and personnel exchange with ASEAN countries. Therefore, there is a high risk for all kinds of diseases to come to Guangxi through transport and other channels.

3

I. Situations of Public Health Emergencies in Guangxi

The specific geographical location and sub-tropical climate are suitable for the growth of pathogenic microorganism. Guangxi has all 39 infectious diseases that have reported in the national statutory report. Therefore, the main problem that Guangxi health emergency management faces is the public health emergencies based on infectious diseases.

4

II. Situation of Public Health Emergency Response System in Guangxi

5

II. Situation of Public Health Emergency Response System in Guangxi

- 1、 Health Emergency Response System has been gradually established in Guangxi  
By 2010, health administrative departments in regional, urban and rural levels have made clear the health emergency management departments, specific person has been assigned for the management.  
The regional health department has set up a provincial public health emergencies expert advisory committee and a bank of experts, meanwhile, it has set up 35 professional provincial health emergency response teams.

6

## II. Situation of Public Health Emergency Response System in Guangxi

### 2. The construction of health emergency decision-making mechanism

Since 2006, Health Department of Guangxi planned to build a public health emergency response and command information network and platform, and gradually established a unified, efficient, fast and accurate public health emergency response and command platform

7

## II. Situation of Public Health Emergency Response System in Guangxi

### 3. The construction of monitoring and early warning mechanism

To start a information management system of infectious diseases and public health emergencies which is based on case report of infectious disease, and to achieve the dynamic, real-time and network management.

8

## II. Situation of Public Health Emergency Response System in Guangxi

### 4. The construction of emergency security mechanism

In order to ensure the emergency supplies, health emergency medicine and health supplies catalog have been developed. Vaccine, detoxification drugs, rescue medicine, medical equipment and health emergency supplies has been reserved. Between 2008-2010, the value of good that regional, urban and rural health administration department reserved amounted to 24.501 million RMB.

9

## II. Situation of Public Health Emergency Response System in Guangxi

### 5. To develop the exercise and training for health emergency teams.

Between 2008-2010, regional, urban and rural health administration department have held 94 health emergency drills. The drills are mainly dominated by infectious diseases emergency response, which were 73 time, accounting for 77.6%.

Between 2008-2010, regional, urban and rural health administration department have held 259 health emergency training courses, covered 38476 people.

10

## II. Situation of Public Health Emergency Response System in Guangxi

### 6. Health emergency preparedness system has formed

Since 2003, in accordance with the requirement of the State Council guidelines for preparation plan, we have carried out the establishment of health emergency response system. By 2010, 2 special preplans, 7 department preplans and 22 individual preplans have been formulated.

11

## III. Study on the Establishment of Public Health Emergency Response System in Guangxi

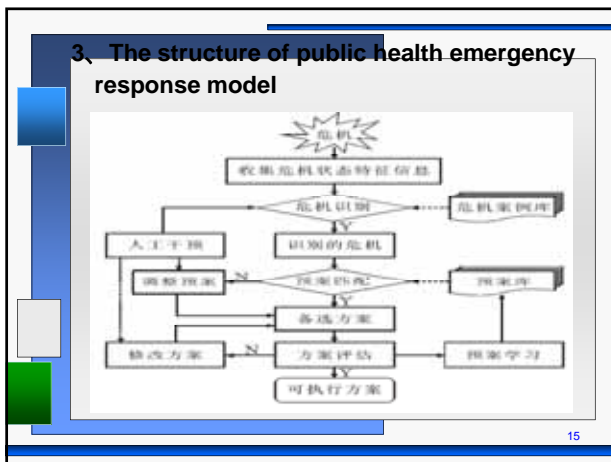
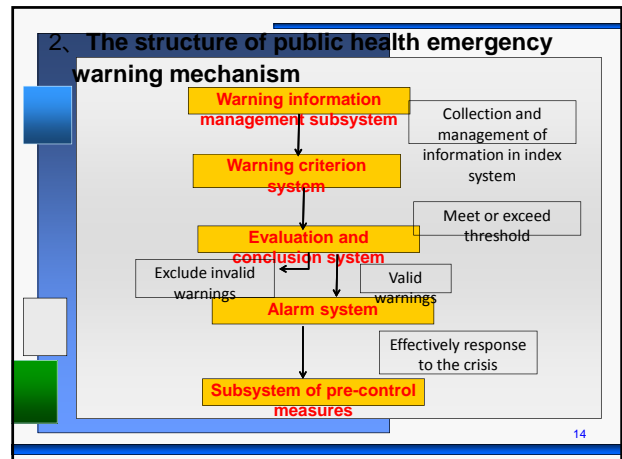
12

### III. Study on the Establishment of Public Health Emergency Response System in Guangxi

#### 1、 The construction of 7 support systems in Guangxi public health emergency response management

- (1) the construction of the authoritative and efficient public health emergency response command system
- (2) the construction of an accurate and efficient diseases information network system
- (3) the construction of a perfect diseases prevention and control system
- (4) the construction of a convenient emergency medical system
- (5) the improvement of health law enforcement and supervision system
- (6) the construction of a professional research and personnel training system
- (7) the improvement of public health emergency preplan system

13



### IV. The Practice of Construction of Public Health Emergency System in Guangxi

16

#### (I) The development and application of information management system of public health emergency in Guangxi (1)

The regional public health integrated information processing system is constructed on B/S (Browser/Server) structure based on the internet enables fast, efficient, unified information collection, data integration, data analysis and application, and gradually established intelligence analysis system, forecast and early warning system, information quality assessment and feedback system of infectious diseases.

17

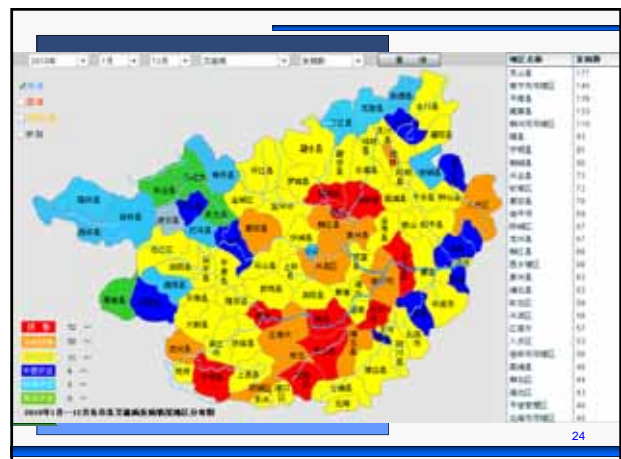
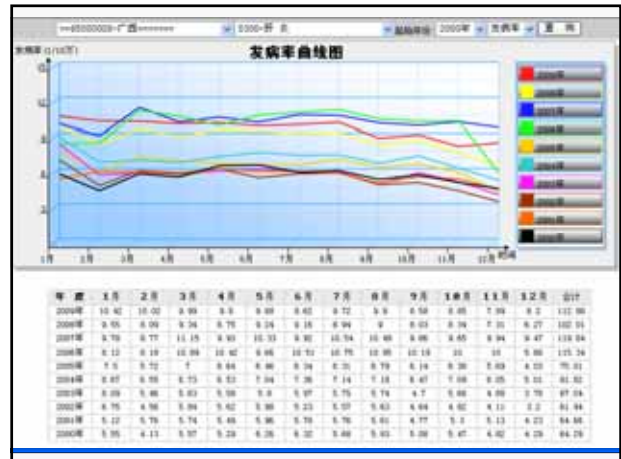
#### (1) The development and application of information management system of public health emergency in Guangxi (2)

1. finish the collection of infectious diseases information in Guangxi between 1989-2003 by counties, by year, by month and by diseases.
2. complete the technology interface development which can transfer data from national diseases information system and achieve transfer of data after 2004.

18

**(1) The development and application of information management system of public health emergency in Guangxi (3)**

3. Problems such as long response time, slow response of analysis and inquiry, and disunity of information sources in information prediction, forecasting and early warning have been solved after the establishment of a infectious diseases information analysis and inquiry system.



**(I) The development and application of information management system of public health emergency in Guangxi (4)**

4. establish a information analysis and inquiry system for fever patient in Guangxi, which is able to acquire patient's information through the network during the SARS outbreak, the highly pathogenic avian influenza, human infection with Streptococcus suis, hand-food-mouth disease and H1N1 influenza.

25

**(I) The development and application of information management system of public health emergency in Guangxi (5)**

5. Research, establish and operate a Guangxi CDC information exchange platform through the combination of internet and mobile phone text. This enables messages or documents can be sent to CDC in all levels in the region in 5 minutes, which highly improved the high-speed information exchange when necessary.

26

**(I) The development and application of information management system of public health emergency in Guangxi (6)**

6. research and develop Guangxi emergency reserved material information network reporting system. Data collection has finished through direct reporting from health organization in all levels and auditing by health administration in accordance with catalog of material supply reserves under the central government. Now, the application function of the system is under improved.

27

**(I) The development and application of information management system of public health emergency in Guangxi (7)**

7. Health emergency video conference system has been established, which achieves seamless video conferencing transferred to 14 health administration departments in prefecture-level city and major health emergency technical agencies. Staff in all levels have developed technical consultation, case studies, accept assignment and trainings for more than 20 times per year through the system. Abnormal situations in health, especially major outbreaks can get better joint consultation.

28

**(A) The development and application of information management system of public health emergency in Guangxi (8)**

8. Health emergency information collection wireless terminal system is under construction, which is to set up a terminal system that covers health emergency on-site teams in all levels through 3G network and B/S technology. The aim is to achieve data acquisition, image information, video information collection through terminal. And then, use the video system for information integration, to establish the rapid on-site information technology consultation mode.

29

**(A) The development and application of information management system of public health emergency in Guangxi (9)**

9. Guangxi health emergency vehicle system is under construction. Based on satellite network and mobile vehicle system, achieve the unity of scene, mobile command and fixed video system.

30

**(II) The practice in the construction of joint prevention and control mechanism**

**1. The construction of Nanning emergency response system platform**

**Nanning city emergency response system (CERS) is the first city emergency response system in our country.**



31

Through the establishment of the system to achieve "resource sharing, rapid response and joint action". In cases of emergency, special events, the emergency response center will become the command and control center for information collection and analysis.



32

**V. Experiences**

1. health emergency should involve multi-section linkage. Regulatory documents such as preplans, technical programs should be further improved.

2. informationization is the only way to improve health emergency efficiency and effectiveness.

33



34






- ❑ State Hospital and Tertiary Centre
- ❑ Total Hospital Information System
- ❑ Start operation 27/ 7/ 2011
- ❑ 812 Beds



- ❖ 6 Critical/Resus bed
- ❖ 16 Semi-Critical/ Yellow Zone bed
- ❖ 12 Observation bed
- ❖ 13 ambulances
- ❖ State Medical Emergency Call Centre
- ❖ 3 Emergency Physician with 172 Staffs
- ❖ Daily patient visit : 350 – 450/day

### EXPERIENCE IN DEVELOPING HOSPITAL EMERGENCY RESPONSE AND RECOVERY PLAN



**Let sharing.....**

### my experience .....

- ✓ 15 years of service
- ✓ 14 years in Emergency and Trauma Department
- ✓ 6 years - Emergency Physician
- ✓ 5 years - Head of Department and Service
- ✓ Working in 5 different hospital
- ✓ Establish 2 New Emergency Department in 2 new IT Hospital
- ✓ Establish Disaster plan for
  - Hospital Selayang (1998)
  - Hospital Sultanah Bahiyah (2007)

**Can the plan work ?**

## Established Disaster Plan – 2007 Hospital Sultanah Bahiyah

### > External Emergency Plan (Mass Casualty Incident)

### > Internal Emergency/Disaster Plan

- Flood
- Fire
- PABX failure
- Electrical failure
- Waste disposal failure
- Hospital information failure
- Fire
- Earthquake
- Bomb Threatened
- Medical gas
- Lift failure



## Emergency Response Plan for Flood

### Risk Assessment ....

- o Annual event ( Oct to Dis)
- o Major Flood - every 5 years
- o Risk mapping - location
- o More Health Division Response
  - Promote good hygiene
  - Ensure clean & safe water supply
  - Ensure good sanitary system
  - Avoid Food poisoning
  - Prevent communicable Disease
- o Less patient admit to hospital
- o Need to provide staff to health side
- o Safety place for equipment including servers of the systems

- Identify the Hazards
- Location/Map
- Equipment Supplies



### Prevention .....

1. This new hospital located at low risk area (not possible)
2. Make sure all the drainage system in a good maintenance

### Preparedness .....

1. Established Action Plan for Flood (12 pages)
2. Establishment of Flood Disaster Committee
3. Roles and Responsibilities of the committee
4. Identify the alternative location of the Emergency Dept, Radiology Dept, Pharmacy Counter and Hospital Registration if this area affected by flood
5. Establishment Operation Room
6. Identify to place the equipment at safe area
7. Pre-identified staff to help Health Division manage the disaster at side



Dynamic Process

Disaster continuum...



## WHAT WERE OUR PROBLEMS .....

Did our plan work/effective?



We need to evacuate patients ???



## PROBLEMS .....

1. 657 Staffs absent from work
  2. Ambulance Service affected – most of the road to hospital only can access by heavy transport
  3. Clean water supply were totally cut on 2/11/2010 due to submerge water pump at Bukit Pinang Station (Outside Hospital). This lead to .....
- a. Air-cond and chiller system failure. Cooling systems failed
  - b. All procedure and operation that required water cannot be performed
  - c. Diagnostic Equipment such as Chemistry Analyzer unable to function



## RESPONSES .....

1. Open the Operational room and activate the committee
2. Fetch staff using lorry (loan from other agency)
3. Provide shelter and food to staff and family (Nursing hostel, quarters, old hospital, on-call complex)
4. Leave was freeze



## RESPONSES .....

5. Coordinate ambulance service with other hospital, health clinic and other agency to response the call
6. Rented 4 lorries to replace Ambulance Service
7. Limit the usage of clean water
8. Rented 3 Private Tanker lorries to provide clean water to Hospital
9. All Elective surgery were cancel. Emergency Caesar and emergency Trauma only can proceed

4 /11/1010

Clean water supply for the whole Hospital totally cut off

## RESPONSES .....

- ❖ All Emergencies Surgery were withhold and referred to Hospital Sultan Abdul Halim
- ❖ Only Emergency LSCS done at OT Emergency Department
- ❖ Hemodialisis services closed and 5 patients were referred to Hospital Kuala Nerang and one each to Hospital Sik and Hospital Sultan Abdul Halim
- ❖ Request assistant from State Government
- ❖ Outsources important urgent blood investigation



The only road access to hospital



5/11/2010 at 3.00 am

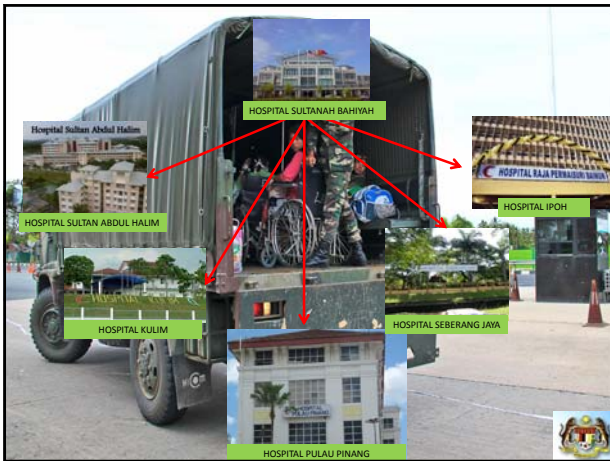
State Health Director instruct to prepare to transfer all critical case to others hospital

89 CRITICAL PATIENT WERE IDENTIFIED TO BE EVACUATED

5/11/2010 at 9.00 am

Director General of Health give green light to transfer all critical case to 5 hospitals





## Setar Gate

- Rondovue Point
- Require very well Coordination and good traffic control & flow
- Smooth process of transferring of patient
- Able to resuscitate patient
- Easily access route
- Temporary ground before push to ambulance
- Had water and electricly supply
- BEST LOCATION : Alor Setar Selatan Toll Gate (Setar Gate)



## SETAR GATE OPERATION (Evacuation)

5/11/2010 1430HRS TO 1930HRS

TOTAL 89 CRITICAL PATIENT INVOLVED  
- 10 BY HELICOPTER  
- 79 BY LAND AMBULANCES

5 HOSPITAL INVOLVED – HOSPITAL  
SULTAN ABDUL HALIM  
- HOSPITAL KULIM  
- HOSPITAL PULAU PINANG  
- HOSPITAL SEBERANG JAYA  
- HOSPITAL IPOH

SUCCESSFUL OPERATION SINCE NO  
INCIDENT OCCURRED



9/11/2010

Water supply and air- cond 100% function  
Most of the services back to normal

10/11/2010 – 13/11/2010

- Recovery Phase
- Start take back patient from 5 hospital
- Critical incident Stress Debriefing conducted

14/11/2010

Stand down declared  
Hospital start fully function  
Operational Room Closed



WHAT NEXT ?.....



- DO POST MORTEM
- ANALYSE BACK THE PLAN
- DO MITIGATION AND RISK REDUCTION
- BE MORE PREPARE (IMPROVE THE PLAN)



## RISK ANALYSIS

- Identify problems
  - Absenteeism
  - Ambulance Service jeopardize
  - High possibility cut off clean water supply leading to malfunction of air -cond and chiller systems, unable to perform procedure and surgery, unable to run chemical analyser
  - Risk of transportation during evacuation
  - Difficulty to access hospital via land road



## RISK MAPPING

- Identify the area affected
- Identify the staff house distribution
- Risk of ambulance passing through the flood, modify exhaust
- Identify what other service will be affected if no continuous water supply
- Identify the risk while transporting the patient via air or land



## RESOURCE MAPPING & BUILDING CAPACITY

- How to provide transport for the staff
- How to provide the shelter to the staff and family
- How to handle the welfare of the staff & family
- How to get transport to replace ambulance for pre-hospital care
- Where to evacuate the patient if necessary (pre-determined the response hospital)
- How to communicate and get assistance from other agency and NGO (Get reliable contact person & no)
- Where to get air lift services and preparation of helipad at both side
- Where to get extra water supply when needed



## REVISE & REDO/EDIT THE PLAN

- Modify the plan base on post-mortem and risk analysis, risk mapping, resource mapping and building capacity
- Organise the plan accordingly and simplify it if possible
- Discuss and distribute the plan
- Test the plan. Don't wait until disaster to happen to test the plan
- Regular table top exercise and scenario with different group of people
- Manage to re-organise the plan ( 97 pages)



## CONCLUSION

- Emergency and Recovery Plan are dynamic and depend on various factor.
- All Emergency and Recovery Plan should be regularly review at least every 5 years but ideally every 2 years
- We need a good plan to response the Crisis and disaster but it doesn't work all the time. However you are obviously fail to response if you fail to plan.
- The plan should be known to everybody and regular exercises are important to keep the plan work when needed



Thank You  
Terima Kasih



## Hospital Management and Response to the Health Emergency "Safe Hospitals in Emergencies and Disasters"

By:

Ma. Belinda B. Evangelista, RN, EMT  
Assistant HEMS Coordinator  
Emergency Room Supervisor

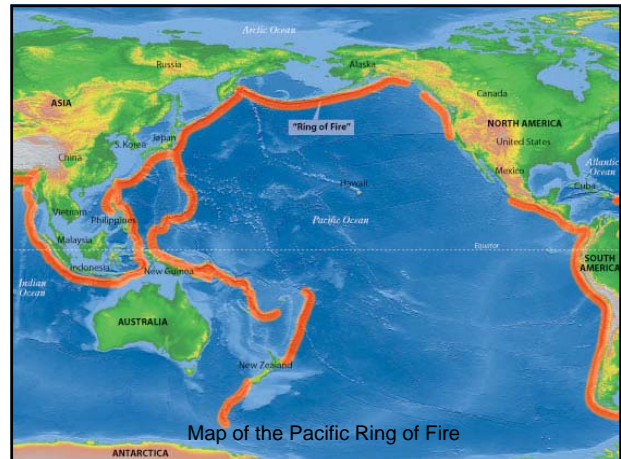
## OUTLINE

- Introduction
- Risk Management Framework
- Roles of Hospitals in Disaster Risk Reduction
- Initiatives
- Challenges

## INTRODUCTION

"Every year, many hospitals and health facilities in the Philippines are damaged and destroyed by disasters, to which the country has a very high vulnerability."

The Philippines was rated by the Center for Research on the Epidemiology of Disasters as the most disaster prone country in the world for the period 1900 – 2000. Disaster presents as earthquake, typhoon, fire, civil unrest, terrorism and the like.



## Philippine & its vulnerability



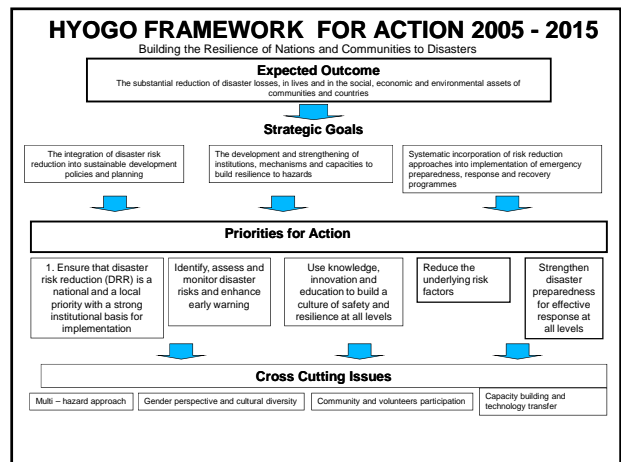
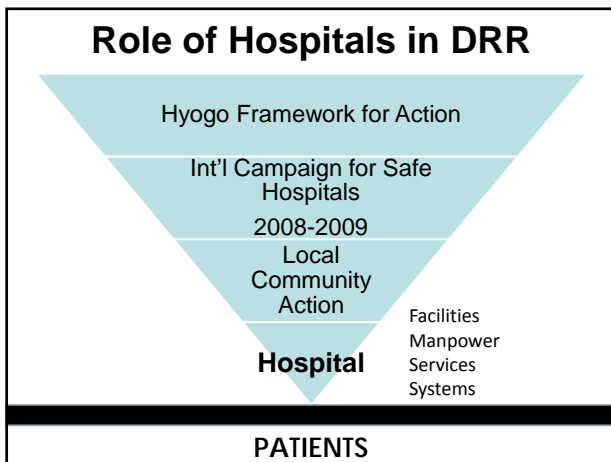
## What happens in emergencies/disasters?





### ANATOMY OF HOSPITAL RISK MANAGEMENT

hazard	hospital vulnerability	readiness	Hospital risk
<b>indicators:</b> probability scale/magnitude/ strength/intensity spread duration  <b>biological hazards:</b> season, infectivity, latency, transmission resistance, etc.  <b>natural phenomena</b> famine diseases of epidemic potential events/crowds  infestations transport accidents structural failures industrial accidents chemical accidents pollution refugees war terrorism	<b>indicators:</b> access to health care measles vaccination nutrition status under 5 mortality access to clean water access to sanitation Congestion in hospital employment/ income Health personnel education  <b>Property:</b> Hospital infrastructure Vehicles Location of the hospital Hospital equipment and supplies  <b>Services:</b> Electricity and Communication Relief distribution system Information system  <b>Environment:</b> water/air quality	<b>indicators:</b> policy, plans, procedures knowledge, skills, attitudes Resources  legislation national & sectoral policy administrative procedures response & recovery plans preparedness plans technical guidelines management structure institutional managements information systems warning systems human resources material resources financial resources simulations & training education public information community participation Research	<b>indicators:</b> risk of: death injury (mental/ physical) disease (mental/physical)  loss of life Displacement Destruction of building loss of property loss of income  secondary hazards breakdown in security damage to infrastructure breakdown in services Contamination
Prevention & Mitigation Programme	Vulnerability Reduction Programme	Emergency Preparedness Programme	Hospital Risk Management



### Hospital

- An institution for **health care**, providing treatment by specialized staff and equipment.
  - Focused primarily on patients and family
  - Hospital staff
  - The community and environment.
  - The services it caters

### Hyogo Framework for Action (HFA)

● **Endorsed by 168 countries at the World Conf. on Disaster Reduction in Kobe, Japan in 2005**

- Provides a global blueprint for disaster risk reduction and calls on nations to "... promote the goal of..."
- “Hospitals safe from disasters”
  - by ensuring that all new hospitals are built with a level of resilience that strengthens their capacity
  - to remain functional in disaster situations. implement mitigation measures to reinforce existing health facilities, particularly those providing primary health care”.



### **Role of Hospitals in Emergencies and Disasters**

1. Mass Casualty - Pre hospital care
2. Mass Casualty - Hospital care
3. Disease Surveillance (including emerging and re-emerging diseases)
- 4) Inside a disaster site
  - 4.1 Internal Hospital Emergencies
  - 4.2 External Hospital Emergencies
- 5) Hospital Outside the Disaster Site

### **Goals...**

*"Promote the goal of "hospitals safe from disasters"*

Ensure that all **new hospitals** are built with a level of resilience that strengthens their capacity to remain functional in disaster situations

Implement mitigation measures to reinforce **existing health facilities**, particularly those providing primary health care

### **Definition**

***"Safe Hospital or Safe health facilities"***

- are hospitals that have the capacity and capability to remain functional and operational during and even after disaster
- those which health services remain accessible and functioning at maximum capacity during and immediately after disasters/emergencies
- they must be physically resilient and able to remain operational and continue providing vital health services

### **Elements of "Safe Hospitals" (HFA)**

- Reduce risk
- Protect health facilities
- Save lives

"A safe hospital must be structurally, non-structurally, and functionally sound to be able to maintain continuous operation during and even after disaster when it is needed most"

### **Philippine Initiatives**

1. Policy/Legal Efforts
2. Advocacy/Social Mobilization Activities
3. Publications
  - 3.1. Safe Hospital Assessment Tool (Phil. Setting)
  - 3.2. Health Emergency Preparedness, Response, and Recovery Plan (HEPRRP) Manual
4. Upgrading of Structural, Non-Structural and Functional components of a hospital

### **Continuation.....**

5. Health Facility Mapping
6. Establish Communication System and enhances Logistical Requirements
7. Capability and Capacity Building
8. Information Management
9. Partnership/Networking activities
10. Monitoring/Evaluation
11. Research

## POLICIES/LEGAL EFFORTS

- Dissemination of the new RA 10121 – NDRRMC in different fora.
- Standing Order – Organizational Shift to Emergency Mode when needed with identified focal person organization structure and Incident Command System

## Re-emphasizing Local and National Policies

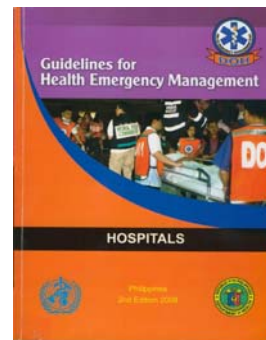
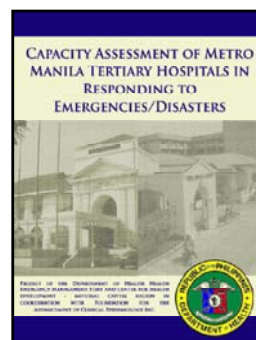
- National Building Code of the Philippine (PD1096)
- National Structural Code of the Philippine
- Fire Code of the Philippines (PD1185)
- Philippine Mechanical Code (RA 8495)
- Accessibility Law (RA 34)
- Gradual phasing out of Mercury in Philippine Health Care Facilities
- (AO 2008-0021)

## SAFE HOSPITAL ASSESMENT TOOL

- Usage of the tool in assessing structural, non structural and functional components



## PUBLICATION



## Establish Communication System and Enhance Logistics / Response Capacity

- Upgrading of all OPCEN facilities
- Purchase of emergency medical and communication equipment / supplies, drugs and medicines.

## Capability Building

- Develop / Conduct the following training
  - SFA
  - BLS
  - BLS – TOT
  - HEM
  - HOPE
  - PHEMAP
  - MCI
  - Safe Hospital

## Capacity Building

- Enhance emergency Health and Medical Response Team
- Surveillance Post Extreme Emergency and Disaster (SPEED)
- Skills Olympic
- Table Top Exercise

## PARTNERSHIP/NETWORKING

- **2005**- Endorsement of the *Hyogo Framework for Action (HFA)* by 168 countries at the World Conference on Disaster Reduction in Kobe, Japan
  - Provides a **global blueprint** for disaster risk reduction and calls on nations to promote the goal of...**Risk Reduction**

## Partnership / Networking

- **2008**-Creation of Steering Committee and TWG-NCR HEMS/NCHFD/NCR Hospitals
  - Creation of Assessment team to assess the hospitals
  - Aug.20,Pan Pacific Hotel-Launch of World Safe Hospital Campaign
- **2009**-Jan- assessors start of hospital assessment
  - April 16-Traders Hotel Launching Of Manual on Safe Hospitals
  - Dec.02-International Conference on Safe Hospitals

## Continuation...

- **2010**-April 8-Global launch of One million Safe Schools and Safe Hospitals
  - Inter-Local Health Zone
  - Metro Manila 4 Health Sectors
    - North            -East
    - South           -West
- Regular Consultative Meetings
- Regular NDRRMC Meetings

## Information Management

Directory of

- The key host personnel
- Inventory of Resources
  - Manpower
  - Pre – identified Field Hospital sites, Evacuation centers
- Conduct needs assessment

## Monitoring / Evaluation

Conduct Capacity Assessment of Hospital for Safe Hospital

- > Metro Manila
- > Regional

## **CHALLENGES**

1. Sustainability of Programs
2. Finalization in the Development of the Updated Hospital Tool (Note: Different discipline (stakeholders) and at different Levels of Hospitals from I – IV.
3. Integration with Licensing Requirement
4. Follow through with the Recommended Solutions to the Identified Problems (e.g Retro fitting for Structural Vulnerabilities)
5. Commitment in the implementation of the activities / programme for the Safe Hospital.

## **CALL.....**

to...

## **ACTION.....**

Paper from "International Symposium on Human Resources for Health of Health Emergency Preparedness and Response in Asia-pacific Region", (c) 2011 APEC Secretariat

## APEC Project Management



Steve Chen, Program Director  
 International Symposium of Health Emergency Preparedness and Response in Asia-Pacific Region  
 May 21-22, 2011 – Nanning, Guangxi Province, China



## APEC Project Aims

- **Overarching Aims:**
  - Advance free-trade for Asia-Pacific prosperity
  - Support the development of pro-trade policies and regulations
- **Practical Aims:**
  - Progress from principles to practical application
  - Enhance the capacity to identify common interests
  - Build productive capacity amongst members

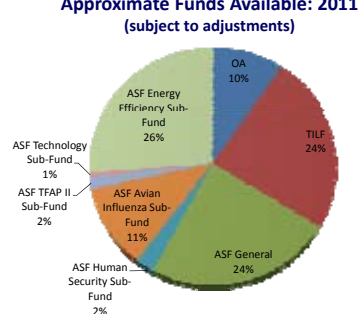
## Sources of Project Funding

**4 sources of APEC project funding:**

- Operational Account (OA)
- Trade & Investment Liberalisation & Facilitation Special Account (TILF)
- APEC Support Fund (ASF)
  - General Fund + Sub-funds
- Self-funding

## Funds Available

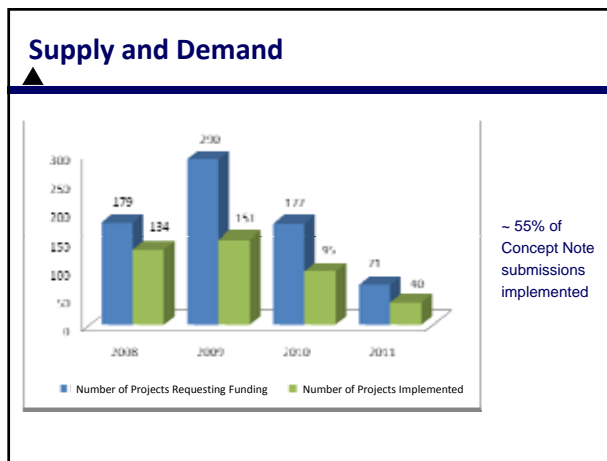
**Approximate Funds Available: 2011**  
(subject to adjustments)



Funding source	Amount available per session (US\$)
OA	586,192
TILF	1,487,995
<b>ASF: General</b>	<b>1,469,123</b>
<b>ASF: Human Security</b>	<b>147,672</b>
<b>ASF: Avian Influenza</b>	<b>691,331</b>
<b>ASF: TFAP II</b>	<b>95,808</b>
<b>ASF: Technology</b>	<b>38,692</b>
<b>ASF: Energy Efficiency</b>	<b>1,611,598</b>
<b>TOTAL</b>	<b>6,128,411</b>

## Financial Snapshot

APEC Projects: Financial Snapshot					
All Figures in USD					
<b>Total (OA + TILF + ASF)</b>					
Year	2008	2009	2010	Q1 2011	2008-2011
Number of Projects Requesting Funding	179	290	177	71	717
Value of Projects Requesting Funding	14,745,159	24,572,536	17,227,607	7,561,010	64,106,312
Number of Projects Approved	134	151	95	40	420
Value of Projects Approved	11,108,344	12,959,193	8,704,269	4,355,973	37,127,779
Ratio of Value of Projects Approved to Total Value of Projects Requesting Funding (%)	75%	53%	51%	58%	58%
<b>Average Value of Projects</b>	<b>82,898</b>	<b>85,822</b>	<b>91,624</b>	<b>108,899</b>	<b>88,399</b>



### Project values: 2008-2011



(Note: 2011 figure is for Session 1 only)

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### Project approvals in 2010

- **177 proposals** submitted in 2010 (requesting over \$17million)
- **99 projects & concept notes approved** (value of \$8,975,882):
  - OA: 20 projects valued at \$1,761,976
  - TILF: 37 projects valued at \$2,834,634
  - ASF: 42 projects valued at \$4,379,272

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### Types of APEC projects

- Workshops
- Seminars / symposiums
- Research projects
- Publications
- Websites \*
- Short term trainings

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### APEC Project Management

**Thank you.**

Steve Chen  
Program Director  
HWG, LSIF, CD

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