



SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

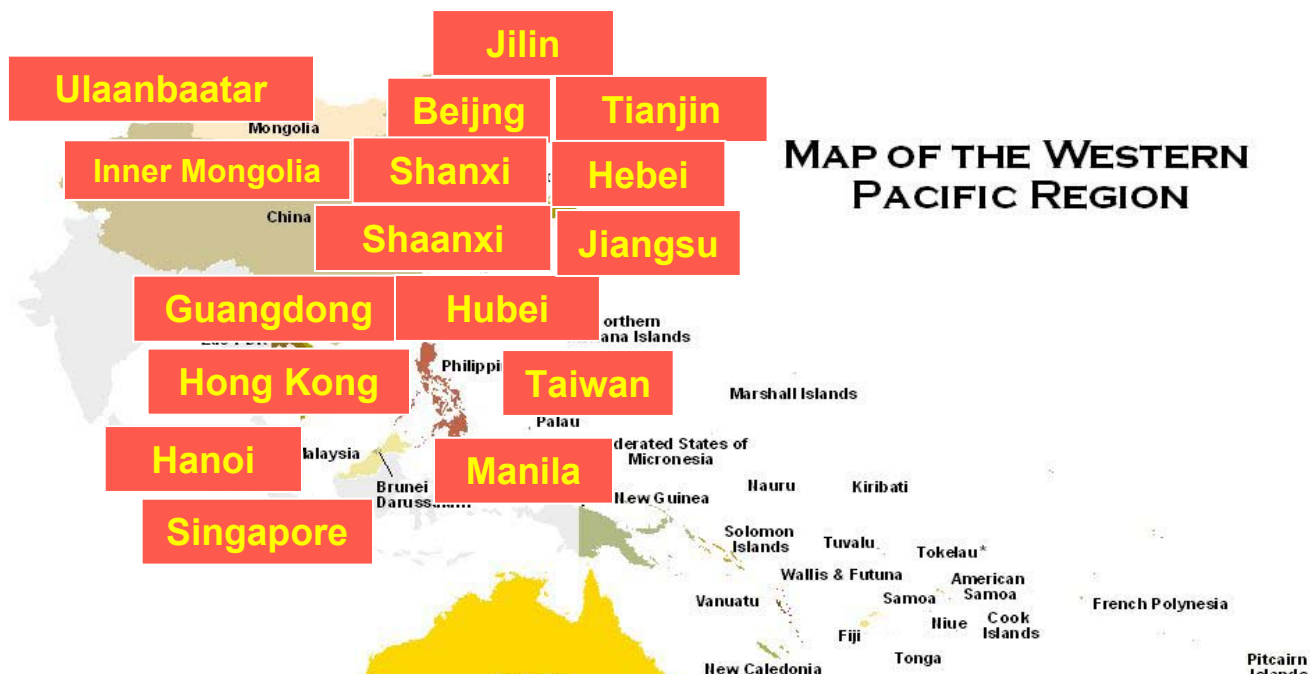
Regional Response

SARS Preparedness and Response Team

World Health Organization

Western Pacific Regional Office

Western Pacific Region of WHO



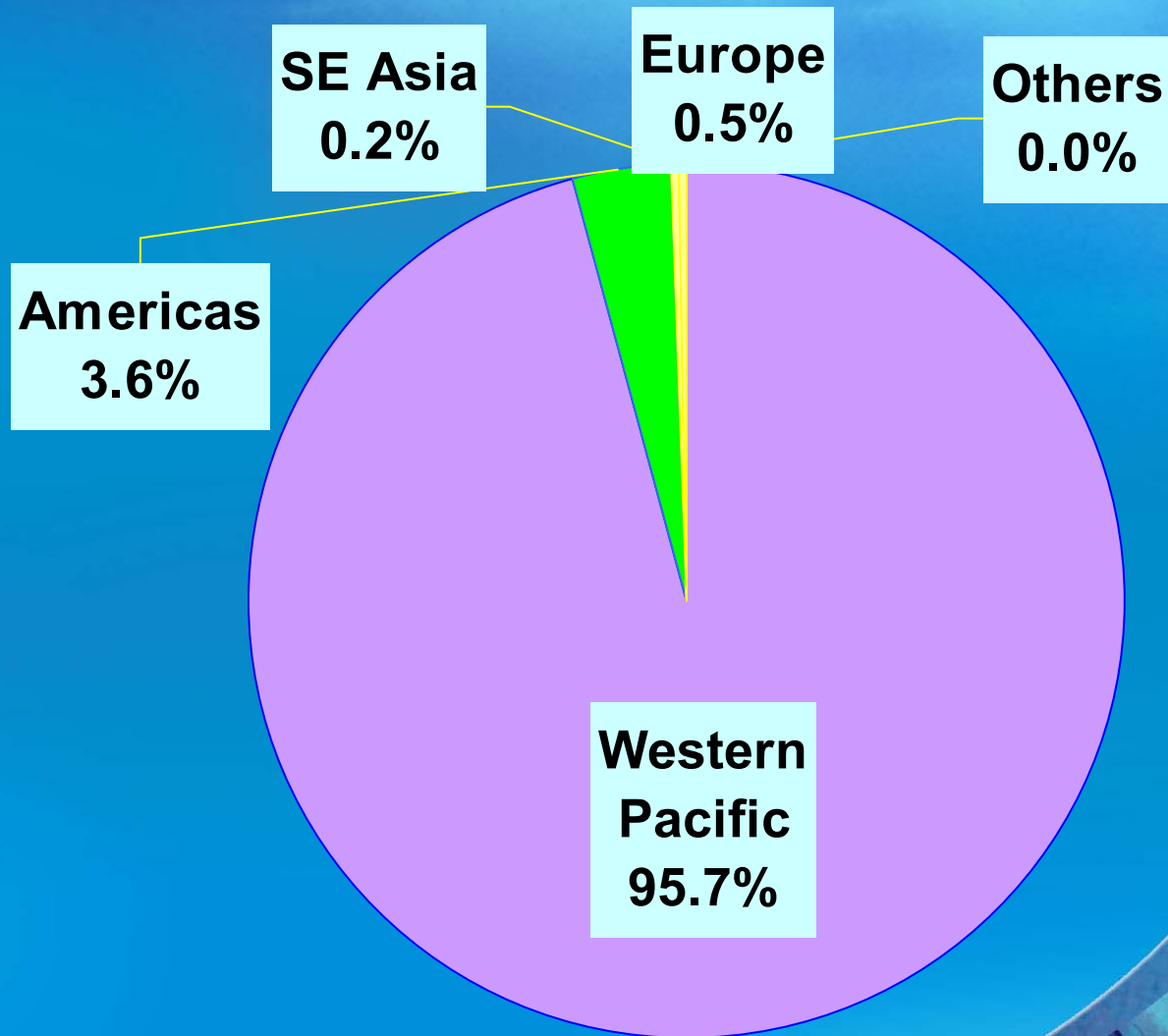
**Areas with Local Transmission in Western Pacific Region
From 1 Nov to 11 June**

* Associate member



Cumulative Number of Cases by Region

1 November 2002 – 11 June 2003



Early Regional Responses



- 10 Feb: Request for verification of pneumonia outbreak in Guangdong Province
- 11 Feb: China notifies WHO of outbreak of “atypical pneumonia” in Guangdong
- 20 Feb: Regional Director, WPRO, proposed WHO team to investigate outbreak in Guangdong
- 23 Feb: WHO team arrives in Beijing
- 28 Feb: WHO’s Dr Carlo Urbani informs Regional Office about the Hanoi index case
- 5 Mar: Hospital outbreak in Hanoi recognized
- 10 Mar: WHO staff arrives in Hanoi
- 12 Mar: *Global Alert*

WPRO SARS Response and Preparedness Team

- **Response Group**
 - Support for Field Teams
 - Viet Nam
 - China
 - Hong Kong
 - Taiwan
 - Singapore
- **Preparedness Group**
 - Supporting unaffected countries



Response Group

- Support to Field Team
 - Daily communication
 - email
 - teleconference
 - Sending experts
 - Emergency supplies
- Epidemiological Investigations
 - Official notification
 - Rumor surveillance
 - Cross-border investigation
 - Descriptive analysis



Rumour Surveillance

- Information from different sources
 - WHO country teams
 - Anonymous emails from public
 - News media
 - Internet
 - Word of mouth
- Verification of information through the government

SARS cases suspected in 4 additional nations

By Thomas Crumpton
International Herald Tribune

HONG KONG: A series of countries

more than 1,600 people worldwide and killed more than 60 people. China, which has been identified as the source of the outbreak and site of



A seventh probable victim

By Deborah Loh

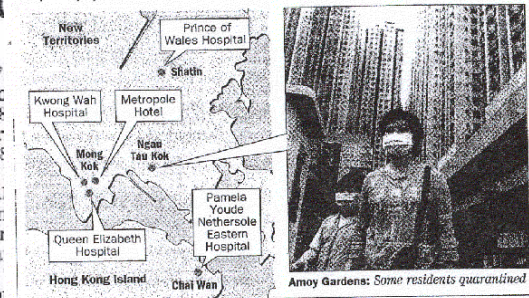
Thursday, went to the Park Hospital for chest X-ray showed signs of pneumonia," he said. All 16 people contacted with 1 been quarantined including rents, nine friends and the and two nurses from the private woman's boyfriend in Singapore was in good health, but

to China, Hong Kong or elsewhere. On the new suspect said the first ferry driver, Sze Man, delivered an on April 26. The second driver, transported passenger Woodson and fell ill on He returned to Singapore

Epidemic Unfolds To a Silent

Where It Has Hit

Locations in Hong Kong that have been at the center of the severe acute respiratory syndrome outbreak:



Hong Kong Complex's Pipes May Have Spread SARS; Lockdown Rumor Is Denied

By PETER WONACOTT

BELJING—Despite pledges to be more forthcoming, China continued to remain silent on possible fresh cases of severe acute respiratory illness, or SARS. But concern within the country mounted as residents picked store shelves clean of face masks in Beijing and Shanghai, several foreign schools closed and a host of major events were canceled because of the disease.

Chinese health officials on Tuesday declined to say when they would begin

New Virus Cases Heighten Alarm

Hong Kong's Big Increase In Infections Raises Fears Of Air, Water Transmission

By KAREN RICHARDSON

Kong, two more people died, pushing the local death toll to 15 and further exacerbating the siege mentality that is fast becoming ingrained. Hong Kong's schools and universities are closed, and many people who have had contact with SARS patients have been quarantined or asked to remain at home.

In Singapore, where nearly one thou-

Cross-Border Follow-up

- Suspect and probable cases with travel history to areas with local transmission
- Events involving multiple countries
 - Hotel M in Hong Kong
 - Flight-associated cases



Cross-Border Follow-up

Flight Associated Cases

Flight Hong Kong –
Beijing March 15

Inner Mongolia

Beijing

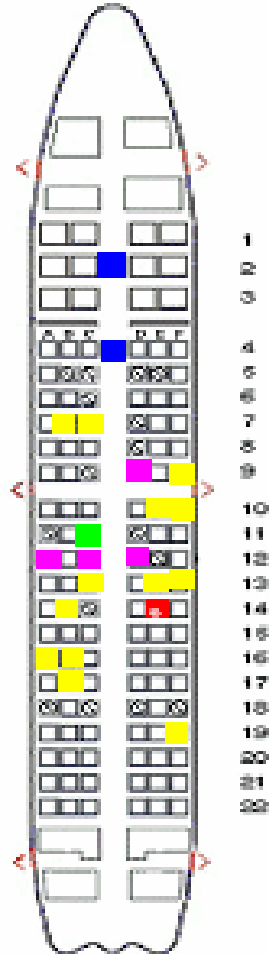
Flight: Bangkok –
Beijing March 23

Bangkok

Singapore

Hong Kong

Taiwan



Steps to enhance country preparedness against SARS

- Identify national focal points
- Rapid country assessment
 - Identify priority countries
- Procurement of emergency supplies
- Developing guidelines and tool
- Country support team



Key Components of SARS Preparedness

- **National structure**
 - Establish national task force
- **Infection control**
 - Identify appropriate isolation facilities
 - Improve infection-control practices
- **Stockpiles**
- **Enhanced surveillance**
- **Border screening**
- **Laboratory**
 - Designate national laboratory
 - Shipping arrangements
- **Public awareness**



Preparedness Guidelines

- Country Preparedness Check List (2 April)
- National Preparedness Guidelines (4 April)
- Assessment Protocol for National Preparedness (6 April)

Country checklist

Overview

This one page checklist is meant as a guide for countries in the WHO Western Pacific Region to assist with their response and preparedness planning for SARS. Details in this document may change as more clinical, epidemiological, and laboratory information about SARS becomes available.

Preparation of a strategic country plan

1. Establish a task force to oversee the development
2. Develop a comprehensive local strategy (not SARS and preventing its further spread)
3. Make contact with relevant hospitals, clinics and other members of the local SARS network

Interim assessment protocol for national

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Address <http://www.wpro.who.int/sars/>

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Region	Percentage
Western Pacific	95.93%
Americas	2.59%
SE Asia	0.16%
Europe	0.96%
Others	0.02%

Welcome

WHO's Western Pacific Regional Office (WPRO) has been at the forefront of the fight against Severe Acute Respiratory Syndrome (SARS).

On these pages, you can find out how the Regional Office is responding. You can also download guidelines for responding the challenges posed by SARS. [\[read more...\]](#)

Update

[China: SARS Case Distribution by Prefecture\(City\) as provided by Ministry of Health, People's Republic of China](#)
(updated 09 June 2003)

[Multi-Country Outbreaks](#)
(updated 07 June 2003)

[Masks](#)
(updated 29 May 2003)

[Interim Guidelines for National SARS Preparedness](#)
(updated 26 May 2003)

WPRO Guidelines and Tools

[Guidelines](#)

[Hand washing video](#)

Internet

<http://www.wpro.who.int/sars/>

Infection Control Guidelines & Tools

ANNEX 3. Notes on SARS isolation facilities and the use of personal protective equipment in a SARS outbreak.

- Infection Control Guidelines
- Presentations for training
- Video
- CD
- Q&A

www.wpro.who.int

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 **Masks**
(posted 10 May 2003)

- [General Information](#)
- [Information to the General Public](#)
- [Information to the Healthcare Workers](#)
- [Frequently Asked Questions \(updated 29 May 2003\)](#)

Procurement and Distribution of Emergency Supplies

- Identification of a minimum requirement (WHO SARS Kit)
- Support from JICA (\$3 million)
- Procurement and shipping
 - WPRO
 - WR office in Thailand

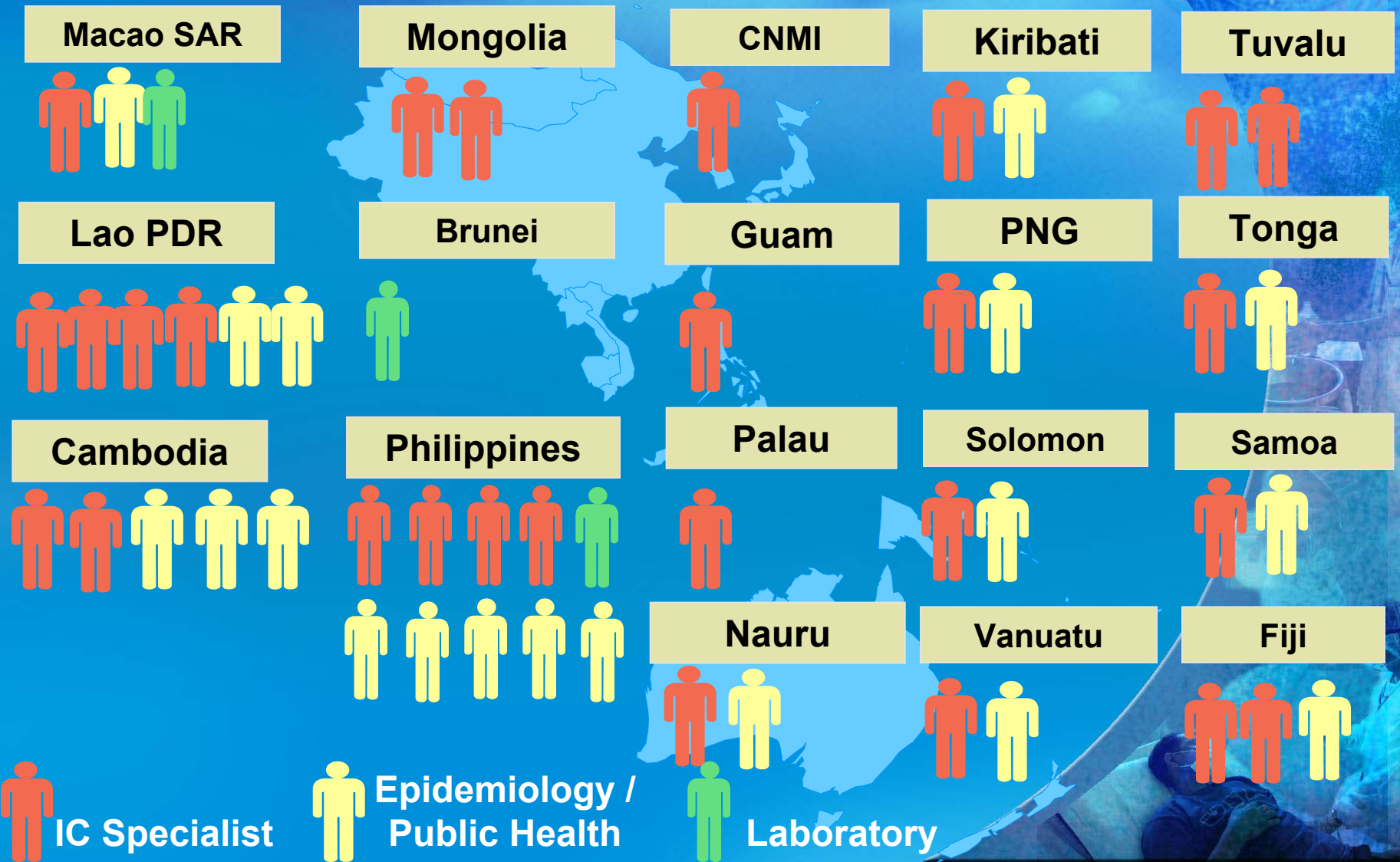


Development of Regional Laboratory Network

- Identification of national focal-point laboratories
- Identification of regional reference laboratories
 - Japan
 - Australia
- Shipping arrangements
- Laboratory guidelines
- Laboratory assessment



Consultants for Preparedness Activities



Activities of Country Preparedness Team



- **Rapid assessment**
 - Based on assessment protocol
- **Training**
 - Infection Control
 - Surveillance



Lesson Learned

SARS Country Preparedness

- Preparedness level increased
 - Rapid mobilization of resources
- Early containment possible
 - Strong government commitment
 - Rapid and transparent information exchange
- Inadequate public health infrastructure
 - Surveillance and response system
 - Hospital infection-control practices
 - Trained staff
 - Infection control
 - Epidemiology



Future Challenges

Are we prepared for resurgence of SARS
and other emerging diseases?

- **Longer-term capacity building**
 - Human resources
 - Public health infrastructure
- **National and inter-country surveillance network**
- **Strengthening hospital infection control**
- **Use the lessons from SARS to be prepared for other epidemics and pandemics**





Dr Carlo Urbani on Mekong River

Thank you

