



SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

SARS CORONAVIRUS

Country of origin: **China, Guangdong Province**

Period: **NOV 2002 - JUL 2003**



Bat/Palm Civet to people then via bodily fluids (sneezing, coughing), person to person

8096

Cases

774

Deaths

29

**COUNTRIES
AFFECTED
GLOBALLY**



9.6%

**CASE
FATALITY
RATIO**

Percent of cases:

95%

**> INDOPACIFIC
REGION**

0.07%

> AUSTRALIA



21.1%

**HEALTH CARE
WORKERS
AFFECTED**

**BEGINS: GUANGDONG PROVINCE,
NOVEMBER 2002, CONFINED TO CHINA
UNTIL LATE FEBRUARY 2003.**

SYMPTOMS:

High fever (>38°C), cough and/or difficulty breathing, headache, malaise, myalgia, diarrhoea and shivering.

Incubation 2-10 days.

To date, there is no curative treatment for SARS, supportive measures are recommended and no vaccine has been developed.

MAJORITY OF CASES:

**CHINA, HONG KONG,
TAIWAN, CANADA,
SINGAPORE, UNITED
STATES AND VIETNAM.**

INTERNATIONAL RESPONSE:

On 12 March 2003, WHO issued a global outbreak alert, that was upgraded to a global travel alert on 15th March. This triggered a global response. Global Outbreak Alert and Response Network (GOARN) teams were rapidly mobilised in response to the SARS outbreak in China, Vietnam, Singapore and Hong Kong Special Administrative Region. These teams involved experts in case management, infection control, surveillance and laboratory/epidemiological investigation, working with national health authorities to contain further spread. Operational teams met daily via tele- or videoconference to review progress, compare experiences, and plan further action. All verified information was posted on the WHO website daily with updated figures, graphs and maps detailing the impact and spread of the outbreak. Real time advice to countries on SARS surveillance, preparedness and response measures. In addition, targeted travel advisories were released in order to protect the health of travellers and decrease the risk of further international spread.

This coordinated, collaborative response helped to strengthen global surveillance mechanisms to identify new cases and stop further disease spread. Through these actions the outbreak contained within 10 months of the initial case notifications.

Retrospectively, several events accelerated and prolonged the SARS outbreak globally. Super-spreading occurs when a single patient infects a disproportionate number of contacts. In Hong Kong the initial primary case infected 125 secondary cases at Prince of Wales Hospital; subsequent events occurred at: the Hotel Metropole (13 cases); the Amoy Gardens housing complex in Hong Kong (over 180 cases); aboard an Air China flight traveling from Hong Kong to Beijing (22 cases); and in Canada resulting in 128 cases at a Toronto hospital. These super-spreading events occurred due to a number of factors, including late diagnosis and quarantine, underlying medical conditions in the index cases, and the re-circulation of air in closed environment.

LESSONS LEARNED THE SARS OUTBREAK HIGHLIGHTED:

- 1. The need to report, promptly and openly, cases of any disease with the potential for international spread in a closely interconnected and highly mobile world;**
- 2. Timely global alerts can prevent imported cases from igniting big outbreaks in new areas;**
- 3. Travel recommendations, including screening measures at airports, help to contain the international spread of an emerging infection;**
- 4. The world's best scientists, clinicians and public health experts, aided by electronic communications, can collaborate to generate rapidly the scientific basis for control measures;**
- 5. Weaknesses in health systems play a key role in permitting emerging infections to spread;**
- 6. An outbreak can be contained even without a curative drug or a vaccine if existing interventions are tailored to the circumstances and backed by political commitment;**
- 7. Risk communication about new and emerging infections is a great challenge, and it is vital to ensure that the most accurate information is successfully and unambiguously communicated to the public.**