

WHO/CSR Office in LYON

Globalization and poverty: Fertile ground for infectious diseases



Infectious Diseases: Obstacles to Social and Economic Development

Diseases of Poverty

AIDS

TUBERCULOSIS (TB)

MEASLES

MALARIA

DIARRHOEAL DISEASES

PNEUMONIA

PLAGUE

MENINGITIS

YELLOW FEVER

DENGUE

CHOLERA

MONKEYPOX

WEST NILE FEVER

ONCHO

INTESTINAL PARASITES

FILARIASIS

DRUG RESIST INF.

LASSA FEVER

EBOLA

HEPATITIS C

NIPAH

POLIO

LEPROSY

CHAGAS

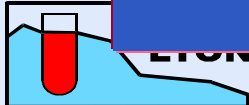
GUINEA WORM

SCHISTO

CJD



Emerging / Re-emerging infectious diseases, 1996 to 2001



Impact of Infectious Disease Outbreaks, 1990-2000

USA
E. coli / O157
Food recall/destruction
Periodically

Hong Kong, China
Influenza A(H5N1)
Poultry destruction
1997

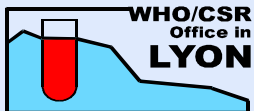
UK
BSE
US\$ 39 billion
1990-1998

Malaysia
Nipah
Pig destruction
1999

Peru
Cholera
US\$ 770 million
1991

Tanzania
Cholera
US\$ 36 million
1998

India
Plague
US\$ 1.7 billion
1995



GLOBAL
HEALTH
SECURITY

EPIDEMIC ALERT & RESPONSE

INTERNATIONAL HEALTH REGULATIONS

**Contain
known risks**

**Respond to
the unexpected**

**Improve
preparedness**

GLOBAL PARTNERSHIP



Office in
LYON

Dr. Brad Kay March 2002

WHO Lyon Office

Toward Global Health Security: Epidemic Alert and Response

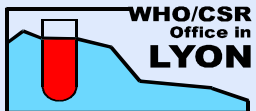
- Specific interventions for major epidemic-prone diseases (cholera, yellow fever...)
- WHO Global Epidemic Alert & Response Network (WHO global epidemic intelligence and international response)
- National capacity strengthening (epidemiology and laboratory strengthening)



WHO CSR Lyon Office strengthening national diagnostic capacities

- **Fills neglected and under-funded areas by:**
 - *Strengthening national public health laboratories*
 - *Supporting field epidemiology training programmes*
 - *Strengthening laboratory linkages to outbreak detection & response activities*
- **Provides a focus for global partnerships in strengthening laboratories for disease surveillance**

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Strengthening National Laboratory Capacities

- core diagnostic expertise
- availability of essential reagents
- good management practices
- integration with surveillance activities
- quality control practices



Establishing laboratory support for common public health diseases



Providing laboratory support for catastrophic public health events



A two-year programme

- One 8-week introductory module in Lyon
- Two 3-week follow-up modules in Lyon
- 2 in-country periods



Profile of the trainees

- Experienced microbiologists/lab specialists
- Working in the national reference laboratory
- Involved with detection of epidemic-prone diseases
- Responsible for the quality control programme



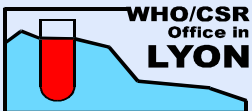
Initial Lyon Module (8 weeks)

- **Module one**

- 1- Review of core laboratory procedures, elements of surveillance, use of information technology
- 2- Establishing laboratory-based surveillance activities
- 3- Administrative issues: laboratory management, quality control, data and communications, public relations

Methods

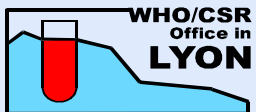
- Case studies
- Computer lab
- Lectures/presentations
- Group discussions, role play



Laboratory training at the Institute of Pharmaceutical and Biological Sciences



Computer lab



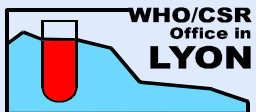
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- **Integrated case-studies using:**

- **Microbiology**
- **Epidemiology**
- **Laboratory management**





Participants produce a three-part plan of action

- Laboratory operations
- Surveillance activities
- Communications linkages



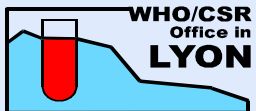
The Goal:

To strengthen public health laboratory practice in disease surveillance and control programs





Thank you



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