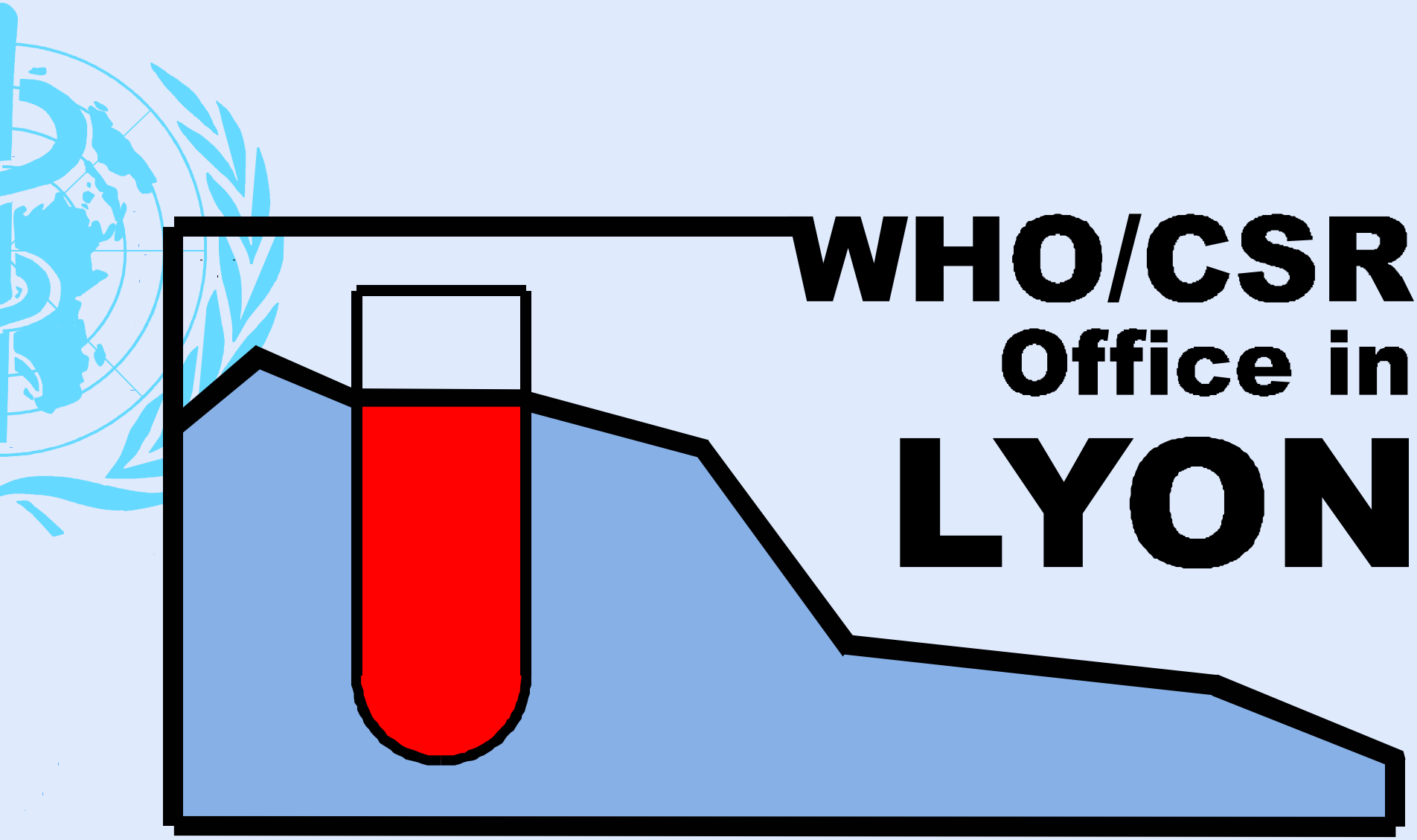
WHO/CSR
Office in
LYON

Globalization and poverty: Fertile ground for infectious diseases

Infectious Diseases: Obstacles to Social and Economic Development

AIDS

TUBERCULOSIS (TB)

MEASLES

MALARIA

DIARRHOEAL DISEASES

PNEUMONIA

Diseases of Poverty

POLIO

LEPROSY

ONCHO

CHAGAS

INTESTINAL PARASITES

GUINEA WORM

FILARIASIS

SCHISTO

PLAGUE

MENINGITIS

YELLOW FEVER

DENGUE

CHOLERA

MONKEYPOX

WEST NILE FEVER

DRUG RESIST INF.

HEPATITIS C

CJD

LASSA FEVER

EBOLA

NIPAH

Emerging / Re-emerging infectious diseases, 1996 to 2001

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Impact of Infectious Disease Outbreaks, 1990–2000

USA
E. coli / 0157
Food recall/destruction
Periodically

UK
BSE
US$ 39 billion
1990-1998

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

Malaysia
Nipah
Pig destruction
1999

Peru
Cholera
US$ 770 million
1991

Tanzania
Cholera
US$ 36 million
1998

India
Plague
US$ 1.7 billion
1995

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GLOBAL HEALTH SECURITY

EPIDEMIC ALERT & RESPONSE

INTERNATIONAL HEALTH REGULATIONS

Contain known risks

Respond to the unexpected

Improve preparedness

GLOBAL PARTNERSHIP

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

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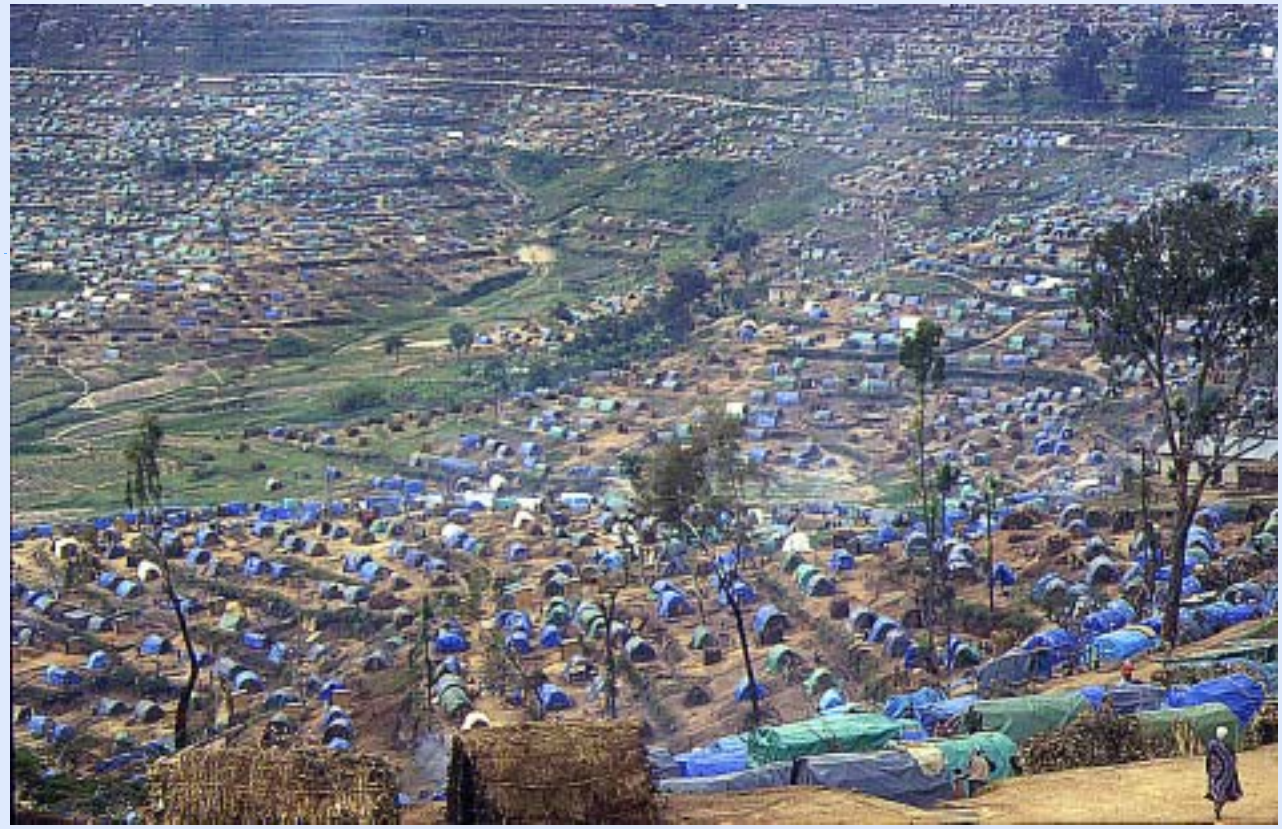
Providing laboratory support for catastrophic public health events



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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
- Wording 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 procedues, 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

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Computer lab

- 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

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Thank you