**WHO Collaborating Centre for Virus Reference and Research (Enteroviruses) JPN-22**

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### TORs of Enterovirus Collaborating Center of NIID

**TOR 1:** To provide the characterization of poliovirus isolates obtained from the Western Pacific Region & beyond especially intratypic differentiation & sequence analysis of isolates as guided by the WHO standard protocol.

**TOR 2:** To maintain reference strains & antiserum of polio/enterovirus.

**TOR 3:** To provide scientific experts to collaborate with and advise WHO on virology of polio/enterovirus and AFP surveillance & laboratory issues.

**TOR 4:** To support the laboratory diagnostic capacity for Hand foot mouth disease surveillance in the region.

**TOR 5:** To provide the expertise in related studies such as IVDVP study and environmental surveillance.

### WHO CC and Reference Laboratories at NIID

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### Annual Laboratory Training Course (NIID/JICA/WHO)

**Laboratory Diagnosis Techniques for the Control of Vaccine Preventable Diseases, including Poliomyelitis and Measles (4 weeks mainly at NIID)**

- 2002 Myanmar, Bangladesh, Pakistan, Laos, Ethiopia (2)
- 2003 Bangladesh, Thailand, Algeria, Kenya, Tanzania (2), Zambia, Ethiopia (2)
- 2004 Myanmar, Nepal, Pakistan, Panama, Zimbabwe, Tanzania, India
- 2005 Bangladesh, Pakistan, Turkey, Philippines, Kenya, Côte d’Ivoire
- 2006 Myanmar, Yemen, Kenya, Tanzania, Sudan, Niger, Ethiopia
- 2007 Egypt, Côte d’Ivoire, Ghana, Mongolia, Nigeria (2), Pakistan, China (2)
- 2008 Pakistan, Nigeria, Ethiopia, China, Vietnam (2)
- 2009 Pakistan, Nigeria, Ethiopia, China (2)
- 2010 Pakistan (2), Nigeria (2), Afghanistan (2), China (2), Malaysia (2), Philippines (2), Vietnam
- 2011 Pakistan (2), Nigeria, Indonesia, Myanmar, China (2), Egypt
- 2012 Nigeria (2), DRC (2), Indonesia, Myanmar, Zimbabwe, China, Vietnam
- 2013 China, Pakistan (2), Vietnam (2), Papua New Guinea, Afghanistan, Nigeria (2), Ghana (2), DRC (2), Mozambique (2), Libya

### Recent HFMD outbreaks in WPRO

- **China in 2010:** 1,650,000 HFMD cases; 905 fatal cases
- **Cambodia in 2012:** 450 fatal cases
- **Viet Nam in 2013-2014:** 233 fatal cases

### Environmental Surveillance of Poliioviruses

- **WPRO Polio Laboratory Network (n=43) as of Jun 2014**
  - 33 ITD labs (22 China provincial labs from 2013)
  - 1 GSL (NIID, Japan)
  - 2 RRLs (China CDC, VIDRL Australia)
  - 31 provincial laboratories in China

### Related Publication


**Summary**

- The Laboratory of Enteroviruses of the Department of Virology II, NIID, is functioning as a WHO-designated Collaborating Center for Virus Reference and Research (Enterovirus) in virus isolation and identification, development, evaluation, and quality control of new laboratory diagnostic methods, training technical staffs and experts, preparing, maintaining and supplying of standard reagents and reference materials for the laboratory diagnosis of enterovirus infections including poliomyelitis. The infectious agents surveillance of poliovirus is one of the critical components for the Global Polio Eradication Initiative, and the laboratory diagnostic of VPE is also important in current outbreaks of HFMD, mainly due to enterovirus 71. Thus, human resources and constant international cooperation among technical staffs, based on the global and regional polio laboratory networks, are playing critical roles also in the surveillance activities for NPEV infections in the WPRO.