



## **WHO External Quality Assessment Project for the Detection of Subtype Influenza A Viruses by PCR**

Since 1952, the National Influenza Centres (NICs)<sup>i</sup> have been the backbone of the WHO Global Influenza Surveillance Network (GISN) and the WHO Global Influenza Programme (GIP). They collect specimens, conduct preliminary analysis and send representative isolates to WHO Collaborating Centres to support the annual recommendation of influenza vaccine composition for the next season. The tests employed are mainly virus isolation and hemagglutination inhibition test.

The on-going presence of the A(H5N1) strain of avian influenza since early 2004, has increased the need for PCR (polymerase chain reaction) as part of the diagnosis process in order to improve the accuracy and efficiency of testing. PCR has become the principal laboratory test for the detection of H5 infections in both humans and animals.

As the avian influenza A(H5N1) situation evolves it has become increasingly important to detect H5 infections efficiently and reliably, in order to facilitate outbreak response and influenza pandemic preparedness.

Although many NICs are now utilizing PCR for the detection of influenza viruses, there is, however, no globally coordinated external quality assessment programme that monitors the quality and comparability of the performance of these laboratories.

The WHO External Quality Assessment (EQA) Project has now been established to improve the global laboratory capacity for influenza diagnosis, both seasonal and avian. It aims specifically to monitor the quality and standards of performance of NICs around the world in the detection of subtype influenza A viruses using PCR as well as to promote good laboratory practice.

The EQA Project is being conducted jointly by the WHO Global Influenza Programme, based at WHO Headquarters and the WHO H5 Reference Laboratory and National Influenza Centre in the Virology Division, Centre for Health Protection of the Department of Health, Hong Kong, Special Administrative Region, China, with the support from the WHO Collaborating Centres on influenza, other WHO H5 Reference Laboratories and WHO Regional Offices.

### **Outlines of the EQA Project**

#### Objectives:

- To build and strengthen influenza laboratory diagnostic capacity of using PCR for the detection of subtype influenza A viruses including A(H5); and
- To promote good laboratory practice.

Participants: All NICs and other national influenza laboratories in countries without NICs.

#### Process:

- The Project requires testing twice a year a panel of simulated RNA specimens including H1, H3 and H5, accompanied with a Good Laboratory Practice questionnaire. Testing results are required to be reported back within a defined time frame.
- WHO analyses the results received from participants and produces a full report on the performance of each participating laboratory.

All NICs have been informed of the EQA Project and its process and have been invited to participate.

For further information about the EQA Project, please contact the WHO Global Influenza Programme email: [whoinfluenza@who.int](mailto:whoinfluenza@who.int)

---

<sup>i</sup> NICs are influenza laboratories designated by national authorities and recognized by WHO being as a member of the WHO Global Influenza Surveillance Network under the Terms of Reference published at: <http://www.who.int/csr/disease/influenza/TORNICs.pdf>