

Current major event

EQAP Result for NICs in 2016

In 2016, all the 16 National Influenza Centers (NICs) and one Influenza laboratory from the Eastern Mediterranean Region (EMR) were invited to participate in the WHO external quality assessment programme (EQAP). Of these, 16 participated while 12 laboratories sent the result on time and were included in the analysis. Amongst these, 10 laboratories have returned the correct result for all 10 samples achieving an overall test score of 83.3% in the proficiency panel for the WHO EQAP.

Editorial note

Due to the continuous evolution of influenza viruses, together with the pandemic potential of non-seasonal influenza viruses, robust laboratory diagnostics and timely surveillance are essential. The WHO external quality assessment programme (EQAP) for influenza virus subtype A detection by polymerase chain reaction (PCR) was initiated in 2007, after the influenza A(H5N1) outbreaks in Asia, to assess the ability of NICs to detect influenza A(H5) viruses, which pose a pandemic threat. The EQAP has evolved over the years, with its scope being extended to seasonal influenza A, influenza B and other non-seasonal influenza A viruses reported in human infections, to monitor the quality and comparability of the performance of participating laboratories.

In the Eastern Mediterranean Region (EMR), the overall performance of the participating laboratories in the WHO EQAP was satisfactory (*Please see above*). The global average correct rates for all samples and influenza A(H5) samples were 88.9% and 93.4% in panel 15 while for the EMR, this was 83.3% and 91.6% respectively. It could have been even better if three laboratories could have sent their result before the closing date. Although these laboratories achieved all correct result, this was not included in the analysis owing to late submission.

The current WHO EQAP result clearly indicates that the NICs and Influenza laboratories in the Region need to continue to improve its testing capacity

Panel composition and results of panel 15 (2016) of WHO EQAP

Influenza virus	Virus (clade)	Sample number	Number of laboratories correctly identifying (%)
A(H5N1)	A/Hong Kong/5923/2012 (2.3.2.1)	V01-2016	11/12- (91.66%)
A(H5N1)	Same virus as V01-2016	V08-2016	100%
A(H5N6)	A/Peregrine Falcon/Hong Kong/15-04955/2015 (2.3.4.4)	V06-2016	11/12- (91.66%)
A(H5N6)	Same virus as V06-2016	V10-2016	100 %
A(H1N1)pdm09	A/California/7/2009-like virus	V04-2016	100 %
A(H1N1)pdm09	A/California/7/2009-like virus	V07-2016	100%
A(H3N2)	A/Hong Kong/4801/2014-like virus	V03-2016	10/12 (83.33 %)
A(H9N2)	A/Hong Kong/308/2014	V09-2016	10/12 (83.33%)
B	B/Phuket/3073/2013-like virus (Yamagata lineage)	V02-2016	100%
Negative	NA – SO	V05-2016	100%

Composition of panel 15 for the WHO EQAP

- 10 coded samples, represented by different concentrations of influenza viruses;
 - Influenza A(H5N1) of genetic clade 2.3.2.1;
 - Influenza A(H5N6) of genetic clade 2.3.4.4;
 - Influenza A(H1N1) pdm09;
 - Influenza A(H3N2);
 - Influenza A(H9N2);
 - Influenza B (Yamagata lineage); and;
- Sample that contained no virus.
- Two influenza A(H1N1)pdm09 samples designated for phenotypic/genotypic testing of NAI susceptibility were included upon request.

through routine inclusion of influenza A detection assay in the testing algorithm in order to maintain laboratory capacity to detect emerging or less commonly circulating influenza A virus subtypes. With the continuous circulation of other influenza viruses such as influenza A (H5) and A(H9) viruses and its pandemic potential, the laboratories need to consider regularly adopting and reviewing their subtyping assays.

The NICs continue to play an important role in the surveillance of influenza, detecting and monitoring the circulation of seasonal and other influenza viruses with pandemic potentials. Its capacity to detect these viruses need to be maintained throughout the year.

Update on outbreaks

in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; **Cholera** in Somalia; **Cholera** in Yemen; **Chikungunya** in Pakistan;

Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

Avian Influenza : 2006-2017

Egypt (A/H5N1)	[356 (121), 33.9%]
Egypt (A/H9N2)	[3 (0)]

Chikungunya

Pakistan	[230 (0)]
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MERS-CoV: 2012-2017

Saudi Arabia	[1414 (601), 42.5%]
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Cholera : 2016-2017

Somalia	[14 710 (497), 3.3%]
Yemen	[12773 (97), 0.76%]

Rift Valley Fever : 2016-2017

Niger	[266(32), 12%]
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Avian Influenza A (H7N9) : 2013-2017

China	[808(307),36%]
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Avian Influenza A (H5N6) : 2016-2017

China	[4 (0)]
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Wild poliovirus: 2014-2017

Pakistan	[379(0)]
Afghanistan	[60(0)]

Zika Virus Infection: 2015-2017

69 countries and territories have reported transmission so far