

Current major event

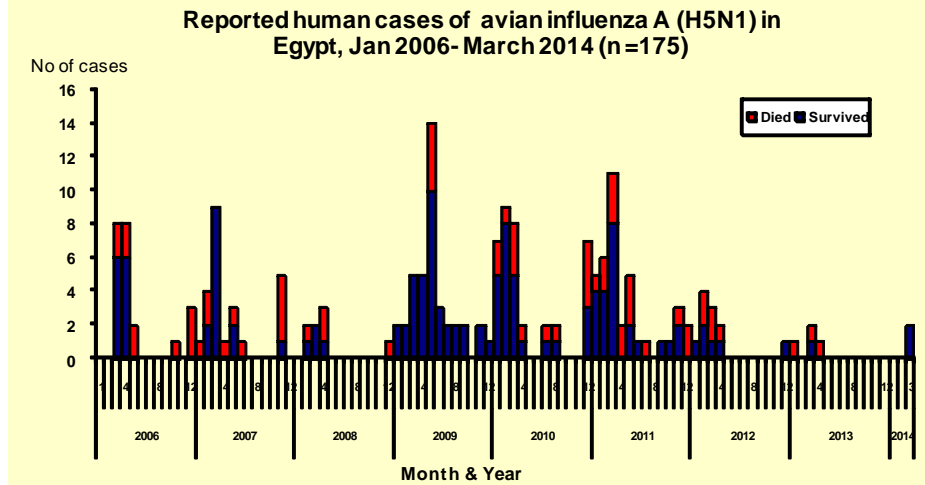
New human cases of Avian Influenza A (H5N1) in Egypt

During the current month, the Ministry of Health and Population in Egypt reported two new human cases of avian influenza A (H5N1) virus infections. One of the cases was a 56 year old female from Damanhour district of Behaira governorate. The second case was a 4 year old male, from Demitta district of Demitta governorate. Field investigations into the source of infection revealed that both the cases had contact with sick and dead poultry (ducks and chickens). To date, a total of 175 human cases including 63 deaths were reported in Egypt from avian influenza A (H5N1).

Editorial note

After a gap of almost one year, Egypt reported two new human cases of avian influenza A (H5N1). The last reported human infection of avian influenza A (H5N1) reported from the country was during April-May 2013 (*Please see the graph above*). As the field investigation revealed that the patients had contact with sick poultry before falling ill, this clearly indicates that the virus is circulating in poultry and therefore opportunity for further transmission and risk of sporadic infection in humans exist in the country.

Two types of influenza viruses with avian origin are currently circulating across the globe— avian influenza A (H5N1) and (H7N9). While the strain of avian influenza A (H5N1) seems to be highly pathogenic that kills domestic poultry, the other strain- the novel avian influenza A (H7N9), currently, circulating in China is low pathogenic. As such the virus may circulate in poultry with mild disease or even with no symptoms and may remain disguised until a human is infected. There are also remarkable clinical-epidemiologic similarity in the disease caused by the H7N9 and H5N1 strains of the avian influenza viruses. Diseases caused by these two viruses have so far been sporadic with no evidence of sustained person-to-person transmission. The clinical presentations of the disease caused by both these vi-



Age distribution of avian influenza A (H5N1) reported from Egypt, 2006-2014

| Age group | Cases | Deaths | CFR (%) |
|----------------|------------|-----------|-----------|
| < 5 yrs | 53 | 2 | 3.8 |
| 5 to < 15 yrs | 35 | 4 | 11.4 |
| 15 to < 30 yrs | 49 | 36 | 73.5 |
| 30 to < 45 yrs | 32 | 18 | 56.2 |
| 45 yrs & > | 6 | 3 | 50 |
| Total | 175 | 63 | 36 |

ruses remain more or less indistinguishable— bilateral pneumonia progressing to acute respiratory distress syndrome. However, the global case-fatality ratio reported from H7N9 is much less (30% as of March) compared to H5N1 infections (59.3%)

Improved surveillance will hold the key for early detection of any suspected human case of avian influenza. Recently, Egypt faced a severe influenza season with many atypical bilateral pneumonia cases reported across the country which were caused by influenza A (H1N1) pdm09. As influenza viruses are some of the most dynamic pathogens and the pandemic potentials of H5N1 strains have not gone away yet, it is prudent that the country enhances surveillance for severe acute respiratory infection and rapidly investigate and test any unusual pattern to track the spread of both seasonal and avian influenza viruses. Any sign of change in pathogenicity of the avian influenza A(H5N1) virus also needs to be carefully studied.

Update on outbreaks

Novel Coronavirus in Saudi Arabia, UAE and Kuwait; Wild Polio Virus in Iraq; Avian Influenza A(H5N1) in Egypt

Current public health events of international concern

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

Avian Influenza A (H5N1) : 2006-2014

| | |
|--------------|---------------------|
| Egypt | [175 (63), 36%] |
| Indonesia | [195 (163), 83.6 %] |
| Viet Nam | [125 (62), 49.6%] |
| Cambodia | [47 (33), 70.2%] |
| Global total | [652 (386), 59.2%] |

MERS-CoV: 2012-2014

| | |
|--------------|-------------------|
| Saudi Arabia | [162 (64), 39.5%] |
| Jordan | [4 (3), 75 %] |
| Oman | [3 (3), 100%] |
| UAE | [15 (6), 40%] |
| Kuwait | [3 (1), 33.3%] |
| Tunisia | [3 (1), 33%] |
| Qatar | [10 (6), 60%] |

Ebola Hemorrhagic Fever: 2014

| | |
|--------|------------------|
| Guinea | [86 (60), 69.6%] |
|--------|------------------|

Wild poliovirus: 2013-2014

| | |
|-------------|----------------|
| Pakistan | [122 (0), 0%] |
| Afghanistan | [17 (0), 0%] |
| Syria | [37 (0), 0%] |
| Somalia | [194(0), 0%] |
| Iraq | [1 (0), 0%] |

CFR=Case-Fatality Rate; # Suspected cases