



The objective of the bulletin is to report new health events occurring outside and inside EpiSouth area that have potential implications on EpiSouth population. It does not aim to provide an exhaustive review of international alerts. Since 2006, The French public health Institute (InVS) is issuing an online epidemic intelligence bulletin (Bulletin hebdomadaire International - BHI). In order to limit duplication and to make this already verified information available to a larger audience, information relating to health events of interest for EpiSouth population are translated and integrated in the relevant e-web sections. Despite all verifications, WP6 team would not be responsible for potential errors. The recipient is responsible for the cautious use of this information. Neither the European Commission nor any person acting on behalf of the Commission is liable for the use that may be made of the information contained in this report. Data maps and commentary used in this document do not imply any opinion of EpiSouth countries or its partners on the legal status of the countries and territories shown or concerning their borders.

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### INDEX e-WEB n°198

- A(H5N1) Avian influenza - none
- A(H5N1) Human influenza – China,
- 2011 A(H5N1) Avian influenza update– World, Egypt
- “INSIDE” and “OUTSIDE” events: none

Location: World	Event: A(H5N1) – Epizootic	<u>Comments</u>
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No new event has been reported this week.

Location: World	Event: A(H5N1) – Human	<u>Comments</u>
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#### CHINA

- On 31<sup>st</sup> December 2011, Chinese health authorities reported a case of A(H5N1) in the city of Shenzhen, Guangdong province (south east of the country, cf. map 1).
- The case was:
  - A 29 years old man
  - Onset of symptoms on 21<sup>st</sup> December 2011
  - Hospitalised on 25<sup>th</sup> December 2011
  - He died on 31<sup>st</sup> December 2011.
- So far, no contact with contaminated poultry has been documented.
- Currently, Chinese health authorities have not reported any epizootic in the area.

The last human case in continental China was notified in June 2010 in Hubei province (cf. eWEB n°116).

The last notified avian foci in continental China occurred in Tibet (Lhasa) in December 2011, and affected poultry.

In continental China, reporting of such events is irregular. The occurrence of avian foci and therefore of human cases is likely to be underestimated and/or under reported.

## WORLD

### A(H5N1) epizootics

- A(H5N1) Influenza virus is still circulating in two of the continents affected since the beginning of the epidemic in 2003: Asia and Africa.
- In 2011, 15 countries and territories (among which 6 are enzootic) notified A(H5N1) epizootic foci (versus 18 countries in 2010 (cf. [eWEB n° 146](#)) and 12 in 2009).
- In April 2011, in its report ([Approaches to controlling preventing and eliminating A\(H5N1\) HP avian influenza in endemic countries](#)), FAO is considering 6 countries as enzootic or partially enzootic (versus 2 in 2010):
  - China
  - Vietnam
  - Indonesia
  - Bangladesh
  - Egypt,
  - India (partially enzootic: most of the Far-East part of the country).
- In Asia: epizootic foci were also reported outside enzootic areas: among poultry in Cambodia, South Korea, India (in the non-enzootic States), Mongolia, Japan, Nepal, Iran, Israel, and Palestine and among wild birds in China (Tibet and Hong Kong) and in Mongolia. Iran had not reported epizootic since 2008.
- In Africa, Egypt is still enzootic and is currently, the only country of the African continent reporting cases.

In most of countries, when present, veterinary surveillance is based on the monitoring of poultry. In the absence of adequate surveillance of wildlife, it cannot be excluded that a higher number of wild birds were affected (including in non reporting areas.)

## A(H5N1) Human influenza

- From January 2003 to 31<sup>st</sup> December 2011, 577 cases of A(H5N1) avian influenza including 332 deaths (observed CFR: 58%) were reported in 15 countries by the ministries of health or WHO.
  - Indonesia and Egypt are the 2 countries reporting the highest number of cases (respectively 32% and 27% of the total).
  - From the 1<sup>st</sup> January to the 31<sup>st</sup> December 2011, 59 cases of A(H5N1) avian influenza including 32 deaths were reported in 5 countries: Bangladesh, Cambodia, China, Egypt, and Indonesia; Vietnam had not reported any case in 2011 as opposed to previous years.
  - In 2011, the overall observed CFR was 54%. It largely varied according to countries: 38% in Egypt, 82% in Indonesia, and 100% in Cambodia (the 8 reported cases died). These differences in observed CFR probably reflects differences in detection systems, access to health care and diagnostic capacities, early case management, more efficient in Egypt compared to other countries which mainly detected and reported severe cases.
  - Despite difference among countries, at a global scale the dynamic of the epidemic remained globally stable since the 2007-2008 winter season (cf. graph 1). In 2010, 48 cases including 25 deaths (observed CFR: 52%) have been reported in 5 countries (cf. [eWEB n° 146](#)).
- From 2003 to 2011, the epidemic's dynamic evolved:
    - In 2003 – 2005, all cases were reported in Asia (mainly Vietnam and Thailand).
    - In 2006, extension to Europe and Africa (Azerbaijan, Turkey, Iraq and Djibouti).
    - From 2006, Indonesia reported the highest number of cases.
    - Since 2009, more than 50% of human world cases are reported in Egypt (cf. graph 2).
  - These data should be interpreted with caution due to :
    - Limited access to health care and diagnostic in several affected countries.
    - A weakening of surveillance efforts due to the epidemic's duration.
    - A possible under-notification of the cases.
  - It is worth mentioning that despite the extension of the enzootic zone, no increase of human infection was detected in several enzootic Asian countries, hence questioning the quality of surveillance systems.
  - Despite these limits, in 2011 no major change has been observed in the epidemic's dynamic (cf. graph 2):
    - affected areas and seasonality are similar (highest number of cases from November to July)
    - Low avian viral circulation is documented outside these areas.
    - No significant modification of the virus. Except research works, there is no significant elements in favour of a virus adaptation to a human to human transmission.
  - The risk of transmission to human is still real in areas affected by epizootics.
  - This risk could be modified due to the increasing number of countries (with a high population density) where the viral circulation became enzootic.

### Geographical distribution

- Egypt is the country reporting the highest number of cases in 2011 (63%) and constitutes, with Indonesia, one of the 2 main epicentres of the epidemic (cf. graph 2). Half of the cases occurred in the North of the country, and 23 of the 29 governorates reported cases (cf. map 2).

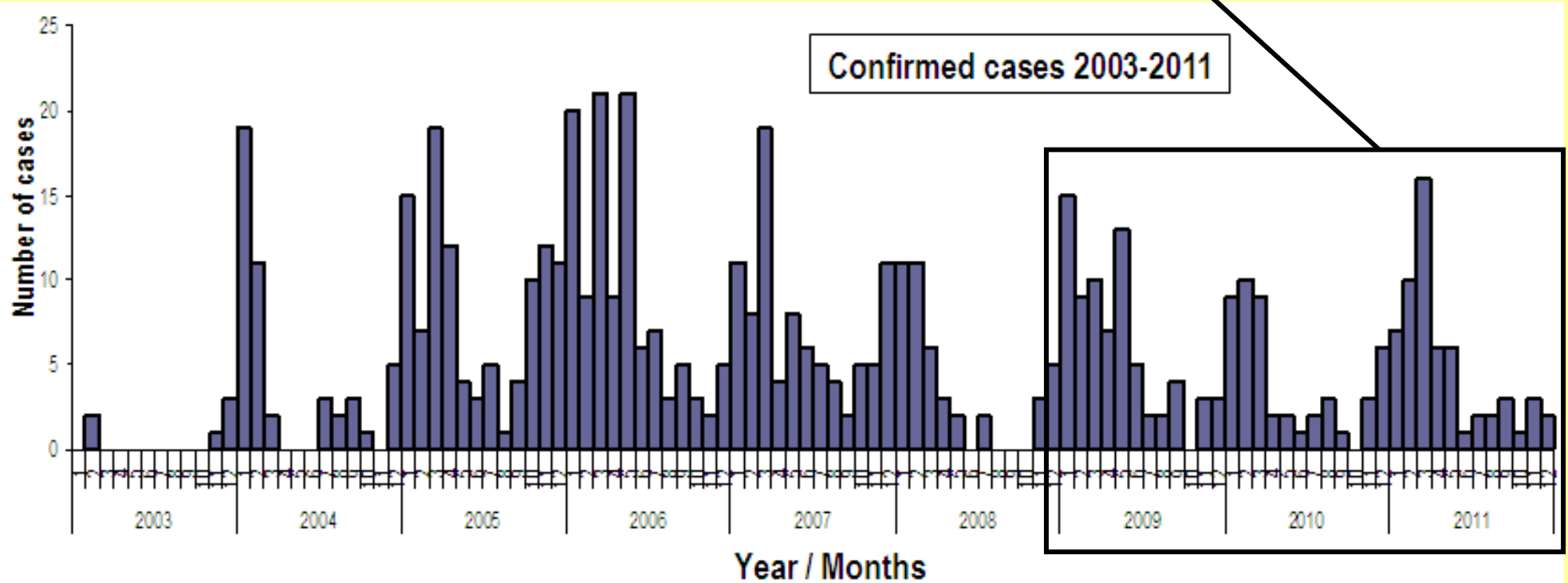
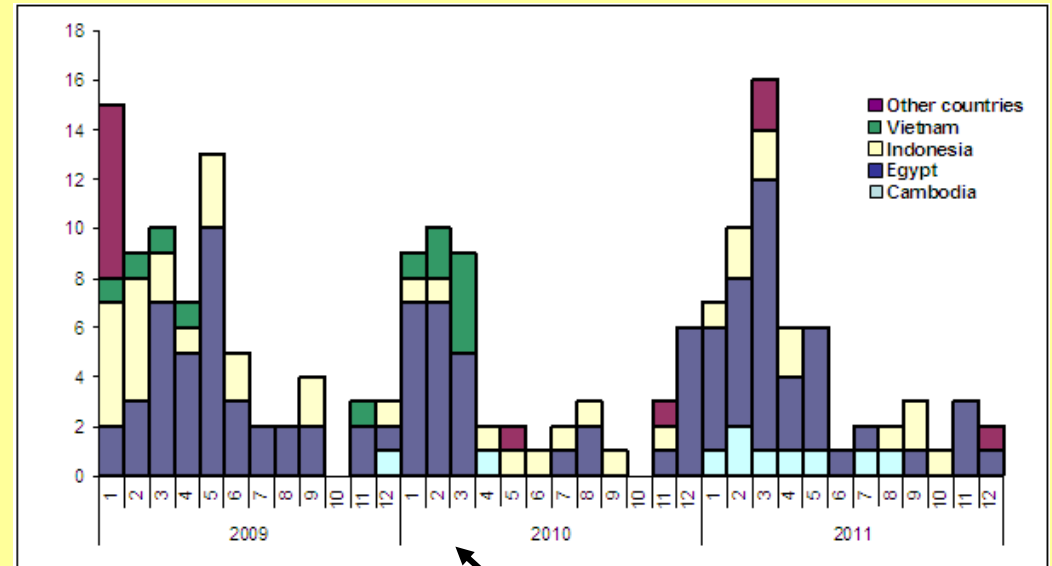
### Seasonality

- From March 2006 to December 2011, most of the cases occurred during the first quarter of the year (from January to March), except in 2009 where most of the cases occurred during the second quarter (cf. graph 3 & 5).

### Sex and age distribution

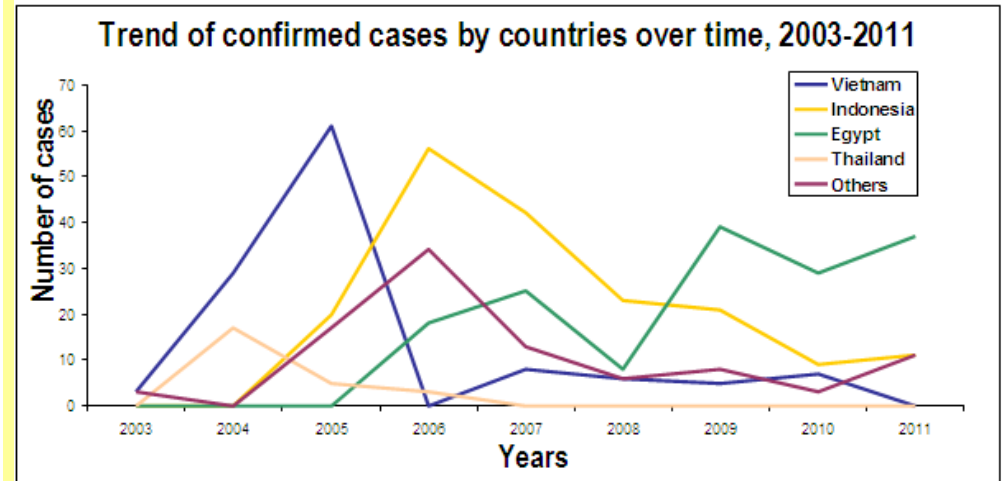
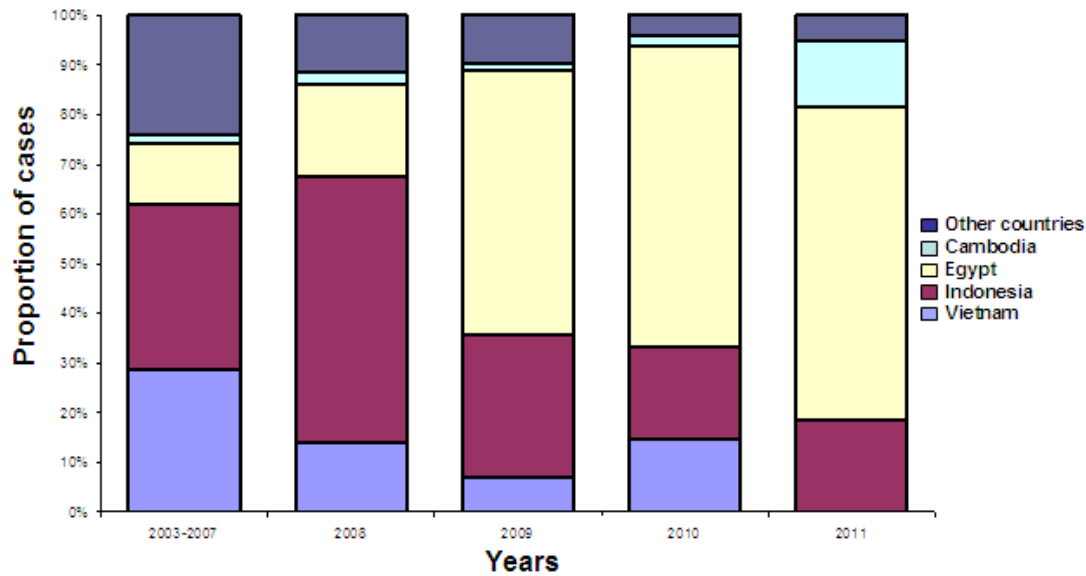
- Of the total 156 cases, 58% were female and 42% were male, and 37% were children under 5 years old.
- CFR among female was higher than among male: 45% versus 21,5% respectively.
- Most of female cases were aged between 0 and 34 years old, with a CFR of 76% for 15-24 years age group (cf. figure 4).
- For male, 52% of the cases were young boys under 5 years old (cf. graph 4).

Graph 1. Evolution of the number of human cases of A(H5N1) between 2003 and 2011 (world) and focus on the number of cases per country on the period 2009 - 2011.



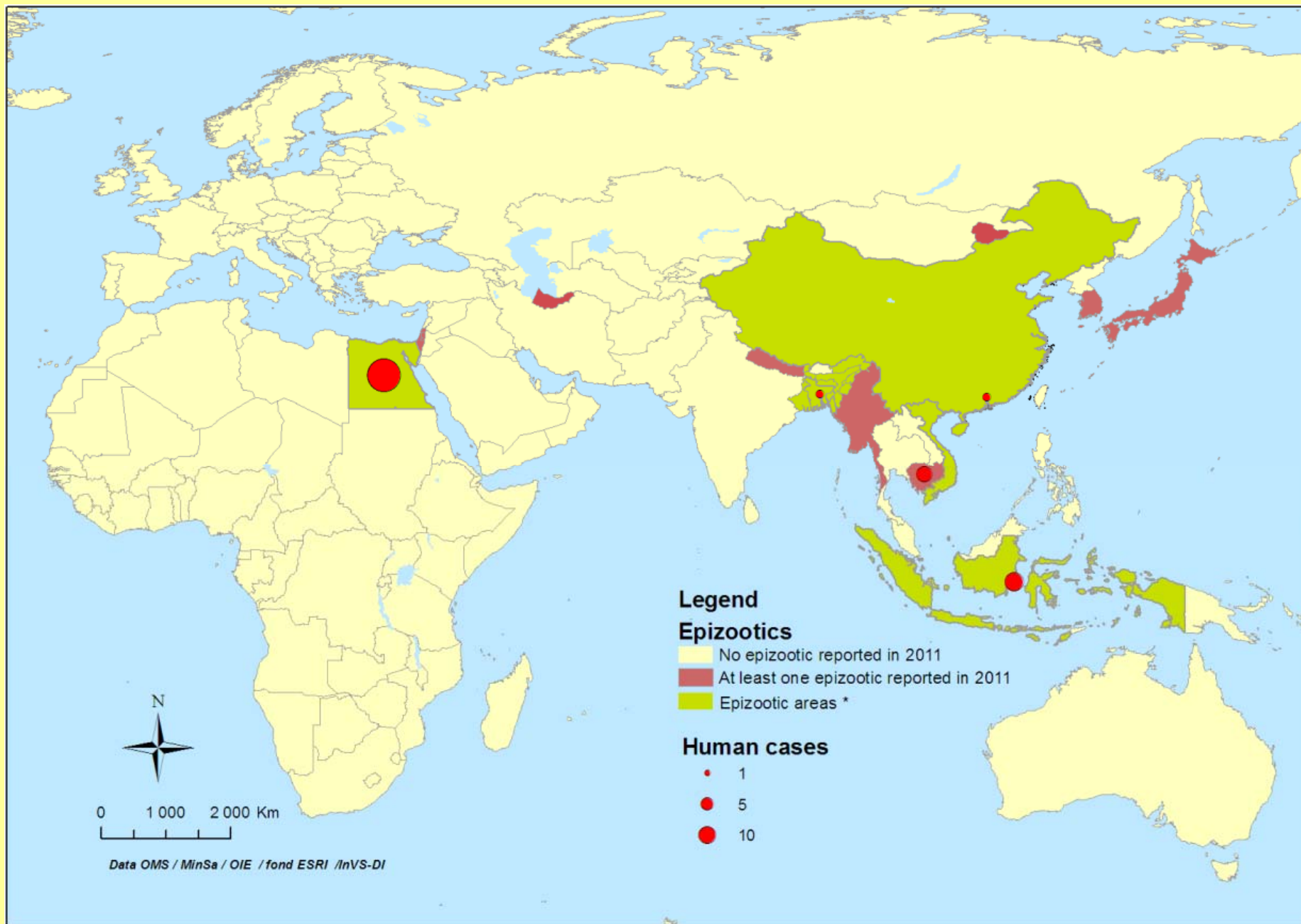
**Graph 2. Distribution of A(H5N1) avian human cases per country from 2003 to 2011 and evolution of the number of the cases per country throughout the years.**

**Proportion of confirmed human cases by countries, 2003-2011**

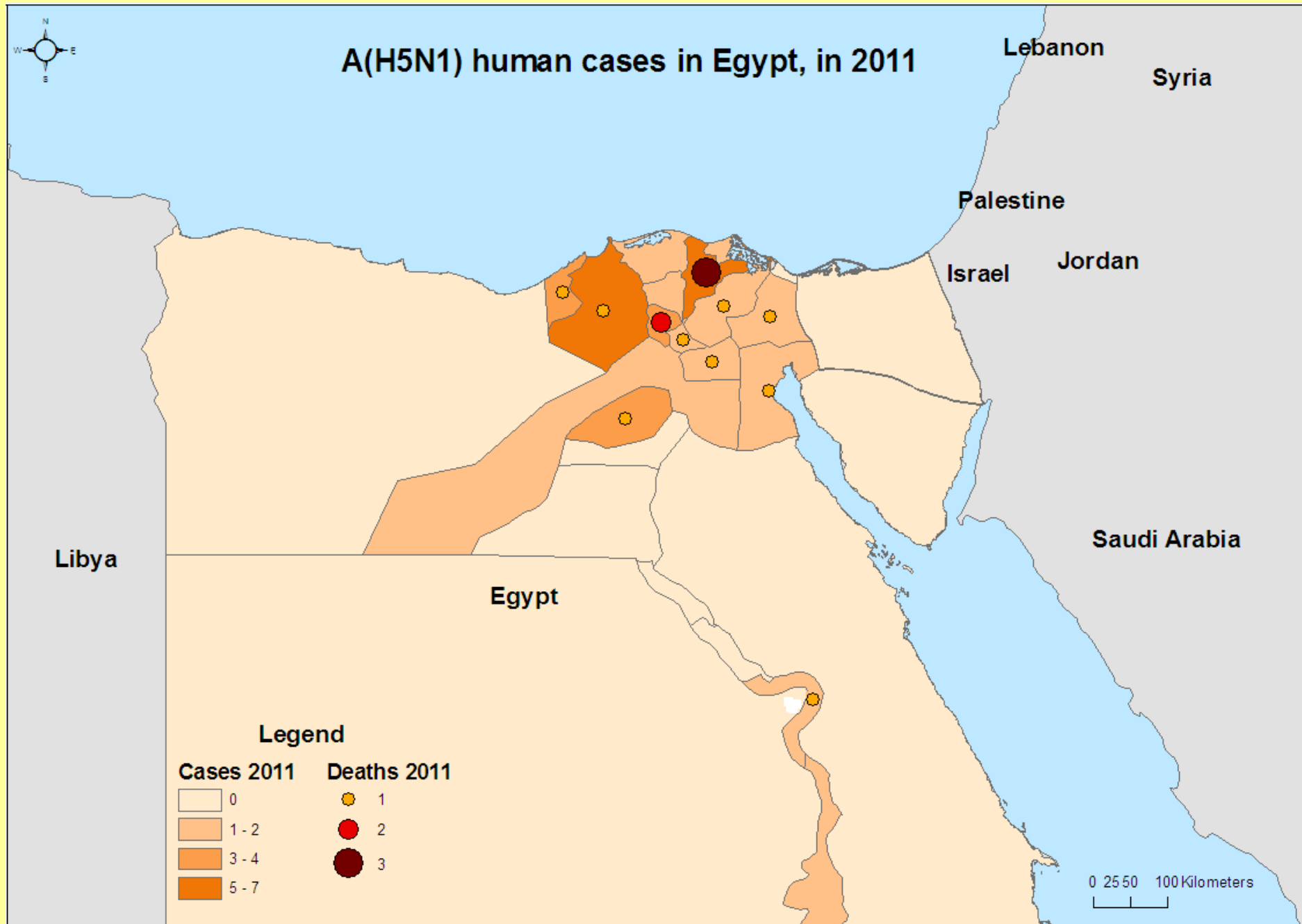


	2003-2007	2008	2009	2010	2011	Total
Azerbaijan	8	0	0	0	0	8
Bangladesh	0	1	0	0	2	3
Burma	1	0	0	0	0	1
Cambodia	7	1	1	1	8	18
Chine	29	4	7	2	1	43
Djibouti	1	0	0	0	0	1
Egypt	43	8	39	28	37	156
Indonesia	118	24	21	9	11	182
Iraq	3	0	0	0	0	3
Laos	2	0	0	0	0	2
Nigeria	1	0	0	0	0	1
Pakistan	3	0	0	0	0	3
Thailand	25	0	0	0	0	25
Turkey	12	0	0	0	0	12
Vietnam	101	6	5	7	0	119
<b>Total</b>	<b>354</b>	<b>44</b>	<b>73</b>	<b>47</b>	<b>59</b>	<b>577</b>

Map 1. Overview of A(H5N1) in the world, human cases and epizooties reported in 2011.

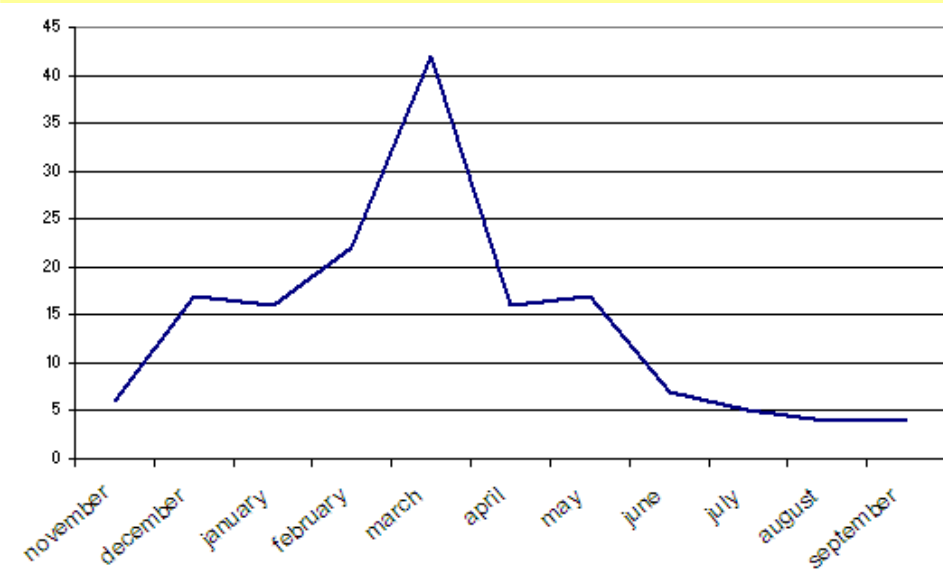


Map 2. Overview of A(H5N1) in Egypt, human cases and deaths reported in 2011.

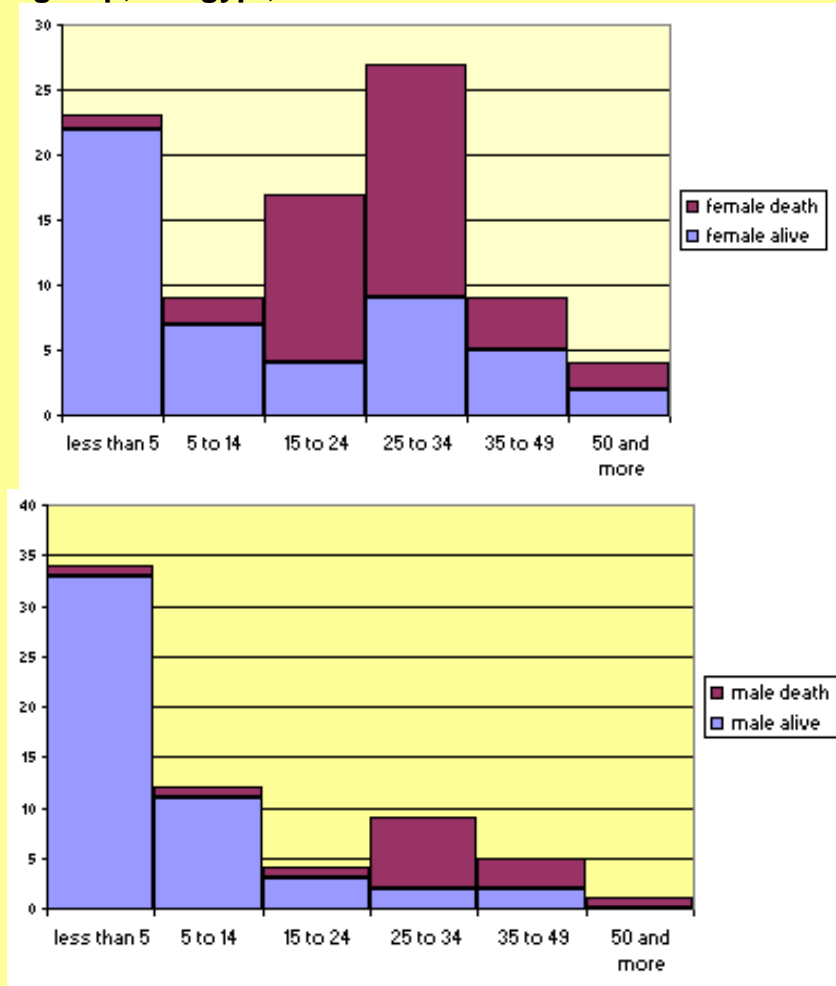




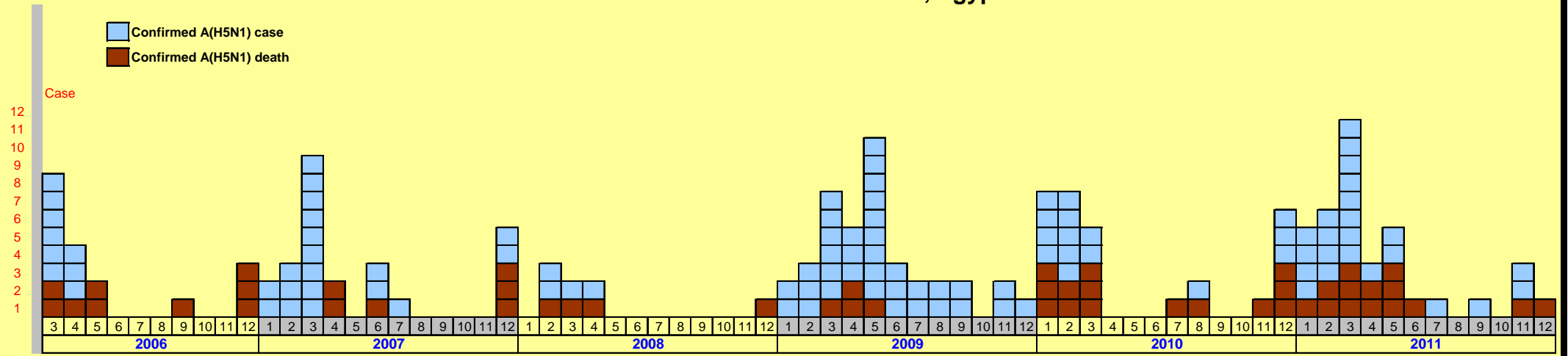
**Graph 3. Cumulative A(H5N1) human cases per month in Egypt, from March 2006 to December 2011.**



**Graph 4. Cumulative A(H5N1) human cases and deaths, by sex and age group, in Egypt, from March 2006 to December 2011**



**Graph 5. Epidemic curve: A(H5N1) human confirmed infections and deaths, by date of onset of symptom or hospitalisation\*, from March 2006 to December 2011, Egypt.**



\* When the symptom onset date was not available, the date of hospitalisation has been considered.

Source: Egyptian MoH and EpiSouth data.