## Avian Influenza Report



Avian Influenza Report is a weekly report produced by the Respiratory Disease Office, Centre for Health Protection of the Department of Health. This report highlights global avian influenza activity in humans and birds.

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## **Summary**

- 1. Since the previous issue of Avian Influenza Report (AIR), two new human cases of avian influenza A(H7N9) from Jiangsu and Zhejiang respectively were reported by the National Health and Family Planning Commission (NHFPC). Since March 2013 (as of November 12, 2016), there were a total of 800 human cases of avian influenza A(H7N9) reported globally. Since November 2016 (as of November 12, 2016), two cases have been recorded in Mainland China.
- 2. Since the previous issue of AIR, there were no new human cases of avian influenza A(H5N6). Since 2014 (as of November 12, 2016), 14 human cases of avian influenza A(H5N6) were reported to the World Health Organization (WHO) and all occurred in Mainland China. The latest case was reported on June 8, 2016.
- 3. There were no new human cases of avian influenza A(H5N1) reported by WHO. From 2011 to 2015, 32 to 145 confirmed human cases of avian influenza A(H5N1) were reported to WHO annually (according to onset date). In 2016, there have been 10 cases in Egypt so far.\*

<sup>\*</sup> Since November 21, 2012, WHO only publishes information on human cases with avian influenza A(H5N1) infection in "Influenza at human - animal interface: Monthly Risk Assessment Summary". Only cases of human infection with H5N1 involved in events that are unusual or associated with potential increased risks will be reported in Disease Outbreak News. The latest report was published in October, 2016.

## This week's highlights

(Sources: WHO, NHFPC, Mainland health authorities, Centre for Health Protection (CHP) and World Organisation for Animal Health (OIE))

Table 1. Hong Kong: Confirmed human cases of avian influenza A(H5) / avian influenza A(H7N9)

	No. of H5 cases (No. of deaths)	No. of H7N9 cases (No. of deaths)	Details
In this reporting period	0(0)	0(0)	-

Table 2. Outside Hong Kong: Confirmed cases of human infection with avian influenza A(H7N9)

	Place of occurrence	No. of cases	Province / Region / Municipality	City / District / Area	Age (years)	Sex	Condition at time of reporting	Date of report
New	Mainland	2	Zhejiang	Hangzhou	77	F	Serious	11/11/2016
cases	China	Δ	Jiangsu	Suzhou	89	M	Serious	11/11/2016

Table 3. Cumulative numbers of confirmed cases of human infection with avian influenza A(H7N9) since 2013 and since November 2016 respectively

Confirmed H7N9 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2013 (800 cases in total) (as of November 12, 2016)	Cumulative no. of cases since November 2016 (2 cases in total) (as of November 12, 2016)
	Zhejiang Province	220	1
	Guangdong Province	195	-
	Jiangsu Province	105	1
	Fujian Province	74	-
	Shanghai Municipality	51	-
	Anhui Province	36	-
	Hunan Province	34	-
	Jiangxi Province	14	-
Mainland	Xinjiang Uygur Autonomous Region	10	-
China	Beijing Municipality	9	-
	Shandong Province	9	-
	Hebei Province	4	-
	Henan Province	4	-
	Guangxi Province	3	-
	Guizhou Province	2	-
	Hubei Province	2	-
	Jilin Province	2	-
	Tianjin Municipality	2	-
Liaoning Province		1	-
Canada		2*	-
	Hong Kong	16*	-
	Malaysia	1*	-
	Taiwan	4*	-

<sup>\*</sup> All cases imported from Mainland China

Table 4. Outside Hong Kong: Confirmed cases of human infection with avian influenza A(H5N6)

	Place of occurrence	No. of cases (No. of deaths)	Province / Region / Municipality	City / District / Area	Age (years)	Sex	Condition at time of reporting	Date of report
New cases	-	0(0)	-	-	-	-	-	-

Table 5. Cumulative number of confirmed cases of human infection with avian influenza A(H5N6) reported to WHO since 2014 and since October 2015 respectively

Confirmed H5N6 human cases have been reported in the following countries / areas		Cumulative no. of cases since 2014 (14 cases in total) (as of November 12, 2016)	Cumulative no. of cases since October 2015 (10 cases in total) (as of November 12, 2016)
	Guangdong	6	5
	Hunan	2	2
Mainland	Yunnan	2	-
China	Anhui	1	1
Cimia	Hubei	1	1
	Jiangxi	1*	1*
	Sichuan	1	-

<sup>\*</sup> imported case from Guangdong

Table 6. Outside Hong Kong: Confirmed human cases of avian influenza A(H5N1)

	Place of occurrence	No. of cases (No. of deaths)	Details
New cases	-	0(0)	-

For the cumulative no. of human cases by place, please refer to WHO website.

Table 7. Confirmed human cases of avian influenza A(H5N1) reported to WHO / NHFPC since 2003 (by onset date)  $^{\$}$ 

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Overall
Cases	4	46	98	115	88	44	73	48	62	32	39	52	145	10	856
Deaths	4	32	43	79	59	33	32	24	34	20	25	22	42	3	452
Case fatality rate	100%	69.6%	43.9%	68.7%	67.0%	75.0%	43.8%	50.0%	54.8%	62.5%	64.1%	42.3%	29.0%	30.0%	52.8%

<sup>§</sup> Further breakdown by countries is available at WHO website

Table 8. Confirmed human cases of avian influenza A(H5N1) reported to WHO / NHFPC since 2003 (by date of reporting)

Country	Cumulative no. of cases (December 2003 to November 2016)	No. of recent cases <sup>^</sup> (August 2016 to November 2016)		
Azerbaijan	8	0		
Bangladesh	8	0		
Cambodia	56	0		
Canada	1	0		
Mainland China	53	0		
Djibouti	1	0		
Egypt	356	2		
Indonesia	199	0		
Iraq	3	0		
Laos	2	0		
Myanmar	1	0		
Nigeria	1	0		
Pakistan	3	0		
Thailand	25	0		
Turkey	12	0		
Vietnam	127	0		
Overall	856	2		

<sup>^</sup> Details of recent cases (August 2016 to November 2016) are listed in *Table 9*.

Table 9. Details of the recent confirmed human cases of avian influenza A(H5N1) reported to WHO (August 2016 to November 2016) (Sources: WHO)

Date of report	Country	Province / Region	District / City	Sex	Age	Outcome at the time of reporting
3/10/2016	Egypt	Fayoum	-	M	3	Fatal
3/10/2016	Egypt	Giza	-	F	3	Fatal

Table 10. Outside Hong Kong: Confirmed human cases of avian influenza A infections other than avian influenza A(H5N1 / H5N6 / H7N9) reported in the past 6 months

	Place of occurrence	No. of cases (No. of deaths)	Details
In this reporting period	-	0(0)	-
Previously reported cases (onset in the past 6 months)	Mainland China	5(0)	Avian influenza A(H9N2):  Guangdong Province: A 4-year-old girl with onset on June 10, 2016; a 3-year-old boy with onset on July 9, 2016; and a 29-year-old woman with onset on August 8, 2016.  Yunnan Province: A 10-month-old boy with onset on August 7, 2016.  Jiangxi Province: A 4-year-old girl with onset on August 2, 2016.

Table 11. Hong Kong: Confirmed reports of avian influenza A(H5) or avian influenza A(H7N9) in poultry / wild birds since 2014

	No. of reports of H5 in poultry / wild birds	No. of reports of H7N9 in poultry / wild birds	Details
In this reporting period	0	0	-
Previously reported cases since 2014	$6^*$	3#	-

- \* Carcass of a peregrine falcon found in Yuen Long on April 9, 2015 (H5N6)
  Carcass of an oriental magpie robin found in Sai Kung on April 29, 2015 (H5N6)
  Carcass of an oriental magpie robin found in Kwai Chung on November 17, 2015 (H5N6)
  Carcass of a great egret found in Wong Tai Sin on December 31, 2015 (H5N6).
  Chicken carcass found in Tuen Mun on February 14, 2016 (H5N6)
  Chicken carcass found in Tai O on February 18, 2016 (H5N6)
- # Samples from a batch of live chickens imported from a registered poultry farm in Shunde District of Foshan City in Guangdong were tested positive for H7N9 virus on January 27, 2014.

  Samples from a consignment of live chickens from a registered farm in Huicheng District of Huizhou in Guangdong were tested positive for H7N9 virus on December 30, 2014.

  A sample of faecal droppings of live poultry taken from a poultry stall in Yan Oi Market in Tuen Mun was tested positive for H7N9 virus on June 5, 2016.

Table 12. Outside Hong Kong: Confirmed avian influenza A(H5), A(H7N9) or other highly pathogenic avian influenza in poultry / wild birds / environmental samples reported in this week

Places of occurrence	No. of reports of H5N8	Details
		<b>India:</b> Samples from birds in Haryana State and Punjab State were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 8 and November 9, 2016)
		<b>Germany:</b> Samples from poultry and birds in Schleswig-Holstein State were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 9 and November 11, 2016)
		<b>Croatia:</b> Samples from birds in Vukovarsko-Srijemska County were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 10, 2016)
India, Germany, Croatia, Austria,		<b>Austria:</b> Samples from poultry and birds in Vorarlberg State were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 10 and November 11, 2016)
Switzerland, Netherlands, Denmark, Israel,	12	<b>Switzerland:</b> Samples from birds in Thurgau State were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 10, 2016)
Hungary		<b>Netherlands:</b> Samples from birds in Noord-Holland Province were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 11, 2016)
		<b>Denmark:</b> Samples from birds in Copenhagen were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 11, 2016)
		<b>Israel:</b> Samples from poultry in Hazafon Region were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 13, 2016)
		<b>Hungary:</b> Samples from poultry in Bacs-Kiskun State were tested positive for highly pathogenic avian influenza A (H5N8). ( <i>OIE</i> , November 14, 2016)

For cumulative reports of avian influenza A(H5N1) or A(H7N9) in poultry / wild birds, please refer to the OIE website.

Table 13. Countries / areas with documented avian influenza A (H7N9) or highly pathogenic avian influenza (including H5 and other subtypes) cases in the recent 6 months

(including infections in humans/birds and relevant environmental samples) (as of November 14, 2016)

Country/ Area	Human cases		Poultry cases / environmental samples		Wild bird cases / others	
	Subtype of virus	Date of last report	Subtype of virus	Date of last report (Subtype in this report)	Subtype of virus	Date of last report (Subtype in this report)
Algeria	-	-	-	-	Н7	02/11/2016 (H7N1)
Austria	-	-	H5	11/11/2016 (H5N8)	H5	10/11/2016 (H5N8)
Bhutan	-	-	H5	24/10/2016 (H5N1)	-	-
Cambodia	-	-	H5	17/05/2016 (H5N1)	-	-
Cameroon	-	-	H5	14/09/2016 (H5N1)	-	-
Cote D'Ivoire	-	-	H5	03/10/2016 (H5N1)	-	-
Croatia	-	-	-	-	H5	10/11/2016 (H5N8)
Denmark	-	-	-	-	H5	11/11/2016 (H5N8)
Egypt	H5N1	19/07/2016	Endemic	Endemic	-	-
France	-	-	H5	25/07/2016 (H5N1) 09/08/2016 (H5N2)	-	-
Germany	-	-	H5	11/11/2016 (H5N8)	H5	09/11/2016 (H5N8)
Ghana	-	-	H5	08/10/2016 (H5N1)	-	-
Hong Kong	-	-	H7	05/06/2016 (H7N9)	-	-
Hungary	-	-	H5	14/11/2016 (H5N8)	H5	04/11/2016 (H5N8)
India	-	-	H5	12/05/2016 (H5N1) 04/11/2016 (H5N8)	H5	09/11/2016 (H5N8)
Indonesia	-	-	Endemic	Endemic	-	-
Iraq	-	-	H5	25/07/2016*	-	-
Israel	-	-	H5	13/11/2016 (H5N8)	-	-
Italy	-	-	H7	16/05/2016 (H7N7)	-	-
Korea	-	-	H5	07/09/2016 (H5N8)	-	-
Laos	-	-	H5	14/10/2016 (H5N1)	-	-
Lebanon	-	-	H5	14/06/2016 (H5N1)	-	-
Macau	-	-	H7	22/06/2016 (H7N9)	-	-
Mainland China						
Anhui	H7N9	17/05/2016	_	_	_	_
	H5N6	03/05/2016				
Beijing	H7N9	03/06/2016	-	-	-	-
Fujian	H7N9	12/08/2016	-	-	-	-
Gansu	-	-	H5	08/10/2016 (H5N6)	-	-
Guangdong	H7N9	26/05/2016	-	-		-
Guizhou		-	H5	31/08/2016 (H5N6)		-
Hebei	H7N9	12/08/2016	-	-	-	-
Henan	H7N9	21/07/2016^	-	-	-	-
Hubei	<del>-</del>	-	H5	08/10/2016 (H5N6)	-	-
Hunan	H5N6	08/06/2016	H5	20/06/2016 (H5N6)		-
Jiangsu	H7N9	11/11/2016	-	-	-	-
Jiangxi	H7N9	12/08/2016%	-	-		-
Liaoning	H7N9	17/06/2016	-	-		-
Shandong	H7N9	11/05/2016	-	-	-	-
Tianjin	H7N9	15/06/2016	-	-	-	-
Zhejiang	H7N9	11/11/2016		-	-	-
Mexico	-	-	H7	01/06/2016 (H7N3)		-
Netherlands	-	-	H7	10/06/2016 (H7N9)	H5	11/11/2016 (H5N8)
Niger	-	-	H5	02/06/2016 (H5N1)	-	-
Nigeria	-	-	H5	01/11/2016 (H5N1)		-
Poland	-	-	-	-	H5	07/11/2016 (H5N8)
Russia	-	-	-	-	H5	17/06/2016*
Switzerland	-	-	-	- 17/10/2016 (USNO)	H5	10/11/2016 (H5N8)
Taiwan	-	-	Н5	17/10/2016 (H5N2) 22/07/2016 (H5N8)	-	-
Togo	<u> </u>	-	H5	25/08/2016 (H5N1)		-
United States of America	-	-	-	-	H5	26/08/2016 (H5N2)
Vietnam	-	-	H5	01/07/2016 (H5N6) 02/10/2016 (H5N1)	-	-