

# Control of Influenza A(H7N9) – A HKU-China CDC Collaboration

Gabriel M Leung, Benjamin J Cowling, Joseph T Wu

*Public Health Research Centre  
The University of Hong Kong Li Ka Shing Faculty of Medicine*

October 31, 2013



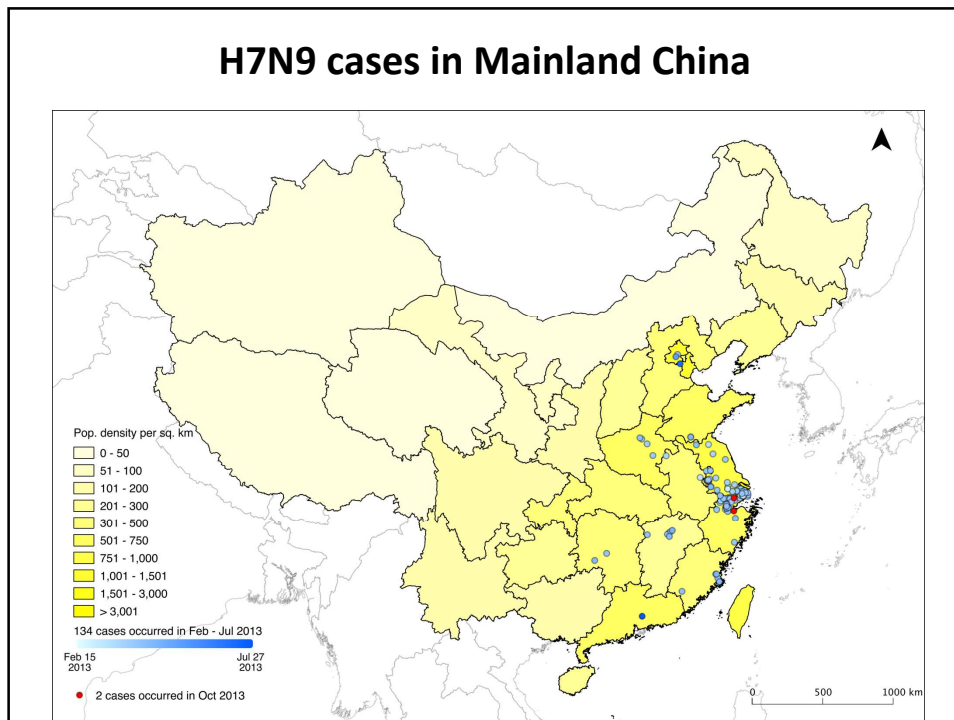
**SCHOOL OF PUBLIC HEALTH  
THE UNIVERSITY OF HONG KONG**  
香港大學公共衛生學院



**中国疾病预防控制中心**  
CHINESE CENTER FOR DISEASE CONTROL AND PREVENTION

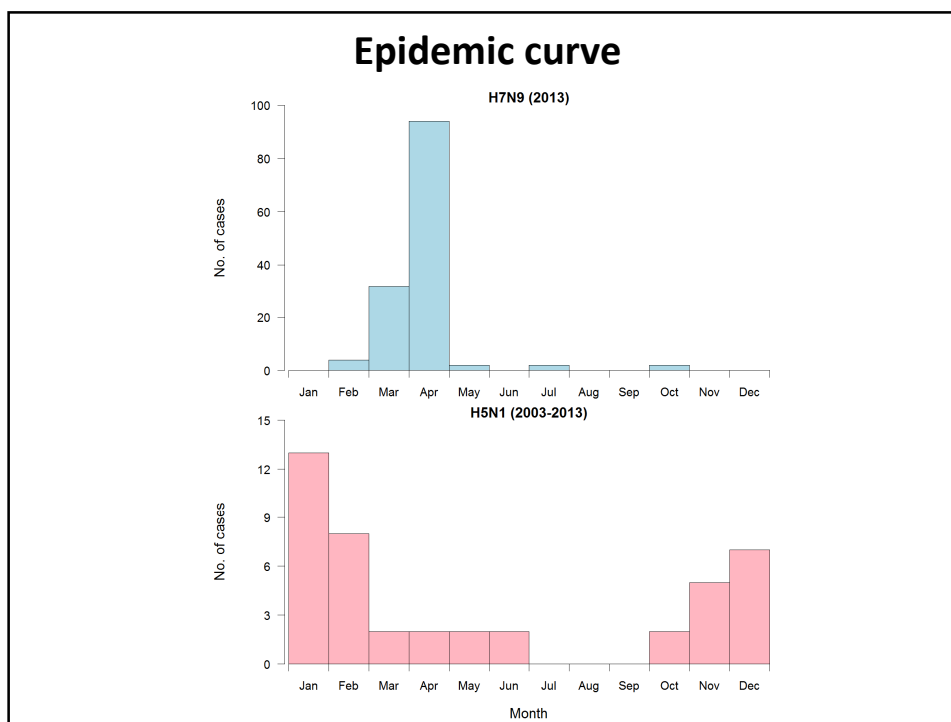
## Background

- Novel influenza A(H7N9) virus identified in March 2013.
- 136 laboratory-confirmed cases to date in mainland China.
  - (45 died, 87 recovered, 4 remain hospitalized)
- Estimated 35% risk of death among hospitalized cases (Yu et al. 2013a Lancet).
- Estimated 0.1% to 1% risk of death among symptomatic cases (Yu et al. 2013a Lancet).
- Most cases occurred in April 2013, only one case reported during July-August, consistent with seasonal pattern of influenza A(H5N1) in China (Cowling et al. 2013 Lancet).



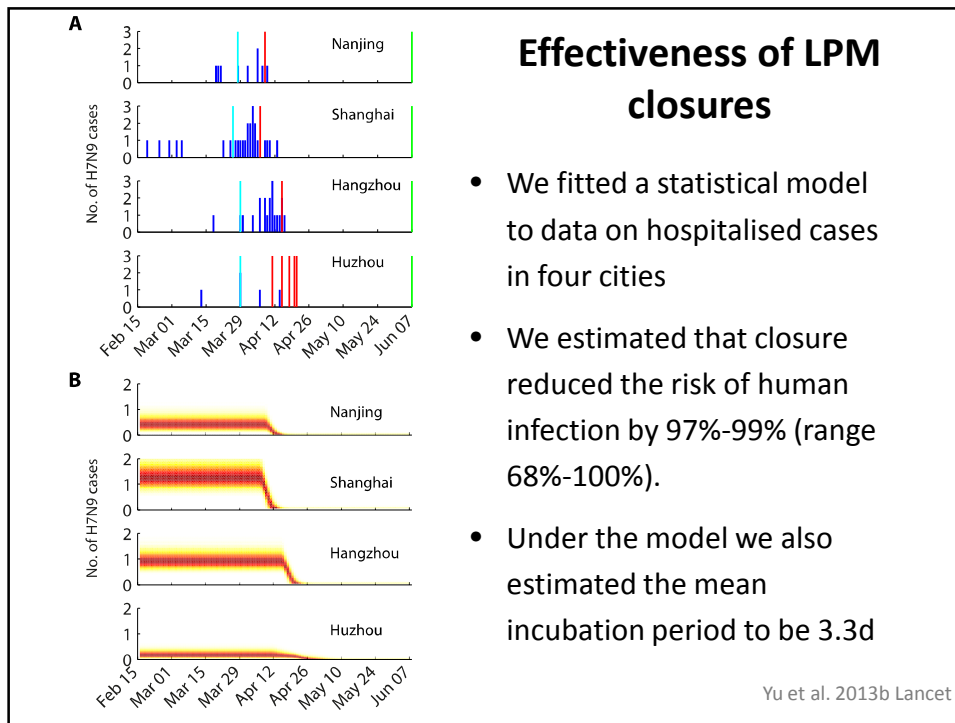
### Two new H7N9 cases in October

- Case 1: Male age 35y, Zhejiang province, onset 7 October (Chen et al 2013 Eurosurveillance).
  - No reported recent exposure to live poultry
  - None of 25 close contacts positive for H7N9
  - Very similar H7N9 virus compared to the spring outbreak
  - 2/9 environmental samples positive for H7N9 (LPM and wholesale market)
- Case 2: Male age 67y, Zhejiang province, onset 16 October, occupational exposure to live poultry.



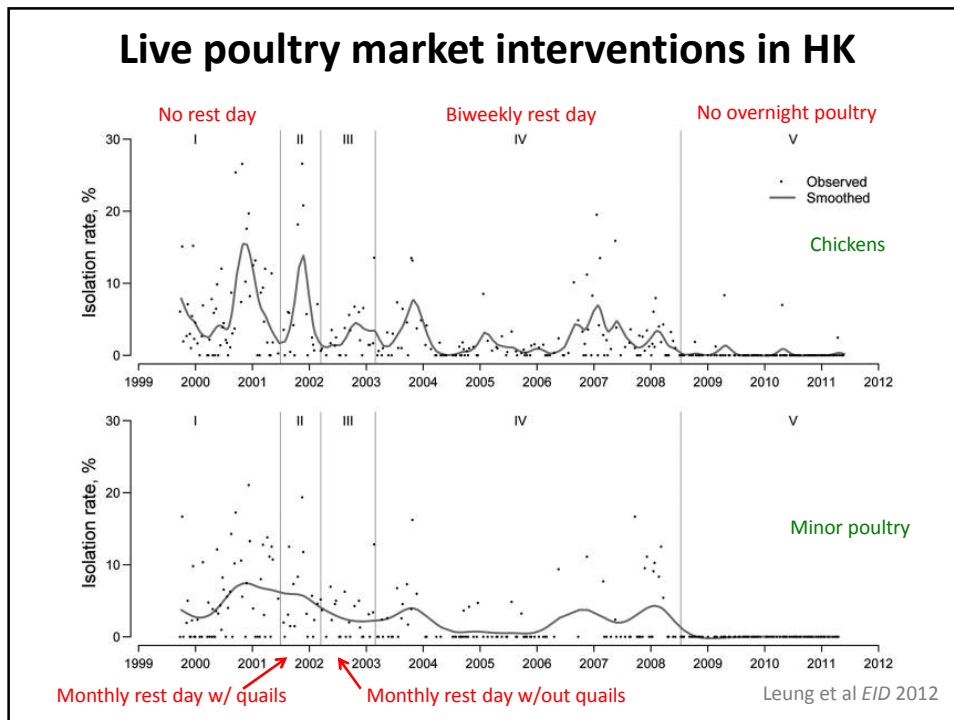
### H7N9 cases in spring wave and LPMs in China

Province/City (No. of H7N9 cases)	Onset date of the first case	Onset date of the last case	Time of LPM closure	Time of LPM reopening
Shanghai (33)	19 Feb	13 Apr	6 Apr	20 Jun
Zhejiang (45)	7 Mar	18 Apr	11 Apr (Huzhou) 15 Apr (Hangzhou) 19 Apr (Jiaxing) 21 Apr (Zhejiang province)	23 May (Zhejiang ) 29 May (Wenzhou) 8 Jun (Ningbo) 20 Jun (Hangzhou)
Jiangsu (29)	8 Mar	25 Apr	8 Apr (Nanjing, Suzhou) 9 Apr (Zhenjiang) 10 Apr (Wuxi)	30 May (Jiangsu) Jun (Wuxi, Suzhou, Zhenjiang, etc) Jul-Aug (Nanjing)
Anhui (4)	15 Mar	14 Apr	No policy on LPM closure	-
Guangdong (1)	27 Jul	27 Jul	28 Apr (Dongguan: the wholesale LPM where positive specimens were identified) 10 Aug (Huizhou: the retail LPM where the case was identified and a local wholesale LPM)	31 May (Dongguan market)  13-14 Aug (Huizhou markets)



### Current LPM “rest-day” policies in China

Province/City	LPM rest-day policy
Shanghai	LPMs shut down every year from Chinese New Year to April Wholesale LPMs: 1 rest-day/week Retail LPMs: 1 rest-day every 2 weeks
Zhejiang	LPMs must have $\geq 3$ rest-days/month
Jiangsu	LPMs must have $\geq 1$ rest-day/half month
Anhui	LPMs must have $\geq 1$ rest-day every 2 weeks
Guangdong	Wholesale LPMs: once per month, 2 consecutive rest-days Retail LPMs: once per month, 1 rest-day



### Summary of findings

- LPM closure was a highly effective control measure in urban areas during the spring epidemic of H7N9, and may have a role to play if a large epidemic occurs this winter
- In the longer-term, animal and human health protection through reformation of the live poultry production and distribution system

## Questions

## Sources

1. [http://news.xinhuanet.com/english/health/2013-04/05/c\\_132286567.htm](http://news.xinhuanet.com/english/health/2013-04/05/c_132286567.htm)
2. <http://society.people.com.cn/n/2013/0619/c86800-21897844.html>
3. <http://news.sina.com.cn/c/2013-04-07/232626755003.shtml>
4. [http://www.jiangsu.gov.cn/jryw/201305/t20130531\\_807646.html](http://www.jiangsu.gov.cn/jryw/201305/t20130531_807646.html)
5. <http://www.ahcaijing.com/news/2013/0407/82056.shtml>
6. <http://www.gdwst.gov.cn/a/zwxw/2013052010601.html>
7. [http://www.moa.gov.cn/fwllm/qgxxlb/qg/201307/t20130711\\_3519808.htm](http://www.moa.gov.cn/fwllm/qgxxlb/qg/201307/t20130711_3519808.htm)
8. <http://nb.people.com.cn/n/2013/0608/c206131-18833183.html>
9. <http://news.sina.com.cn/c/2013-08-11/152327920297.shtml>
10. [http://www.gov.cn/jrzg/2013-06/12/content\\_2424752.htm](http://www.gov.cn/jrzg/2013-06/12/content_2424752.htm)