

Submission of views on the way forward for the live poultry trade in Hong Kong

By David Lung

Opinion 1:

- The estimated Hong Kong supply of **live vs non-live poultry**¹ is roughly **0.75%**².
- The consultancy report conducted telephone survey and found that 47%³ of the responder prefers the consumption of live chicken. However the survey result only refers to preference and it does not mean that 47% of the population is consuming live chicken.
- In reality, at most only **1%** of the Hong Kong population is **currently consuming live poultry** because the supply is limited (as per calculation).
- Should the government be spending **63 million**⁴ **per year** public money⁵ to supplement on public health measures, just to satisfy the appetite of a very small proportion (roughly <1%) of Hong Kong citizens to ensure that they have constant supply of live poultry?
- This would be unfair to those (>99%) who do not insist on eating live poultry.
- It would be fair that the **cost to prevent AI should be shouldered, if not completely beared, by consumers who insist on consuming live poultry** (estimated to be an extra \$15 per bird) and not spending public money just to supplement and satisfy **non-essential need** of a small proportion of Hong Kong citizens.

Opinion 2

- From the objective data available⁶, it is a consensus that there should **still be live poultry supply** and **Hong Kong's live poultry farms should continue to supply quality** and **safe live poultry** to Hong Kong citizens, which I also agree.
- The controversial point includes:
 - i. **Logistics of poultry supply;**
 - ii. **Location of selling live poultry.**
- In New York, where there is still LPM, State law in 2008⁷ bans to operate an establishment where fowls are slaughtered within 1500 feet of a residential dwelling in a city.

¹ Non-live includes fresh, chilled, frozen, prepared and preserved poultry meat and offals

² See Appendix 1: calculation of the proportion of live poultry vs non-live poultry supply

³ <http://www.legco.gov.hk/yr16-17/english/panels/fseh/papers/fseh20170411-crpt20170403-e.pdf>

⁴ http://www.fhb.gov.hk/cn/legco/replies/2017/lq170208_q05.htm

⁵ This calculation excludes extra funding to compensate chicken farmers during mass culling and extra research funding to academic units for research on surveillance program in LPM

⁶ <http://www.legco.gov.hk/yr16-17/english/panels/fseh/papers/fseh20170411-crpt20170403-e.pdf>

⁷ <http://assembly.state.ny.us/leg/?bn=A.246-A&term=2007>

- No metropolitan city is like Hong Kong, where live poultry is still present in the **overcrowded** and **congested** public wet market with residency nearby.
- **Innocent Hong Kong citizens who don't eat live poultry, but passing by stalls selling live poultry would still be exposed to unnecessary risk.**

Opinion 3:

- The argument of specific Avian influenza are low pathogenic or does not have high mortality in human, or there is a suitable vaccine to prevent...etc, is not a sound argument
- LPM acts as a **field for exchanging genetic materials** and site where **mutation** can occur. The mutation is cumulative, can occur at any time and there can be many reassortant possibilities of H and N. No one knows what is the coming AI virus and when will it come. Closure of LPM is not only important to prevent the spread of currently known H5N1 or H7N9...etc, but to decrease the occurrence of such mutation at the market and the spread of a novel AI virus in a crowded environment.
- Some examples of novel AI emerged in LPM:
 - i. Novel H7N7 detected in LPM in China⁸;
 - ii. Novel H7N6 in LPM in Thailand⁹.
- The reassortment is **continuous** and **will never stop** as long as there is a suitable environment for influenza to replicate¹⁰.
- **LPM receives poultry from different sources, and the action of mixing alone is dangerous enough to promote exchange of genetic materials (increases the genetic diversity of the virus) and increases the possibility of reassortment**
- Closure of LMP in retail market can limit the chance of mixing poultrys from difference sources together.

Opinion 4

- Vaccine provides a false sense of security.
- Genetic mutation is triggered by immune pressure.
- When the poultry population acquires the immunity to a certain level, the current circulating virus would have to mutate to allow its survival.
- Moreover, vaccine requires development and testing, and once an "effective vaccine" is ready for the market, another new virus will appear very soon.
- i.e. having an effective vaccine does NOT prevent the emergence a novel and more pathogenic strain of influenza vaccine.

⁸ <https://www.ncbi.nlm.nih.gov/pubmed/27661735>

⁹ <https://www.ncbi.nlm.nih.gov/pubmed/26795160>

¹⁰ <https://www.ncbi.nlm.nih.gov/pubmed/26903958>

- **Closure of LPM in crowded retail wet market is the only reasonable choice to prevent the expansion of a new reassortant virus**

Opinion 5

- Avian influenza virus are found in air samples in LPM, i.e. the virus can be **airborne**¹¹
- It would be dangerous enough just to place a LPM in the middle of a densely populated metropolitan city like Hong Kong. **Just passing by could result in infection as the AI virus can be airborne.**

Opinion 6

- **The Macao Government has decided to ban the import and sales of all live poultry in Macao, starting from 1st May 2017.**¹²
- The measure, to keep the public from having contact with live poultry, aims to **protect further the community's health, prevent diseases and maintain Macao's stable socio-economic development.**
- Preventing contact between consumers and live poultry has been proven by experts to be an effective way to prevent transmission to humans of certain infective viruses. It also significantly reduces the risk of outbreaks of disease within a community and the threat that avian influenza in particular could pose to the Macao public.

Opinion 7

- **How can "satisfying of an appetite or a desire for a certain delicacy" be a stronger reason than the discontinuation of a bad practice to prevent the spread of an infectious disease?**
- Despite of strong scientific evidence and international trend, the political influence of the medical subsector seems to be diminished and sound opinion with full scientific evidence remains frequently unheard.
- The Medical subsector has only **30** EC with **11 191** registered electors where the Agriculture and Fishery subsector has **60** with a base of **154** registered electors¹³.
- The unspeakable reason for the neglected voice of medical doctors and scientists in Hong Kong seems to be secondary to the low number of EC number in the Hong Kong Chief Executive selection, hence negligible political influence.
- The medical field always stresses that politics should not override science, and **the health of Hong Kong citizens should always come first**, before social and

¹¹ <https://www.ncbi.nlm.nih.gov/pubmed/27608369>

¹² <http://www.gcs.gov.mo/showNews.php?DataUcn=111165&PageLang=E>

¹³ <http://www.voterregistration.gov.hk/eng/statistic20163.html>

economic development.

- The Scientific Committee on Emerging and Zoonotic Diseases has already recommended the Hong Kong government **eventual cessation of the sale of live poultry in retail markets** in Hong Kong to control the risk of transmission of avian influenza to human¹⁴ in July 2016.

Opinion 8:

- Possible solutions to consider:
 - i. Instead of placing all the AI control measures at the end of the food supply chain (market), the government should pay more attention at the origin, i.e. the farm¹⁵.
 - a) Change in Hong Kong agricultural policies, to help the development of chicken farms (and pig farms) in modernization, expansion, promote better biosecurity and concentrate on food safety issue.
 - b) Ensure **sustainable source of fresh food** in Hong Kong and to increase the proportion of local food supply to **reduce the degree of dependency** on imported food.
 - c) This may involve loosening of the licensing criteria and modification of current legislation.
 - ii. Selling of live poultry at separate point-of-sales¹⁶:
 - a) Far away from densely populated areas¹⁷;
 - b) Can be near chicken farms as in Taiwan or Zhuhai;
 - c) Promote local poultry: food safety, delicacy and **branding** (quality Hong Kong product);
 - d) Government should also grant a retail license to chicken farmers so that they can also do retail business by themselves.
 - e) The feasibility of current chicken farms to operate as slaughtering points and point-of-sales is questioned in the consultancy report¹⁸. Therefore if the government decides to adopt this approach, then financial and technical support should be offered. This could be viewed as a **long term investment** in both **local agricultural development** and **prevention of spread of AI**.
 - iii. Application of technology to achieve “complete separation of human and live chicken” at the farm retail facility

¹⁴ http://www.chp.gov.hk/files/pdf/recommendation_on_control_of_the_risk_of_transmission_of_avian_influenza_to_humans_in_the_long_term.pdf

¹⁵ See Appendix 2

¹⁶ See Appendix 2

¹⁷ NY state law 2008: shall not license any person, firm, partnership or corporation to operate an establishment wherein animals or fowls are slaughtered if such establishment is located within 1500 feet of a residential dwelling in a city with a population of one million or more. <http://assembly.state.ny.us/leg/?bn=A.246-A&term=2007>

¹⁸ <http://www.legco.gov.hk/yr16-17/english/panels/fseh/papers/fseh20170411-crpt20170403-e.pdf>

- a) Online real-time chicken picking and ordering plus rapid delivery service;
- b) Glass house with separate ventilation and drainage to allow customers to choose chicken in a separate compartment.

Appendix 1: Calculation of live poultry vs non-live poultry supply

Live poultry supply in 2016:

- **7988 tonnes**¹⁹

Non-live poultry meat/offal supply in 2016

- Figures according to Hong Kong Merchandise Trade Statistics 2016 (Jan-Dec 2016 data)²⁰

Item No.	Weight in kg
01231	88 368 004
01232	15 271 938
01234	683 070
01235	762 615 502
01740	93 123 822
Total:	960 062 336

- 960 062 336 kg = 1 058 287 tonnes
- Total non-live poultry meat/offal supply in 2016, including fresh/chilled/frozen/prepared/preserved poultry meat: **1 058 287 tonnes**

The estimated Hong Kong supply of **live vs non-live poultry**

= 7988/1058287

= **0.75%**

¹⁹ http://www.afcd.gov.hk/english/publications/publications_agr/files/Fact_sheet_on_food_supply_e_2016.pdf

²⁰ <http://www.censtatd.gov.hk/hkstat/sub/sp230.jsp?productCode=B1020001>

Appendix 2:

Some reference articles on the way forward of the LPM in Hong Kong for the FHB to consider:

1. Newspaper article on Avian Influenza and poultry supply in Hong Kong Economic Journal, 29 June 2016
 - 澄清市民對禽流感的誤解 龍振邦、袁國勇香港信報 29 June 2016
 - <http://www1.hkej.com/dailynews/commentary/article/1333613/%E6%BE%84%E6%B8%85%E5%B8%82%E6%B0%91%E5%B0%8D%E7%A6%BD%E6%B5%81%E6%84%9F%E7%9A%84%E8%AA%A4%E8%A7%A3>
2. Newspaper article on **Avian Influenza and poultry supply** in the Hong Kong Economic Journal, 17 May 2015
 - 再論香港活禽供應政策 龍振邦、袁國勇 香港信報 17 May 2015
 - <http://www1.hkej.com/dailynews/commentary/article/1307193/%E5%86%8D%E8%AB%96%E9%A6%99%E6%B8%AF%E6%B4%BB%E7%A6%BD%E4%BE%9B%E6%87%89%E6%94%BF%E7%AD%96>
3. Newspaper article on **Avian Influenza** in the Hong Kong Economic Journal, 3 April 2015 to 15 May 2015
 - 一瞬燎原 九七禽流現香江 且戰且退 步步進迫十八載（上）龍振邦、袁國勇，香港信報 3 April 2015
<http://www1.hkej.com/dailynews/culture/article/1022742/%E4%B8%80%E7%9E%AC%E7%87%8E%E5%8E%9F+%E4%B9%9D%E4%B8%83%E7%A6%BD%E6%B5%81%E7%8F%BE%E9%A6%99%E6%B1%9F>
 - 一瞬燎原 九七禽流現香江 且戰且退 步步進迫十八載（下）龍振邦、袁國勇，香港信報 10 April 2015
<http://www1.hkej.com/dailynews/culture/article/1025235/%E4%B8%80%E7%9E%AC%E7%87%8E%E5%8E%9F+%E4%B9%9D%E4%B8%83%E7%A6%BD%E6%B5%81%E7%8F%BE%E9%A6%99%E6%B1%9F>
 - 日清之策 朝賣晚屠補不足 九仞之山 一波三折舉步難（上）龍振邦、袁國勇，香港信報 17 April 2015
<http://www1.hkej.com/dailynews/culture/article/1030749/%E6%97%A5%E6%B8%85%E4%B9%8B%E7%AD%96+%E6%9C%9D%E8%B3%A3%E6%99%9A%E5%B1%A0%E8%A3%9C%E4%B8%8D%E8%B6%B3>
 - 日清之策 朝賣晚屠補不足 九仞之山 一波三折舉步難（下）龍振邦、袁國勇，香港信報 24 April 2015
<http://www1.hkej.com/dailynews/culture/article/1036590/%E6%97%A5%E6%B8%85%E4%B9%8B%E7%AD%96+%E6%9C%9D%E8%B3%A3%E6%99%9A%E5%B1%A0%E8%A3%9C%E4%B8%8D%E8%B6%B3>
 - 福兮禍兮 丘山阡陌不復見 是耶非耶 廣廈豈能代良田（上）龍振邦、袁國勇，香港信報 8 May 2015
<http://www1.hkej.com/dailynews/culture/article/1047635/%E7%A6%8F%E5%85%AE%E7%A6%8D%E5%85%AE+%E4%B8%98%E5%B1%B1%E9%98%A1%E9%99%8C%E4%B8%8D%E5%BE%A9%E8%A6%8B>
 - 福兮禍兮 丘山阡陌不復見 是耶非耶 廣廈豈能代良田（下）龍振邦、袁國勇，香港信報 15 May 2015

- <http://www1.hkej.com/dailynews/culture/article/1052763/%E7%A6%8F%E5%85%AE%E7%A6%8D%E5%85%AE+%E4%B8%98%E5%B1%B1%E9%98%A1%E9%99%8C%E4%B8%8D%E5%BE%A9%E8%A6%8B>