Conclusions: The lack of substantial change in preventive measures or knowledge about the modes of H1N1 transmission in the general population suggests that community mitigation measures played little role in mitigating the impact of the first wave of 2009 influenza A(H1N1) pandemic in Hong Kong.

Ref. No.: PHE-1810 (HKU)

P84-Ab0047
Behavioural Changes in Relation to Risk Perception and Prevention of Avian and Human Influenza in the General Population of Hong Kong, 2006 to 2010
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Background: The Hong Kong government has introduced a series of progressive measures on importation, farming and retail of live poultry to minimize risk of A/H5N1 transmission since 1997. Perceived risk of A/H5N1 and related preventions could decline as these macro-level policies minimizing human-chicken contact. This may paradoxically increase population risk of other influenza and respiratory infection due to reduced preventive behaviors.

Objectives: A follow-up survey in 2010 was conducted to investigate change of live poultry exposure, risk perception and prevention of A/H5N1 among respondents who participated in the random household telephone survey in 2006.

Methods: Totally, of 1,760 respondents who completed the 2006 survey, 680 could be traced and 461 (68%, 461/680) agreed and completed the repeated telephone survey between July and August 2010. Prevalence of buying and touching, perceived risk of A/H5N1, worry, and protective hygiene practices were compared between 2006 and 2010 using descriptive analysis. How changes of these variables differed by respondents’ demographics and change of perceived risk and worry leaded to change of buying and practices of hygiene were further explored by multivariate logistic regression analyses.

Results: Prevalence of household buying live poultry declined from 73% in 2006 to 41% in 2010. Buying household bought on averaged 11.4 chicken/household/year in 2010 versus 14.4 in 2006 while touch rate remained unchanged (5%). Overall exposure (touch rate × purchase rate) declined by 21% from 2006 to 2010 (0.72 vs. 0.57 exposure/household/year). Most personal hygiene practices improved from 2006 to 2010 except that frequency of daily hand-washing and covering mouth when sneezing and coughing declined. Male respondents reported less likely to cover mouth when sneezing or coughing (OR=1.60, 95%CI: 1.00-2.56) while immigrants were more likely to report declined worry and risk from buying live poultry. Declined worry was associated with less likely to cover mouth when sneezing or coughing (OR=1.60, 95%CI: 1.04-2.47).

Conclusions: The decline in buying prevalence may be attributed to limiting poultry availability. However, among buyers, prevalence of touching poultry remained unchanged, suggesting little effect from public health promotion to change purchasing-related behaviours. Perceived risk from buying, A/H5N1 worry and some hygiene practices declined, suggesting that risk of contracting human influenza viruses could increase. Young males and immigrants should be the major target for public health education to promote hygiene practices.