

Editorial

Dissemination reports are concise informative reports of health-related research supported by funds administered by the Food and Health Bureau, namely the *Research Fund for the Control of Infectious Diseases*. In this edition, 12 dissemination reports of projects related to respiratory infectious diseases and vector-borne diseases are presented. In particular, three projects are highlighted due to their potentially significant findings, impact on healthcare delivery and practice, and/or contribution to health policy formulation in Hong Kong.

Infectious disease is one of the leading causes of morbidity and hospitalisation in Hong Kong children over one year of age. The protective effect of breastfeeding against infectious diseases during infancy has been well documented. Tarrant et al¹ prospectively examined the impact of breastfeeding on hospitalisation secondary to infectious diseases up until 8 years of age in a large, well-established Hong Kong Chinese birth cohort, the “Children of 1997”. The investigators found that breastfeeding for any duration substantially reduced hospitalisation for respiratory infections in infants aged 0 to 6 months. In addition, exclusive breastfeeding for 3 months or longer substantially reduced hospitalisation from gastrointestinal infections in infants aged 0 to 6 months. However, breastfeeding did not provide any long-term protective effect against hospitalisation secondary to infectious diseases in children.

Respiratory failure is the major complication in patients hospitalised with severe influenza A infection, and many patients progress rapidly to acute respiratory distress syndrome (ARDS) and multi-organ failure requiring intensive care support. Non-invasive positive pressure ventilation (NPPV) may play a limited supportive role for early ARDS/acute lung injury as a bridge to invasive mechanical ventilation during an influenza pandemic. However, the application of NPPV or other respiratory therapy may disperse potentially infected aerosols and contribute to nosocomial transmission of influenza. Hui et al² examined the directions and dispersion distances of exhaled air during application of common respiratory therapies such as oxygen masks, jet nebuliser, and

NPPV via Respironics facemasks in a high-fidelity human patient simulator. The investigators found that substantial exposure to exhaled air occurs within 1 m from patients receiving NPPV. The authors made several recommendations for reducing the risk of exposure to infectious aerosols.

Live poultry exposure among the Hong Kong population through live poultry purchases decreased by more than 60% between 2004 and 2006, principally due to the reduction of imports and to a lesser extent, reduced touching during purchases, possibly reflecting impacts of public health education messages. Fielding et al³ assessed the impact of health policy on behaviour by extending earlier surveys of avian influenza risk perception and live poultry exposure. The investigators found that declines in buying live poultry were not matched by declines in touching when buying. Continued buying of live poultry was associated with declines in perceived likelihood of influenza A/H5N1 infection risk. Population levels of trust in government and media messages about influenza A/H5N1 were unchanged. The surprising finding of this study was the increase in reliance on informal information sources.

A research impact evaluation was conducted 2 years after the project end date for many studies reported in this supplement. Impact was reported through publications in peer reviewed journals, gain of additional qualifications for project team members, career advancement, additional research funding obtained, stimulation of other research groups to conduct related research, and impact on policy and health care practices through changes in behaviour of health care professionals and/or other decision makers.

We hope you will enjoy this selection of research dissemination reports. Electronic copies of these dissemination reports and the corresponding full reports can be downloaded individually from the Research Fund Secretariat website (<http://www.fhb.gov.hk/grants>). Researchers interested in the funds administered by the Food and Health Bureau also may visit the website for detailed information about application procedures.

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References

1. Tarrant M, Schooling CM, Leung SL, Mak KH, Ho LM, Leung GM. Impact of breastfeeding on infectious disease hospitalisation: the Children of 1997 cohort. *Hong Kong Med J* 2014;20(Suppl 4):5-6.
2. Hui DS, Chan MT, Chow B. Aerosol dispersion during various respiratory therapies: a risk assessment model of nosocomial infection to health care workers. *Hong Kong Med J* 2014;20(Suppl 4):9-13.
3. Fielding R, Cowling BJ, Liao Q, Lam WW. Behavioural changes in relation to risk perception and prevention of avian and human influenza in Hong Kong, 2006 to 2010. *Hong Kong Med J* 2014;20(Suppl 4):26-28.