

Surveys of Knowledge, Attitudes and Practices on the Influenza A (H1N1) Pandemic

Li Yang Hsu,¹ MBBS, MRCP, MPH

Statistical surveys are in general an efficient and flexible means of collecting a wide range of information from large numbers of respondents. These are now the method of choice to study knowledge, attitudes, values and beliefs. It is important to be aware of their limitations, however.

Surveys are dependent on subjects' motivation, honesty and ability to respond—even in anonymous surveys, subjects may be motivated to answer in a way that places them in better light. The issue of non-responders is particularly critical in self-administered surveys, as responders may represent population extremes, resulting in biased responses. Just as in clinical studies, an adequate sample size is important for validity,¹ although this is unfortunately not taken into consideration in many healthcare-related surveys. Cultural and societal differences also limit the “generalisability” of surveys far more than clinical or basic science research.

The current influenza A (H1N1) pandemic represents an opportunity to study the knowledge, attitudes and practices (KAP) of the community and other population subgroups, with regards to the pandemic itself as well as the interventional measures taken to mitigate its impact. Such information – subject to the caveats of survey results mentioned above – is valuable to policy makers and researchers as a means of gauging the public response and the impact or lack thereof of educational and other interventional measures.

One such survey on pandemic-related school closures in Perth, Australia highlighted that just under 50% of parents felt that this was an appropriate response to the identification of pandemic influenza cases among students, suggesting that communication and educational efforts could be improved.² Another survey on healthcare professionals called attention to personal antiviral stockpiling among healthcare workers (HCWs).³

Early results of a telephone survey of the Greek public on intent to receive pandemic influenza vaccination showed a decreasing percentage of subjects willing to be vaccinated over time (from 62.9% in week 35 to 36.9% in week 44 of 2009), with the main reasons for declining vaccination being concerns about vaccine safety as well as the perception of low risk of severe complications associated with infection.⁴

In this issue of the *Annals of the Academy of Medicine Singapore*, Tan and colleagues⁵ have published a small

hospital-based self-administered survey on the perceptions to and impact of pandemic H1N1 response measures implemented at their institution – the largest public sector hospital in Singapore. Both HCWs and non-HCWs (patients and visitors) were surveyed over a 4-month period that straddled two local pandemic alert levels – Yellow and Orange. Unfortunately, the sample size was small, comprising only 47 HCWs, 43 non-HCWs and 2 other respondents who did not clarify their roles. It is unknown how many declined participation. This, as the authors have pointed out, considerably limit both the validity of the results and the conclusions that can be drawn.⁵ It is also a pity that this was not a longitudinal survey, to determine if perceptions had changed after the pandemic had abated.

Yet it is striking that 82.2% of subjects felt that the pandemic response measures were essential, while only 14.6% felt that they were excessive despite 35.2% (59.6% of HCWs) reporting perceived inconvenience to their professional work.⁵ This mirrored an earlier Hong Kong survey, in which there was overwhelming support of government pandemic measures, including quarantine,⁶ and both the Asian studies stand somewhat in contrast of a UK survey where the majority of subjects had little anxiety about the pandemic and felt that it was overhyped.⁷ Perhaps the experience with the SARS epidemic shared between Hong Kong and Singapore in 2003, as well as the fact that the low case-fatality ratio of the influenza A (H1N1) pandemic virus was not well known at the point of the surveys, had influenced the results in the two countries.

In conclusion, statistical surveys have their place in healthcare research and outbreak management, and it is to be hoped that we will see more and better designed surveys published in the future that will identify healthcare needs and guide policy implementation.

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¹ Assistant Professor, Department of Medicine, National University Health System, Singapore

Address for Correspondence: Dr Hsu Li Yang, Department of Medicine, National University Health System, 5 Lower Kent Ridge Road, Singapore 119074.

Email: li_yang_hsu@nuhs.edu.sg

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