Reviewer’s report

Title: Quantifying the impact of community quarantine on SARS transmission: estimation of secondary case count difference and number needed to quarantine.

Version: 1 Date: 27 July 2009

Reviewer: David Fisman

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General comments:
Bondy and colleagues should be applauded for a well thought-out and well written analysis that provides extremely important information on the value of quarantine in slowing the spread of SARS in Ontario. This is tremendously useful work that should be applied to future policy related to control of newly emerged infectious diseases. I have only minor comments.

Specific comments:

In the introduction, the parameter R is introduced early, and is only defined towards the end of the introduction (in the discussion of work by Wallinga and Teunis). It probably makes sense to define early on.

In the discussion, the authors note that assignment of quarantine is non-random. Do they have any specific evidence that quarantine in Ontario was used differentially in exposed individuals according to their underlying health status, mobility, or other factors that may have influenced infectiousness or contact patterns? This would be extremely informative.

It doesn’t appear that the effects of quarantine are explained by reductions in contact numbers. I cannot think of another mechanism whereby quarantine would act; does this imply measurement error in exposure numbers or exposure level?

The Ontario SARS outbreak lasted a long time. I understand the sample size here is small, but is it possible in the final multivariable model to assess whether there was any underlying temporal trend in the effectiveness of quarantine (i.e., did quarantine become “leakier” over time as the community became fatigued).

Kudos to the authors: the parts of the discussion section on the challenges of implementing knowledge translation strategies to get quantitative insights contained in a paper like this out to clinician “end users” is excellent.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests