Author's response to reviews

Title: The epidemiology and surveillance response to pandemic influenza A (H1N1) among local health departments in the San Francisco Bay Area

Authors:

Wayne T.A. Enanoria (enanoria@berkeley.edu)
Adam W. Crawley (adam.w.crawley@berkeley.edu)
Winston Tseng (winston@berkeley.edu)
Jasmine Furnish (jasminefurnish@mac.com)
Jeannie Balido (jybalido@berkeley.edu)
Tomas J. Aragon (tomas.aragon@sfdph.org)

Version: 2 Date: 15 February 2013

Author's response to reviews: see over
February 14, 2013

To the *BMC Public Health* Editorial Board:

We are submitting our response to the two reviewers’ comments on our original research manuscript titled, “The epidemiology and surveillance response to pandemic influenza A (H1N1) among local health departments in the San Francisco Bay Area” (MS 1447547391826927). We would like to thank the editors and the reviewers for the opportunity to revise our manuscript. After careful consideration of the reviewers’ comments and reviewing several of our key informant interview transcripts, we prepared the following responses. We responded to each of the reviewers’ comments below.

**Reviewer: Michael Stoto**

**Comment:** “However, although the paper surfaces some local practitioners’ concerns about existing plans and procedures such as laboratory capacity and coordination with schools regarding surveillance, other deeper issues are not addressed. For instance, with regards to epidemiology and surveillance, the paper does not ask whether the effort described actually contributed to a better understanding of the local situation or improve the response in some way.”

**Response:** The epidemiology and surveillance efforts contributed to the local situation by providing information on the epidemiology of H1N1. This information, in turn, contributed to the analysis conducted by the California Department of Public Health using local health department data on the epidemiology of H1N1 in the spring and summer of 2009, as well as factors (e.g., obesity) that were associated with death or hospitalizations and the severity of illness among pregnant and postpartum women and children (Louie et al., references 9, 39-43 as cited in the Discussion section of the manuscript).

In regard to how the effort may have improved the response, the H1N1 experience was another opportunity to test the capacity, capabilities, and regional communication in response to an infectious disease emergency. We have included a brief discussion of this in the Discussion section in the two paragraphs on page 20.

**Comment:** “More generally, given the impact of the H1N1 response on the LHD’s ability to activate for measles and other issues, one might ask whether the H1N1 effort [was] really worth it?”

**Response:** While there is no way to answer this question with any certainty given the data we collected, Dr. Stoto raises an important point for discussion. It can be debated as to whether the H1N1 effort was really “worth” the effort. However, it is clear that the H1N1 experience gave the local health departments another opportunity beyond H5N1 drills and exercises to test their capacity, capabilities, and regional communication and networks to respond to pandemic influenza. The fact that the real life events may have differed from the previous exercise scenarios helped identify deficiencies in planning (e.g., the use of a pandemic severity index for deciding on when to implement certain public health interventions), but more importantly, how valuable the planning process was in preparation for the real
event. However, we did not collect specific information as to whether the key informants we interviewed thought the H1N1 effort was really worth the effort and would be an interesting question to explore for a future study.

Comment: “Similarly, with respect to the ICS discussion, a more probing analysis would consider whether any of the variants were more effective than others either with respect to the H1N1 response or maintaining continuity of operations.”

Response: The goal of the ICS discussion was to merely explain where epidemiology and surveillance functions were placed within the ICS structure and to describe whether there was any variation in where it was placed. We agree with Dr. Stoto that measuring the outcomes and effectiveness of various ICS structures implemented by Bay Area local health departments would be valuable information; however, our study was not equipped to conduct such an evaluation. One must consider the many factors contributing to the public health response, including local health department size, budget, the experience and training of response staff, and the methods of communication implemented. The development of metrics to evaluate the use of ICS in local health departments could potentially lead to improvements in implementation and greater standardization across jurisdictions. Future research should evaluate the strengths and weaknesses of different ICS structures for an effective public health response.

We did, however, revise our Discussion section to include this fact. See the last paragraph of the Discussion section on page 22.

Comment: “Also, the discussion about placing epidemiologists in the ICS suggests some confusion about their role. If it is to help understand what is going on locally, assignment to the Planning Section makes sense. If the epidemiologists task is simply to do what's required by others such as CDPH or CDC in terms of tracing cases, and so on, assignment to the Operations Section is appropriate.”

Response: Dr. Stoto brings up an important point which is that one local health department was still trying to decide what was the best placement for epidemiologists within the ICS structure at the time the interviews were conducted. Epidemiologists provide an essential function (the “doing”, Operations), producing knowledge that is useful for understanding what is happening locally and planning next actions. We were not equipped to evaluate the use of ICS by local health departments as to which structures led to a more effective response. Our goal was to collect what issues local health departments were grappling with regarding ICS.

Comment: “In their discussion of epidemiologic data for situational awareness, the authors report that hospital, demographic, and lab data were more useful, but it would be useful to know in what sense this is true. In other words, what were these data useful for in the local setting?”

Response: The data sources described were “useful” in the sense that key informants felt that these sources were reliable data sources that provided actionable information. Most decision-makers we interviewed did not regard other sources of data (such as school absenteeism and syndromic surveillance) as reliable enough to base key decisions upon. It was our interpretation that the key informants trusted these data sources more than other sources of information available to them. We have added clarifying language to the Results section to clarify this point on page 13, paragraph 3.

Comment: “In addition, the responses focus on difficulties in obtaining data of various sorts, but aside from one comment on clinical data, there is no evaluation of accuracy or usefulness of different kinds of data. Beyond the challenges of obtaining school absenteeism data, one wonders about their validity and might question whether it is really worth the effort to get these data.”

Response: We have addressed this comment regarding a lack of an evaluation of data sources in the Limitations section of the manuscript in the first paragraph on page 22.
Comment: “Similarly, with respect to laboratory capacity, the paper surfaces but doesn’t really consider the tension between diagnostic testing and surveillance needs. Did it really make sense to use public health lab capacity to test specimens when the results weren’t necessary to determine optimal care for most individual patients?”

Response: Most comments from key informants focused on the use of laboratory testing during the initial stages of the pandemic when laboratory testing was strongly encouraged at the state and federal levels. While it may not have made complete sense to use public health lab capacity to test specimens that weren’t necessary to determine optimal care for most individual patients, our goal was simply to capture and collect the experiences of local public health departments and not judge their activities. We were not suited for evaluating their actions and certainly did not want to be perceived as “judging” their actions. As researchers, our goal was simply to capture their experiences and document them for future public health responses to infectious disease emergencies.

Reviewer: Paul Etkind

Comment: “Background: First Line – Public health is used twice in the same sentence. I suggest the first sentence begin with ‘Surveillance and epidemiologic investigations are critical public health functions...’.”

Response: We made the suggested change from this reviewer as indicated in the revised first line of the Background section on page 4.

Comment: “Background, Paragraph 4: I suggest emphasizing the decline in epi capacity and the increase in demands for epi. ‘Despite the decline in epidemiologic capacity, ph surveillance and epi investigations continue to be important AND EXPANDING functions for responding...’.”

Response: We made the suggested change from this reviewer as indicated in the revised paragraph 4 of the Background section on page 4 (the second to the last line).

If there is any further information required, please do not hesitate to contact me. Thank you for your consideration.

Respectfully,

Wayne Enanoria, MPH, PhD
Cal PREPARE
UC Berkeley School of Public Health