



Cambridge
Public Health
Department

Cambridge COVID-19 Expert Advisory Panel

Thursday, October 22, 2020

Attendees:

Jill Crittenden
William Hanage
Claude Jacob
Sam Lipson
Anna Kaplan
Nancy Rihan-Porter
Sammi Chung

Meeting convened at 1:00 pm

BioBot update and other updates

Sam Lipson: We are finished with the contract arrangements with BioBot and have agreed to a one-day turnaround on data reporting. The engineering team that is working with BioBot to pull the samples from three locations is applying for an MWRA permit with support from the City (the sampling sites are part of the MWRA system and are not City-owned).

Jill Crittenden: Will the City be sharing data with the public as soon as it's available?

Sam Lipson: I see no reason not to, but I think Anna should also weigh in here.

Anna Kaplan: It would be great if we could share this data in real-time. I can convert flat CSV files into a graph or chart without much hassle.

Bill Hanage: I expect that the new CDC guidance on what constitutes a "close contact" [article sent to EAP members before this meeting] poses an added challenge for contact tracers. If nothing else it adds to the number of people to for the positive individual to remember and for public health to track. We always need to come back to the basic messaging around the 3 C's: Close contacts, closed spaces, crowds

Anna Kaplan: Yes, this new standard for determining a contact will pose a greater burden on cases to report exposure history and will result in more contacts to follow up with.

Jill Crittenden: What are the implications of the stricter definition of a contact for operations in schools?

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Bill Hanage: There was a recent report of transmission at a VT school that indicated that transmission occurred even with fairly short contact time. This probably contributed to the new CDC standard for defining a contact.

The Lancet recently published an article that reiterates the growing acceptance of airborne transmission (even by aerosol) significance under the right circumstances (crowding, no masks, poor COVID hygiene, poor ventilation).

When considering workplaces and schools it would be ideal to have individuals keep a diary or personal contacts. This avoids reliance on poor recall from days or weeks earlier. This orderly tracking of contacts might be easier in a structured environment like a school.

Claude Jacob: We are looking for messaging to convey this new urgency.

Bill Hanage: Had a recent conversation with Joe Allen at HSPH [faculty and indoor air quality expert] recently. He had a lot to say, but emphasized the importance of mask use indoors.

Separate observation: Recently observed sanitation workers collecting household garbage and did not see any mask use at all.

I think we're seeing the impact of re-infection on the overall community transmission rate. Some individuals who work in frontline jobs or live in crowded, multi-generational living situations are bound to get re-infected.

Anna Kaplan: There have been a few cases of re-infection in at-risk populations.

Bill Hange: Tracking of reinfections is generally not so good, so even a few documented cases in Cambridge suggests a much higher incidence of reinfeciton.

Nancy Rihan-Porter: There is generally a lot of confusion out in the public about the role and likelihood of reinfection.

Bill Hanage: Most people who recover from COVID-19 will have natural immunity for up to a year. Some will have shorter periods of immunity. The presence of antibodies weakens steadily after recovery.

Anna Kaplan: The caution we have received about reinfection indicates that reinfection can occur within a 3-month window in some cases.

1) How can Cambridge use sewer data be used to direct pandemic response?

Bill Hanage: We appear to be returning to April levels of detectable virus in sewage. We may see a regression to the mean, but it does look like a real spike. Some considerations in interpreting sewer data:

- Is there a difference in the dynamics in sewer data between Cambridge and the MWRA North region overall?
- I always pay more attention to derivative data (e.g. slope of the mean and variance) as a more revealing indicator of urgency vs. actual numbers, so it's difficult to weigh to value of specific thresholds. Transmission spike are exponential, not linear.

Sam Lipson: We should consider how we could conduct door-to-door follow up (Chelsea is aiming for this as a response). We could also deploy more small-area testing under the current BioBot contract if we have reason to isolate the sewer data representing a smaller area. But how will we identify this area and how quickly can we deploy additional local sample collection?

Claude Jacob: What actions by the City should be considered (vs. CPS)?

Bill Hanage: Well, we've already exceeded the sewer count threshold in the CPS plan, so the question about what will trigger action is still relevant to the City and CPS. In general %-positivity alone isn't a great metric for making major decisions.

Anna Kaplan: We do track both %-positive for individuals as well as total tests administered. For individuals Cambridge had a positivity rate of 1.8% last week.

Bill Hanage: Even among individuals tested we know that there's a great deal of selection bias. As far as interpreting data, we understand that a dramatic spike in cases from a low level poses a very different risk (in the short-term) from a spike from a higher baseline. We need to clarify our goals in the effort to limit transmission.

- First is rate of hospitalization and the capacity to handle the scale of infections leading to hospitalization in a surge.
- Second is the overall community transmission risk.
- We should communicate that we have a choice between keeping schools open for longer or keeping other public activities and commerce open for longer.

Claude Jacob: Based on the kind of signals we're getting from cases and sewer data we need to develop specific action steps.

Bill Hanage: Remember, in April and May there was a 2-3 week latency between infections and hospitalization. Transmission accelerates on an exponential curve, so quick action is needed. We can expect cases to increase soon. I know there are many factors that changed from late summer, including returning students, but I am suspicious of the timing of restaurants reopening as well.

2) Halloween: CDC and MA guidance (slides)

Jill Crittenden: I wonder about indoor dining practices and also other kinds of enforcement at large gatherings. Could the police drive by events to observe compliance?

Claude Jacob: We really need to emphasize education and presence over enforcement. In public establishments compliance can be managed, but private enforcement is sensitive, of course.

Anna Kaplan: I have to agree. There has been a lot of observation that forced compliance with public health measures is not as effective as voluntary compliance. Getting buy-in is so important.

Bill Hanage: We can emphasize enforcement at establishments (restaurants, publicly accessible businesses), message to avoiding the riskiest activities.

Halloween/Holiday messaging: Do not gather in your house with more than a few non-householders [6-10 has been mentioned in previous EAP conversations as a very good range to aim for].

Thanksgiving messaging: Skip the big dinner this year.

Bill Hanage: I think door-to-door trick-or-treating is just a moderate risk, as long as there are no large crowds/events on the street for longer periods of time.

Jill Crittenden: Yeah. A hayride would be lower risk than any gatherings indoors.

Claude Jacob: The City will not be issuing any permits for public Halloween events at all this year.

Bill Hanage: As far as candy is concerned, the risk of surface fomite transmission (indirect transmission) seems to be quite low.

Sam Lipson: I agree that this is always a secondary transmission path, but it's also much harder to study. People can actually see the risk from direct transmission (other people) and can recall details about the crowding and mask use, but reconstructing every surface you touched in a public place is nearly impossible and can't really be validated. So the fomite risk is invisible. I still think public surfaces in high-traffic public places could be an important risk.

Bill Hanage: No harm in promoting good surface hygiene, but I always want to lead with the highest known risks. Crowds, Close Contact. Closed Spaces.

Sam Lipson: The City website is promoting safe Halloween practices. We should check to make sure that the recommendation against indoor gathers is emphasized.

Indoor Dining Risk and argument in favor of prohibition

Bill Hanage: Right now “science” says close indoor dining. This is an inherently risky situation. Masks can’t be worn while eating or drinking. Many use this as an excuse to forgo mask use throughout dinner, including while wait staff are present; If dining parties of 10 are allowed this is already a risk for a new cluster to form.

Sam Lipson: We have gotten requests from Cambridge DPW to evaluate the proper practices with the sidewalk bubbles, like those used in some European cities. There is at least one restaurant in North Cambridge that has acquired some of these bubbles. I responded that this is not to be confused with outdoor dining, since the members of the dining party are in an even more crowded environment. I said members of these groups should assume that they are exposure on another as a “pod” under those circumstances. Disinfecting of all high-touch surfaces and airing-out for 15 minutes between parties is sufficient.

Jill Crittenden: Yes, outdoor bubbles are a form of indoor dining.

Bill Hanage: If we are planning to close indoor dining soon we should be communicating this to the restaurant sector now.

Sam Lipson: We can specify the time period of any short-term order, indicate that it will be reevaluated for reconsideration and allow that re-opening is possible depending on community transmission rates.

Bill Hanage: A discussion with that sector should include alternatives for their economic survival. How can we help restaurants, even if we have to close indoor dining? We are facing a once-in-a-century “pandemic winter “ and this will be devastating for restaurants.

Meeting was adjourned at 2:00 pm