



Cambridge
Public Health
Department

Cambridge COVID-19 Expert Advisory Panel
2 pm, Wednesday, June 9th, 2021

Meeting convened at 2:04 pm

ATTENDEES:

Panel Members

Bill Hanage
Jill Crittenden
Chris Kreis
Gilberto Russo
Lou Ann Bruno-Murtha

CPHD/City staff:

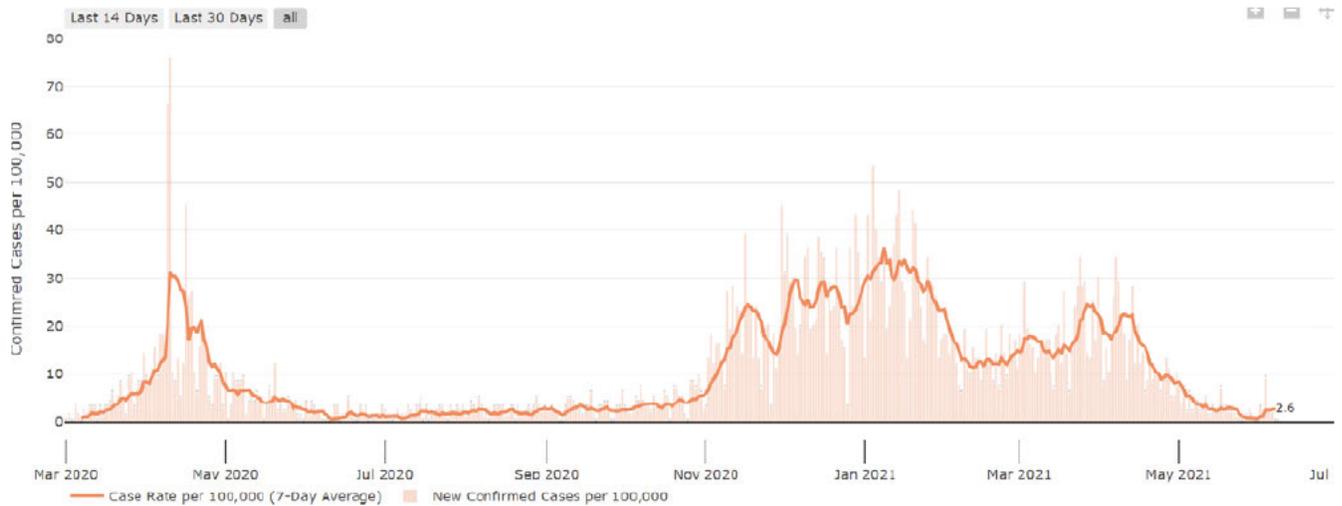
Claude Jacob
Sam Lipson
Anna Kaplan
Sammi Chung

Variant nomenclature

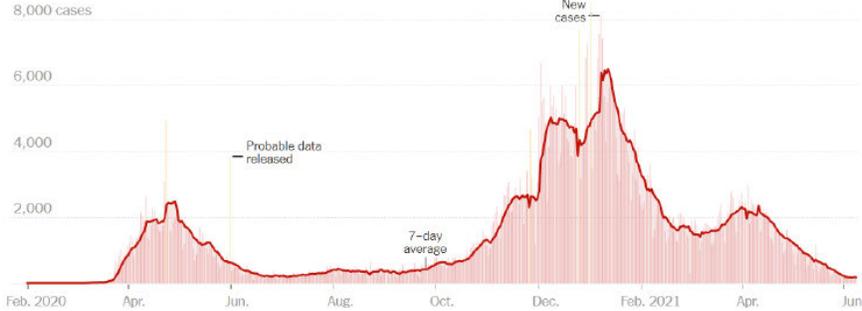
α (alpha) = B.1.1.7 (UK)
 β (beta) = B.1.351 (South Africa)
 γ (gamma) = P.1 (Brazil)
 δ (delta) = B.1.617.2 (India)

1) Clinical, case, vaccination, and wastewater data update

Cambridge and MA Daily New Cases (6/7/2021)



New reported cases



Tests



Hospitalized



Deaths



AVG. 7-DAY CHANGE 14-DAY CHANGE TOTAL REPORTED

Vaccinations

Fully vaccinated

57%

At least one dose

68%

[See more details >](#)

[About this data](#)

Restrictions >

Reopened

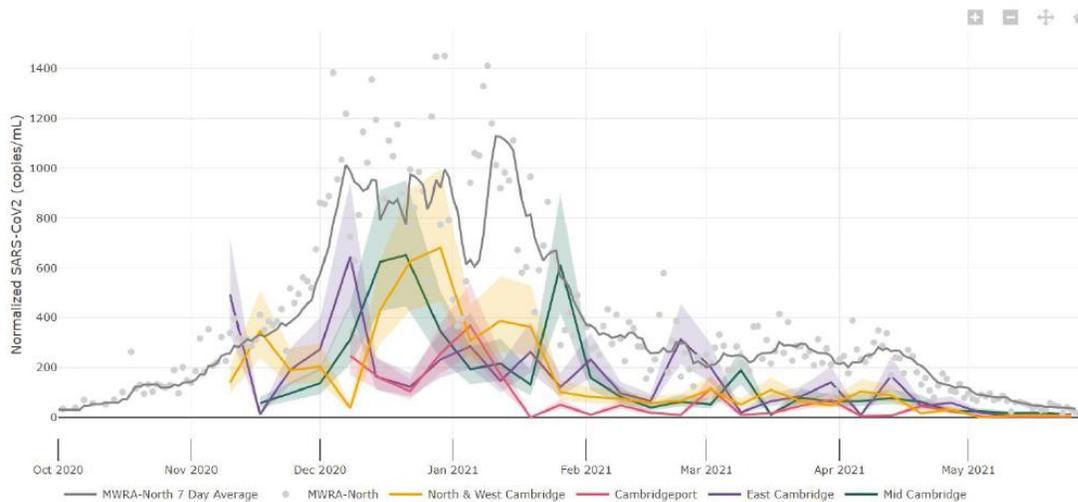
Masks not required

Vaccination update:

National vaccination has slowed down from 2 million to 400,000 shots per day. Going forward we have a small-bore campaign to reach hesitant and difficult-to-serve groups, along with younger children after FDA approvals (EUA s) are granted. There has been a lot of anticipation about whether school vaccines will become mandatory statewide and Governor Baker finally indicated that it will not be mandatory for returning students this fall. Since local districts have authority to adopt local policies this is not yet settled in many communities, including Cambridge. Currently, more than 30% of Massachusetts residents have not received a single dose, but this percentage includes all ages. In Cambridge, the vaccination among the 12-18 age group has gone well, with high uptake rates (est. 80%).

Case and wastewater data update:

Cambridge Weekly Wastewater COVID counts (6/1/2021)



There was a small spike after Memorial Day in Cambridge (8 cases in one day), but this might not be directly related to the holiday weekend, since these cases are from only three households. Cambridge appears to be forming a plateau at a lower level than summer 2020, but any plateau under current variant risk is a concern. Cambridge has maintained lower transmission rates compared to statewide rates throughout the pandemic. The current low activity can be attributed, in part, to seasonality. Once we lose the benefit of seasonality (e.g. much higher proportion of time spent outdoors), some US regions with lower vaccination rates will be more vulnerable to Delta variants factor. Vaccination rates will still improve as school age children and teens are subject to their district policies.

The panel is interested whether any transmission cluster from large indoor gathering venues TD (e.g. Garden) have been observed. So far there hasn't been any cluster connected to those events, but some hotspots may emerge in the data soon. A recent report from the CTC/PIH suggested that large household transmission continue to be a driver of cases, with a large workplace event also involved as reported last week. The panel is also interested in whether CTC/PIH and CPHD have noticed the trend of symptomatic persons refuse to get tested. CPHD confirms that in all cases last week their transmission pathway was well-defined and they all felt sick and tested afterward.

Two scenarios were discussed by the panel. If there is only a blip in higher transmission in the US it would affect frontline workers first, most likely. If there is a major surge in the fall driven by the delta variant it could be a much bigger risk. It could be predictive to follow what is occurring in the UK and the US South and Mountain West to assess this risk.

Michael Osterholm at U of MN doesn't buy into the "seasonality" model. Panel members expressed the view that there is likely to be some seasonality (cold dry air increases transit efficiency of the viral particles), but not as much a seasonal effect as you would see with influenza. The behavioral changes in warm weather may play an even bigger factor with SARS-CoV-2 (much higher proportion of time spent outdoors).

2) Delta variant in UK and US

Nationally, the alpha (α) variant (formerly B.1.1.7) is starting to be outcompeted by the gamma (γ) variant (formerly P.1). The interpretation of this phenomenon is that P.1 is somewhat more able to transmit among immunized or previously infected people. Delta represents about 6% of national cases right now and things are developing quickly, as expected. Some research has identified delta as the most alarming variant for the unvaccinated population, as it is 30% more transmissible than the alpha, which is already perhaps 40% more transmissible than the original form of SARS-Cov_2. Recent observations suggest that the delta variant is about 20% more transmissible even among those with acquired immunity (higher immune escape rate). The impact of the delta variant will pose a growing risk to those who are unvaccinated, but at present cases of breakthrough infection with delta appear predominantly mild. In those who are unvaccinated however it appears more likely to lead to hospitalization than alpha, underscoring the importance of vaccination.

There have been papers referring to the delta variant's CTs (cycle threshold, indicating extent of viral load) were low enough (meaning high viral counts) to indicate that vaccinated people can transmit this variant in some cases. This simply adds to the additional risks introduced by the delta variant (transmissibility, immune escape, virulence leading to hospitalization).

Panel discussed how much of the risk in UK from the delta variant is seen in those with only one shot. [UK extended vaccine coverage to a larger population by promoting a much longer gap between first and second shots. Some concerns about the risk this could pose to aggressive variants remain]. One member commented that it is already a more transmissible variant and that even one shot seems to reduce hospitalization associated with delta variant, so it is not clear how much impact partial vaccination status is having on the delta-driven surge in UK at the moment.

There is emerging evidence of a convergent evolution (the K417N mutation) within the delta variant genome implies strong selection of specific traits. This will be one of the dynamics being watched with that variant. Timing of boosters is in flux. The experience over the summer in the UK will have a lot of influence over how soon these are going to be recommended. Universal vaccines (so-called) are in an earlier phase of review and may take a while before they are available.

While the delta variant may end up having a disproportionate impact on unvaccinated 0-11-year-olds it probably isn't because of some trait that makes children more vulnerable in particular. The risk from delta, and the risk of even more problematic variants, is being driven by persistent unvaccinated populations. The message that should be promoted should focus on the fact that younger age groups, like all age cohorts, will be at higher risk from the delta variant vs. the alpha variant. As younger children are eligible for the vaccine they can reduce this elevated risk from delta variant by getting vaccinated.

3) EAP Notes to the City. Planning for future surges of SARS-CoV-2 and future epidemics

This panel has met for 15 months and has provided the City and the community with invaluable insight and has posed important and challenging questions throughout the pandemic. At the suggestion of our co-chairs we have assembled a brief collection of observations that have been part of the ongoing conversation between CPHD staff, City staff, and the EAP members themselves. The shared draft has already been edited to include comments and observations by you as a group. Please be sure to submit any further comments or dissents to this consensus statement while it remains in draft. We will post this along with the notes from this meeting once we have agreed upon a final version of EAP Notes to the City (current title subject to change).

The city will continue to provide testing and vaccination at three sites citywide through the month of June. When schools are back in session in September, it's very unlikely that elementary school or middle school students will be fully vaccinated (approval for younger kids may not be granted until late summer or early fall). It will be very important to

continue to monitor for transmission in schools with pool testing and other methods. Panel members agreed that pool testing in schools, and possibly even targeted wastewater sampling, will be helpful in triggering early interventions. An early signal of a surge in an at-risk setting (schools, congregate care and housing) is only as useful as the follow up plan. If nearly all the teachers and parents are vaccinated, the consequences of an outbreak in an elementary school/middle school are fairly small.

Another factor driving our near-term risk is the vaccination status of the community. Some vaccines (specifically mRNA vaccines) appear to provide stronger immunity to SARS-Cov-2 “variants of concern”. The panel expressed some confidence that a variant capable of complete immune escape is very unlikely, since the wide-ranging immunity produced by the mRNA vaccine is broad and abundant and most Americans were vaccinated by one of these products.

Based on the experience of the 15 months of the pandemic, the coming winter will be pose a meaningful risk of some variant-driven outbreaks. The City and the community need to be prepared for that scenario and this requires messaging expectations and working on a reactivation plan for further interventions. The panel also suggested more emphasis should be placed on preparation for influenza, as several factors could point to a particularly severe flu season over the winter of 2021-22. Residents will not be protected by widespread mask use to limit the transmission of all respiratory disease (cold, flu) as they were last winter.

These forward-looking topics and others will be included in the final notes from the EAP, which will be posted along with the meeting notes.

4) Final thank you to members and participants

Adjourned 3:03 pm

Notes respectfully submitted by Sam Lipson on June 14th, 2021