MASSACHUSETTS MEDICAL SOCIETY

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September 9, 2021
MMS/DPH Call Summary and Q & A

On September 9, 2021, the Massachusetts Medical Society (MMS) resumed its COVID-19 informational calls for physicians with the Massachusetts Department of Public Health (DPH). Kevin Cranston, MDiv, Assistant Commissioner and Director, Bureau of Infectious Disease and Laboratory Sciences, Larry Madoff, MD, Medical Director, Bureau of Infectious Disease and Laboratory Sciences, Catherine Brown, DVM, MSc, MPH, State Epidemiologist and State Public Health Veterinarian, and Kerin Milesky, Director, Office of Preparedness and Emergency Management participated. DPH officials provided updates on COVID-19 cases, current hospitalizations and supply capacity, booster dose planning and breakthrough cases. DPH officials also responded to member questions asked during the call.

MMS President, Dr. Carole Allen, began the call by expressing the Society's deep appreciation to the DPH team for their ongoing willingness to share their expertise, guidance and perspective with the Society and its members.

COVID-19 Update

Dr. Madoff:

- It is not a great sign that we are back together meeting to talk about COVID. This is certainly not where I had hoped or expected to be in September of 2021. Many of us had hoped and believed that COVID would be more behind us. At this moment in Massachusetts, we are experiencing a surge in COVID cases. Today, DPH will be reporting out over 2,000 confirmed cases for the first time in quite a while. DPH will also be reporting out 18 confirmed COVID deaths today.
    - Cases are a leading indicator of SARS-CoV-2 prevalence. Another leading indicator that DPH looks at frequently is wastewater. DPH looks at Massachusetts Water Resources Authority (MWRA) wastewater COVID detection. Both wastewater and case numbers seem to be plateauing rather than steadily rising which seems to be a good sign. What we're seeing is likely an interplay between an outbreak that is strongly being driven by the highly contagious Delta variant, and a lot of immunity.
- Massachusetts has been a leader in vaccination with now over 5 million people in the state who have received at least one dose of COVID vaccine, and over 4.5 million who are fully vaccinated. The percentage of fully vaccinated is especially high among our elders and the senior population. Even in our youngest eligible vaccine recipients, the 12 to 17-year-old age group, we're seeing a 60% vaccination rate. Between vaccine elicited immunity and immunity due to individuals who have had COVID, there are now over 720,000 laboratory confirmed cases of individuals who've had COVID in Massachusetts.

    - The combined effect of the immunity in those populations I likely responsible for muting what otherwise might be an even larger surge driven by the Delta variant. Certainly, the surge in Massachusetts has been less than as seen in other states where immunity is lower and where vaccination rates are lower.
    - Massachusetts is not in a great place right now. Continuing to vaccinate is key. Massachusetts vaccinations continue at a reasonably brisk pace. There were over 10,000 vaccinations delivered yesterday in Massachusetts.
    - DPH is grateful to providers in the state who are on the front lines dealing with the pandemic and also working hard to get their patients vaccinated in what continue to be difficult and trying circumstances.
- One of the concerns that has been raised, especially nationally, has been the increase in pediatric cases. DPH is seeing some increase in pediatric cases here in Massachusetts, but not nearly to the extent that it's being seen nationally, and especially in some of the southern states where vaccination rates are lower.
- Massachusetts has over 600 people hospitalized in the state, but the numbers of hospitalizations are comparatively low given the number of cases that we're seeing. That seems to be reflective of the strong protection against hospitalization, and against serious illness, that is afforded by vaccination.
- The Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP) now recommended an additional dose, a third dose, for individuals who are moderately to severely immunocompromised and who received one of the mRNA vaccines.
    - The CDC and ACIP have published a list of conditions that are examples of what constitutes moderate immunocompromised including things like solid organ transplantation and cancer therapy.
    - The list is not meant to be exhaustive. Clinicians can recommend vaccination for patients who they feel are moderately to severely immunocompromised and/or may be comparably immunocompromised to the conditions included in the ACIP recommendation.
- There has been a lot of media coverage about booster vaccinations. The messaging from the Executive Branch may have gotten a little bit ahead of where the CDC and FDA stand on booster doses.
    - The U.S. Food and Drug Administration (FDA) has announced a meeting of its Vaccines and Related Biological Products Advisory Committee (VRBPAC) to discuss additional doses of COVID-19 vaccines and specifically to discuss the Pfizer-BioNTech application for administration of a booster dose of Comirnaty (its COVID-19 mRNA vaccine) in individuals 16 years of age and older. The meeting is scheduled for September 17th. We don't know what that recommendation will include.
    - The ACIP is also working towards evaluating the data regarding the need for additional booster doses for people who have received primary vaccination series. DPH's immunization medical director, Dr. Susan Lett, sits on the working group that reports to ACIP on this topic. I know that they are reviewing very carefully all of the data related to the need for booster immunization. The ACIP and CDC will weigh the evidence and make recommendations. Massachusetts will wait to hear those recommendations and act accordingly. I know that it's frustrating to not know where things stand. We are getting many requests from our patients, the media and our friends and family about the need for booster vaccination. I just would say that we need to wait as the advisory bodies carefully weigh and evaluate the evidence and make recommendations accordingly. I understand how eager we are all to learn where things stand, but we really need to have a wait-and-see approach at this particular time.

    - As a state are working towards rolling out booster immunization in case that is the recommendation of the FDA and CDC. Kevin Cranston will talk about those efforts and how we're going to be rolling that out and the providers role in that rollout.
- Therapeutic monoclonal antibodies (mAb) are available for treatment of early COVID and for post-exposure prophylaxis. These are therapeutics that work for those who have early COVID, within 10 days of diagnosis, and who fit into the high-risk categories, high risk for disease progression, that are listed in the EUA, and who are not so seriously ill as to require hospitalization or oxygen therapy. That includes many people who test positive for COVID and are, for example, over age 65 or have obesity, as well as a number of other comorbidities that are listed.
    - There is reasonable infusion capacity available here in the state for intravenous infusion. It can be logistically difficult to arrange, but they are out there at a number of centers. There is a federal website that lists all of the available infusion sites. Providers certainly can reach out to those infusion sites.
    - If infusion is not easily available, subcutaneous administration of all of the agents can be given. This is something that does not require the same kind of complexity of an intravenous infusion and is available for all of the therapeutic agents.
    - The Regeneron combination monoclonal antibody product is also authorized for post-exposure prophylaxis. For example, someone who is a close contact or is in a facility that's experiencing an outbreak, can receive the Regeneron product either by intravenous infusion or subcutaneous administration. It is recommended for those who are either unvaccinated or who are thought not to respond adequately to vaccination. Those who are immunocompromised and might not respond to vaccination would also be candidates for post-exposure prophylaxis. These agents are safe and effective and could go a long way towards preventing hospitalizations in vulnerable individuals. We've seen very little in terms of serious adverse events.

Hospitalizations and Supply Capacity Update

Ms. Milesky:

- We have seen a dramatic increase in confirmed COVID hospitalizations in the past month, but recently we are seeing some plateauing as Dr. Madoff mentioned. That is making us cautiously optimistic as the rising numbers have really been concerning. Since July 4, there's been a 625% increase in confirmed COVID hospitalizations. Massachusetts went from a low of 80 hospitalizations on July 4 to our COVID hospitalizations today which are at 622.
- While COVID hospitalizations are not what they were earlier in the pandemic, our acute care hospitals are feeling very constrained. DPH is hearing about very high acuity non-COVID patients, an increasing number of COVID patients, a real increase in behavioral health volume in emergency departments and across hospitals, and also serious constraints in terms of staffing and workforce.
    - During the second surge, the department put a resurgence plan and guidance into place, which provided a framework for hospitals in each of our six regions to work together to both load balance and discuss resource and other constraints. That guidance was rescinded in June with the end of the state of emergency but was recognized as a best practice; so much so that each of our hospital regions have now voluntarily started coordinating together because they are feeling constraints now. So, even in the absence of the guidance, there are ongoing meetings

to discuss load balancing and other issues as they arise. DPH is working very closely with acute care hospitals to be able to support them in those efforts.

- Massachusetts is not experiencing the same kinds of supply chain issues and shortages that we had earlier on in the pandemic. There does seem to be more than adequate supplies of the PPE that is necessary to be able to support good infection control.
    - DPH has established a robust stockpile at the state level of PPE resources. If physicians are experiencing a supply shortage, they can email our resource unit. The email address for the surplus request form is: covid19.resource.request@mms.gov

Planning for Booster Dose Vaccination

Mr. Cranston:

- DPH is eagerly awaiting federal action to know what formulations will be approved for booster dosing.
    - It appears the likelihood that Pfizer would be the first to be approved is higher than for Moderna and certainly higher than for J&J. Moderna submitted documentation last week to the FDA, but the Pfizer submission was in advance of that. If everything goes in sequence, we anticipate action on Pfizer first.
- DPH is trying to assess interest and capacity in administering booster doses. We have been surveying the pharmacy sector, local boards of health, hospitals, our mobile providers, community health centers, primary care and urgent care sites. Based on those surveys to date, we are developing rough estimates of administration capacity. I'm pleased to report that weekly administration capacity, even working off of the conservative figures we've received as of yesterday, indicates capacity in the hundreds of thousands of doses per week, upwards of 300,000 to 400,000 doses per week are possible based on a conservative estimate of capacity articulated to-date.
- We are hopeful that the time interval from last second dose to booster dosing is no less than the eight months that had been previously discussed. There have been some conversations at the federal level, particularly out of the White House, of time frames as early as five months. Some of those have been dialed back in the media. At five months, we would be challenged. A very large number of individuals would become eligible almost simultaneously (over 2.3 million residents would become eligible). It would be a challenge at current estimates of capacity to meet that need in the immediate frame, meaning It would take several weeks to meet that need. If, in fact, the interval recommended by FDA and ACIP were closer to the 8 month time frame, we are increasingly confident that we can meet the need and meet the demand of individuals if they present in the order that they received their first and second doses.
    - As you may remember, the beginning of the rollout of vaccination was severely supply-constrained. We needed to implement significant prioritization schemes in order to ensure that the individuals at greatest risk for severe illness and death and health care providers received their vaccinations first. If we were to observe an eight month interval, it would be a slow rise to eligibility, peaking right towards the end of December. It appears from our current estimates that current capacity across all of those sectors would be able to meet the need. Many, many sectors have indicated a lower capacity than was available back in the spring, which is not surprising, particularly given some of the staffing constraints that many health systems are experiencing. The pharmacy sector, however, has indicated a robust capacity that might even exceed some of the early capacity that was available in the springtime.

- All of our planning is in anticipation of federal action, preparations to operationalize the multiple sectors, and to communicate clearly to the public what eligibility means, and what documentation will be necessary.
    - We've already made a decision to rely on a self-attestation process where individuals will not need to present specific evidence of their formulation or the time frame. We do expect that some individuals who don't have ready access to their CDC card or other documentation may be requesting it. We are hoping at our end to be able to support individuals seeking that documentation to take some of the pressure off of primary care and other providers who are also able to provide that documentation.

Pediatric Cases, Breakthrough Cases and Variants

Dr. Brown:

- Massachusetts is certainly seeing a marked increase in cases in children which is very similar to what has been reported across the country. Because Massachusetts is highly vaccinated, I suspect that our increase in kids is not as great as what some other states are seeing, but in the last month, we have seen about a 50% increase in case rates in children (anyone under the age of 18) We've gone from 200 cases per 100,000 in kids to over 300 per 100,000 people.
    - The good news is that children continue, in general, not to have very serious illness and the number of deaths that we've seen in kids related to COVID over the entire course of the pandemic is less than 10 which is very encouraging.
- Breakthrough cases are something that we're tracking very carefully. I know that's of interest to everyone. When we look at the data since the time where people would have been considered fully vaccinated (the middle of January, which is when the first individuals would be more than two weeks out from their second dose of Pfizer) the median age of people who are of unvaccinated people who've become cases is about early in about 32 years of age. The median age of people who have been breakthrough cases is older than that. It's in their mid-40s, which is interesting and suggests we have seen over the course of the pandemic that the older you are, the higher risk you are. That may be very consistent. What is very reassuring is that the median age of people who have vaccine breakthrough disease, who gets hospitalized is over 70. The median age of people who die with the vaccine breakthrough disease is over 80.
    - Generally, about 12% of people with COVID that does not result in severe reported underlying condition. Around 50% of people who are hospitalized with breakthrough COVID reported an underlying condition, and almost 75% of people who die with vaccine breakthrough disease are reported to have an underlying condition.
    - The data we have on hospitalization and underlying conditions is incomplete, but the trend, I think, is accurate and reassuring. Meaning even people who have vaccine breakthrough disease are highly protected from hospitalization and death and when hospitalization and death occur, it's highly associated with underlying conditions and increasing age.
- As far as the Delta variant, about 99% of our cases are probably due to the Delta variant. It's been that way for several weeks now. It was increasing rapidly for a couple of months, but we're at about 99% right now. It is very hard to say what's around the corner in terms of what the next variants of concern that's going to cause problems will be. There's conversations in the press about the new variant and Lambda, but we have not seen these other variants take off in the way that Delta did because of how highly transmissible it was. The Delta variant has had such a dramatic impact is because of the high transmissibility. It would be easy for me to make a prediction, but it would be even easier for that

prediction to be wrong. I'm going to not make a guess as to what the next variant of concern will be, but rather say that we are still focused on the Delta variant and the increase in cases that we are dealing with as a result of that.

DPH responses to questions asked during the call:

Question*: Are you aware that there are many doses being discarded every day at pharmacies because they are not using nearly the allocation that they open every day? Is there any awareness of that or a program for people that are more than six months out vaccinated to be able to obtain those doses?*
Mr. Cranston: All vaccine wastage is required to be reported to DPH. I'd be interested in some more specific details about what you're observing. I'm not aware a system-wide or a systemic issue with pharmacies in particular around vaccine wastage. We do know that, as you know, puncturing a new vial starts a clock running on your ability to administer all of those doses. Pharmacies, just like other providers, may not have an ability to perfectly predict how many individuals will present the vaccination. Even if they have an appointment system, no shows continue to be a challenge. We have clearly instructed all providers to not miss opportunities to administer COVID vaccine, particularly primary series, because we still have a ways to go to get everyone fully vaccinated. While we have not set rigorous wastage standards, except for a great deal of allowance for vaccines that are imminently expiring, we urge folks to balance not missing those opportunities against unnecessary wastage. I think your question, though, is asking if there is some way for individuals seeking boosters to be able to access those doses. Unfortunately, because all COVID vaccine doses are owned by the federal government, and we are bound by specific agreements to the federal government as our providers through the Massachusetts COVID-19 Vaccine Program Agreement, we still need to observe FDA and ACIP recommendations and authorization in order for those vaccines to be properly utilized. At this time, we're unable to instruct that those doses be administered to individuals seeking boosters that are not yet approved by FDA or recommended by the ACIP.

Question: *How does someone get a copy of their COVID-19 vaccination card?*
Mr. Cranston: Only providers are able to order blank copies of the CDC COVID vaccination card. Through the Massachusetts Health Promotion Clearinghouse, That's one opportunity to provide a replacement card for an individual. All vaccinators in Massachusetts have access to the Massachusetts Immunization Information System (MIIS) vaccine registry and can generate a record for an individual from the MIIS of their COVID vaccinations or, for that matter, any vaccination that's in the system. We do have capacity at the state. Our MIIS helpdesk can take requests. We do have some documentation requirements for individuals we want to make sure we're not revealing protected health information to the wrong individual. It's a little more cumbersome process for an individual to request it directly from the MIIS, but we are looking to increase our capacity to manage those requests as well. And in future weeks, we hope to be able to announce some self-service options as well in that regard. At this point, we are primarily referring people to primary care providers, pharmacies, and other authorized vaccinators to seek copies of their MIIS record.

Question: *Regarding monoclonal antibody infusions for patients who are either early in a COVID course or who needed for prophylaxis means, how can we access those resources?*
Dr. Madoff: Initially, the state was in the business of distributing monoclonal antibody products for infusion. The federal government took over that role in the late spring. We had feared that demand for the monoclonal was going to be huge, and we built a lot of guardrails around equity and trying to make sure that the products were distributed fairly and equitably. In fact, the demand for the products was very low and we really didn't

find that to be necessary. Many of the facilities that are infusing monoclonal antibodies have quite a bit of it on hand. There is a federal website that gives you a way of searching for monoclonal antibody distribution sites and gives you the contact information for each of those sites. There are, I believe, around a dozen sites and a few other pharmacies that can distribute to, for example, long term care facilities around the state. Some of the large hospital systems also have sites. We helped Cape Cod Hospital and UMass both to stand up additional infusion sites with the help of a federal program administered by KPMG through a couple of federal agencies that actually supplied special trailers that had infusion sites. One of the logistical difficulties of infusing monoclonal antibodies is you need to bring people, who by definition have COVID and can transmit it, into a health care setting, where they could put others at risk. These are an attempt to house them somewhat separately from the health care setting. Those are at UMass and Cape Cod Hospital, and then there are a number of other facilities throughout the state that are fairly well geographically distributed that have access. One other thing I wanted to mention is that a very small silver lining of the predominance of the Delta variant is that the bamlanivimab atezolizumab combination product, which was withdrawn by HHS for a couple of months because it didn't have efficacy against earlier variants is in fact highly effective against the Delta variant. Since the Delta variant is the overwhelming variant that we see now that product is available again. The best way to find mAB therapeutics is to reach out to one of the infusion sites and request a referral for your patient who is eligible.

Question: *Regarding school children and masks; Governor Baker mandated for public schools. Could MMS urge mask use for private schools?*
Dr. Brown: Conversations about the appropriate masking recommendations and how to communicate those recommendations are certainly ongoing. I would not discourage MMS from reaching out to provide that advice, but I would also say we're certainly having those discussions.

Question: *I don't understand why we're dragging our feet on boosters. Pfizer came out and said, you need it, and Anthony Fauci last week said, it looks like you're going to need it. Is this dragging of feet really a reflection of a lack of product?*
Mr. Cranston: There is absolutely no lack of product. We have been assured by the federal government there is more than ample supply in the federal stockpile to meet the need for booster dosing. We are eager to move forward as soon as the FDA has provided authorization for the use of any or all of the formulations for booster dosing and receive a recommendation from the ACIP that's accepted by the CDC leadership for the indicated use of the booster. Until that time, we are actually not allowed to utilize the federal doses that we have in state or could have in state for booster dosing until we receive that federal authorization.
Dr. Brown: We have conversations with different groups at CDC fairly frequently, almost every day, and the information we're getting from them, and the way I read what's in the literature, is that I don't think anything's been proven yet about the need for booster doses. The real complicating factor that CDC has been pretty clear about, at least in conversations with health departments, is that it's almost impossible to disentangle the potential that it is waning immunity is resulting in an increase in cases versus the emergence of the Delta variant which is causing an increase in cases. I would reemphasize what Kevin has said. We really are looking to FDA and the ACIP, who reviews the data and have all the expertise, to be able to think through these issues and to make good recommendations.

Question: *Early on in the pandemic, we heard about research into bacille Calmette-Guerin (BCG) and polio vaccine to amplify the immune response. I've also heard that there may be some cross-reactive synergism by*

giving people boosters of Moderna if they received Pfizer and vice versa. I'd be interested to know about amplification of the immune system by using a different vaccine for your booster.
Dr. Madoff: I try follow the literature pretty carefully, and I have yet to see data on that topic. I recall seeing some of that early suggestion that there was a benefit of non-COVID vaccinations in an immunity to SARS-CoV-2, but I haven't seen anything in quite a while on that topic. It's an interesting idea. I just don't think there are data that I know of to support that at this time.

Question: *You said the monoclonal antibody could be given either by infusion or subcutaneously. My question is, are they equally effective? If they are, why wouldn't everybody just get subcutaneous?*
Dr. Madoff: There are data to support subcutaneous infusion. I think it's less convenient and maybe less acceptable to patients. It's a fairly large volume, and so it needs to be given at least four separate sites. That is a downside, but there is pretty good clinical data supporting the use of subcutaneous injection in terms of achieving antibody levels and in reducing morbidity from COVID. The FDA the emergency use authorization states a preference for intravenous infusion for therapeutic use of the monoclonal antibodies, perhaps because of the more rapid availability of the antibody by intravenous infusion. Either is an acceptable route for post-exposure prophylaxis.

Question: *Are we making progress with the people who have never had a first dose and reaching communities that are vaccine resistant or hard to reach?*
Mr. Cranston: We continue to prioritize primary series vaccination as well as our Vaccine Equity Initiative including mobile deployments. As Dr. Madoff was indicating earlier, we continue to see a lot of vaccination activity. 10,000 doses just in the past 24 hours. Little by little, we are continuing to chip away at that remaining percentage of folks who are unvaccinated and we continue to evolve our public messaging to address what we're learning from the literature, and from our own health research, about some of the motivators for individuals who to date have been hesitant to receive the primary series of vaccination.