



MASSACHUSETTS MEDICAL SOCIETY

Every physician matters, each patient counts.

April 16th MMS /DPH Call: DPH Update and Summary of Q & A

On April 16, the MMS hosted its fourth COVID-19 conference call for physicians with the Massachusetts Department of Public Health (DPH). Dr. Larry Madoff, Medical Director of the DPH's Bureau of Infectious Disease and Laboratory Sciences; Dr. Catherine Brown, State Epidemiologist, and Kerin Milesky, Director of DPH's Office of Preparedness and Emergency Management, participated.

The member questions submitted to DPH in advance for this meeting included six broad topics: personal protective equipment, surge planning, COVID-19 testing and antibody testing, social distancing, local boards of health responsibilities, and clinical treatment.

DPH Update: Dr. Madoff provided an update on COVID-19 cases in the Commonwealth and reminded participants that the www.mass.gov/COVID-19 website is updated daily.

- As of 4/15, Massachusetts has tested 132,023 people in the state. Yesterday, there were 1755 new cases, bringing our total number of cases to 29,918.
- There is day-to-day variability in cases reported by testing laboratories due to differences in the lag times with different labs.
- No single day change is indicative of overall case trends.
- As of 4/15, an additional 151 new deaths were reported, bringing our total up to over 1,100 deaths from this virus in the Commonwealth. These are difficult and staggering numbers. We express our deep condolences to the family and friends of these individuals.
- DPH's current priorities:
 - Continued expansion and availability of testing especially for vulnerable populations
 - Increasing assistance for nursing homes and LTC facilities
 - Continuing efforts to increase supply of Personal Protective Equipment (PPE) and ventilators
 - Increasing surge capacity
 - The Commonwealth has also been working to expand bed capacity, standing up field hospitals in Worcester, Boston, the Cape, and more are planned elsewhere in the state.
 - The Commonwealth has also been working to expand staffing capacity, including utilizing new medical school graduates and others through a new volunteer program to assist our health care workforce.
 - Contact tracing
 - The COVID-19 community tracing collaborative is a new partnership among the Department of Public Health, local boards of health, and Partners in Health. The goal is to provide support to confirmed cases while also reaching out to the people they have been in contact with. This partnership has been seen as a national model.
 - Reinforcing the importance of social distancing
 - The Commonwealth's recommendation is for everyone to cloth mask when social distancing is not possible.

DPH officials' responses to questions the MMS received from physicians and that were submitted to DPH in advance and answered on the call:

Social Distancing

Question: *Should enhanced PPE be worn in close spaces when social distancing is not possible?*

Dr. Madoff: As of April 3, the CDC recommended wearing cloth face coverings in public settings. Governor Baker has reiterated this guidance in light of recent studies that have shown individuals with the virus who lack symptoms can transmit the virus to others. It's becoming more and more apparent that individuals should be wearing cloth face coverings in public settings, especially in places where social distancing measures are difficult to maintain, such as grocery stores, and pharmacies, and especially in areas of significant community-based transmission, which is essentially throughout the state now. It is critical to emphasize that social distancing, keeping six feet apart, remains the single most important thing that we can do.

Surge Expectations

Question: *Please provide an assessment of where Massachusetts is with regard to the surge?*

Dr. Madoff: We are seeing the case numbers in our state rise rapidly. This was expected. With regard to modeling and the timing of the surge, obviously, any kind of statement about the future is a prediction. There are models and there are trends that we're observing, but I think it's safe to say that all of these predictions have problems. They're not perfect. I have seen several different models that have been built, and some of which have been specific to Massachusetts or to greater-Boston. Our Command Center has also done some of their own modeling based on prior outbreaks and other situations. I think that all of the models that I've seen indicate that we are at, or near, the peak of this current wave, which I guess is a good thing. I suspect that we're either there or that it will happen in within the next couple of weeks. One thing that I want to comment on is that we know from modeling and experience that there's a temporal relationship between when we first detect cases, when those cases become ill enough to be hospitalized or require higher levels of care, which typically occurs a week or two following the onset of the initial symptoms and then mortality, which lags all of those things. So, I think while we are at or close to our peak in many cases, we may or may not be yet at peak in terms of demand for health care or ICU, ventilators, et cetera. It's a situation that we're monitoring really closely. All models incorporate assumptions that may or may not be true, including how much social distancing we're seeing, how much that results in a reduction in transmission. And, of course, in how much morbidity and mortality we're going to see. All of those are estimates are based on assumptions, but they are never completely accurate.

All models have issues, but I think from the indications that I've seen, it does seem like we're getting towards a peak. One other thing I want to mention is that our interpretation of the case numbers can be complicated by the rate of testing. As our testing has ramped up, we find more cases and that at least, in part, accounts for the rise in cases that we're seeing- if it's just availability of testing.

Question: *How are admissions to the regional field hospital being determined? Do all the field hospitals have consistent admission and exclusion criteria?*

Ms. Milesky: My understanding is that each of the field hospitals ([alternate medical sites](#)) is establishing their own admissions criteria. We did push out last Saturday the admissions criteria that was put together by [Boston Hope](#), which is the site that is at the Boston Convention & Exhibition Center (BCEC). Right now, there are two alternate care sites that are stood up in the state - one in Worcester at the [DCU](#), and then the other that was in Boston at the BCEC. And there is a site at Joint Base Cape Cod, and then another in Lowell that are in the process of being stood up.

Question: *Did Massachusetts receive or expect to receive additional ventilators from the Strategic National Stockpile or other sources?*

Ms. Milesky: I can let you know that up through today, we have been fortunate to receive a total of 400 ventilators from the Strategic National Stockpile and we were able to procure an additional 50. We do hope, both on the Strategic National Stockpile and on the private market, that we're able to bring additional ventilators into the state and continue to pursue that very aggressively. On the federal side, DPH submits a series of data sets every morning to the federal government. Those of you who joined the call last week, might recall I mentioned to you that that data set is a subset of information that's reported to us by all of the acute care hospitals. It's vitally important that in doing that reporting that it is as accurate and complete as possible so that we can provide a clear picture to our federal partners of exactly what the situation is in Massachusetts. And so, that in making the request for ventilators, we can ensure that the needs of the Commonwealth are being taken into account. As I mentioned, we have received 400 from the Strategic National Stockpile. We had actually requested a total of 1,700. But what the federal government is doing is they are looking at our daily reporting to them and determining whether our data indicates that we're going to have a shortfall of ventilators within the next 72 hours. And if they find that our data does indicate that, then they will release an allotment to us from the stockpile. So, we've had three so far; and while we probably would not be happy that our data will show that we would have a need for additional ventilators, if they do, then we will work with the federal government to bring them in. I'd also note for you that the Commissioner has put together a working group of critical care physicians and respiratory therapists that represent a number of hospitals across the state. They have been working with us to reach out to all of the hospitals to really understand what the need is in this state. Then, based on the data that we collect and what they collect in reaching out to facilities, they make a recommendation to the Commissioner around allocation for those ventilators. As of today, we have pushed 380 ventilators out to facilities. Tomorrow, we'll be pushing an additional 57 of those out. So, we're working very aggressively to make sure that we understand the situation across the state and can respond to it in the best way possible.

Personal Protective Equipment (PPE)

Question: *Can you address the safety concerns regarding KN95s compared to N95s?*

Ms. Milesky: A number of the questions have come up around KN95 and their equivalency in terms of respiratory protection. It is our belief that the KN95 are nearly equivalent to an N95 but would certainly recommend that you check them at your facilities before use. I wanted to let you know that we are actively engaging with some of our colleagues at MIT to be able to talk about some of the masks that we're bringing into the Commonwealth and ensure that they do provide adequate respiratory protection. I also wanted to let you know that we have also recently posted [new guidance around the use masks in public](#).

Question: *The universal facemask policy has made the shortage of PPE even more challenging for staff and practices. What does DPH recommend for practices who don't have sufficient PPE?*

Ms. Milesky: We know that we are working, and you are all working in an environment of great scarcity in terms of PPE. At the department, we have to date received three allocations from the Strategic National Stockpile of PPE and have pushed out more than 900 orders and requests from hospitals, nursing homes, community health centers, and others to try and assist with meeting that gap. I did want to point out for you all that on the 13th of April, the department did [update its interim infection prevention and control recommendations](#), which have specific recommendations and updates around personal protective equipment. I wanted to continue to remind you if at your hospital or the settings where you work, if you do have a need for PPE to encourage you to be really vigilant with your vendors. We are seeing some supply streams start to open up now and want to remind you to use that as your first line of defense in filling those orders. Certainly, if that is not something that is bearing fruit, you could certainly make a request through your health and medical coordinating coalition, which has been providing those requests to the department for us to be able to prioritize with our other requests that we receive in for the Strategic National Stockpile resources that we have available at the Department.

Local Boards of Health

Question: *Massachusetts' 351 local boards of health (LBOH) vary greatly in their expertise and availability. Since much of the guidance released directs many questions about notification, contact tracing and return to work to LBOH, is there a central LBOH contact list that can help those looking for a response on the local level?*

Dr. Brown: Much of our guidance does direct question specifically to LBOH. It is certainly a reasonable question about whether there's a central contact list that could make reaching out to them easier. The answer is I don't believe so. I will absolutely take this back to the director of our director of local and regional health to understand the opportunity there might be there. I can absolutely understand why that would be useful.

Testing

Question: *We have heard about the need for universal testing to better know how to plan during and post pandemic, are we any closer to the ability to test on this scale? What interventions are planned to increase testing and reduce disparities for vulnerable populations?*

Dr. Brown: We are absolutely still working with all of our partners to expand testing, because we do need to get to a point where pretty much we can test everybody. Maybe not all on the same day, but we do need to be able to really have easy access to lots of testing, even past the point of surge. This ability to rapidly identify cases in order to do that isolation and quarantine and contact tracing is, and will continue to be, a very big piece of public health response for a long time to come. Work is being done aimed at trying to improve access for testing in some areas that have particularly vulnerable populations and for minority populations. Two of the most vulnerable populations that have received a lot of increased access to testing so far are residents of long term care facilities and their health care providers. There are several different mechanisms by which they can request assistance with testing. There has been a big push for testing in people experiencing homelessness. One of the Abbott ID Now test machines has been provided so that they can do more testing in that population.

Question: *Do all testing sites use the same testing criteria?*

Dr. Brown: Not all test sites use the same testing criteria. We do not have a great window into the variation between all of the testing sites. We have worked with the COVID-19 Command Center to pull together the information that is available and that is posted on the website, but there is still often a requirement that you call first to find out do you meet their particular requirements.

Question: *What is the status of antibody testing in the Commonwealth? Where and when can one obtain an antibody test?*

Dr. Brown: There are many different providers, research institutions, and health care institutions in Massachusetts who are working on looking at the antibody testing in a couple of different ways. One is obviously the testing of individuals, but I think we need to all remember what we don't know about serological responses to COVID-19 in this moment and that there's still a lot of research that have to happen in order for us to really get to a point where routine antibody testing is going to be very helpful. The conversation around antibody testing is focusing on monitoring of their prevalence in the Massachusetts population to help us better understand where we are in this pandemic and to monitor that moving forward. So, stay tuned on the status of antibody testing. It is something that is coming. So again, there is a lot of information that we don't know about what antibody responses look like and the variation that we might see amongst the population. Also, I think I mentioned this the last time I was on the call, is that there is only one, maybe two antibody tests that have actually received FDA approval at this moment. The rest of them have sort of gotten in under the original FDA reduced oversight that they were permitting, so I'm very cautious about recommending (and/or) turning to any particular antibody test in this moment. Stay tuned. There's going to be more to come on that.

Treatment

Question: *Should negative pressure be used in spaces that require positive pressure relationships (such as ORs, procedure rooms, etc.) when a COVID-19 patient needs to be treated in such spaces? The Center for Biocontainment at the University of Nebraska uses negative pressure ORs for COVID-19 patients, but other guidance says no. Does DPH have guidance on this safety issue?*

Dr. Madoff: We recognize that there are some conflicting guidance documents out there. Our stance has been with that that has been used by the American Society for Hospital Engineers and the American Hospital Association. In general, we believe that for protection of the patient, operating rooms should remain as positive pressure. This is similar to how we would guide you to the TB patient, for example. We do recommend some precautions: that only medically necessary procedures should be done; they should be done, if possible at the end of the day so that there's less of a risk of crossing with other patients; obviously staff should be minimized in the room and all staff there should be wearing protective gear, either N95 masks or hepa respirators; the doors should be kept closed throughout procedures; recovery should be done in an airborne isolation room-- so in the negative pressure rooms; and terminal cleaning should be performed only after sufficient numbers of air changes has removed potentially infectious particles. We realize that there are some institutions that have been using different guidance, but this is the DPH take on it at this time. It's something that we're continuously trying to stay attuned to.

Question: *Is there any data regarding patients with Type 1 diabetes in contrast to patients with Type 2 diabetes in their susceptibility to coronavirus? What are complicating risk factors: obesity? autoimmune disorders?*

Dr. Madoff: With regard to the questions about risk factors for COVID-19, I have to say that I wish I could answer them. We are still in such an early state of knowledge with regards to COVID-19. I have seen very little in the way of data that's been collected in the US so far during this outbreak. Most of the information that we have actually comes from China and with limited amounts of information from other settings. For example, the question about diabetes and whether Type 1 or Type 2 diabetes are associated with COVID in terms of complications. We do know that at least in China that diabetes was a risk factor for complications and for death, but there was no specific information about the risk for type of diabetes or even for diabetes and the other risk factors. Age, of course, it does appear to be a major and predominant risk factor for severe disease, for need for invasive ventilation, and in mortality. That's been seen wherever COVID-19 has been seen. That information has been relatively easy to collect and has continued to be apparent throughout. Of course, there are substantial risks even in younger age groups, particularly in those with comorbidities, but the risk really appears to increase in those mid- to late- '50s age group, and then and then climbs substantially beyond that. The other risk factors that have been noted: Obesity is another risk factor, which has added to the list of known risk factors relatively late in the outbreak. Hypertension, which has been seen as a risk factor since the data from China has emerged that continued to be a risk factor for serious outcomes in mortality. I think that there really are so many unknowns. Certainly, I look forward to seeing more research on this topic and more information being available. I think that will become available. It just has not as yet.

Question: *What about persistent viral shedding after resolution of symptoms in a subset of patients?*

Dr. Madoff: One of the things that was apparent to us early in the outbreak is that persistent viral shedding occurs. Viral PCR positivity, I should say, persists in definitely a subset of patients. In some patients, we've been able to detect virus by PCR weeks after the onset of illness in patients who have been asymptomatic. For literally weeks, the virus can still be detected. There are data that suggest that the PCR diagnostic is so sensitive that it may be sort of overrepresenting the risk of a viral shedding and transmission. I've seen several studies which show that a viable virus, meaning virus that can be culturing by cell, culture disappears sooner than PCR positivity and this is something that is not perhaps surprising, because the PCR diagnostic is so sensitive for small fragments of RNA, but it's something that we've seen. Again, this is actually a recurrent theme, is that there are so many things that we don't know, so many unanswered questions. We certainly hope to get those answers.

Question: *What opportunities are there to donate plasma once recovered? What are the guidelines for that?*

Dr. Madoff: These are studies that are ongoing. The benefit of convalescent plasma has been seen in some small studies but is far from proven at this point. At least three of the teaching hospitals that I'm aware of in Boston have studies either ongoing or planned shortly for the use of convalescent plasma and have set up relationships with the Red Cross for plasmapheresis for eligible donors. So as far as I know, the studies are limited. I would direct inquiries specifically to the major teaching hospitals for those questions.

DPH officials' responses to questions the MMS received from physicians during the call:

Question: *We were told earlier this week by the lab director at Mount Holyoke Medical Center that there is now a global shortage of the nasal swabs used for the viral testing kits. He said that Holyoke Medical Center is borrowing 35 a day from Baystate Medical Center, who is getting a small ration from Quest. And I'm wondering if there's any information since you're talking about ramping up testing. How that's possible and what we can do as community doctors to support that, because essentially we're being told not to test at this point?*

Dr. Madoff: I'll try to answer that from a lab-testing perspective, and then I'm going to turn it to Kerin to address the supply question. Absolutely, we've seen there's been an issue with a shortage of testing material to perform tests and it is a constraint. It's been one of the really frustrating aspects of the outbreak- having different constraints emerge as one is solved and there is a dependence on what lab you're using for testing. One workaround is there are other specimen types that can be used. So, for example, in a patient that's able to produce sputum, a lower respiratory specimen with sputum can give you a sputum sample, which is eligible for testing at least at the state lab and, I believe, at some of the other labs. You could check with the lab at Holyoke to see if that's an available option at whatever testing facility that you're using. Another option that is available and is that it is part of the FDA-approved CDC version of the test, is oropharyngeal swabs. While it's not preferred, an oropharyngeal swab-- being careful that it's not a cotton- or wool-based swab-- made from artificial material is also potentially usable. And nasal aspirates, for anybody who knows or remembers how to do a nasal aspirate, that material can also be submitted for testing. We are working hard to improve the availability of swabs.

Ms. Milesky: Thank you, Dr. Madoff. I am happy to report that we're anticipating having a regular supply of the nasopharyngeal swabs with our resources at our state warehouse. Hospitals next week are welcome to begin requesting the swabs from us as they would normally request PPE supplies. So, it would go through the regional health and medical coordinating coalition, who would elevate it to us at the state and then we will be able to fulfill those.

Question: *I'm in Amherst, Massachusetts, we're trying to figure out when the surge is anticipated for our and we're getting different information. Do you have a prospective date or time for us?*

Dr. Madoff: I don't. I think that the data are insufficient. The modeling that I've seen has not been highly specific to a particular region of the state. Even getting data at the state level is challenging. And I think trying to make a prediction about a particular region of the state is more challenging. I've seen one set of models that does attempt to breakout regions of the state a little bit. I can't recall, but I will look to see if there's more granular information. But, I just want to caution you that the estimate ranges that we're talking about are weeks, not days of being able to precisely pin the date of the peak. I don't see any reason Central Mass. or Amherst would be vastly different from other parts of the state.

Question: *I have a question about ventilators, specifically, split use ventilators. Are being used in the state? And are there any plans to use split ventilators to try to ensure that resources are appropriately used and maintained?*

Dr. Madoff: I am certainly not the one to specifically answer that question, but I can let you know that in terms of the reporting that we are doing to the federal government, they are asking for a reporting on conventional ventilators and then alternate ventilators - what pieces of equipment do you have at the hospitals that you might be able to convert to a ventilator? One of the specific things that they are asking us to track is around anesthesia machines and how many there are in the state and, specifically, how many of them have been converted at the hospital level. So, while I technically don't have an answer as you're asking, I do know that we are being asked by the federal government to mobilize every possible resource at our facilities. All I know is that use has been sanctioned. I am not aware that it's been done in Massachusetts yet, and we've been fortunate in having adequate ventilator supply.

Question: *We want to find out how many people have actually been tested and also, if there's any correlation with the seasonal flu vaccine? Also, the physicians that are not part of the network, how do we have our patients' visit be reimbursed by their health insurance companies?*

Dr. Madoff: I can tell you we post daily our list of testing that's been done in the state. As of yesterday, it had been over 130,000 tests that had been performed just in Massachusetts by all of the available laboratories. As you know, the commercial labs, hospital labs, state lab that are all doing testing as well. I am not aware of any information about prior flu vaccination having an impact on COVID, but I have one intriguing bit that I've seen that's, perhaps, a protective benefit of Bacille Calmette-Guerin (BCG) vaccine and an apparent lower incidence of COVID in countries where BCG is widely used. Some theoretical reasons are behind that, but I'm not aware of any correlation with the flu vaccine.

And the other questions about reimbursement. And I can't answer that. Maybe Dr. Bombaugh or one of her team can address that?

Dr. Bombaugh: We can definitely answer that offline because it's very detailed and specific. We will take that offline and get back to her.

Question: *Going back to the issue of negative pressure airflow in operating rooms. This issue impacts hundreds of thousands of OR staff and patients who may be in the operating room suite, because they would be exposed to droplets with live virus in it. There was a mention of what we would do with TB, and the answer in the case of a patient's TB is that we would wait for the TB to be treated. Nobody would ever put a patient with active untreated aerosol droplets in the operating room and put on positive pressure and spread those droplets around. It turns out COVID is unique, there is a paucity of data on it. The few studies that have been done are actually silent with respect to this type of situation. It just doesn't happen that people with active infections get surgery, except in this case. This particular disease happens to result in people being on a ventilator for a long time and needing airway manipulation, which is a high-risk exposure for the staff and people around them especially tracheostomies, which are being done very frequently on COVID patients. The recommendation to use positive pressure operating room is based on the CDC's recommendation, which is silent on COVID. Recommendations of doing procedures that can be done in a negative pressure room speak to the harm that's done by placing these people in the room that has positive pressure airflow. I think the American Society of Hospital Engineers was speaking in the absence of data, not in the presence of data. There is really nothing involved in wound contamination on patients having tracheostomies or airway procedures. If DPH would support the protection of the operating room staff, especially in cases where infection is not a risk.*

Dr. Madoff: I appreciate that this is a controversial area and a controversial topic. The guidance that I was referring to when I spoke was the American Hospital Association and American Society for Hospital Engineers. I totally recognize that this is a controversial area, and that there is really a paucity of good studies on this topic. I think that this is something where we'll have to take offline. It's certainly something that we are continuing to actively look at along with the Bureau of Health Care Safety and Quality and we will continue to

work with you all on this topic. I don't think we are going to be able to decide this question this afternoon. I really do appreciate your concerns and of course we are very concerned about the safety of our health care workers.

Follow-up: *What should I do next, then?*

Dr. Madoff: Again, this is a maybe a more specific question to an individual facility or to your infection control department, but we can certainly talk with you offline or have a further conversation about it. This is a question that might best be addressed at a facility level and I have told you what the current DPH guidance is on this front.

Question: *A question about the DPH website, which has a COVID-19 site in Massachusetts. In particular, it says to the patient, if you believe you may need a test, contact your health care provider. If they recommend you should be tested, obtain a referral, and contact one of the facilities listed below. Could you explain what is meant by a referral? I'm pretty sure it's not the kind you get from a health plan. I'm quite sure it's not that, but it also doesn't say order. Is it that we as physicians are to help vet the appropriateness of the testing of the patient based on the various categories that you delineated at where we are in terms of supply, and then you'll take it from there? Or is there supposed to be some kind of a written communication? If so, how is that to happen?*

Dr. Madoff: I'll do my best to try to address that. I think that the issue is that each of the sites has their own particular requirements and guidance, and some of them are intended for specific health care plans and health care systems. Some of them are for particular types of individuals like first responders. Others are commercial. So, I think it may actually vary with the site. My personal hope is that testing is done in consultation with the provider, and that the provider at least provides a recommendation to their patients that they get tested. Exactly what form that takes is dependent on the individual site. I've seen different sites that have different types of requirements ranging, as you said, from an actual order for a test to an email saying, you should get tested that they show to the person at the drive-through site. Other types of referrals. I don't think a formal referral to another health care provider is generally required. I'm sorry, that's not a very complete answer to that question, but I think it's just depends, they're all different. I will take that back and maybe we can try to bring some order to this, but I'm not sure that we'll be able to. Perhaps even asking the patient to contact the center they want to go to and find out what's required, rather than us sending sort of one-off orders electronically in a fashion that isn't official enough to look like a real order. I just want to clarify. The big concern here is with getting the results and that they have a mechanism at that center for giving back the results. I don't know how in every situation results are conveyed to the patient or the provider.

Question: *Regarding the rapid diagnostic kits, which seem to be controlled by state distribution, do you know when they may start releasing that back to existing distribution channels?*

Dr. Madoff: I'm afraid I don't really have any information on that. I don't know the answer to that. I'm sorry. I can try to find out and get that to the Society.

Question: *I have a question about the COVID-19 website, instead of just the raw data that's presented there, which is fairly extensive, could DPH provide some data analysis, like for example, graphic presentations of rolling three day averages for new cases, hospital admissions, ICU admissions, and mortality? I have to say, I've been spoiled by New York Governor Cuomo's presentations, which has data in this format, and I was just wondering if he could replicate that here in Massachusetts?*

Dr. Brown: We are working on it. There is a draft version. It may not include everything that you just mentioned, but it is definitely more extensive than the raw data that are currently published. I'm always cautious about reporting plans publicly, because they change, but what I'm seeing right now is to move to more of a data analysis graphic on Monday.