



MASSACHUSETTS MEDICAL SOCIETY

Every physician matters, each patient counts.

April 23rd MMS /DPH Call: DPH Update and Summary of Q & A

On April 23, the MMS hosted its fifth 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 and Kerin Milesky, Director of DPH's Office of Preparedness and Emergency Management, participated.

Member questions on surge capacity and planning, COVID-19 testing, personal protective equipment (PPE), contact tracing, equity tracking, and where are we, as a state, in regard to resuming non-essential health care were submitted to DPH in advance.

DPH Update: Dr. Madoff provided an update on COVID-19 cases in the Commonwealth.

- On Monday, April 20, DPH released an enhanced, comprehensive, and detailed COVID-19 data report. The [COVID-19 Dashboard](#) includes daily and cumulative confirmed cases; cases by hospital, county, and age/sex/ethnicity; testing by date; deaths; hospital capacity; nursing home data; and PPE distribution.
- DPH is working hard to update race and ethnicity data, which is included in the dashboard. The department is hoping that physicians can help in those efforts by trying to specify race and ethnicity when they submit case report forms or make it available from within electronic health record systems when lab testing is sent either to DPH or to outside laboratories.
- As of 4/22, Massachusetts reported another 1,745 cases for a total of nearly 43,000 cases in the Commonwealth. To date, more than 180,000 tests have been conducted by 30 labs, including the state public health lab and commercial labs. The Commonwealth reported sadly 2,182 deaths.
- We are in the midst of the expected surge in Massachusetts, both in case numbers and hospital admissions. DPH's top priority is to respond to equipment and other needs of our health partners as the surge in cases and hospital admissions continues.
- It is critical to emphasize in all messaging to underscore that social distancing remains the most important thing that we all can do. Keeping 6 feet apart from others remains important to slowing the spread of the virus.

DPH officials' responses to questions the MMS submitted to DPH in advance of the call.

Question: *What is the status of the Commonwealth's surge planning, including crisis standards of care?*

Dr. Madoff: We are working to expand bed capacity, setting up field hospitals in Worcester, Boston, the Cape, and Lowell. We are bringing in more health care workers, including the new medical school graduates, recently retired clinicians, and others through a volunteer program to assist our health care workers in such an important job. DPH updated the crisis standards of care documents that were produced in response to comments from some, including the disability community and others, and we tried to address those. The department did update those standards, which I want to emphasize are guidelines to be

adopted by health care institutions in the event capacity has been exceeded in those institutions. Our main efforts are to avoid ever needing to use those crisis standards of care. So far, we have been successful at that because of the efforts of our health partners to expanded capacity, and we have so far managed to avoid needing to implement crisis standards of care. That's really the goal of all of our efforts. We do at this point have sufficient ventilators in the state. Kerin will update you on ventilator use, but at this point, we have been able to keep up with the demand for ventilators.

Ms. Milesky: I will just add that the field hospitals/alternate medical sites set up on Joint Base Cape Cod and at UMass Lowell, are both ready for operation, but the health care facilities in their geographic area haven't surged to such an extent that it's been necessary to have any admissions there. In terms of the staffing for those field hospitals, we've been really happy to collaborate with the Medical Society and be able to utilize our Mass. Responds platform that we've worked with the Medical Society for so long on to develop the COVID-19 Response Group and, in part, that is being utilized to be able to address some of the staffing needs at those ultimate care sites. I am very happy to let you know that as of Sunday, we were the recipients of 400 ventilators from New York State. So, we have a total of 858 ventilators in the state, through both the Strategic National Stockpile and procurement efforts. I mentioned to you previously that the Commissioner has a working group with respiratory therapists and critical care physicians from hospitals across the state. We've been working very closely with them to understand the need for ventilators in facilities across the state. As of yesterday, have pushed out 665 ventilators to facilities. We will be looking at the end of this week at the needs because we do currently have roughly 193 ventilators available in the warehouse. We will look at what the current burden is on facilities and will work with hospitals to be sure that they have the staff they need to support them because, obviously, we wouldn't want to deploy a ventilator if it wasn't going to be utilized.

Question: *Where is the Commonwealth with regard to contact tracing?*

Dr. Madoff: We are also continuing our efforts regarding testing and contact tracing. The COVID-19 Community Tracing Collaborative is a new partnership with the Department of Public Health, local boards of health, and the Partners in Health organization. The goal is to provide support to confirmed cases while reaching out to people they have been in contact with. This has really been widely reported as a national model. Eventually, this effort is going to employ, perhaps, 1,000 people, who will be contacting every case and doing it as quickly as possible, because we know that the speed with which people can be isolated is important, and the speed with which their contacts can be quarantined is also important. One thing that I wanted to mention that applies to people who have tested positive for the disease and folks who are quarantined—who are separated because of exposure to the virus—is the need to be quarantined for 14 days. That's based not on the duration of shedding or virus, but it's based on the incubation period. We know that people who are exposed to COVID-19 can develop a viral infection and become symptomatic anytime up to 14 days after the exposure. So, quarantine for those individuals really requires them to be separated during that entire period of time and that even testing negative on a virologic specimen during that period doesn't reduce the need for that duration of quarantine. I know there's been some confusion about that. I just wanted to emphasize that.

Question: *Our physician members have a number of questions about testing: testing capacity, antibody testing and point of care/rapid testing, and pooling specimens, can you address these?*

Dr. Madoff: Thank you. First, viral testing. This is the nucleic acid amplification testing, RT-PCR, that was initially implemented to CDC, then here at the state lab and progressively has been rolled out to a number of sites, including hospital laboratories and commercial labs. Our testing capacity has gone up so dramatically and we are now testing close to 10,000 tests a day and we expect that number to continue to climb. There are still constraints on testing, unfortunately. It's been very frustrating because as one constraint goes away, other constraints seem to come into play, like shortages of personal protective

equipment, swabs, viral transport media. The supply chain issues continue to be challenges to all of us, and we're trying our best to anticipate what the next supply chain challenge might be...if that's going to be PPE or reagents or testing material or personnel able to do the testing. So, we really are continuously trying to increase our capacity to do testing.

Second, point-of-care testing. There are some point-of-care diagnostic tests that are available at least, in a lab and health care settings such as the Abbott ID NOW and Cepheid. These are tests that allow rapid testing to be done. They continue to have quite limited availability, unfortunately. I think there may be a dozen or 20 Abbott ID NOWs available in the state. We hope to be able to bring more of those onboard. And some of them are becoming available commercially. As far as we can tell, those tests, the more rapidly available RT-PCR systems, seem to be close in sensitivity and certainly specificity, but even sensitivity to the commercial and state lab available tests, at least, as far as we can tell. There have been some studies done in a few locations that have questioned the sensitivity of these tests and I think there are limitations around whether swabs need to be directly inserted into these devices versus using them in viral transport media, which appears to, perhaps, dilute the result. But I think the quality of those tests remains high. Moving to antibody testing. There have been a lot of questions around antibody testing. It's a little bit of a wild west in terms of antibody testing in that there are just so many tests. I think probably hundreds of commercially available tests that are out there. Most of them are not FDA-approved. I believe there are three FDA-approved serology tests that have only limited availability. I think we will see more of those and we'll see a higher quality of those as time goes on. I just want to say that I think we need to interpret antibody testing extremely cautiously at this point and I think that antibody testing really shouldn't be used diagnostically nor should a positive antibody result lead someone to think that they're immune to COVID-19 at this point. I think there likely is some duration of immunity in people who've recovered from COVID-19 disease, but there really is no data. There are no data to support protective immunity on the basis of an antibody test. So, for me at this point, the primary utility of the antibody testing is for public health surveillance and helping us understand what the extent of disease beyond those who are being tested virologically is and trying to do some population-based testing to determine what the prevalence of antibody is out there, but I really want to caution you as clinicians against overinterpreting these diagnostic tests. I do think that population-based surveillance based on serology as we learn more about what it means in terms of immunity to disease will be important in helping us make decisions about relaxing social distancing measures and so forth. I think there will be an important part of what we know. And these efforts are going on. Last, pooling of specimens. I guess I would say that at this point that the constraints around testing are more on the ability to collect the test than they are on the ability to run the test and so I'm not sure how useful pooling is at this point.

Question: *How do we know if certain individuals are safe, no longer contagious or if they could be asymptomatic carriers?*

Dr. Madoff: I think that there's pretty good guidance out there around release from isolation of people who have COVID disease and that can be based either on clinical criteria or lab testing. Because of the constraints around lab testing, I think it's pretty reasonable to use clinical criteria and these are posted on our website and on CDC's website, requiring people to be free of fever and have improved respiratory symptoms for three days and off of antipyretics and to be at least seven days since the onset of symptoms or of diagnostic testing. While I've seen a lot of information, a lot of suggestion, that people can be asymptotically infected and spread disease or can be presymptomatic. In other words, in the days immediately preceding the onset of symptoms, that virus can be shed and that it can transmit to others. I've seen essentially no evidence about people who have recovered from COVID disease being able to shed. I guess the only caveat I would put on that is that there may be people who have immunocompromising conditions or on medication that causes immunocompromised, where you are a lot less certain about that. Our guidance and the CDC guidance does include that caution that virologic testing might be better in those

situations for clearance. Also, to note is that PCR testing can remain positive for quite a bit of time, even in normal hosts and immunocompetent hosts and that we've seen people who continue to be PCR-positive for weeks after recovering from COVID. There's limited evidence that doesn't even correlate well with viral culture results so that viral culture positivity ends earlier than PCR positivity and that certainly transmission is likely to not be occurring late after that. So, it's hard to know what exactly safe means. But I think, actually, that people who have recovered from COVID illness are probably in a pretty good condition in terms of being safe themselves from reinfection, at least, in the short term and safe from not likely to shed it to others, but there may be rare exceptions to that. I have to caution everything that we say about COVID-19 seems to change with the tidal wave of new research and literature that appears daily.

Question: *What is the DPH's thinking on resuming non-essential healthcare in light of the newly released CMS guidance?*

Dr Madoff: We are hopeful that among the first things that we're able to do when we begin to talk about reopening is reopening health care, which we know has suffered as a result of the pandemic. We've seen, for example, the routine childhood immunization rate, at least, as assessed by demand for vaccines from DPH, has fallen considerably as a result of the pandemic and we know people are reluctant to go to or bring their children to a health care provider. We really hope that in the early phases of reopening that health care that we have the ability to bring on what we would call elective but important surgery and medical procedures and certainly immunization and other forms of preventive care open as soon as possible when that becomes available.

Question: *Does DPH have any news about other PPE such as masks and gowns?*

Ms. Milesky: In terms of other PPE, we are definitely experiencing a critical shortage of gowns right now in the Commonwealth and are utilizing Tyvek coveralls as a substitution for gowns when receiving requests through our resource unit for gowns. We are working closely with both our federal partners and with our procurement staff to try and address this issue. but there really has been a struggle around gowns and being able to fulfill requests for them. I would let you know that, as you have probably heard, there is new technology for the decontamination of N95 masks. For anyone interested in information on the website is Battelle.org. From that website, you can find additional information about decontamination N95 respirators. Also, a reminder to you all about requesting resources. Requests do go in through your health and medical coordinating coalitions and information on making those requests are available on the COVID-19 website that can be accessed from mass.gov. I wanted to mention to you that we have made a concerted effort within our resource unit to be able to address some of the smaller requests that we receive from physicians' offices. It has been a bit of a challenge at our warehouse to be able to fulfill some of those smaller requests, which seems counterintuitive, because you would think the larger requests would be more difficult, but our warehouse doesn't have the ability to break apart the boxes and many of the physician office requests do tend to be smaller. So, we have set up a fulfillment at our offices in Marlborough. For any of you who are listening on the phone who have made a request, it is possible that you've been contacted by our staff and either offering the opportunity to come curbside to our office, where we will provide the resources that you have requested that we have on hand to you, or mail a shipment to you. So, we have begun to be able to deal with some of the backlog of those small orders that way and we hope that helpful for you.

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

Question: *We are now testing through DPH all facility patients in nursing homes. I was wondering if we have positive cases that are asymptomatic, how long should we keep them on precautions?*

Dr. Madoff: For an asymptomatic individual who tests positive to be released from isolation the guidance is for seven days for the general population and 10 days for health care workers before they can return to work.

I know that in many long-term care facilities they are extending that to a longer duration, but seven days would be the minimum that we would say in a person who tests positive. We recognize that person could be asymptotically infected, could be recovering from infection, or could be about to develop a symptomatic infection. Obviously, if they do develop symptoms, then clearance or a release from isolation would be based at least on the symptom criteria or serially testing them after the end of their symptoms.

Question: *I am a primary care physician. I have been fielding a lot of questions from patients who ask about antibody testing. I know you talked about it a little bit earlier. But really two major categories: people who had maybe a mild or moderate illness earlier in the course of the pandemic who hadn't been tested and would like to know what their status is? The other question is people who have had confirmed illnesses. Any role to testing antibodies after recovery?*

Dr. Madoff: I understand in a sort of a retrospective way people might want to know what they were ill with and that is a role for antibody testing, but I just would caution you against overinterpreting the antibody result. I think that one of the reasons people want to know that information is because they will use that to relax their vigilance against becoming infected, or feel that they don't need to use social distancing measures, or somehow feel that it's conferred immunity to them. We just don't know that yet and I would really hate to be in a position of falsely reassuring someone that they're safe, or that they're not able either to spread the illness, or to give it to someone, or to catch it again, or even potentially for the first time. Because, again, we don't know the performance characteristics of a lot of these tests. We know that there certainly are other circulating respiratory coronaviruses and that in some tests there's cross reactivity. Even if you don't have cross reactivity from those tests, I think you really need to interpret a positive test cautiously. So, I can understand the desire to know, but, again, I would caution us against using these tests, at least, until we know more about the tests themselves and what immunity means.

Question: *This is a question about California versus Massachusetts. California with 33 million more people and we have 7,500 more cases and 800 more deaths. There been a lot of theories. The question I have for our group is twofold. The whole point of the question is, did we do anything wrong? The population density is not it because San Francisco's pretty dense. Was it that they had a mandatory shelter in place, and we didn't? We had an only an advisory. Is that a major factor? This is important information when the second wave hits. Do you have an opinion as to why that huge difference exists?*

Dr. Madoff: I do not. It's a great question and it is true that we're a hotspot and that we've had a pretty high rate of infection in addition to having a large number. Obviously, we are a very densely populated state. I think that's certainly a factor. It's hard to separate the extent of infection of actual case numbers from the availability of testing. We certainly know from California that there were a lot of unapparent cases or cases that were occurring before the outbreak was known and that may be true here as well. I think the jury is out on that. I would really be speculating. I don't know the answer to that. I think that's certainly something that we want to know more about and that we'll keep looking hard at.

Follow-up: *When we hit a second wave, do you think the governor should order a mandatory stay-at-home as opposed to an advisory? That's a critical question. California did that, and we didn't.*

Dr. Madoff: I don't know the answer to that. I don't know, for example, if we have a really good contact tracing and quarantine system that in some way augments, certainly synergizes, with any other kind of social distancing measures. I don't know that there's evidence that a mandatory policy is more effective necessarily than of one that fosters cooperation from the community. I think there's a lot of unanswered questions there. I can't pretend to know what the right measures are, and certainly other societies have

used a whole variety of measures. There are a lot of factors that go into that kind of decision so, I'm hesitant to be the one to make that call. But I appreciate the question.

Question: *This question is about the workforce. Massachusetts has higher physician population ratio than most of the states and we graduated four of the medical schools and let people work early. What I'm wondering is what percentage of likely physicians in Massachusetts are actually engaged in COVID-19 work or is there a mismatch between the skills needed and the skills that our physicians may have?*

Dr. Madoff: That's a very good question. Thank you for the question. I honestly don't have an answer to that. I don't know if Dr. Bombaugh or Ms. Milesky have any insight into that?

Dr. Bombaugh: I don't know the answer to that question, but we could see if we can find an answer. We could try to do that for you offline. So, thank you again for the question. And we'll see if we can possibly answer that.

Question: *Mobile testing has started to be rolled out through Fallon Ambulance and my organization has a lot of group homes. Some of our homes were tested on April 13. We haven't gotten results back and I'm wondering if DPH is a place to try to figure out where those results are? Or is it Quest, or is it Fallon Ambulance? I don't know where the answer might lie.*

Dr. Madoff: Thanks for that question. I believe that the Fallon Ambulance testing has been done at the Broad Institute and those results are going back to the facility and the provider. How long have you been waiting?

Follow-up: April 13.

Dr. Madoff: There's some kind of a disconnect there. That clearly shouldn't be happening. We can try to take that offline and try to trace that down.

Question: *I am a MD, MPH and also a vice president at Blue Cross. My question is somewhat specific to the insurance industry, but I think also applies to others on this call. A lot of us are getting inquiries on the insurance side from employers saying, what do we need to do to get back to work screenings? Are you going to cover antibody testing- things like that? Obviously, we cover them. It was mandated to cover them, but we are being put in a very awkward position that we don't feel a role we should play is advising what policies employers should have on getting their workers back to work. I'm sure that patients are asking their own physicians that as well. I know you touched on it and I know we don't have any crystal ball, but I think it would be helpful as a takeaway from this call for DPH, Mass Medical, others can come up with at least a statement/ advice for employers and OSHA so that the rest of us aren't put in the position of giving inconsistent or inaccurate advice on return to work policies?*

Dr. Madoff: I appreciate the comment and question. I, unfortunately, don't have answers today that I can give for that as this is going to have to be a wait and see. There are really unanswered scientific questions about that. I think we will know more as time goes by, but I think it would be too soon for anybody to advise on back to work policies, frankly.

Follow-up: *I completely agree with that. I think we all do. I think it would actually be helpful, though, for the community to hear from DPH that that's where things stand and that they shouldn't be making their own decisions outside of DPH guidance.*

Dr Madoff: OK, well, I appreciate that, and I will take it back to our leadership.

Question: *I wonder if you could shed any light on New Hampshire. In particular, have you heard from your public health colleagues in New Hampshire whether there is consideration of lifting the requirement for telemedicine care for patients of Massachusetts physicians who the patients reside in New Hampshire? New Hampshire is currently the only state around here that's not lifted the requirement to have a license in that state and are instead requiring that each physician each clinician apply for emergency licensure. So, of*

course, that takes New Hampshire's time and clinician time. I understand that the other adjacent states have all lifted that during this pandemic and I'm wondering if you've heard any hopeful signs that New Hampshire might be working on lifting that?

Dr. Madoff: I have not. It's something I can look into. I don't know if any of the other speakers know anything about that. I don't have any insight into that, but I can try to find out.

Question: *I was inspired to speak by Governor Cuomo's acknowledgment that as they look ahead to eventually lifting some of the restrictions, they're differentiating different regions of the state as New York City and Westchester and Long Island are really hot spots. They're looking ahead to a nuanced lifting of restrictions.*

I haven't heard anything like that from our governor. As somebody who's in Western Massachusetts where we really have not yet hit even the hillock hardly and I think, in general, the course is going to follow a very different pattern here. I'm just wondering if consideration is being given to a more nuanced approach to lifting restrictions.

Dr. Madoff: It's a very good point and it is something that we are considering as we look into the measures going forward. There definitely have been different trajectories and different things that happen in different parts of the state. As you know, the western part of the state was actually hit early and pretty hard in some ways. Then the wave in Greater-Boston sort of came later. I think it is something that we will look at. Obviously, there are differences in all kinds of things, including density and health care capacity and disease trajectory and, presumably, seroprevalence that will become apparent as we go forward. It is something that we will consider, but we don't have answers on that yet.

Question: *I'm a community private solo doctor and I'm having a lot of patients who actually are testing positive but have absolutely no fevers-- a lot of other symptoms. The symptoms are quite varied, but people are calling me who are presenting with a lot of symptoms of COVID-19 that can't be actually tested. So, how are we supposed to be reporting these patients? How are they being counted in an overall tally? How are we contact tracing these people because they're not being included in the total statistics.?*

Dr. Madoff: So, you're talking about people who aren't being tested, but meet clinical criterion. I think in the setting of a widespread outbreak like we're seeing that those are likely to be cases. We are trying to develop systems for reporting on those cases. We've been a little swamped with the laboratory positive cases, but I think you're right. Those cases do meet some of, at least, probable case definitions that have been put forth by CDC and we will want to be able to count and contact trace those cases. I would just say that we are trying to develop systems to do that but haven't gotten there yet. I appreciate your comment. You can report those cases directly to your local board of health and they can enter them into our state surveillance system, and we can pick them up that way. I realize that's cumbersome to do at this point.

Question: *I have a basic question. In terms of screening all the long-term care residents' facilities, I just wanted to clarify if that was a requirement or it's optional based on the facilities?*

Dr. Madoff: It's a recommendation of our COVID-19 Command Center that all such facilities be tested. It is up to the facility to request it and to arrange it with the Command Center and with the National Guard.

Question: *I'm a private practice physician infertility surgeon. My question is about opening up for urgent but not necessarily emergency surgeries. Is there a plan for moving forward? Is there a difference for an office-based surgery center or ambulatory surgery center that is not associated with a hospital because we are not taking up hospital beds or resources? When can we expect some guidance about when to reopen? And is there a difference between office space surgery and a surgery center or hospital?*

Dr. Madoff: Thanks for that question. Again, I'm going to just have to ask you to stay tuned. It's my feeling, and I think probably very many of you as well, that important but nonemergent types of medical care be

allowed to resume at the earlier phases as we reopen. We still don't have guidance on that, and I'll have to ask you to stay tuned. I certainly acknowledge that there's a difference between hospital-based and nonhospital-based practices.

Question: *I'm a neurologist. I've asked this question a week or two before, not to this colloquium. I've seen a couple of people that tweaks my interest in knowing if we know at all whether neurological symptoms, absent the standard criteria for COVID, is a presentation. Do we know any more than we did three or four weeks ago when the last literature came out, which was sort of equivocal? I ask this for a couple of cases I saw. One was a student who had gone to Italy to see her boyfriend because she's Italian and came back in late January/early February with some strange symptoms, including acute paresthesia and a headache, which seemed benign and was getting better, but I always wondered whether that could have been another manifestation. Plus, I saw a confused older gentleman, who had in the past been confused, in the hospital in a protective ward, who turned out to be COVID-positive, even though his presentation was not a COVID presentation. He,, didn't have those contacts. So, my question is twofold. Number one is, are there any new signs of presentation other than COVID predominant ones, particularly neurological? And number two is, would that have any prognostic implications?*

Dr. Madoff: Very good questions and I really don't have good answers to them. I think it's clear that we learn more and more about the disease every day. I think it's clear that when you have a disease that's affecting millions and millions of people, the likelihood of seeing an outlier on the spectrum of possible presentations becomes much higher. So, I certainly wouldn't rule out that there can be unusual manifestations of this.

I think the common manifestations of anosmia and alterations in taste certainly suggests that there are neurologic manifestations of the disease. I will say that we have seen, at least, one case report of encephalitis or of altered sensorium and positive CSF for SARS-CoV-2. I think it's possible. I will say that we've looked at a couple of cases here in the state where we've looked at CSF in kind of an experimental research basis at the state lab and have not yet seen evidence of involvement of the CNS on that basis, but I think there's a lot more to be learned. I would agree with your sense that there may be unusual manifestations that we don't know about yet.

Follow-up: *Fair enough. I wanted to add on a separate issue. A friend of mine has a large ophthalmology practice in New York City that stayed open. This is just a comment, because I think you've already answered availability of rapid testing for COVID for those practices that are seeing office emergencies. He's had trouble finding either Abbott or other rapid tests. I don't think we've been emphasizing enough that that's another place that needs testing, but not be overnight or five-day testing but the quicker ones. It's just a comment. I don't expect you have an answer for that one.*

Dr. Madoff: No, and I agree with you. I think the availability of rapid testing will be important.

Question: *I heard very well the caution about the use of the immunoglobulin responses and that's clear. My question is about whether or not the response is specific with this virus. Is it discernible from other immunoglobulin responses that a person may be having? There are the disorders, which are sometimes not very obvious either. Is there a specificity about the response? Or is it not so specific? I think you said Immunoglobulin M (IgM), but there were other conditions that still some IgM response as well.?*

Dr. Madoff: So, as I said, there are many, many serologic tests that are out there. Many of them are not well-characterized and not FDA approved. I think some of them probably don't work at all and some of them are probably better. I've seen some very good research done on the antibody response to SARS-CoV-2. There certainly are available tests that are specific and sensitive to antibodies for SARS-CoV-2. That can be shown by things like neutralization assays where the virus inhibits the response or that assay response specifically, and so certainly it's possible to measure antibodies specifically. The other human coronaviruses differ in various ways from the SARS-CoV-2. The seasonal coronaviruses, the common viruses that most of

us have been exposed to, do have antigenic differences with SARS-CoV-2 and so they are distinguishable in theory. I think, in practice, we're going to have to wait to see when as good and better lab testing becomes available.

Follow-up: *Sounds like the specificity is there. It's the quality of the test still with the problem.*

Dr. Madoff: You can develop specific tests that are highly specific.

Question: *Question about laboratory testing. With the development of the safer ways to test patients with in-car testing, I'm wondering if you've heard of any efforts to set up a parallel system for bloodwork for non-COVID patients for important, but not emergency laboratory testing so patients don't have to venture into a health care setting, but could put their arm out the window and have their blood drawn that way. Is there any effort to state that you know of that would be developing something like that?*

Dr. Madoff: Thanks for that question. I think the closest thing we might have to that would be like finger stick testing, where a dried blood spot can be used in some of these antibody tests. And, again, I think those are theoretically available. We're not sure how good those tests are. You probably heard about that testing that was done in Chelsea, that's how that was done, was on a finger stick.

Follow-up: *I'm actually asking about non-COVID testing. Testing people's potassium and creatine and such to try to keep those patients who have a number of risk factors safer in their cars.*

Dr. Madoff: I hope that that kind of medical care comes back soon early in the reopening. I haven't heard specifically about those kinds of parallel laboratory testing drive through for that particular focus. It's an interesting idea. Thank you.