Mayo Clinic Podcast - Dr. William Morice - YouTube audio - 4...

Tue, 4/6 2:01PM 23:00

SUMMARY KEYWORDS

mayo clinic, test, laboratory, testing, people, pandemic, lab, healthcare, patient, vaccinated, vaccines, understand, virus, bill, learned, role, continue, individuals, medicine, stuck

SPEAKERS

Dr. Halena Gazelka, Narrator, Dr. William Morice

N **Narrator** 00:01
Coming up on Mayo Clinic Q&A:

D **Dr. William Morice** 00:04
COVID has put a bright spotlight on a lot of things. And one of them certainly is the importance of labs and the professionals that work in them and the critical nature of their job.

N **Narrator** 00:12
Last year, Mayo Clinic laboratories performed millions of COVID-19 tests from all across the country. Today that testing continues to find solutions and to stop the spread of the virus and its variants,

D **Dr. William Morice** 00:25
We'll need to continue to test, to look for how people have been vaccinated, are responding, are they getting infected. So, to continue to do different types of tests that not only test for the presence of the virus but has the virus change in some way, so still

lots to learn and understand.

D Dr. Halena Gazelka 00:39

Welcome, everyone to Mayo Clinic Q&A. I'm Dr. Halena Gazelka. This month, we celebrate both medical laboratories and laboratory professionals. While it has been in existence for 50 years, this year has been unlike any other in the history of Mayo Clinic laboratories. The outbreak of COVID-19 put testing and lab medicine in the spotlight. Mayo Clinic laboratories has performed over 3 million COVID tests and formed new workstreams and partnerships during the pandemic. Here to discuss this with us today is Dr. Bill Morice. Dr. Morice is the president of Mayo Clinic laboratories, and the chair of the Department of Laboratory Medicine and Pathology at Mayo Clinic. Thanks for being here today, Bill.

D Dr. William Morice 01:24

Oh, it's my pleasure. Thank you for having me.

D Dr. Halena Gazelka 01:26

Well, I have to say that laboratory medicine and lab professionals are true unsung heroes I think and during the pandemic have been more important than ever. So, I'm excited that we get to chat today.

D Dr. William Morice 01:38

Me too. I mean, it certainly as you said, it's COVID has put a bright spotlight on a lot of things. And one of them certainly is the importance of labs and you know, and the professionals that work in them in the critical nature of their job.

D Dr. Halena Gazelka 01:50

And the incredible progress that was made in one year, it's just really been spectacular.

D Dr. William Morice 01:55

It's mind boggling really, truly is.

D

Dr. Halena Gazelka 01:58

Bill, tell us a little bit about the role of lab testing during the pandemic.

D

Dr. William Morice 02:03

Well, I mean, lab testing was really critical, right and continues to be critical. Going back to the early days of March of 2020, when there was a call for testing to be available to the American public, and to the American people, and to people around the world. It was because of the need to understand a where COVID was, how it was spreading, who was getting sick. Because that's the only way we could manage the pandemic, that was really our only tool to then understand how to develop the therapies and the management plan for these people. So, it really was our eyes on the pandemic as it spread, and the way to keep our finger on the pulse of the pandemic as we dealt with the different surges and cases and other things as it played out.

D

Dr. Halena Gazelka 02:48

Well, the intensity of your job during this and all of Mayo Clinic laboratories must have been intense. What have we learned in this past year, and what will we take with us going forward?

D

Dr. William Morice 03:00

Well, again, I think we've learned that the importance of laboratory testing and diagnostic medicine in healthcare, right, both in the US and globally. I mean, there's a real recognition that we need to continue to invest to make diagnostic testing available to the people who need it, when they need it. We've also learned, again, of the critical nature of the people that are doing those tests, and that we need professionals in laboratory medicine, who understand the technology and the science of what we're doing, but also understand the human need for this for the testing to be made available, and to be accurate, and to be timely. So, and then we learned about the resiliency. I mean, it's something we knew already, but the resiliency of our staff here at Mayo Clinic Labs and in healthcare. I mean, when I think back to the things that we've asked individuals to do, I mean, for me sure it was pretty pressure packed. But there are a lot of people that we were asking to do jobs they had never done before. You know, to help meet the needs of the nation as Mayo Clinic helped to be part of our national response to the COVID pandemic and testing. So yeah, we've learned a lot, a lot about ourselves and a lot about the work we need to do, and are doing, and its value.

D

Dr. Halena Gazelka 04:10

And obviously Bill, Mayo Clinic wasn't alone in this work. There are many lab organizations that you've been working with. And you've had to pivot quickly during the pandemic. It seems like how we tested, when we tested was kind of changing very rapidly. Maybe it seems more of a steady state now, but how did you accomplish that in conjunction with other leaders in the laboratory industry, and what did you learn from that?

D

Dr. William Morice 04:36

Well, again, if you learn the power of partnership, right, and the power of collaboration, to your point, we were having weekly calls with the American Clinical Laboratory Association Board. Now I'm actually the chairman of that board as of this year.

D

Dr. Halena Gazelka 04:50

Congrautlations.

D

Dr. William Morice 04:51

Thank you. So, but again, I think it's recognition of the role of Mayo Clinic Labs along with all the testing laboratories in the country played in responding to the pandemic. We would have weekly calls. I would have compatriots in industry. So, not just in academic medicine, but in industry saying anything you need from us, anything we can make available to you to get the testing out there, to share best practices. And then also, not just within the laboratory industry, but also the manufacturers of the test. So, you know, weekly calls or more with the leadership from the diagnostic manufacturers understanding the stressors that they had, because it was an overwhelming and when you think back, I mean, in 2019, December, there's a disease that no one even really knew existed. And then, three months later, everyone in the country and around the globe wants to test to see if they have it. So, just the stress was incredible. The ability of people to work together across different labs, across academic medicine and private labs, and between test manufacturers and labs. It's just really amazing. And then to your point, just the resilience of our staff, right, because then people that wasn't just a male, it was everywhere across the country, we had people coming in to do tests they hadn't done before, people to go out and get specimens at drive up centers, things that we never even imagined. So, just the ability of people to work together, and the resilience of individuals to step-up when the country was in need, it's something that will stick with me for the rest of my career, for sure.

D

Dr. Halena Gazelka 06:23

And Bill, you know, I was struck by just how fast life can change. I didn't see this coming at all, to your point that in December of 2019, no one had heard of this. Obviously, you were aware of this far before some of the rest of us would have been, but I came home from vacation spring break with my kids in March and Mayo Clinic closed the next week. And so, it was just astounding. Share a significant memory with us from 2020.

D

Dr. William Morice 06:51

Gosh, there's so many. I think that, you know, one memory that will stick with me is just how much we didn't know. And because I was actually in Washington D.C. in the first week of March for the ACLA board meeting, and for the annual meeting, there were a group of us that were asked to the White House to meet with Vice President Pence and Dr. Birx, and others on the testing task force. And even at that point in time, I don't know that I really comprehended the enormity of what we were getting into. So, I think we have to remember that because those are the investments that we need to make, in healthcare and in laboratory medicine to make sure that that we can do the tests that people need. The other thing that really stuck with me, and one of the memories is when people from across our different communities start to reach out to Mayo Clinic and Mayo Clinic Labs for testing. Whether it was, you know, Native American communities or others. And just really for me, that the challenges that we had to make testing widely available, and the need for Mayo Clinic and for testing laboratories to be available to everyone who needs them across society is the other thing that's really stuck with me. That's one of the real crystalline memories for me, was being here late in the night, and I got an email from a Native American tribal leader saying, gosh, we need help. And just, you know, just the need to make ourselves available. So, those are two things that really stick with me.

D

Dr. Halena Gazelka 08:22

And how incredibly gratifying for you, Bill. You know, a good day for me is I've really helped a patient, or multiple patients, in the pain clinic in some way and made a difference in their life, but I never thought of that from the viewpoint of laboratory medicine before. It's kind of one of those things that often goes on in the background until COVID comes along. And so, how wonderful for us to be able to celebrate that type of progress and achievement.

D

Dr. William Morice 08:48

Yeah, and I think you know, it is. We're one step removed. And so, it's pretty easy to

become insensitive to the fact that what we're doing really affects people's lives. And that's one beauty of Mayo Clinic and the integrated practice is we have a very tangible awareness of what the testing does for individuals as they come through. And I think it's been great honestly, for the lab professionals. There's been a lot this year for lab week and for the celebration of medical laboratory professionals this month, that their work is really recognized, and that people see the work that they do, and the dedication that they have to meeting the needs of patients that they serve. So, that is one silver lining, just the recognition that the rest of healthcare and the rest of the world has for the importance the laboratory plays, and the dedication of people that are in the profession.

D

Dr. Halena Gazelka 09:40

That's fantastic Bill. I'm always looking for silver linings from COVID, so I appreciate you sharing that. You know, it seems that so much of the news now his turned to vaccines and how rapidly we can vaccinate individuals. What role does testing take now that people have been vaccinated. There are so many questions about how do the tests work, and do they still work in people who have had vaccines? What do you have to tell us about that?

D

Dr. William Morice 10:05

Well, they'll continue to have a role. You know, we have seen the demand for testing go down as people have been vaccinated. And that's good news, because the demand is highest when the disease is most prevalent, but our understanding of vaccines and how they work will continue to evolve as well. So, we'll need to continue to test, to look for how people have been vaccinated are responding, are they getting infected. Also, there's been a lot of discussion in the last three to four months about the variants that are emerging. So, to continue to do different types of tests that not only test for the presence of the virus, but you know has the virus changed in some way, particularly in someone that's been vaccinated? So, still lots to learn and understand and also how our bodies are responding to the vaccine, particularly over time. You know, that's one of the big questions out there is how long will people be protected? Will we need to continue to test for COVID? What will that look like? So, really thinking about the evolution of testing as we learn to live with COVID to be completely honest, because it's something that's not going to go away completely. So, we're going to have to learn how to manage it as part of the many illnesses that we in healthcare have to help people confront.

D

Dr. Halena Gazelka 11:10

Bill, speaking of evolution, and of the variance, can you explain for me and for our listeners who are laboratory ignorant, do you use the same COVID test no matter what

the variant is? And for every variant do you have to develop a new test to figure out what it is?

D Dr. William Morice 11:28

Well, you know, that's a great question. So, the tests that we use, the diagnostic tests from the nasal swab that people would think about, the molecular tests that we talk about, you know, part of our profession we recognize that these pathogens, these infectious agents do change. So, when we make these tests, we typically target multiple different parts of the genome of the virus, in this case, to make sure that there's enough redundancy in the testing that it won't be negative if someone has it because of some change in the virus. So, that the testing still works, there are some interesting permutations that help identify some of the emerging strains in terms of what was positive and what wasn't in the individual test. But what I think people really need to know is that to test for the variance, you have to do a different type of testing, where we actually do more extensive analysis of the viral genome to look for specific changes. So, it means there's new types of tests that we're creating in the background, that give us more insight into the disease, but the testing that people are getting is still accurate.

D Dr. Halena Gazelka 12:26

And then another question on that theme, speaking of vaccines, when someone has had a vaccine, and you would do a test to see if they have antibodies, is that a totally different test than what you would do to see if they were infected with the virus itself?

D Dr. William Morice 12:39

That's right. It is a different test, you know, so there's tests that we're creating, and continue to work on to test for the presence of the virus itself, and then there's tests that we have like the antibody test, and now there's a T cell test as well, that looks for how our body has responded to the virus or potentially to the vaccine. And then last but not least, with your expertise, testing to understand those who have persistent systems from COVID, you know, after recovery, is it a central sensitization issue? Is there something more? So, there's all sorts of tests that we're going to continue to work on, as again, we get into more of the management phase as a society with COVID.

D Dr. Halena Gazelka 13:18

Well, moving on to another topic on March the 17th, 2021, Mayo Clinic Laboratories celebrated its 50th anniversary. That's amazing. I cannot imagine how much things must

have changed over time with laboratory testing. Tell us a little bit about the work of Mayo Clinic Laboratories.

D **Dr. William Morice** 13:36

Well, it's amazing, and we did have, you know, I guess it was late last month now, Dr. O'Sullivan, essentially the first the first person in my role, who was the first Mayo Medical Labs at that time, I don't even know what his title was. He was the chief physician. He's actually a hematopathologist like myself, as well as Jerry Wollner, who was the first administrator for the enterprise come and speak. And sure, a lot has changed. I mean, if you think about it, they were doing things on the phone, and with the dot matrix printers and the handling of handwritten stuff. But honestly, the thing that's stuck with me more is how much is still the same. I mean, people want to work with Mayo Clinic Labs, because of Mayo Clinic, you know, just way back then the value proposition really was a chance for other people who didn't come to our campus have access to our diagnostic acumen and our ability to understand how to use testing to inform a patient's journey. And that was the value proposition then it just as it is now. So, that more than anything else has really stuck with me. Now it has grown. Amazingly, it started. I mean, Dr. O'Sullivan and others, Marie Brown my former administrative colleagues who has since retired. They would drive around to different hospitals and actually get test tubes and put them in the back of their car and things like that. So clearly, that's changed. So, we are now really a global enterprise, right, where we have activities in over 4000 hospitals in the United States, as well as, gosh, over 70 countries, probably over 80 countries that we actually provide testing to. And you know, pre COVID, we did 25 million tests in 2019. So, that's pretty substantial growth. But this year, I still don't have the final numbers yet, but it's clearly going to be even higher because of COVID. So, pretty amazing and pretty amazing stuff that's happened within the department to accommodate that growth, too. I mean, we have an automated floor, we still do most of our testing over 95% in Rochester. It comes in, we have a whole system in place to make sure that we do the best for each patient coming in, in terms of who's handling the specimen, to let the hospitals know if there's a problem with the specimen, and everything else. And we were at the point with COVID, there were some days, I think we processed up to 100,000 specimens in a single day through that facility coming from all over the country. So, I mean, enterprise itself, that is pretty mind blowing how much it's grown, but the fundamental value that it provides to people that work with us is not.

D **Dr. Halena Gazelka** 16:09

Well Bill, that is just really almost incomprehensible, doing that many lab tests a year, and what astounds me is just thinking about trying to keep all of those straight, and not mixing

things up and making sure that they get processed in time, it must truly be quite an effort.

D **Dr. William Morice** 16:27

Well, you know, it's probably the most important thing because each individual test we do, that's a patient, that's someone that's somewhere waiting for an answer from Mayo Clinic. And the amazing thing is that everyone along the way feels the same way. You know, whether it's someone in handling someone in operations, someone in the laboratory, you know, we do all of our testing in the same labs that provide service to Mayo Clinic patients that are on our campus, we don't make a distinction. And we do, we have some of the highest quality metrics in terms of specimen stability and specimen tracking in the entire lab industry, just because we really want to make sure that we do everything possible for that patient, to be a trustworthy partner in giving them and their provider the information they need. But it's a significant effort. So, it's definitely worth it.

D **Dr. Halena Gazelka** 17:17

That's amazing, and the efficiency you were talking about over the past 50 years. But the efficiency of processing lab tests, it's really astounding when, you know, I have access to my medical chart or when I look for patient's lab results, they're almost instantaneous. It feels like sometimes at Mayo.

D **Dr. William Morice** 17:36

Yeah, and again, it's really the dedication of our staff. I mean, you think about the people that came in, COVID is a perfect example, you heard all these stories about people waiting one week or two weeks for their tests. Other than one time where there was really just global shortage of everything to do testing, we were able to turn around most of our tests, the vast majority, within 48 hours. And so, to give people the answer they needed even at the height of the pandemic. But that's the dedication of the staff. That's people coming in, you know working long shifts, working through the night, and everybody to your point, the people keeping track of the specimens, where they came from, where they're going to, all that. So yeah, but it is, it's pretty astounding.

D **Dr. Halena Gazelka** 18:17

And that brings to mind something that I had read last week, that home testing is coming for COVID. They told me in an article that I would be able to go into my local grocery store, or a local drugstore and purchase a COVID test. How does that work? Are those accurate?

D

Dr. William Morice 18:33

Yeah, they are. I mean that the FDA continues to look at the approval of these tests. And so, interestingly, they're tests that have been available, like the Abbott antigen tests, the BinaxNow. But to get that approval from the FDA, they now have to show not only does the test work, but that an individual can interpret it. So, for home testing, there's a whole element where you actually have to show that someone can get the specimen correctly, that they can read the test correctly. So, yeah, they definitely work and they're trustworthy. And I think one of them has been approved for serial use, so that if you want to test yourself with some regularity to make sure that you haven't been exposed. If you're in a profession where you can't protect yourself like restaurants and others as they reopen, you know, people that are in the hospitality industry, stuff like that. So, they do work, and they are accurate. And so, they will help play a role here because we're not going to get to everyone being vaccinated, you know, within the next year, we're at least going to be living with this. So, that will be important for people to have available to them.

D

Dr. Halena Gazelka 19:38

Well, 2020, as we have said, has been extraordinary. What do you see ahead in the field of lab medicine?

D

Dr. William Morice 19:45

Well, gosh, there's going to be a lot of interest and a lot of investment. I think the big questions that are out there will be, what have we learned from COVID, and what kind of infrastructure can we leave in place so that if we have to respond more rapidly to an emerging pathogen we can. And I think that COVID is obviously the most extreme example, in our lifetimes, in our careers, but just in my six years in this role, this is the third emerging pathogen that we've had to deal with. There was Ebola, there was Zika, and now there's COVID. And so, this is not a problem that's going to go away. So, I think one of the things is really understanding what do we need to leave in place so that we're more ready next time, because we saw how difficult it was to scale things up, it took a really Herculean effort. So, that's one. The other is really understanding that people will want access to diagnostic information maybe outside the healthcare setting, as we've seen with COVID. So, what kind of changes will happen? What kind of testing can people get at home, so they won't have to go into a hospital or to a health care center, to a draw center? And then, of course, equitability. I think that's another big one for us is, how do we make sure that everyone has access to diagnostic testing information, because it's a huge driver of healthcare, and in determining of healthcare equity. So, that will be another big focus for everyone that's involved with lab testing.

D Dr. Halena Gazelka 21:06

That's a great point to make. Bill, we are so excited to celebrate not only 50 years of Mayo Clinic Laboratories, but also National Laboratory Professionals Week, and to all the individuals who have tirelessly worked with you through this past year and always at Mayo Clinic laboratories.

D Dr. William Morice 21:26

Yeah, I know, it's humbling for me to be in the position I am to represent the great, great people at Mayo Clinic, in DLMP, Department of Lab Medicine and Pathology and Mayo Clinic Labs who are so dedicated to serving people, and to people in healthcare laboratories across the country. I think everyone should have a real sense of pride, and the individuals that everyday come into work doing their best to provide people with the information they need.

D Dr. Halena Gazelka 21:49

Well, thank you so much for being here. We really appreciate it. Any last words you'd like to share with us today?

D Dr. William Morice 21:56

No, just thank you for the opportunity, and anyone who listens to this that works in the lab, happy lab week and lab professional's month.

D Dr. Halena Gazelka 22:05

Thank you so much to Dr. Bill Morice, the President of Mayo Clinic Laboratories, and the Chair of the Department of Laboratory Medicine and Pathology at Mayo Clinic for being here with us today to laude our laboratory professionals. I hope that you learned something today. I know that I did, and we wish each of you a very wonderful day.

N Narrator 22:25

Mayo Clinic Q&A is a production of the Mayo Clinic News Network and is available wherever you get and subscribe to your favorite podcasts. To see a list of all Mayo Clinic podcasts, visit Newsnetwork.mayoclinic.org. Then click on podcasts. Thanks for listening

and be well. We hope you'll offer a review of this and other episodes when the option is available. Comments and questions can also be sent to Mayoclinicnewsnetwork@mayo.edu.