Dark days are over, but new and old challenges pile up

March 2022—*The omicron surge was waning on Feb. 1 when Compass Group members met by Zoom with CAP TODAY publisher Bob McGonnagle. Inpatient numbers, test demand, and positivity rates were declining. "We're on the downslope," Northwell Health's Dwayne Breining, MD, reported.*

But other pressures persist: the shortages of blood and staff. And the struggle to fill openings includes pathologist positions, said Judy Lyzak, MD, MBA, of Alverno Laboratories. "They have their choice of offers," she said of those who complete pathology residencies, "and it's taking much longer to fill a pathology position than it used to."

The Compass Group is an organization of not-for-profit IDN system laboratory leaders who collaborate to identify and share best practices and strategies. Here is what they told McGonnagle about the difficulties for which there appears to be no end.

Reports indicate that the omicron outbreak is tapering off. Dwayne Breining, can you comment yet on the BA.2 variant?
Dwayne Breining, MD, executive director, Northwell Health Laboratories, New York: The news I'm getting on BA.2 is clinically and diagnostically it doesn't look much different from anything else, but more to come on that for sure.

In vitro studies suggest that omicron immunity is effective against the other known variants. That's potentially a good sign heading into spring. Of course, we don't know how long the natural immunity lasts. Studies have shown that the vaccines provide more durable immunity than infection, but that remains to be seen with time.

I'm cautiously optimistic heading into the spring and we'll see what comes next fall and winter when it gets cold.

Lauren Anthony, what's going on in Minneapolis?
Lauren Anthony, MD, system laboratory medical director, Allina Health, Minneapolis: The positivity rate seems to be dropping off and our test volumes are starting to drop.

We've been tied up with the national blood crisis and planning for that. We had to get a more formal system process in place to prepare for potential severe shortage, and we're monitoring it twice a day. We created new real-time dashboards to be able to pull that and spot-check it throughout the day, because as those of you who are Red Cross customers know, they are allocating to the hospitals but not keeping any in reserve for medical release. That means hospitals have to supply their own emergency needs and prepare for that as well as for routine needs. That's unprecedented, so we had to implement planning—with a multidisciplinary group from across the system—for how we would react if we were in the red or magenta, which is our category at Allina for worse than red.

We've also been focused on the tube shortage, which has affected us, and we've taken steps such as piloting the bus route, trying to identify and address the barriers with a multidisciplinary stakeholder group. We're piloting it at two campuses, a large one and a small one. We had limited success before, so we're trying to get more success now.

Dr. Carroll

Steve Carroll, the problems with the blood supply came up last time we spoke. Are things getting any better there?
Steve Carroll, MD, PhD, chair, Department of Pathology and Laboratory Medicine, Medical University of South

Carolina: No. We still have significant shortages in the blood supply. We've been partnering with the American Red Cross to set up blood drives to try to relieve it. We have had to put restrictions on the number of surgeries because our blood supply has gotten so tight, and we are doing a lot of education with other physicians, trying to get them to help us with conserving blood.

Is the root cause of the shortage primarily a donation problem?
Dr. Carroll (MUSC): My blood banker thinks it is, mainly that we don't have as many people donating. Tony Bull [system administrative officer] arranged to do television pieces here locally, which coincided with national TV pieces about blood shortages. It was a win-win, and one of our pediatric surgeons gave a heart-wrenching emotional plea to the community to donate blood. We did get a kick up after that; it seems to be helping.

Linda Mirkes, what are you and your colleagues doing at Atrium Health to deal with another shortage—labor?
Linda Mirkes, MBA, MT(ASCP), assistant VP, core laboratory and integration, Atrium Health, Charlotte, NC: We've been looking at our science majors, biology and chemistry, and what duties and functions they can perform, and how we can balance our staffing models. We've long been using single-specialty accreditation. We have teammates in our microbiology lab who are certified just in microbiology and in our molecular lab who are certified just in molecular. We are leveraging the specialty certifications and have not had challenges with the appropriate degrees and specialist certifications. We're trying to be creative and build pipelines with schools, but not enough candidates are coming through to fill all the positions.

What are the sources for these single-specialized credential folks?
Linda Mirkes (Atrium): They are ASCP certifications. We hire folks with the science degrees and make it criteria that within a year of employment, they get the certification. We help that process along. We've had good engagement there.

Stan Schofield, what are your thoughts on alternative pathways into the laboratory?
Stan Schofield, president, NorDx, and senior VP, MaineHealth: We've been doing it for 10 years. In the past couple of years we've employed 17 techs who entered through these pathways. A full four-year clinical laboratory scientist is hard to find. We have a number of people who are specialists in microbiology, hematology, chemistry, and we've been using that format—come in, work a year. We sponsor and support you, and if you take the test and pass it, you get paid as a med tech. If you don't pass the test, you get to test again. If you don't pass the second time, then you're a lab assistant. For years we've had the train-your-own, grow-your-own mentality. It's hard to find major universities or population density with the people with the education. We do the same thing with our phlebotomists; we have our own school for that.

We used to have 95 percent med techs and five percent lab assistants. We're moving to more of a 60/40, where med techs don't load the machine, take tubes out of the refrigerator, or throw out the trash. The secondary support in which they're doing QC, problem-solving, and test interpretations is their primary function, and all support are non-certified, non-MT(ASCP) staff.

Carino

Winnie Carino, you have quite a few regulations around laboratory staff. Are you intrigued with these possibilities for improving a labor situation?
Winnie Carino, MA, CLS, MT(ASCP), director of laboratory services, Scripps Health, San Diego: The California Department of Public Health has said it is going to start a pathway from medical lab technician to our clinical lab

scientists, but we're still waiting for details on that.

The regulations in California for clinical lab scientists haven't evolved much in the past several years. We still have the one-year internship and the requirements haven't changed for many years. We still need a bachelor's degree in related health sciences. I'm looking forward to the pathway from medical laboratory technician to CLS. The last word from the California Department of Public Health was it has been on the back burner because of COVID but that they've started to look at it again.

Will this be a big help in solving staffing problems?
Winnie Carino (Scripps): Absolutely, because it's easier to get into an MLT program and quicker to finish it. A lot of them want to be a CLS, but the CLS programs in California are limited, so this will help.

What is your current vacancy rate for labs?
Winnie Carino (Scripps): In the past couple of months it's been high, up to 15 to 20 percent for CLSs, and our pool of candidates for CLSs is small. And it's difficult to fill the night shifts for our hospital sites.

Jim Crawford, can you fill us in on what the regulatory situation is in New York?
Jim Crawford, MD, PhD, professor and chair, Department of Pathology and Laboratory Medicine, and senior VP, laboratory services, Northwell Health, New York: The agenda item for today's New York State Laboratory Leadership Consortium meeting is workforce. Eloise Aita, PhD, president of the New York State Clinical Laboratory Association, will present a masterful slide deck that summarizes NYSCLA's survey of training programs for medical laboratory sciences, both in the state as well as with information from the country.

We have two dynamics. The first is the vacancy rate in the clinical laboratories. A survey of our consortium from May 2021 shows that our posted vacancy rate is 12 to 13 percent, but it does not take into account that a substantial minority of the workforce works two jobs, and the open bench positions, particularly on the off shifts, are being covered by supervisors, so the functional vacancy rate is considerably higher. For a state of 20 million that's a daunting challenge.

If you look at the graduates of the National Accrediting Agency for Clinical Laboratory Sciences' accredited programs in New York State and nationally and divide it by the number of total licensed technicians in New York State, the replacement rate per year of graduates is in the two- to three-percent range. NYSCLA estimates on the basis of age demographics that up to 50 percent of the state laboratory workforce will retire or leave employment in the next five years. The pipeline is inadequate.

In New York State, through the consortium, through NYSCLA, and through other agencies that are not strictly laboratory but rather the Healthcare Association of New York State, Greater New York Hospital Association, this is a call to arms. We have to work aggressively with STEM programs, school counselors, training programs at City University of New York, State University of New York, Brooklyn College, et cetera. It's a long list. The challenge that was given to us by the CUNY School of Health Sciences and Professional Programs dean, who oversees 150 degree programs and has a quarter of a million students in CUNY per year, is if we're only attracting 100 to 200 students into the laboratory science profession, shame on us—we need to be a more attractive profession. So the discussion has focused on what constitutes a good job, the perception of career progress in the laboratory profession, and how medical laboratory sciences for STEM candidates compare with the other medical and health professions. We have a lot of work to do, and the hour has passed for us to tackle this. This is the major agenda item for the state consortium, which is 12 of the 13 academic health system departments of pathology and laboratory medicine.

Will there be action items looked at today?
Dr. Crawford (Northwell): The primary action item now is working in Albany because there's statutory correction, which is required to empower the New York State Education Department to recognize degree programs from elsewhere in the country for recent graduates as well as for experienced laboratory technologists who might move into the state. The barrier is high for both of those. The pipeline up through New York programs meets state education department requirements. Pipelines elsewhere in the country do not necessarily meet New York State requirements. So this is a statutory effort to correct that misalignment. And then the remainder is not just

recruitment but also retention.

Dr. Dysert

Pete Dysert, tell us what's going on at Baylor Scott & White about BA.2 and the overall COVID fight.
Pete Dysert, MD, chief, Department of Pathology, Baylor Scott & White Health, Dallas: We've also struggled with blood supply. We're fortunate to have two suppliers, a community-based provider and American Red Cross, and every day is different. Today we have enough O negative and we're out of O positive.

The data I've read about the BA.2 variant said despite the fact it doesn't have the same spike mutation as BA.1, the monoclonals are still not considered to be effective with this variant. I don't know whether that's an extrapolation of in silico modeling or something like that.

We were asked if we could help expedite the transfer out of patients who had met the CDC criteria for clinical recovery, yet the receiving facility required a negative test. We were asked to look at the use of having a rapid antigen test in the ED for psychiatric patients who were clinically asymptomatic and needed to go to a psych facility but needed a negative test, and the same for inpatients who had recovered and needed a negative test to go to a skilled nursing facility or other step-down place. Our biggest concern was the clinical confusion that would occur on behalf of the medical staff, whether they would attempt to abuse the rapid antigen test in place of RT-PCR and the wish to equate some type of antigen test with degree of transmissibility. We're walking through that now. I got advice from my colleague Dr. Ari Rao.

Dr. Rao, would you like to comment?
Arundhati (Ari) Rao, MD, PhD, senior VP, chief pathology and lab medicine officer, Baylor Scott & White Health, Temple, Tex.: One of our current struggles is how to incorporate home-testing results into the EHR. We have prided ourselves in the lab community on being regulated with the appropriate controls, well-performed tests, et cetera, and now we are going to take the results of patients doing tests at home and put those into the EHR—we are discussing how to do that. We think it should be on the same level as patients reporting symptoms and not reported as a test. That's the current battle we're facing.

We are seeing personnel shortages on both the physician and technologist side. There's burnout. There's COVID positivity. There's quarantining for five days. It is all adding to our distress.

We have a small MLS training program; it used to be eight, we almost doubled it to 15, and we're hoping to expand it further. We've built relationships with multiple colleges and universities around us, but we're also competing in that same field with physician assistant and other physician extender training programs, respiratory therapist training programs—everybody's playing in the same sandbox.

We couldn't find sequencing reagents for a long time, so we had to set up alternative assays—just ongoing challenges. We have sequenced and have not seen BA.2 yet. There were two cases reported in the Dallas area.

Dr. Lyzak

Judy Lyzak, what do you make of this tsunami of home tests that are likely to invade your systems?
Judy Lyzak, MD, MBA, VP of medical affairs, Alverno Laboratories, Indiana and Illinois: I agree with Ari Rao—I don't think those results, for various regulatory reasons, should be included in the EHR as something we are responsible for. That is the Wild West. You have no idea if those individuals are performing the tests accurately, if they're swabbing their kitchen table, the air in front of their nose, and not necessarily their own nose. There are a lot of competing incentives for whether they want a positive or negative result. I like the idea of equating them with symptoms. We've been toying with the idea of how to integrate those test results into a return-to-work strategy in our two systems. We haven't cracked that nut yet.

There is a lot of collaborative work in our employee health and Working Well areas to determine where you are on the CDC spectrum of crisis versus contingency versus conventional staffing. Do you return them to work with nothing and say, "You're five days out, welcome back"? Or do you try to integrate some sort of rapid antigen testing into the mix? Indiana is pretty late to the game, but with the CMS mandate for vaccinations we are dealing with the catch-up on exemptions, medical and religious, figuring out how we test the individuals who fall into those categories, if they're choosing not to be vaccinated and then boosted.

Am I right in assuming that positivity among health care workers in your systems has been a big problem?
Dr. Lyzak (Alverno): It's been a big problem for our hospital laboratories. The baseline vacancy rates were challenging enough, and only now have we evolved out of it. It was pretty dark days there, literally having enough people to keep the instruments running. We had similar impacts at the core lab where we didn't have enough staff because they were out with COVID. They've survived their illnesses and are back at work, but that was a tremendous challenge.


Dr. Sossaman

Greg Sossaman, what's top of mind among the many problems and concerns you have?
Greg Sossaman, MD, system chairman and service line leader, pathology and laboratory medicine, Ochsner Health, New Orleans: Day-to-day our biggest challenge is staffing shortages. We have a lot of open positions in many areas, histotech and tech, and have struggled with people being out and being sick through this surge. We continue to struggle with supply chain.
Our testing volume for COVID is down, although with Mardi Gras coming up, I'm worried about what that will mean for the spread, because we have seen some of the new BA.2 variant here. We sent samples for sequencing and lo and behold we have the subvariant circulating here.

What is your blood supply like in New Orleans right now?
Dr. Sossaman (Ochsner): It's very challenging. We work with a couple of suppliers and we still have a small donor program, which has been great for us, being able to control a little of that ourselves. We have busy transplant programs, and other services require a lot of blood. It's been problematic juggling some of that and being in communication with surgical services to make sure they know the current state.

You're a member of the Clinical Laboratory Improvement Advisory Committee. Are discussions in CLIAC proceeding along the lines of the staffing problems laboratories face?
Dr. Sossaman (Ochsner): There's acute awareness among the laboratorians on the committee of what the current staffing shortages are. We have a work group working on different issues in hopes of making recommendations on modernizing some of the areas in CLIA. But that is a long process. The group makes recommendations to CMS, which already has a number of things it's working on so it's a longer-term effort.

Cloutier

Darlene Cloutier, fill us in on what's going on at Baystate.
Darlene Cloutier, MSM, MT(ASCP), HP, director of laboratory operations, Baystate Health, Springfield, Mass.: In the laboratories there's been a focus on point of care, providing as much point-of-care testing as possible. We have a small point-of-care team that worked to support bringing point-of-care testing to ambulatory sites and partnered with our employee health services to try to bring more rapid testing out to make it available for employees.

New Year's week was an extremely challenging one for staffing. To date we had our highest number of employees across the system out of work positive with COVID; about five percent of that was laboratory staff. The organization has focused a lot of work to increase staffing in all areas. We have onboarded many temporary and agency staff and have provided financial incentives to our current staff to try to maintain adequate staffing levels.

We have a small blood donor operation at Baystate, but we suspended operations during the pandemic because we were challenged with staffing and a number of other issues in the program. We have contracts with multiple blood suppliers, but at this time we're not getting anywhere near enough to meet the needs of the organization. Since the latest wave we've struggled with significant blood inventory shortages and we reopened donor collections, and that's holding us at minimum thresholds.

Judy Lyzak, do you have any comments on workforce?
Dr. Lyzak (Alverno): There's a shortage of residents seeking training in pathology, and we've been challenged to recruit new physicians. We have six positions we'd like to fill for the practice, and we've had multiple rounds and interviews and candidates, terrific young people, but they have their choice of positions and some of them have multiple offers. It's not like the good old days where you had one job interview and if you got an offer, you took it. Now they have their choice of offers and it's taking much longer to fill a pathology position than it used to.

Pete Dysert, can you comment on this shortage of pathologists and the difficulty of recruiting the pathologist you want?
Dr. Dysert (Baylor Scott & White): We share that struggle. For those of you who have been following this, of 26,000-plus U.S. graduate seniors, fewer than 200 entered the match for pathology. And that's a harbinger for what's playing out now.

Many other dynamics have changed in the hiring process. For most people who are out of fellowships today—almost all of them have done one or two fellowships—the first job they take is not the job they're going to stay with.

Most of our experience is they're not a finished product on their own when they finish a fellowship, and we invest a lot of time in extending their education. It seems about the time they can hold their own, which can take between two and five years depending on the subspecialty, they start looking for their real job. So it is a very competitive market. The job they take isn't one they intend to make their full-time, permanent job. It's just their first job, and they'll leave to go somewhere else after that period of time. It's frustrating.

Would anyone else like to comment on the pathologist workforce?
Dr. Carroll (MUSC): It's something we used to refer to as the assistant professor shunt. I can tell you from my own experience, last day of my fellowship, I was bulletproof. I could diagnose anything. I couldn't believe my attending wouldn't pull the trigger on that case. July 1, when I was an attending, I was doing good to call "tissue present."

It takes that extra three to five years to get the experience so they are effective. We spend a lot of time handholding them during that time, and the private groups know that. So about at the end of their assistant

professorship, the private groups raid the academic center to give them a higher-paying job in private practice; hence the assistant professor shunt.

Dr. Dysert (Baylor Scott & White): This year we've seen more interest in pathology defined as people who actually know what they're getting into. Because of the change in the medical school curriculum, they don't get as much exposure as a student. So we end up, as a profession, getting a lot of people who then are questioning their decision on the career path they've chosen. That adds to the confusion.

We have a lot of people now, seemingly an inordinate number, who are interested in forensics. I think the reason is the book *Working Stiff* by Judy Melinek, MD, about forensic medicine. We're seeing a lot of people who want to head to forensics.