The Ohio State University Comprehensive Monitoring Team — Report 2. March 2, 2021.

As the Comprehensive Monitoring Team (CMT) at The Ohio State University proceeds through spring semester, COVID-19 remains a persistent threat to health and to our ability to safely remain on campus. We are drawing upon lessons learned in the fall — combined with the most current public health and infectious disease science — to protect our students, faculty, staff and community. Priorities that are new this semester include planning for and carefully messaging both the increased risks associated with highly transmissible new viral strains and the potential for changing perceptions of risk as our populations receive vaccines to protect them against becoming ill from COVID-19 infection. We are at a critical time and must augment our efforts to keep campus safe by reinforcing consistent, proven measures including masking, physical distancing and avoiding large gatherings.

Understanding transmission, expanding testing

Lessons learned in the fall have informed the university's approach to spring semester. The second half of fall semester, and the month of November in particular, saw the university contending with increasing rates of infection with a backdrop of significant spread of infections throughout Columbus, Ohio and the nation. The CMT evaluated transmission data to best understand spread on and around the Columbus campus and our regional campuses. Enhanced messaging about transmission stressed the importance of minimizing spread to family members and others outside the university community.

- **Expanded testing**

  Ohio State's approach to robust surveillance testing of on-campus residents at the launch of the 2020-2021 academic year proved a powerful tool in monitoring and containing the spread of COVID-19 and keeping us on campus until the planned return home over the Thanksgiving holiday. As the semester unfolded, and community positivity rates increased, we saw increases in infections among our student population.

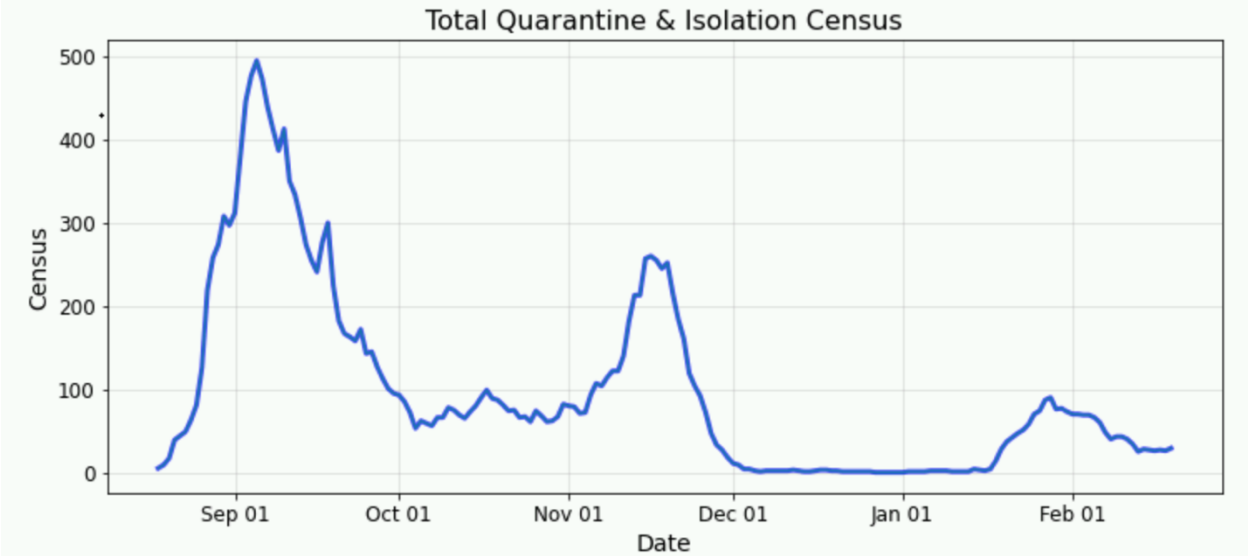
  Lessons learned in the fall have informed an enhanced university response for the spring and reduced on-campus risk. Improved spring testing protocols that include both expanded move-in testing and off-campus residents as part of routine weekly surveillance testing more than doubles the number of students tested weekly, to about 40,000 tests per week. Increased testing bolsters our ability to identify cases, most of which are asymptomatic, and to isolate those cases and quarantine their at-risk close contacts. It also gives us a better understanding of the prevalence in our community. Better containment of the virus among students who live off campus is critical to our success this semester, particularly considering increased risks posed by new strains of the virus.

  Based on community rates of infection, we expected the prevalence to be higher among students returning than it was in August. While infection rates, particularly off campus, are high, they are lower than anticipated based on community prevalence in December.

- **Speedier response**

  Alongside the benefits of broader identification of cases, we are better positioned this semester for an overall more rapid response. The efficiency of Ohio State's on-site testing program — resulting in faster testing turn-around times — and increased Case Investigation and Contact Tracing Team (CICTT) staffing reduce the time to isolation and quarantine and decrease potential subsequent exposures both on and around campus and within the community.

Figure 1: Student quarantine and isolation trends

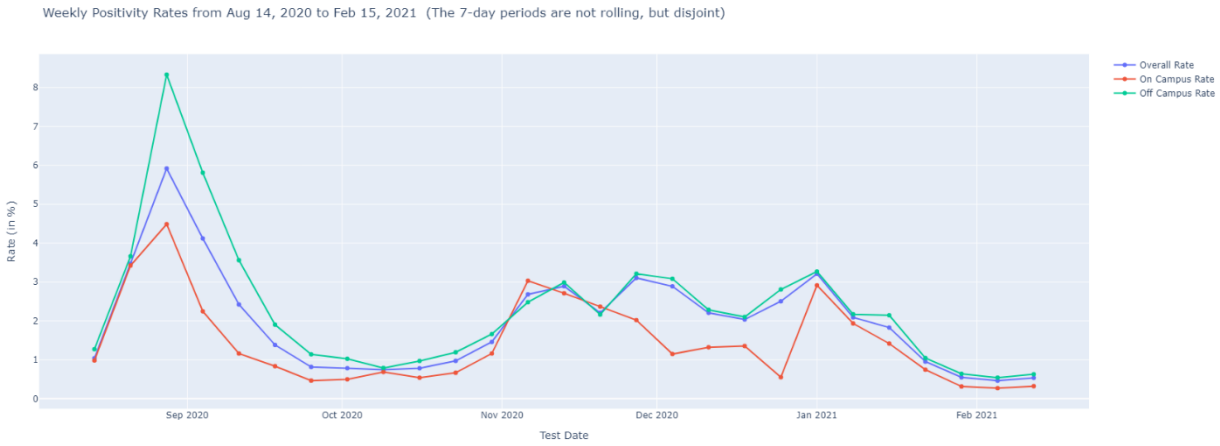


- **Trends in transmission**

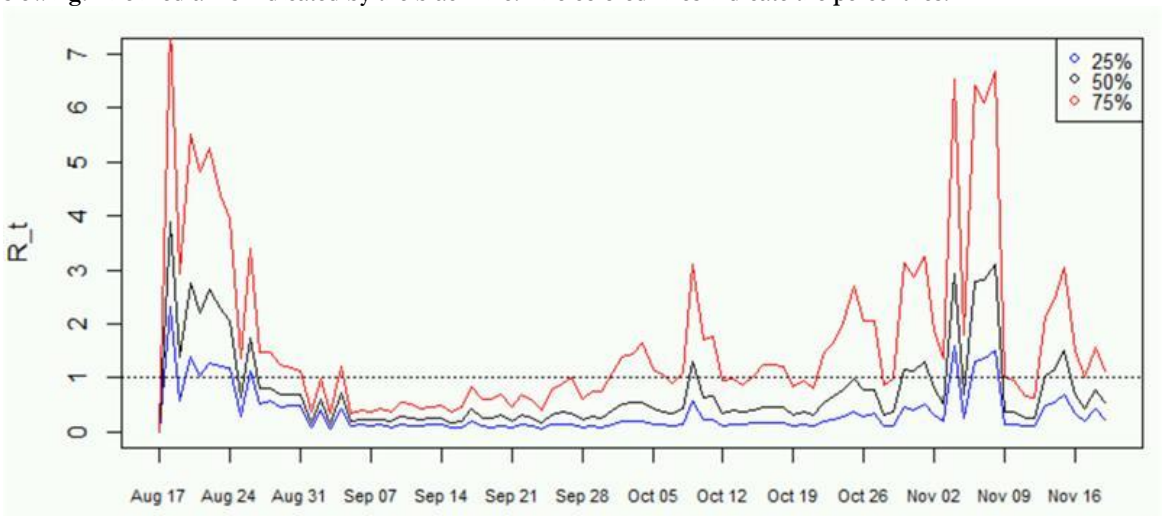
  Throughout the fall, the CMT continued to examine data and work closely with the contact tracing team to determine whether safety measures were falling short of protecting students, faculty and staff from becoming infected while teaching, learning and working on campus. To date, we have seen minimal evidence of this type of spread at Ohio State. It will remain a focus for the group throughout the spring.

  Most cases remain connected to transmission within residential settings, and particularly within group housing. Fall semester also provided some evidence that movement off campus was associated with increased risk of infection for on-campus students.
  This is not particularly surprising, but it underscores how risks to the Ohio State community may be augmented when students leave and then return to campus. This pertains to both on-campus residents attending social gatherings and dining and drinking establishments in the off-campus neighborhood and to all students engaging in travel and recreation outside of the immediate campus area that may increase risk of exposure and subsequent Ohio State spread upon return to campus.

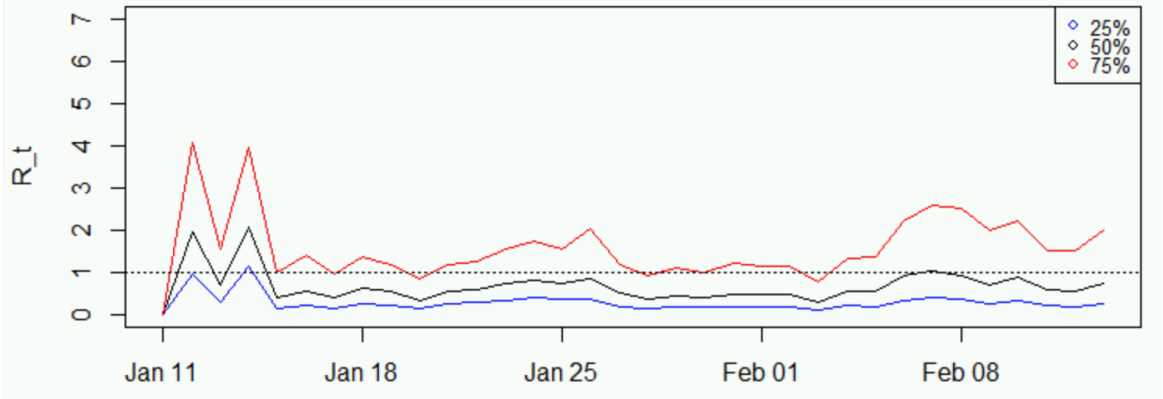
Figure 2: Positivity Trends for On- and Off-Campus Students (Columbus)



Figures 3, 4: Rt trends. COVID-19 reproduction number for Ohio State over time. The reproduction number (R) is an epidemiological measure of the potential for ongoing transmission. R is the average number of people to whom a single person passes the infection. When R is greater than or equal to 2, the epidemic would expand quickly. When R is 1, the epidemic would be at a plateau. And when R is less than 1, the epidemic would be slowing. The median is indicated by the black line. The colored lines indicate the percentiles.



R_t time series



Regional campuses

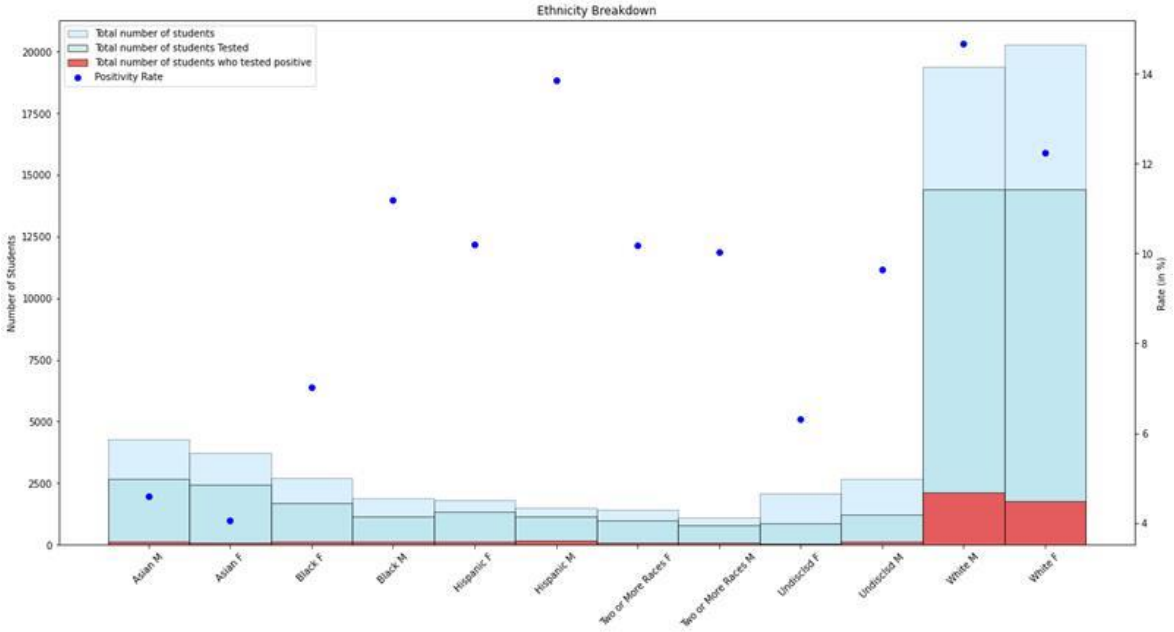
Since our last report, the university expanded its testing efforts at regional campuses, and has monitored prevalence in the counties where the regional campuses are located. In instances where county rates were elevated last semester, we preemptively recommended expanded regional campus testing, a recommendation that university leadership acted upon. We also carefully monitored student positivity at the regional campuses, and the CICTT conducted contact tracing alongside local health officials.

Although the university required weekly testing for all students living in the residence halls and offered weekly testing to faculty and staff, data reflected differences in populations at regional campuses. Even on those campuses with university-operated residence halls, only a small proportion of students live on campus. Most students commute, and many are not on campus regularly. Many did not take advantage of volunteer testing and, as a result, the numbers on the regional campuses are too low to report separately because of privacy concerns. In total, 139 out of 1,164 who tested on the regional campuses last year tested positive. **This percentage — 11.9% — should not be compared to positivity rates on main campus, where testing included a much larger pool of routinely tested students.**

- **Examining risk based on gender, race, ethnicity**

Mindful of data in the U.S. and in Ohio showing the pandemic's disproportionate impact on communities of color and on other groups at increased risk because of social determinants of health, the CMT has continued its work examining Ohio State data for trends that might signal an increased burden among some members of our community. To date, infections have been more common among younger students. White, male students was the group of tested students with the most infections and had a positivity rate of nearly 15%. We also saw pockets of infection among some sororities and fraternities, a trend likely linked both to communal living and to social events.

Figure 3: Tests and Positivity Rates by Ethnicity (as of December 11, 2020)



Commitment to safety and new developments

In the spring semester, we must not allow complacency and pandemic fatigue to erode proper masking, physical distancing and other health and safety measures. We must, in fact, double down on our insistence on maintaining a safe and healthy campus. We also must recognize that this chapter in the pandemic presents three new scenarios that our students, faculty and staff will have to navigate.

- **Re-entry to the testing pool**

  Students who tested positive for COVID-19 last semester did not have to re-enter surveillance testing in the 90 days following their isolation period based on the Centers for Disease Control and Prevention recommendations. As more time has passed, students who had positive tests in the fall will find themselves back on the weekly testing schedule. If they test positive, they will have to go into isolation. They will also be placed in quarantine if they are identified as a close contact of someone who tested positive.

- **Post-vaccine testing**

Vaccine supply and distribution remains limited. As members of the university community begin to receive vaccinations, it is of critical importance that they understand that a vaccine does not eliminate our responsibility to continue to follow safe and healthy guidelines. Vaccinated students, for example, are currently required to participate in routine COVID-19 testing and to follow isolation and quarantine guidance. The studies supporting use of the current vaccines showed that they were effective in preventing illness, but as of now there is not sufficient evidence to show that they prevent a vaccinated person from transmitting infection to others. It is important to remember that about 75% of the infections we have seen within our testing program have been in those with either no reported symptoms or mild symptoms. . The Comprehensive Monitoring Team will continue to evaluate emerging evidence and update recommendations on this front as

appropriate. Vaccinations provide another layer of protection and another tool in our safe and healthy toolbox. Their arrival does not signal an end to or a lessening of precautions on and around campus.

- **New variants of concern**

  As the pandemic has progressed, SARS-CoV-2 has mutated, resulting in some more infectious variants with the potential for rapid chains of transmission through communities, such as our university's campuses. Fortunately, transmission of these variants can be prevented with the same mitigation measures we have been using: masks, physical distancing, limiting groups indoors, testing, isolation and quarantine. The university is taking steps to monitor for these variants in our campus community.

Looking forward

The CMT understands that university leaders, students, faculty and staff want to return to a campus-as-usual atmosphere as quickly and safely as possible. A robust face-to-face learning environment complemented by advances in hybrid and remote learning implemented during the pandemic is our mutual goal. To that end, the team is working to determine levels of vaccination and routine testing protocols required to allow for the consideration of increasing the number of students in our classrooms. We are putting systems in place to not only monitor positive cases, but to determine the prevalence of different viral variants, including highly transmissible variants, on campus. Because the pandemic remains an evolving threat, and we cannot fully predict what the coming months will bring, this process will be iterative. As we learn more about vaccine rollout schedules, durability of vaccination, the ability of vaccination to prevent not only illness but transmission, and the vaccine's impact on broader community and national prevalence, we will have increased certainty about these projections.

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