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LabLink

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Bureau Vision

The Bureau of Laboratories is a stronger, more diverse team within an integrated public health system. We utilize advanced technology and innovative leadership to provide comprehensive public health services in our dynamic global community.

Bureau Mission

We are dedicated to continuing leadership in providing quality laboratory science for healthier people and communities through partnerships, communication and technical innovation.



MDHHS BOL Timeline of SARS-CoV-2, Delta Variant Emergence

Author: Amy Dedoyard, Virology Fellow

Throughout this pandemic we have seen many changes to our regular day-to-day routine. From mask-wearing to social distancing to vaccines; we have integrated the best practices possible in order to stay healthy. A large part of the COVID-19 pandemic has included testing for SARS-CoV-2 as well as sequencing for coronavirus variants. The Michigan Department of Health and Human Services Bureau of Laboratories (MDHHS BOL) is a primary center for testing and sequencing in Michigan.

When the novel coronavirus emerged and began spreading in the U.S., the Centers for Disease Control and Prevention (CDC) and other public health laboratories, like MDHHS BOL, teamed up to begin testing for this novel virus as no FDA-approved testing methods were available. In February 2020, MDHHS BOL participated in the initial verification studies for the CDC's 2019 Novel Coronavirus (2019-nCoV) Real-Time Reverse Transcriptase (RT)-PCR Diagnostic Panel. MDHHS-BOL began testing for SARS-CoV-2 on February 29, 2020, and identified their first positive case on March 10, 2020. MDHHS-BOL has completed 139,350 COVID-19 tests spanning from February 29, 2020 to August 20, 2021, including testing of the Michigan National Guard, long term care facilities, psychiatric hospitals, and correctional facilities.

In addition to bringing on clinical testing at the beginning of the pandemic, MDHHS BOL scientists also created Whole Genome Sequencing (WGS) protocols and data analysis pipelines early on in the pandemic response. The first Michigan COVID-19 WGS was published on March 20, 2020. Having real-time sequencing capabilities allows for the detection and tracking of COVID variants as they emerge and spread within the state as seen by the emergence of the alpha variant followed by the delta variant.

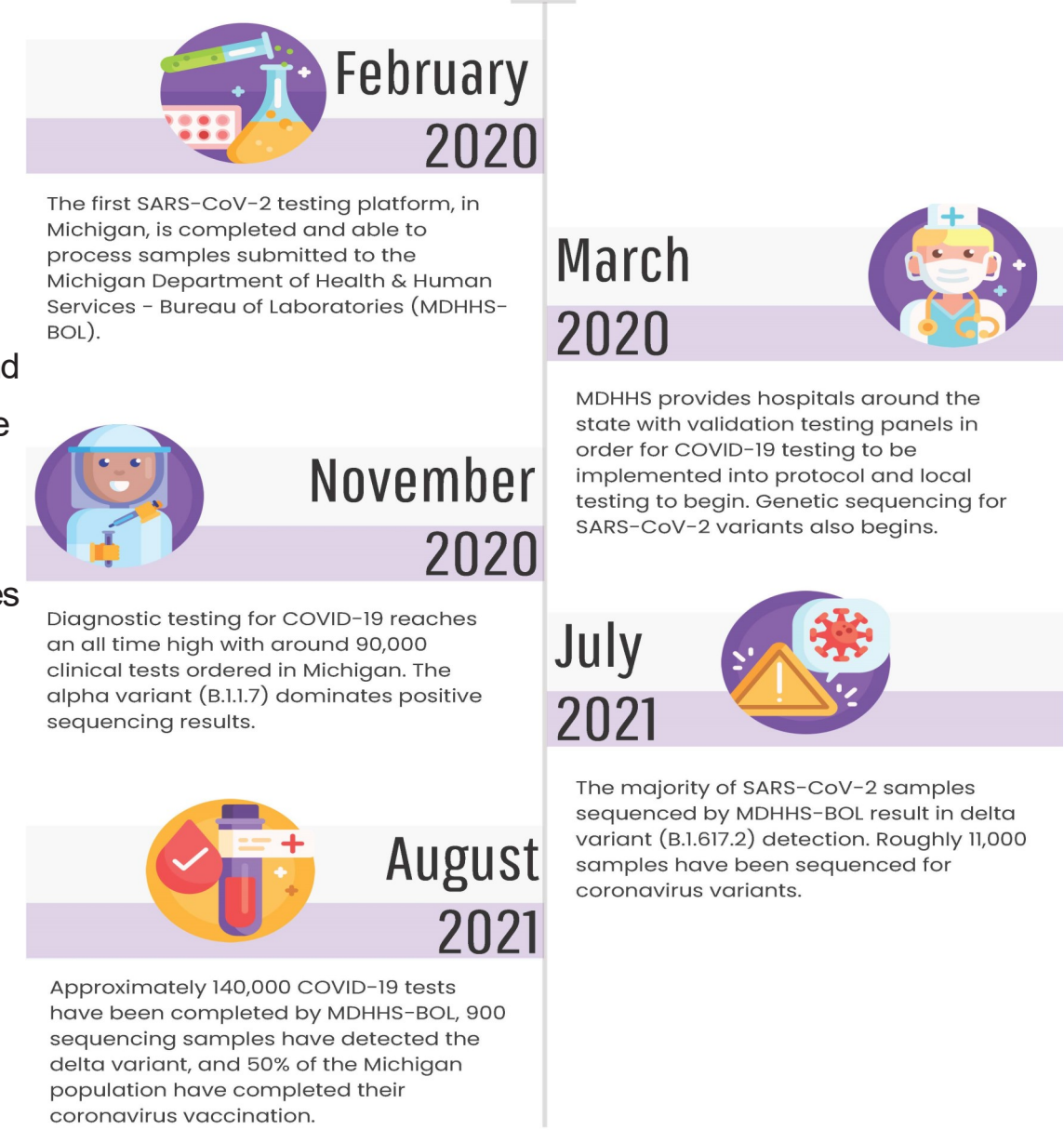
Of the 11,264 SARS-CoV-2 positive cases sequenced, 892 have already been recorded as the delta variant; specifically, the most prevalent variant B.1.617.2. This

switch from the highly contagious alpha variant to the even more contagious delta variant occurred during July of 2021. This data is imperative to public health departments across the nation.

Real-time data is provided by public health laboratories to local and national epidemiologists in order to collaborate with their community; this data includes positive cases, variant prevalence, and surge locations. MDHHS' robust surveillance allows for specific, accurate data that supports public health measures aimed at protecting the health of Michigan residents.

Overall, this pandemic has shown us that testing, sequencing, and surveillance are key to implementing safety measures for everyone in our community, especially with emerging variants.

MDHHS Timeline of SARS-CoV-2



BOL Outreach Program Receives Awards

Sandra Lenneman, K-12 Outreach Coordinator



The Bureau of Laboratories has been awarded the "Kid's Choice" for the best booth activities presented by the K-12 outreach program, "Explore Lab Science." For the past 10 years, hands-on scientific experiments offered at MDHHS Kid's

Day or the day officially designated as "Bring Your Child to Work Day" has become "the perennial favorite" among all participants.

This year, the MDHHS families were introduced to laboratory science activities through a virtual format displaying video demonstrations that also included DIY instructions for safe, at home, replication of the experiments.

In 2021, the children voted the BOL Outreach Program as the "Most Creative", "Learned the Most", and the "Most Favorite Activity."

MDHHS
Michigan Department of Health & Human Services

Kid's Day

Celebrating a decade of award winning science experiments for MDHHS employee's and their children!

2011 2013 2015 2017 2019

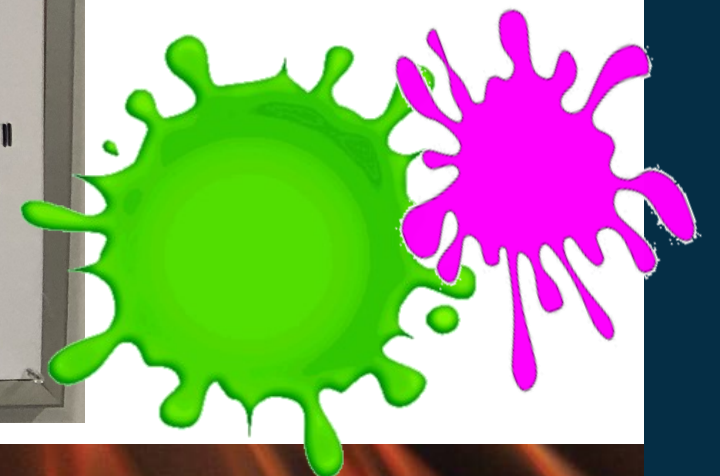
"the perennial favorite"

2012 2014 2016 2018 2021

Explore Lab Science, a BOL, K-12, Outreach Education Program: "Introducing Children to the Laboratory Sciences."

explore
LAB SCIENCE

www.michigan.gov/explorelabscience



New Microbiology Section Manager at BOL

Author: Dr. Marty Soehrlen, Ph.D., Infectious Diseases Division Director

Dr. Kimberly McCullor accepted the position of Microbiology section manager at the Michigan Department of Health and Human Services Bureau of Laboratories. Kim received her bachelor's degree in Biology from the University of Central Oklahoma.

She worked for three years as a Microbiology Laboratory Scientist at the University of Oklahoma Medical Center Health Sciences Campus Hospital, before deciding to enroll in the Medical Parasitology Master's program at the London School of Hygiene and Tropical Medicine. Kim

completed her master's thesis on the *Assessment of Malaria Diagnostic Lateral Flow Assay Performance* within refugee camps in the Northeastern Province of Kenya.

In 2019, Kimberly received her Ph.D. in Pharmaceutical Sciences at the University of Oklahoma Health Sciences Center. Her Ph.D. research focus was on the *Role Bacteriophages and Phage-like Elements of Clinically Important Streptococci Play in Horizontal Gene Transfer and Enhanced Virulence*. Kim completed a two-year Association of Public Health Laboratories, Centers for Disease Control and Prevention, Antimicrobial Resistance Fellowship with the Bureau of Laboratories tuberculosis unit prior to becoming the Microbiology section manager.

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