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COVID-19
Testing Toolkit

Johns Hopkins Center for Health Security COVID-19 Testing Toolkit Webinar Series

Lessons from eMed: COVID-19 At-Home Testing and Verifying the Results

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Panelists:

Michael J. Mina, MD, PhD
Assistant Professor of Epidemiology at Harvard T.H. Chan School of Public Health (at time of webinar), CSO of eMed (current)

Mitch Morris, MD
President of eMed

Patrice Harris, MD
Cofounder and CEO of eMed, Former President of the American Medical Association

Summary:

The panelists discussed the use of at-home rapid antigen tests coupled with eMed, a proctor-guided validation service that generates a laboratory report for timely treatment and/or reports results to public health departments. They discussed specific strategies, such as test-to-treat and test-to-stay, that could be facilitated through at-home testing. These strategies can be tailored to businesses and schools to help them make informed decisions about remaining open and operational during the pandemic. eMed also helps to address several testing disparities by eliminating the need for transportation and time away from work to test.

Key lessons include:

- PCR and rapid antigen tests are valuable tools but answer different questions about transmission and infection and have different time scales associated with results. The right test used with the right patient at the right time can lead to the right treatment.
- Test-to-treat allows individuals to test at home and rapidly receive treatment. This can be utilized with novel therapeutics whose effectiveness is increased with early administration.
- The goal of test-to-treat is to reduce the burden on the healthcare system for diseases that are treatable earlier, lower the total cost of care, save lives, and have a positive public health impact.
- Test-to-stay allows individuals who were exposed to test at home, and upon a negative result, return to school or work.
- The test-to-stay strategy allows children to break the cycle of serial quarantines. It is a trusted strategy, as 6-8 hours is an unlikely timeframe for an individual to go from negative to highly infectious.
- Test-to-stay with at-home testing can reduce the burden on businesses and schools.

- At-home tests can be used to track conversion from positive to negative for 2 days in a row to indicate whether it is safe to leave isolation.
- Future rapid antigen tests could expand into other diseases such as influenza, strep throat, urinary tract infections (UTIs), and sexually transmitted infections (STIs).
- Disproportionately affected communities could benefit from platforms such as eMed because there is no need for transportation or taking time off work.
- There was exponential acceptance of digital telehealth technology during the pandemic. The future is full of promise for digitally enabled care that keeps health equity in view and ensures better outcomes, lower cost, and higher quality.