

USET Tribal Epidemiology Center Recommendations for Tribal Consideration

USET TEC COVID-19 Guidance 2020-006:

COVID-19 Testing and Implications for Public Health Decision Making



Background

Community screening is a process used within a target population to identify individuals that have contracted a disease or are at risk of contracting the disease. Community screening specific to COVID-19 should only be conducted when accurate tests are readily available for use and sufficient resources to provide robust monitoring and patient follow up are in place. All diagnostic tests possess a level of uncertainty in the results they yield. Tests being considered for community screening should be carefully reviewed and testing characteristics (e.g., sensitivity, specificity, false negative and false positive rates) should be strongly considered before making community screening decisions.

Thus far, negative COVID-19 test results possess a significant level of uncertainty which raises concern about the use of the resulting data for community screening, or widespread testing among asymptomatic people or people without a known exposure. When making important COVID-19 public health related decisions, positive test results are more reliable and provide a more accurate representation of the health of the community than do negative results.

Currently, due to adverse testing characteristics that exist with currently available COVID-19 testing options, the USET Tribal Epidemiology Center (TEC) is recommending against community screening at this time. Concerning the Abbott ID Now tests, its use is only recommended for individuals that are sick and symptomatic.

Keywords/Definitions

- **Test Sensitivity:** the ability of a test to correctly identify those with the disease (true positive rate)
- **Test Specificity:** the ability of the test to correctly identify those without the disease (true negative rate)
- **False Negative Rate:** the proportion of true positives that yield negative testing results

Types of COVID-19 Testing

- **Abbott Test: ID Now COVID-19 (10-15 minute rapid test)**
 - Abbott advises against the use of ID Now COVID-19 for community testing.
 - The sensitivity and specificity of the ID Now COVID-19 test is currently unknown, however, Tribal Nations across the country are reporting a false negative rate of up to 25%. Conducting community testing programs with a test that has an unknown sensitivity is not recommended.
- **COVID-19 RT-PCR Test (approximately 3 hours)**
 - COVID-19 PCR testing has a false negative rate of 10% to possibly as high as 35% due mainly to suboptimal sampling technique and degradation of the specimen during transport. Implementing community screening could possibly contribute to a higher false negative rate due to the increased demand on laboratory personnel. Without a clinical evaluation before the test, and clinical follow-up after test results come back, a false negative test could easily result in an infected patient not being isolated, and subsequently spreading the infection to family members and other contacts.
 - PCR testing generally provides more reliable results when compared to molecular tests like ID Now COVID-19. In the case that the infrastructure and capacity to implement community testing exists, the USET TEC recommends a drive-thru testing model using the COVID-19 PCR test with appropriate clinical support, public health follow up, and community education.

The USET Tribal Epidemiology Center (TEC) is charged under the Indian Health Care Improvement Act with providing epidemiologic and public health support to federally recognized Tribal Nations in the Nashville Area. The USET TEC is a designated public health authority.



Interpreting COVID-19 Test Results and Making Informed Public Health Decisions

Due to apparent inconsistencies in the reliability and accuracy of the current COVID-19 testing currently in place, positive and negative test results should be deciphered carefully to make appropriate clinical and public health related decisions.

- **Positive Results:** For most COVID-19 tests, a positive test result can be used to confirm that the patient is a true, positive case. False positives are rarer than false negatives. As such, reporting of positive cases can be used to drive public health initiatives and evaluate the extent of the outbreak in a Tribal Nation.
- **Negative Results:** A negative test result does not always equate to a patient being a true negative. Current tests have 15%-30% false negative rates. This is most commonly due to errors during the testing process or may mean that patient does not have high enough levels of COVID-19 to be detected yet.

Community Education Elements

Preventive measures such as handwashing practices and social distancing should be emphasized regardless of a negative or positive test result to protect healthy individuals and decrease the spread of COVID-19. Patients should also be educated on symptoms, preventive measures, and general education regarding COVID-19 to counteract the misinformation and anxiety about the disease.

Test results reported to patients should be given with additional educational materials including an interpretation of the results, as well as self-isolation/quarantine guidance. Inquiries regarding any current symptoms and answering any questions the patient may have should also be addressed at the time results are relayed.

The use of cloth masks among all people while in public settings (e.g., grocery stores, essential businesses) has been nationally advised to assist in decreasing the spread of COVID-19 from those who are infected but asymptomatic to those that are healthy. The CDC's website has [guidance about the use of cloth face masks to help slow the spread of COVID-19](#).