

## **Washoe County Health Official Recommendation for a COVID-19 Testing Strategy**

### **Executive Summary**

Washoe County health officials share the goal of elected officials and the public to increase testing for accurate data that will inform decisions to reopen the economy.

The prudent public health approach is to focus on testing symptomatic individuals so that their contacts can be traced, and the virus isolated from spreading. Asymptomatic testing should be emphasized and increased for health care workers, first responders and vulnerable people in high-risk populations. For the general population, time-tested public health methods can scientifically assess the percentage of the population who had the virus without expending precious resources that we need for our vulnerable populations and front line personnel. Although on the surface mass testing of the asymptomatic population appears to be the quickest route for accurate data, it is actually an expensive, uncalculated approach that would strain already-thin resources. Of particular concern to Washoe County health officials is that mass asymptomatic testing promotes a false sense of security for safety and well-being in the community.

### **Purpose of Testing for COVID-19**

Sufficient testing for COVID-19 is necessary to be able to 1) Identify people who have contracted COVID-19 so that they can be isolated until they recover, and 2) Identify close contacts so that they can be quarantined for the full incubation period in the event they become symptomatic. This ensures these cases have drastically reduced the number of people they come into contact with during the highly infectious period that occurs prior to onset of symptoms. Since there are not enough tests available to test everyone at the same time, it is important to identify the most efficient way to find positive cases. This can be achieved through testing of symptomatic individuals. Testing must also be available to provide to their close contacts if they develop COVID-19 symptoms. Testing of these quarantined case contacts if they are not symptomatic is of little value because they may still develop the disease during the incubation period even if they tested with negative results during the 14 day period. Additionally, someone can still test negative one to two days after they develop symptoms, even if they are truly positive. Therefore testing of contacts that are under quarantine should only be done if the contact becomes symptomatic.

Testing is also necessary to be able to monitor for the disease in vulnerable and high risk populations. Best practice in congregate living settings, such as senior resident facilities, homeless populations, and detention facilities is to test all persons, including asymptomatic due to the level of vulnerability and transmissibility given the nature of the environment. This testing will help to identify residents and staff of long term care facilities and skilled nursing facilities who are vulnerable to the disease. This will allow for resident to be cohorted and separated to help prevent the spread of the disease to other residents of the facilities and to avoid transmission through staff. High risk populations should continue to have access to testing even if asymptomatic include healthcare workers, and first responders. Testing should be conducted due to the close contacts these individuals have with patients, and people infected with COVID-19 and the importance of preventing the spread of COVID-19 in these essential workforces, and

the potential they have to further spread the disease to vulnerable populations if they are infected. Testing should also be provided in certain settings where hotspots or clusters of cases are occurring.

It is important to note that molecular, PCR, viral testing for COVID-19 only provides information on whether the virus was present at sufficient load when the individual was tested to result in a positive result. It does not indicate whether a person was already infected and may develop the disease in the days following the test. Additionally if someone is exposed and still in the incubation period, they could go on to develop symptoms and test positive at any point during the following 14 day period.

Therefore, it is important to understand that for the vulnerable and high risk populations noted above, retesting at a regular frequency will be necessary to achieve the testing objectives. These are significant populations (Renown Health has 10,000 staff) and will require a high capacity for testing to be able to maintain continued testing frequencies.

The State and CDC guidance identifies the populations above as the priority for testing. The State guidelines also provide for testing of asymptomatic individuals as testing is available. However, testing of asymptomatic individuals for COVID-19 outside of the priority populations described above is of limited value and can only occur at substantial expense. As noted, while the molecular, PCR, test can identify people with sufficient viral load to test positive, it can't be used to identify whether someone is already infected and is yet to develop symptoms, and it can't be used to determine whether someone will be infected immediately or soon after receiving the test. Therefore, the utility of testing asymptomatic populations outside of the priority groups is severely limited. PCR testing is costly, and the repeated testing of the asymptomatic populations at a frequency to be meaningful for public health protection would be costly and resource prohibitive. Repeated testing should be focused on the high risk workforce and vulnerable populations.

### **Positivity Rate of Testing for COVID-19**

The World Health Organization (WHO) has identified that a positivity rate of less than ten percent is necessary to demonstrate that sufficient testing capacity is available. The WHO guidance is that once suspected cases are identified they should be tested immediately to confirm or rule out infection with COVID-19. The WHO guidance also includes focusing on the early identification and protection of vulnerable patients and health care workers. Focused testing in health care facilities ensures that infection prevention and control measures can be correctly implemented such that vulnerable patients who do not have COVID-19 are protected from hospital acquired COVID-19 infection. Testing among vulnerable populations and risk groups will be important for early treatment to minimize progression to severe disease. The WHO positivity rate of less than ten percent is the measure of adequate capacity to test these populations. Testing large numbers of asymptomatic individuals in the general population in order to reduce positivity rates, negates the inference of sufficient testing capacity if the testing does not include the prioritized vulnerable and high risk populations.

### **Testing to Determine the Proportion of the Population Exposed to COVID-19**

Washoe County health officials and the University of Nevada Reno have devised an efficient method to estimate the percentage of Washoe County population exposed to COVID-19 without the expense and

logistical problems of mass testing asymptomatic individuals. It is recommended that the State adopt a similar method.

The Abbot Antibody Test that the Nevada State Public Health Lab (NSPHL) has validated can be used to assess how many people in Washoe County have been exposed to COVID-19. The Seroprevalence Study being conducted by the Health District in partnership with UNR School of Community Health Sciences Epidemiology Researchers, and the NSPHL is designed to be able to estimate the percentage of the Washoe County population exposed to COVID-19 with a 95% confidence level using the Abbot Antibody Test. Letters inviting randomly selected households to participate in the study have been distributed and specimen collection is planned to occur June 9-11, 2020.

The mass molecular testing of self-selected asymptomatic individuals for COVID-19 does not provide reliable data to determine the extent of disease or exposure in the community. Allowing asymptomatic individuals to self-identify and seek molecular viral tests repeatedly is an abuse to a limited system and is likely to result in a very low, <1%, positivity rate. This method is biased towards those who self-select to obtain testing for acute infection without clinically compatible symptoms. It is recommended these populations be encouraged to seek antibody testing through private providers or via alternative means.