Update on SARS-CoV-2 Delta variant and other variants of concern

The Delta variant, also known as the B.1.617.2 strain, is a variant that has been cited as the “fittest and fastest” variant of COVID-19 to date. It is now the dominant strain in the United States. It has been found to spread more easily and quickly than other variants. Some studies suggest that the Delta variant also increases an individual’s risk of having severe outcomes after COVID-19 infection. Public Health England published a study from Scotland indicating that people infected with the Delta variant were 85% more likely to be hospitalized compared to those infected with other variants (predominantly Alpha).

Of particular concern with the Delta variant is that it appears to transmit more easily among younger populations. This may lead to more cases of COVID-19, increased hospitalizations, and potentially more deaths. Children and adults younger than 50 are 2.5 times more likely to become infected with the Delta variant. This highlights the importance of all individuals, not just those at increased risk, getting vaccinated. It also reiterates the importance of masking and social distancing for those unable to be vaccinated.

This increased infectiousness and severity, combined with low vaccination rates in many parts of North Dakota increase the state’s risk for COVID-19-related illness, hospitalizations, and deaths. Missouri health officials recently announced that their health care system was being stressed from the increased COVID-19 related hospitalizations. Mississippi has reported an increase in pediatric ICU admissions related to COVID-19 disease.

**Variants of Concern Confirmed in North Dakota**

<table>
<thead>
<tr>
<th>Variant Lineage</th>
<th>WHO Label</th>
<th>Number in ND as of July 14</th>
<th>Percent increase from July 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1.1.7</td>
<td>Alpha</td>
<td>1092</td>
<td>11%</td>
</tr>
<tr>
<td>P.1</td>
<td>Gamma</td>
<td>37</td>
<td>19%</td>
</tr>
<tr>
<td>B.1.351</td>
<td>Beta</td>
<td>2</td>
<td>0.0%</td>
</tr>
<tr>
<td>B.1.617.2</td>
<td>Delta</td>
<td>20</td>
<td>1900%</td>
</tr>
</tbody>
</table>

Although the number of delta variants detected in our state seems low, it is likely much higher as the surveillance data is not real time and the sensitivity of our system is low, with only a fraction of the samples that test positive in the State being sequenced and analyzed for lineage. The Delta virus has been reported in five counties that include the western,
eastern, and central regions of the state. In addition, one county has had the delta variant detected through wastewater testing but not through testing of a clinical specimen.

Our current vaccines remain our best tool for protecting people from infection and severe disease. Vaccines not only protect at the individual level, but they help protect the community as more people are vaccinated, the greater that community protection is. Finally, vaccines help to prevent the emergence of variants by preventing people from being infected, limiting viral replication and limiting transmission of the virus from person to person.

Providers are encouraged to vaccinate their patients with any of the available vaccines. The mRNA vaccines, in fully vaccinated people, are showing high levels of effectiveness against the Delta variant. This effectiveness ranges from 80 to 90% for the prevention of infection and 96% effective at preventing hospitalizations. The vast majority of people who have died or been hospitalized from COVID-19 are unvaccinated. Providers are encouraged to recommend COVID-19 vaccine at every patient encounter to provide education and assurance to patients about the vaccines’ safety and effectiveness. Health care facilities are encouraged to host local townhalls with the public to answer questions about COVID-19 illness and encourage vaccination.

Although we have continued to see lower case numbers in North Dakota, case reports and testing positivity have shown small increases this past week and the trend is again an upward one. We are encouraging health care providers to be proactive in helping to prevent another large surge in illness and hospitalization by promoting and administering COVID-19 vaccines.

The NDDoH Laboratory Services Section continues to request that specimens in which SARS-CoV-2 was detected by NAAT be submitted for whole genome sequencing (WGS). This includes all hospitalized patients, vaccine breakthrough cases and any outpatient specimens. This testing is for epidemiologic information only so no reports will be reported back to providers or patients.

Additional information on variants may be found at Centers for Disease Control and Prevention (CDC) website here. The CDC guidance for treatment is available here. Providers who have questions, comments or suggestions may contact the NDDoH by calling 1-800-472-2180 or 701-328-2378. Laboratories performing WGS that identify a variant of concern should report the result to the NDDoH at www.ndhealth.gov/disease/reportcard.

Categories of Health Alert Network messages:
Health Alert Requires immediate action or attention; highest level of importance

# # #
Health Advisory May not require immediate action; provides important information for a specific incident or situation

Health Update Unlikely to require immediate action; provides updated information regarding an incident or situation

HAN Info Service Does not require immediate action; provides general public health information

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##