New Hampshire
Coronavirus Disease 2019
Weekly Call for Healthcare Providers and Public Health Partners
February 18, 2021

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Thursday noon-time partner calls will focus on science, medical, and vaccine updates geared towards our healthcare partners.
Agenda

• Epidemiology Update

• NH HAN #35: SARS-CoV-2 Variants of Concern

• MMWR article: Detection of B.1.351 SARS-CoV-2 Variant Strain – Zambia, December 2020

• Questions & Answers (Q&A)
- More than 27.8 million cumulative cases in the U.S. (25% of all global infections)
- More than 490,000 deaths in the U.S. from COVID-19 (20% of all global deaths)
Number of New COVID-19 Cases per Day in NH

https://www.nh.gov/covid19/dashboard/overview.htm#dash
% of Tests (Antigen and PCR) Positive for COVID-19 (7-Day Average)

% of Specimens Positive

Date Laboratory Test Completed

Mar 1, 20  May 1, 20  Jul 1, 20  Sep 1, 20  Nov 1, 20  Jan 1, 21
Number of People Hospitalized with COVID-19 Each Day in NH (Hospital Census)
Number of COVID-19 Deaths in NH by Report Date

In the last 7 days:
- 34 people have died from COVID-19
- 20 (59%) are NOT associated with a LTCF
- 14 (41%) associated with a LTCF
Coronavirus Disease 2019 (COVID-19) Outbreak, Update # 35

SARS-CoV-2 Variants of Concern

Key Points and Recommendations:

- The SARS-CoV-2 B.1.1.7 variant has been identified for the first time in a NH resident related to international travel. Public health contact tracing has identified close household contacts, but no other community exposures. Public health isolation, quarantine and testing guidance was followed, including testing of household contacts.
• DPHS continues to strongly recommend that any person with new or unexplained symptoms of COVID-19 be tested, including people who are 14 days past completion of a COVID-19 vaccination series and people known to have been infected in the prior 90 days if there was recent travel or an identified COVID-19 exposure. Therefore, all healthcare providers should routinely ask any patient being evaluated for COVID-19 testing about:
  o Travel outside of New England (ME, VT, MA, RI, CT) in the prior 14 days
  o Previous SARS-CoV-2 infection in prior 90 days
  o Completion of an approved COVID-19 vaccination series

• Any person being tested for COVID-19 who meets any of the above criteria should have their specimen sent to the NH Public Health Laboratories (PHL) for COVID-19 testing and for genetic testing for these variants.
  o The PHL has revised the laboratory COVID-19 Test Requisition form to include ability to indicate if any of the above criteria are met.
  o Follow instructions for specimen collection, handling and transport to the NH PHL (also see information below).
# Variants of Concern (Current as of 2/16/21)

<table>
<thead>
<tr>
<th>Variant</th>
<th>Reported Cases in US</th>
<th>Number of States Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1.1.7</td>
<td>1277</td>
<td>42</td>
</tr>
<tr>
<td>B.1.351</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>P.1</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Variant B.1.351

Number of Cases
- 0 to 0
- 1 to 100
- 101 to 200
- 401 to 500

Filters
- Variant B.1.351

Variant P.1

Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence

Earliest Detection of P.1 Lineage of SARS-CoV-2 Virus

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00183-5/fulltext
Detection of B.1.351 SARS-CoV-2 Variant Strain — Zambia, December 2020

• Zambia has been conducting genetic epidemiologic studies using whole genome sequencing (WGS) on SARS-CoV-2 positive specimens since September 2020

• Average number of daily cases increased 16-fold from 44 cases (beginning of December) to 700 cases (beginning of January)

• B.1.351 variant first detected in specimens collected December 16-23, 2020
  – 23 specimens collected, 96% were B.1.351 variant
  – None of the 245 previous sequenced genomes were from this lineage
The Vaccination Effects in Israel

COVID-19 vaccine doses administered per 100 people

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

Source: Official data collated by Our World in Data – Last updated 18 February, 14:40 (London time)
Association Among Elderly

- Report in *Nature* indicates that in Israel the incidence among adults >60 decreased 41% from Jan to Feb, including 31% decrease in hospitalizations
  - In contrast, incidence and hospitalizations fell by 12% and 5% among younger
  - Stronger effect in cities where proportion >85%
Computational Evidence of Vaccine Impact
“The Magic is Starting”

Eran Segal, Weizmann Institute
Computational Evidence of Vaccine Impact
“The Magic is Starting”

Eran Segal, Weizmann Institute
Less Virus in Vaccine Failures in Israel

Preprint quantitative PCR results from cases vaccinated with Pfizer

• Case control of ~3,000 patients Dec 23-Jan 5, 2021
• 4-fold decrease in viral load in specimens collected ≥12 days after vaccination
Israel (B.1.1.7) Pfizer Efficacy

- According to data from the Israeli MoH, 531 of 750,000 fully vaccinated people >60 years old tested positive (0.07%)
  - Of positives, 38 were hospitalized
- At HMO A, 500,000 doses given
  - 1w after second dose only 544 (0.1%) of vaccinees diagnosed with SARS-CoV-2 infection, with 4 severe cases and 0 deaths
  - Effectiveness of 93% compared to 500,000 controls
- At HMO B, 600,000 vaccinees 2w after second dose
  - 94% fewer symptomatic cases versus controls were reported
  - Equivalent efficacy was seen in those aged > 70y
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