COVID-19 in New Mexico: Epidemiologic and Modeling Update

June 23, 2020
Prevalence: COVID-19 cases per 100,000 by U.S. states

As of June 23, 2020

Source: Cases, Johns Hopkins University Coronavirus Resource Center. Population estimates, National Center for Health Statistics, CDC.

In investing for tomorrow, delivering today.
Prevalence Rate: Number of COVID-19 cases per 100,000 population

**June 14, 2020**

- Northwest: 2295.6
- Northeast: 108.3
- Metro: 270.0
- Southeast: 99.7
- Southwest: 387.5
- New Mexico: 462.6

**June 22, 2020**

- Northwest: 2409.5
- Northeast: 125.3
- Metro: 288.1
- Southeast: 122.6
- Southwest: 468.3
- New Mexico: 502.7

New Mexico COVID-19 Cases by Date of Specimen Collection – 6/23/20

Positive samples collected during this time may not yet be reported.
Statewide R-effective has increased over the past week.
Key (Gating Target: 1.05)

- Low Level Endemic
- Approaching Low Level Endemic
- Requiring further mitigation

As of June 16, 2020

Northwest
R_effective 0.97 ↑

Northeast
R_effective 1.34 ↑

Central
R_effective 1.03 ↓

Southeast
R_effective 1.17 ↑

Southwest
R_effective 1.27 ↑

As of June 16, 2020

Northwest
R_effective 0.78

Northeast
R_effective 1.12

Central
R_effective 1.06

Southwest
R_effective 0.92

Southeast
R_effective 1.07

Daily rate of growth of COVID-19 cases
7-day rolling average by region – 6/22/20

Daily Growth Rate

Metro
Northeast
Northwest
Southeast
Southwest
New Mexico

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Northeast Region Case Count by Collection Date with 7 Day Moving Average
June 23, 2020

Positive samples collected during this time may not yet be reported.
Northwest Region Case Count by Collection Date with 7 Day Moving Average
June 23, 2020

Positive samples collected during this time may not yet be reported.
The areas with the largest burden of disease in AZ also border the NW region in NM.


Case counts in Apache County may be decreasing, while Navajo County is increasing (as of June 22, 2020)

Note: Illness in the last 4-7 days may not be reported yet

Southeast Region Case Count by Collection Date with 7 Day Moving Average
June 23, 2020

Positive samples collected during this time may not yet be reported.
Southwest Region Case Count by Collection Date with 7 Day Moving Average – June 23, 2020

Positive samples collected during this time may not yet be reported.
Positive samples collected during this time may not yet be reported.
Doña Ana, Otero, and El Paso

- Otero: ~30 cases in the community; black circles include detained/incarcerated people.
- Doña Ana: modeled with "imported" cases occurring from mid to late May.
- Increases in ‘incarcerated’ cases correlate with case increases in Doña Ana and El Paso.

Red line – simulation; Black circles – reported cases
El Paso County has the 6th highest number of cases in Texas: 4,488 (as of 6/21/2020)

Source: [https://txdshs.maps.arcgis.com/apps/opsdashboard/index.html#/ed483ecd702b4298ab01e8b9cafc8b83](https://txdshs.maps.arcgis.com/apps/opsdashboard/index.html#/ed483ecd702b4298ab01e8b9cafc8b83)
Number of cases in El Paso, TX peaked and began to decline in early June, but may be increasing again.

Source of exposure (as of June 19, 2020)

Day by day cases (as of June 19, 2020)

>100 cases confirmed near the border with NM (as of June 21, 2020)

A majority of the clusters in El Paso, TX have been associated with correctional-detention facilities (as of June 12, 2020)
Hospitalization Rate: Number of COVID-19 cases per 100,000 population

June 15, 2020

- Northwest: 447.5
- Northeast: 15.3
- Metro: 31.4
- Southeast: 7.2
- Southwest: 29.0
- New Mexico: 70.9

June 22, 2020

- Northwest: 472.2
- Northeast: 16.3
- Metro: 33.4
- Southeast: 8.2
- Southwest: 33.3
- New Mexico: 75.6

New COVID-19 hospitalizations each week

New hospitalizations during this time may not yet be reported.
COVID-19 hospitalizations and ventilator use

As of June 18, 2020
Mortality Rate: Number of COVID-19 deaths per 100,000 population (age-adjusted)

Rates have been age-adjusted to the U.S. 2000 standard population.
COVID-19 Deaths by Date of Death, New Mexico

Number of Deaths

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Reporting through 6/19/2020
Case Fatality Rate: Percentage of COVID-19 cases resulting in death (age-adjusted)

Rates have been age-adjusted to U.S. COVID-19 cases.
Source: Bureau of Vital Records and Health Statistics and Infectious Disease Epidemiology Bureau, Epidemiology and Response Division, reporting through 6.19.2020, New Mexico Department of Health.
New Mexico Status Updates

- **Case count**: Statewide, daily case counts have plateaued.

- **Hospitalizations**: For the past two weeks, hospitalizations have declined.

- **Deaths**: Deaths have been steadily declining since mid-May.

- **Social distancing**: Cell phone data suggests the mobility of New Mexico is on the rise and, in some counties, is reaching pre-pandemic levels.

- **Contact tracing**: The median time to quarantine for contacts identified last week was 2 days.
# Modeling Assumptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measured Value</th>
<th>Value as of 6.23.20</th>
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</thead>
<tbody>
<tr>
<td><strong>R_Effective</strong></td>
<td>Actual Measured Daily Value by key county</td>
<td>R_eff=1.08</td>
</tr>
<tr>
<td><strong>Positive Test Multiplier</strong></td>
<td>Calculated by LANL</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Hospitalization and Mortality</strong></td>
<td>Actual rolling value / estimated number of total infected</td>
<td>Medical 0.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ICU 0.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vent Rate 60.9% of ICU</td>
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<td></td>
<td></td>
<td>Crude Case Fatality Rate 4.4%</td>
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<tr>
<td><strong>Length of Stay</strong></td>
<td>Actual rolling value / estimated number of total infected</td>
<td>Medical 5 days</td>
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<tr>
<td></td>
<td></td>
<td>ICU 14 days</td>
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<td>ICU on Vent 14 days</td>
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