COVID-19 in New Mexico: Epidemiologic Update
A NMDOH, Presbyterian, LANL, and SNL Partnership
June 2, 2020
Prevalence: COVID-19 cases per 100,000 by U.S. states

As of June 2, 2020

Source: Cases, Johns Hopkins University Coronavirus Resource Center. Population estimates, National Center for Health Statistics, CDC.
Prevalence Rate: Number of COVID-19 cases per 100,000 population

May 25, 2020

Northwest: 1714.3  
Northeast: 80.8  
Metro: 215.8  
Southeast: 57.4  
Southwest: 182.8  
New Mexico: 330.3

May 31, 2020

Northwest: 1896.3  
Northeast: 89.6  
Metro: 237.0  
Southeast: 66.2  
Southwest: 206.4  
New Mexico: 365.8

Prevalence: COVID-19 cases per 100,000 by NM county

As of June 1, 2020
New COVID-19 cases each week

New cases during this week may not yet be reported

Week of case investigation

% of total new cases each week

NM Region
- Metro
- Northeast
- Northwest
- Southeast
- Southwest
Projected doubling time

Projected Doubling Time Based on Date of Test Specimen Collection and Cumulative Average Rate of Increase.
Source: Infectious Disease Epidemiology Bureau, Epidemiology and Response Division 6.1.2020, New Mexico Department of Health.

Investing for tomorrow, delivering today.
Hospitalization Rate: Number of COVID-19 cases per 100,000 population

May 25, 2020

- Northwest: 324.2
- Northeast: 12.9
- Metro: 25.2
- Southeast: 5.8
- Southwest: 16.1
- New Mexico: 52.2

June 1, 2020

- Northwest: 368.4
- Northeast: 14.3
- Metro: 26.2
- Southeast: 6.5
- Southwest: 18.2
- New Mexico: 58.0

New COVID-19 hospitalizations each week

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

As of May 28, 2020
COVID-19 age-adjusted hospitalization rate by race/ethnicity per 100,000 population

Race/Ethnicity
- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- White

Date:
- 22-Apr
- 30-Apr
- 8-May
- 15-May
- 22-May
- 28-May

Age-adjusted hospitalization rate per 100,000 population
Mortality Rate: Number of COVID-19 deaths per 100,000 population

Rates have been age-adjusted to the U.S. 2000 standard population.

Deaths per 100,000 Population (age-adjusted)

<table>
<thead>
<tr>
<th>New Mexico Health Region</th>
<th>Deaths per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>52.3</td>
</tr>
<tr>
<td>Northeast</td>
<td>0.7</td>
</tr>
<tr>
<td>Metro</td>
<td>4.8</td>
</tr>
<tr>
<td>Southeast</td>
<td>0.5</td>
</tr>
<tr>
<td>Southwest</td>
<td>2.1</td>
</tr>
<tr>
<td>New Mexico</td>
<td>13.8</td>
</tr>
</tbody>
</table>
Crude death rate: COVID-19 deaths per 100,000 by U.S. states

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

As of June 2, 2020
Case Fatality Rate: Percentage of COVID-19 cases resulting in death

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 5.31.2020, New Mexico Department of Health.
Case fatality rate: Percentage of COVID-19 cases resulting in death by U.S. states

As of June 2, 2020

Source: Cases and Deaths, Johns Hopkins University Coronavirus Resource Center.
Key points

- COVID-19 prevalence continues to increase across all regions in NM
  - 23rd highest prevalence in the U.S.
  - Prevalence rates in age groups 15-44, 45-64, and 65+ are similar
  - AI/AN have highest burden of disease except in the SE
  - Percentages of total new cases each week have decreased in the Metro and NW, and increased in the SW
  - Doubling times for all regions continue to increase

- Hospitalization rates minimally increased across all regions except NW
  - Highest rates in McKinley, San Juan, Socorro, and Cibola counties (>50 cases/100,000)
  - NW region has the highest percentage of new hospitalizations each week and continues to increase, while the Metro region is decreasing
  - Hospitalization rate is highest in the 85+ age group
  - Ventilator use exceeded 30% last week; 32% as of 6/1/2020
  - AI/AN age-adjusted rate continues to increase, while other racial/ethnic groups have had minimal increases

- Mortality rates and case-fatality rates (CFRs) are highest in the NW region followed by Metro Region
  - 21st highest mortality rate and CFR (not age-adjusted) in the U.S.
  - NM CFR is similar to U.S. CFR after age-adjustment
    - CFRs in Metro, NE, and SE regions have decreased since last week, but NW and SW have increased (all minimal changes)
    - Both mortality rate and CFRs are highest in the age 85+ and AI/AN groups
COVID-19 in New Mexico: modeling update

As of June 1, 2020
Epidemiology & Response Division
The effective rate of transmission for the state has continued to decrease.

1.07
The Southeast region now has the highest rate of transmission at 1.13.
As of May 26, 2020

Northeast
R_effective 1.10 ↑

Central
R_effective 1.05 ↓

Southwest
R_effective 1.09 ↓

Southeast
R_effective 1.13 ↓

Key

Low Level Endemic 1-1.1
Approaching Low Level Endemic 1.11-1.15
Requiring further mitigation >1.15
Northwest percent positive tests continues to decrease.

Slight decrease in hospitalizations and ventilators over the past week.

log(beds, ICUs, vents) over time

For comparison against state-reported data, this chart includes ICUs in the count of beds.
Supplementary Slides
# Modeling Assumptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measured Value</th>
<th>Value as of 6.1.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>R_Effective</td>
<td>Actual Measured Daily Value by key county</td>
<td>R_{eff}=1.07</td>
</tr>
<tr>
<td>Positive Test Multiplier</td>
<td>Calculated by LANL</td>
<td>4.6</td>
</tr>
<tr>
<td>Hospitalization and Mortality</td>
<td>Actual rolling value / estimated number of total infected</td>
<td>Medical 0.3% ICU 0.3% Vent Rate 68.3% of ICU Crude Case Fatality Rate 4.6%</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>Actual rolling value / estimated number of total infected</td>
<td>Medical 5 days ICU 14 days ICU on Vent 14 days</td>
</tr>
</tbody>
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