<table>
<thead>
<tr>
<th></th>
<th>Aug. 11, 2021</th>
<th>Nov. 9, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cases</strong></td>
<td>586,562</td>
<td>771,160</td>
</tr>
<tr>
<td><strong>Currently hospitalized</strong></td>
<td>501</td>
<td>1,426</td>
</tr>
<tr>
<td><strong>COVID-19 coded deaths</strong></td>
<td>7,268</td>
<td>8,754</td>
</tr>
<tr>
<td><strong>Outbreaks</strong></td>
<td>5,639 (5,493 resolved)</td>
<td>6,601</td>
</tr>
<tr>
<td><strong>Three day average percent positivity</strong></td>
<td>6.14%</td>
<td>9.9%</td>
</tr>
<tr>
<td><strong>Confirmed variant cases</strong></td>
<td>&gt;98% B.1.617.2 - Delta</td>
<td>100% B.1.617.2 - Delta</td>
</tr>
</tbody>
</table>
Overview of key trends

- COVID-19 cases, test percent positivity, hospitalizations, and deaths have been increasing in Colorado since August. Delta variant dominates.
- Case rates and percent positivity are highest among school-age children.
- The majority of hospitalizations and deaths are occurring among unvaccinated adults.
- Vaccine effectiveness against hospitalization and death remain high, but there is evidence of waning immunity among older Coloradans, emphasizing booster dose need.
- Modeling projections updated Nov. 9, 2021, following a rapid increase in hospitalizations, show that COVID-19 hospital demand will increase until late December and could exceed current hospital capacity.
- In addition to non-pharmaceutical interventions, booster vaccination and monoclonal antibody treatment can decrease hospital demand.
- Outbreaks in long term care facilities have increased with the current wave, but involve fewer cases, hospitalizations, and deaths.
Cases continue to increase
Case rates are highest among school-aged children

[Graph showing case rates by age group over time]
Comparison of Colorado and U.S. case rates

Source for US data: Johns Hopkins University, updated Nov 9, 2021
Number of PCR tests performed daily and 7-day average percent positivity

Updated Nov 09, 2021

covid19.colorado.gov/data
Hospitalizations continue to increase

1,847 Hospitalizations

Nov 9:
1426 COVID-19 hospitalizations

# of Hospitalizations

0 500 1,000 1,500

May Jul Sep Nov Jan Mar May Jul Sep Nov
Coloradans currently hospitalized with COVID-19 by vaccination status

79% of Those Currently Hospitalized are Unvaccinated

299 Vaccinated Hospitalized Patients

1,127 Unvaccinated Hospitalized Patients

Note: The vaccination status of those currently hospitalized is based on data reported daily to public health by hospitals through the Healthcare Emergency Resource Management system (HEREM). Vaccination status of currently hospitalized individuals is reported in aggregate, and therefore not verified by public health at the patient level. HEREM data provides a snapshot of hospitalizations in Colorado, and is meant to be used for situational awareness. For trends in the vaccination status of hospitalized cases over time, please refer to the COVID-19 Vaccinated & Unvaccinated Case Data dashboard (https://covid19.colorado.gov/vaccine-breakthrough).
Correlation between 14-day COVID-19 hospitalization rates and vaccination rate among 15 most populous counties
Age-adjusted hospitalization rates, unvaccinated vs. vaccinated

Vaccinated people are 8.9 times less likely to be hospitalized for COVID.

Data is lagged by two weeks. Updated Nov 08, 2021

covid19.colorado.gov/data
Estimated crude vaccine effectiveness against hospitalizations with COVID-19 and death due to COVID-19 cases since July*

<table>
<thead>
<tr>
<th>Age group</th>
<th>Hospitalizations</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-39</td>
<td>94%</td>
<td>100%</td>
</tr>
<tr>
<td>40-59</td>
<td>94%</td>
<td>94.8%</td>
</tr>
<tr>
<td>60-79</td>
<td>90.9%</td>
<td>93.8%</td>
</tr>
<tr>
<td>80+</td>
<td>65.9%</td>
<td>77.6%</td>
</tr>
</tbody>
</table>

*To ensure data completeness, analysis includes cases occurring since July 1, 2021 that resulted in hospitalization through Oct. 15, 2021 or death due to COVID through Sept. 30, 2021. Vaccine efficacy is estimated by calculating (rate among unvaccinated - rate among vaccinated) / rate among unvaccinated. Vaccinated and unvaccinated populations are based on the midpoint of each date range.
Hospital bed capacity is at an all-time low

Total beds available (for COVID and all other conditions)

COVID hospitalizations

[Graph showing hospital bed capacity and COVID hospitalizations over time.]
Increased booster dose uptake could decrease peak hospital demand

- Current booster trajectory
- Increased booster uptake
- 75% of eligible by Dec 31

2,258 on Jan 1
2,156 Dec 24
2,082 on Dec 20
Important role of monoclonal antibody therapy in preserving hospital capacity

*13-23% reduction translates to ~200-400 fewer hospitalizations at peak

<table>
<thead>
<tr>
<th>Low efficacy estimate</th>
<th>Low uptake estimate</th>
<th>High efficacy estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% Reduction in hospitalizations</td>
<td>30% of Eligible</td>
<td>80% Reduction in hospitalizations 89% reduction in hospital-days</td>
</tr>
<tr>
<td>79% Reduction in hospital-days</td>
<td>16% of potential hospitalizations</td>
<td></td>
</tr>
<tr>
<td>13% Reduction in hospitalizations peak</td>
<td>13% Reduction in hospitalizations peak</td>
<td>14% Reduction in hospitalizations peak</td>
</tr>
<tr>
<td>21% Reduction in hospitalizations peak</td>
<td></td>
<td>23% Reduction in hospitalizations peak</td>
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</table>
Residential health care outbreaks year 2020 vs. 2021

Month Outbreak Confirmed

- Jan: 73
- Feb: 36
- Mar: 36
- Apr: 149
- May: 67
- Jun: 7
- Jul: 20
- Aug: 106
- Sep: 115
- Oct: 117
- Nov: 211
- Dec: 212

Number of Outbreaks

- 2020
- 2021
Residential health care outbreak epi curve

Month Outbreak Confirmed (2020)

Month Outbreak Confirmed (2021)
Residential health care outbreak epi curve

Outbreak Hospitalizations

Month Outbreak Confirmed (2020)

Outbreak Hospitalizations

Month Outbreak Confirmed (2021)
Questions?