COVID Epidemiology Situation Update

Tim Lant, PhD, MAS, Heather Ross PhD, DNP, ANP-BC, Anna Muldoon, MPH, Samantha Sokol, Esma Gel, PhD, and Megan Jehn, PhD

January 4, 2021
Summary

Today’s statewide case count is 5,158 with 3,189 cases (62%) in Maricopa County, equivalent to population distribution. The 7-day average for reported cases is now 8,160. There has been very high variance in daily cases reported for approximately the past 5 weeks, introducing concern about the reliability of data reports during this time period.

The epi curve appears to be plateauing in Maricopa County and statewide for the past week at a level higher than the previous wave in Arizona. Peak cases by incident date is 10,709 on 12/28.

Due to significant irregularities in ADHS data reporting patterns, 7-day average positivity is more reliable than day-to-day positivity. 7-day average positivity has remained above 30% for nearly 4 weeks indicating sustained uncontrolled spread.

Hospital utilization continues to increase. Bed usage for COVID-19 is 54% of inpatient beds and 61% of ICU beds statewide. Current hospital utilization is 92% for inpatient beds and 93% for ICU beds including COVID and non-COVID utilization. There was a noticeable increase in non-COVID bed usage in the last day. Hospitals statewide are experiencing extreme shortages with many on divert status.

<table>
<thead>
<tr>
<th>January 4, 2021</th>
<th>Statewide</th>
<th>Maricopa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reported Today</td>
<td>Cumulative</td>
</tr>
<tr>
<td>Cases</td>
<td>5,158</td>
<td>561,542</td>
</tr>
<tr>
<td>PCR Tests</td>
<td>14,822</td>
<td>2,937,589</td>
</tr>
<tr>
<td>% Positive</td>
<td>34.8%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>169</td>
<td>39,897</td>
</tr>
<tr>
<td>Deaths</td>
<td>3</td>
<td>9,064</td>
</tr>
</tbody>
</table>

All data pulled from azdhs.gov. Numbers may not match Maricopa county data.
Maricopa County Analysis
Due to the holidays, multiple days of data were held (Nov 11, 26 & 27; December 25, January 1) and reported on the next business day.
Due to the holidays, multiple days of data were held (Nov 11, 26 & 27; December 25, January 1) and reported on the next business day.
Arizona Statewide Analysis
Epidemiology
Arizona Statewide Daily COVID-19 Cases by Date of Sample Collection
(Epi Curve)

Cases

Incidence (Daily)  Incidence (7-d average)
Hospital Usage
Where blue bars are below zero, COVID ED patients exceeded total reported ED bed usage