Rates of COVID-19 Hospitalizations and Deaths by Vaccination Status in Arizonans 5 Years and Older

Summary

In April, unvaccinated individuals 5 years and older had:

- **7.0X** Risk of Hospitalization from COVID-19*
- **8.8X** Risk of Dying from COVID-19*

compared to individuals who were vaccinated with an updated (bivalent) booster.

- **6.7X** Risk of Hospitalization from COVID-19*
- **7.6X** Risk of Dying from COVID-19*

compared to individuals who were vaccinated without an updated (bivalent) booster.

- COVID-19 vaccines are safe and effective tools to bring the pandemic under control.
- Every week and across all age groups, people who were unvaccinated had a greater risk of hospitalization from COVID-19 and a greater risk of dying from COVID-19 than people who were vaccinated.

Age-Adjusted Rates of COVID-19 Hospitalizations and Deaths per 100K by Specimen Collection Date Among Those 5 Years and Older who are Vaccinated with an Updated (Bivalent) Booster, Vaccinated without an Updated (Bivalent) Booster, and Unvaccinated

Hospitalizations Per 100K

Deaths Per 100K
Rates of COVID-19 Hospitalizations per 100K by Specimen Collection Date Among Those 5 Years and Older who are Vaccinated with an Updated (Bivalent) Booster, Vaccinated without an Updated (Bivalent) Booster, and Unvaccinated

Stratified by Age Group

- 5–17 years
- 18–29 years
- 30–49 years
- 50–64 years
- 65–79 years
- 80 years and older
Rates of COVID-19 Deaths per 100K by Specimen Collection Date Among Those 5 Years and Older who are Vaccinated with an Updated (Bivalent) Booster, Vaccinated without an Updated (Bivalent) Booster, and Unvaccinated Stratified by Age Group

- 5–17 years
- 18–29 years
- 30–49 years
- 50–64 years
- 65–79 years
- 80 years and older

6/7/2023
Arizona Department of Health Services
Percent of Those 5 Years and Older who are Vaccinated with an Updated (Bivalent) Booster, Vaccinated without an Updated (Bivalent) Booster, and Unvaccinated COVID-19 Hospitalizations and Deaths by Month of Specimen Collection

### Hospitalizations

<table>
<thead>
<tr>
<th>Month</th>
<th>Vaccinated with an Updated (Bivalent) Booster (%)</th>
<th>Vaccinated without an Updated (Bivalent) Booster (%)</th>
<th>Unvaccinated (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>42.1%</td>
<td>52.2%</td>
<td>5.7%</td>
</tr>
<tr>
<td>December</td>
<td>40.2%</td>
<td>51.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>January</td>
<td>39.8%</td>
<td>49.4%</td>
<td>10.8%</td>
</tr>
<tr>
<td>February</td>
<td>39.1%</td>
<td>45.8%</td>
<td>15.1%</td>
</tr>
<tr>
<td>March</td>
<td>37.9%</td>
<td>45.1%</td>
<td>17.0%</td>
</tr>
<tr>
<td>April</td>
<td>37.8%</td>
<td>45.1%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

### Deaths

<table>
<thead>
<tr>
<th>Month</th>
<th>Vaccinated with an Updated (Bivalent) Booster (%)</th>
<th>Vaccinated without an Updated (Bivalent) Booster (%)</th>
<th>Unvaccinated (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November</td>
<td>42.1%</td>
<td>52.9%</td>
<td>5.0%</td>
</tr>
<tr>
<td>December</td>
<td>42.6%</td>
<td>49.6%</td>
<td>7.8%</td>
</tr>
<tr>
<td>January</td>
<td>37.3%</td>
<td>49.2%</td>
<td>13.5%</td>
</tr>
<tr>
<td>February</td>
<td>36.3%</td>
<td>45.0%</td>
<td>18.7%</td>
</tr>
<tr>
<td>March</td>
<td>43.0%</td>
<td>41.3%</td>
<td>15.7%</td>
</tr>
<tr>
<td>April</td>
<td>33.3%</td>
<td>47.8%</td>
<td>18.9%</td>
</tr>
</tbody>
</table>
About the Data:

- Beginning 12/7/2022, the report shifted to comparing unvaccinated individuals to individuals who were vaccinated with an updated (bivalent) booster as well as individuals who were vaccinated without an updated (bivalent) booster.
  - Updated (bivalent) boosters were recommended by CDC on September 1, 2022.
  - Data for the updated (bivalent) booster will not appear on the graphs until September when it was initially recommended.
- Beginning 8/3/2022, case information was removed from the report due to changes in testing practices, including the increased use of at-home tests, which affects the cases that are reported (i.e., reports are mostly symptomatic individuals who sought healthcare).
- Data included in the report are on a rolling 6-month timeframe.
    - Death data have a month lag in order to help with data completeness.
- Incidence rates in the report are weekly rates grouped by age and calculated by dividing the number of hospitalizations or deaths by those vaccinated with an updated (bivalent) booster, vaccinated without an updated (bivalent) booster, or unvaccinated population then multiplied by 100,000. The overall incidence rates are standardized by age.
- Rates are not adjusted for underlying conditions or most demographic factors, aside from age.
- *Incidence rate ratios (IRRs) are provided for the most recent month with complete hospitalization and death data. These ratios are calculated by dividing the average weekly incidence rates among unvaccinated by the incidence rates of those vaccinated with an updated (bivalent) booster and those vaccinated without an updated (bivalent) booster.

Definitions:

- Vaccinated with an updated (bivalent) booster: individuals who have received the newly updated bivalent booster.
- Vaccinated without an updated (bivalent) booster: individuals who received at least one of the CDC recommended COVID-19 vaccinations, but not the new bivalent booster.
- Unvaccinated: individuals who have not received a CDC recommended COVID-19 vaccination.

References:
2. CDC Recommends the First Updated COVID-19 Booster
3. Stay Up to Date with Your COVID-19 Vaccines

Additional resources:
- Rates of COVID-19 Cases and Deaths by Vaccination Status
- Rates of laboratory-confirmed COVID-19 hospitalizations by vaccination status