

# COVID-19 Breakthrough Report

Oregon's Weekly Surveillance Summary



## Breakthrough case report – September 2, 2021

### Background

Data for the weekly breakthrough case report will include data through the most recent Sunday and the report will be published on Thursdays.<sup>1</sup> Vaccine breakthrough cases are defined as instances in which an individual tested positive for COVID-19 at least 14 days following the completion of any COVID-19 vaccine series.<sup>2</sup> Vaccine breakthrough cases that result in hospitalization or death are reported to CDC.

### COVID-19 cases in vaccinated and unvaccinated people

#### Weekly summary<sup>3</sup>

During the week of August 22-28, there were 16,265 cases of COVID-19. 13,673 (84.1%) were unvaccinated and 2,592 (15.9%) were vaccine breakthrough cases. The median age of breakthrough cases was 49 years. 51 breakthrough cases were residents of care facilities, senior living communities, or other congregate living settings. 647 (25.0%) of cases were 65 or older. There were 58 (2.2%) cases aged 12-17.

OHA publishes the most up to date information about cases from the most recently completed MMWR week. However, not all information about a case's vaccination status may be available at time of publication. The following table (Table 1) includes updated totals of cases by vaccine breakthrough case status for the previous 6 weeks.

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<sup>1</sup> The weekly summary, Figure 1, and Figure 2 use the date that cases are reported to OHA, to provide information on the most recently identified cases. All other dates in this report use specimen collection date to align with the breakthrough case definition.

<sup>2</sup> This definition is consistent with the CDC's definition, available here: <https://www.cdc.gov/vaccines/covid-19/downloads/COVID-vaccine-breakthrough-case-investigations-Protocol.pdf>

<sup>3</sup> Previously, this report was published monthly. Going forward, this report will be published weekly.

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**Table 1. Updated totals for vaccine breakthrough cases**

<b>MMWR week ending</b>	<b>Total cases</b>	<b>Breakthrough cases</b>	<b>Percent breakthrough case</b>
2021-07-24	3,054	612	20.0
2021-07-31	5,659	1,114	19.7
2021-08-07	7,494	1,427	19.0
2021-08-14	13,137	2,261	17.2
2021-08-21	14,495	2,469	17.0
2021-08-28	16,265	2,592	15.9

## Cumulative summary

Overall, there have been 13,166 vaccine breakthrough cases identified in Oregon. The median age of breakthrough cases is 48 years (range: 12-106). 512 (3.9%) breakthrough cases were residents of care facilities, senior living communities, or other congregate living settings. 3,350 (25.4%) of cases were 65 or older. There have been a total of 217 (1.6%) cases aged 12-17. Breakthrough cases have been reported in all 36 counties.

Cases of COVID-19 are much more common in unvaccinated<sup>4</sup> Oregonians than in vaccinated Oregonians (Figure 1). The rate of COVID-19 cases among unvaccinated individuals in the most recent week was approximately 5 times the rate of COVID-19 cases among fully vaccinated individuals. Community spread remains elevated throughout the state and is particularly high in areas with lower vaccination rates. As COVID-19 cases have increased across Oregon, vaccine breakthrough cases have also increased, but at a much lower rate than in the unvaccinated. Vaccination remains the most effective tool to reduce the spread of COVID-19.

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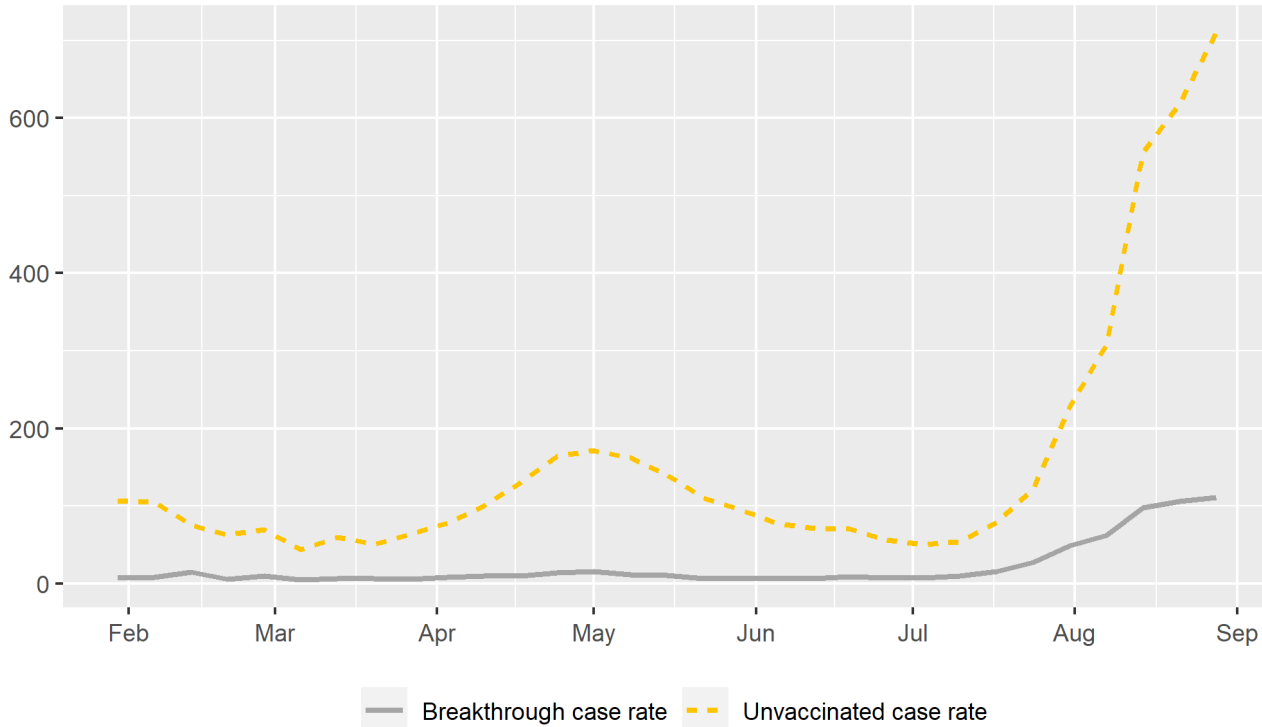
<sup>4</sup> Unvaccinated persons are defined as people who have not received an approved COVID-19 vaccine, or who have not completed a COVID-19 vaccine series.

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Figure 1. Rates of COVID-19 cases, by vaccination status



## Vaccine breakthrough cases and severity

The Pfizer, Moderna and Johnson & Johnson COVID-19 vaccines are highly effective at preventing severe COVID-19 illness and death. Relatively few breakthrough cases have been hospitalized, and even fewer have died (Figure 2).

To date, 4.9% of all known breakthrough cases have been hospitalized (n=650), and only 0.9% have died (n=113). The median age of the people who died was 81 (43 - 101).

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Figure 2. Cases, hospitalizations and deaths among breakthrough cases

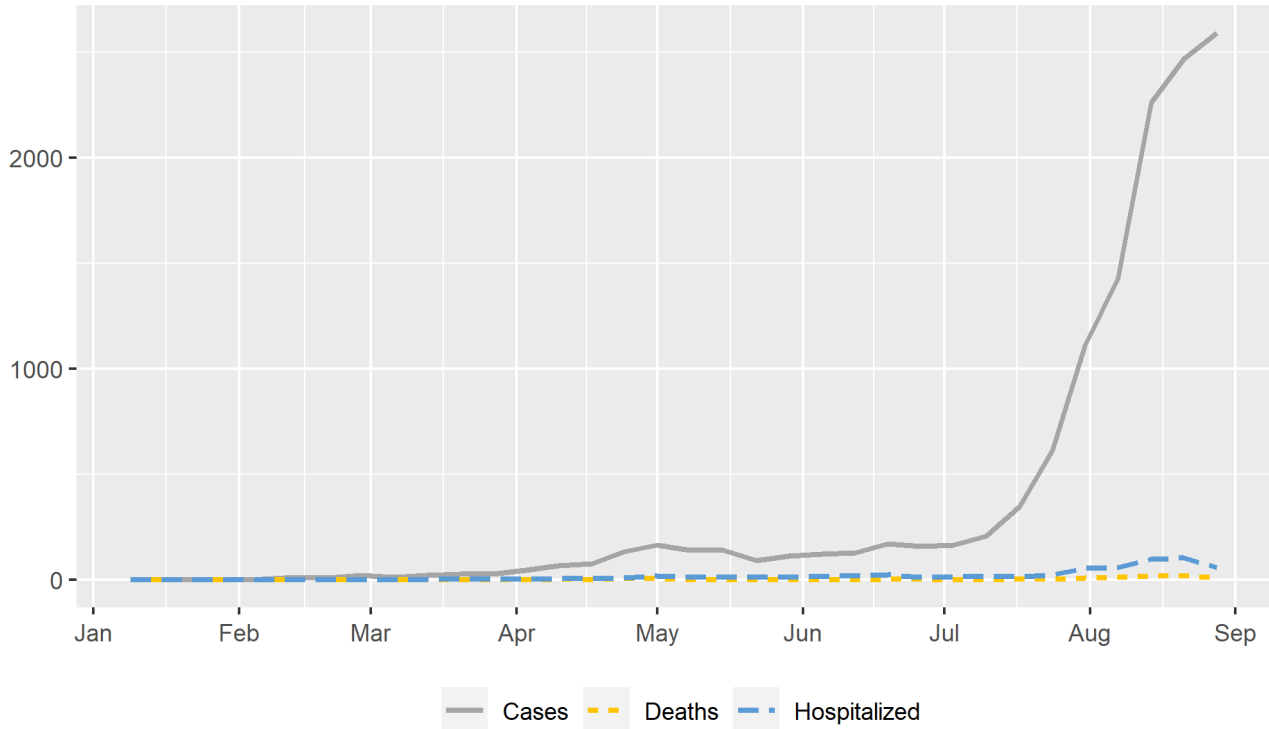


Table 1. Breakthrough cases by age group and severity

Age Group	Cases	Hospitalized	Deaths
12-19	464	3	0
20-29	1,931	13	0
30-39	2,218	24	0
40-49	2,196	25	3
50-59	2,054	60	3
60-69	1,875	122	15
70-79	1,447	184	29
80+	981	219	63
Total	13,166	650	113

Data are provisional and subject to change.

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## Variants of concern and variants of interest

### Table 2. Variants of concern

Overall, 5.1% of positive specimens in Oregon have been sequenced. Delta is currently the dominant variant circulating in Oregon. At this time, vaccine breakthrough cases appear to reflect the variants circulating in the community. Additional information on variants can be found here:

<https://public.tableau.com/app/profile/oregon.health.authority.covid.19/viz/GISAIDVariantDashboardUpdated/OregonVariantDashboard>

Subtype	Cases
B.1.1.7 (Alpha)	139
B.1.351 (Beta)	16
B.1.617.2 (Delta)	423
P.1 (Gamma)	46

### Table 3. Variants of interest

Subtype	Cases
B.1.427/B.1.429 (Epsilon)	38
B.1.526 (Iota)	29

### Table 4. Breakthrough cases by county of residence<sup>5</sup>

County	Cases
Baker	46
Benton	248
Clackamas	1114
Clatsop	120
Columbia	100
Coos	120

<sup>5</sup> Counties that have a total of fewer than 10 cases will be reported as 1-9 cases.

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County	Cases
Crook	70
Curry	45
Deschutes	865
Douglas	489
Gilliam	1-9
Grant	16
Harney	1-9
Hood River	99
Jackson	881
Jefferson	48
Josephine	535
Klamath	107
Lake	1-9
Lane	1785
Lincoln	204
Linn	355
Malheur	47
Marion	1336
Morrow	55
Multnomah	2037
Polk	256
Sherman	1-9
Tillamook	136
Umatilla	340
Union	81

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County	Cases
Wallowa	23
Wasco	131
Washington	1180
Wheeler	1-9
Yamhill	267