

# COVID-19 Breakthrough Report

Oregon's Weekly Surveillance Summary



## Breakthrough case report - September 16, 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

During the week of September 5–September 11, there were 14,046 cases of COVID-19. 11,414 (81.3%) were unvaccinated and 2,632 (18.7%) were vaccine breakthrough cases. The median age of breakthrough cases was 48 years. 90 (3.4%) breakthrough cases were residents of care facilities, senior living communities or other congregate living settings. 674 (25.6%) cases were 65 or older. There were 68 (2.6%) 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 six 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>

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

MMWR week ending	Total cases	Breakthrough cases	Percent breakthrough case
2021-07-24	3,054	627	20.5
2021-07-31	5,656	1,157	20.5
2021-08-07	7,494	1,500	20.0
2021-08-14	13,135	2,378	18.1
2021-08-21	14,487	2,622	18.1
2021-08-28	16,213	2,964	18.3
2021-09-04	13,780	2,874	20.9
2021-09-11	14,046	2,632	18.7

## Cumulative summary

Overall, there have been 19,549<sup>3</sup> vaccine breakthrough cases identified in Oregon. The median age of breakthrough cases is 48 years (range: 12-106). 773 (4%) breakthrough cases were residents of care facilities, senior living communities or other congregate living settings. 4,991 (25.5%) cases were 65 or older. There have been a total of 354 (1.8%) 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> individuals than in vaccinated individuals (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 those who are fully vaccinated. Community spread remains elevated throughout the state and is particularly high in areas with lower vaccination

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<sup>3</sup> Continuous improvements in data processing have identified an additional 780 breakthrough cases with a positive test date after April 20th, 2021. These cases are reflected in the weekly summary, as well as in the cumulative summary of this report.

<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.

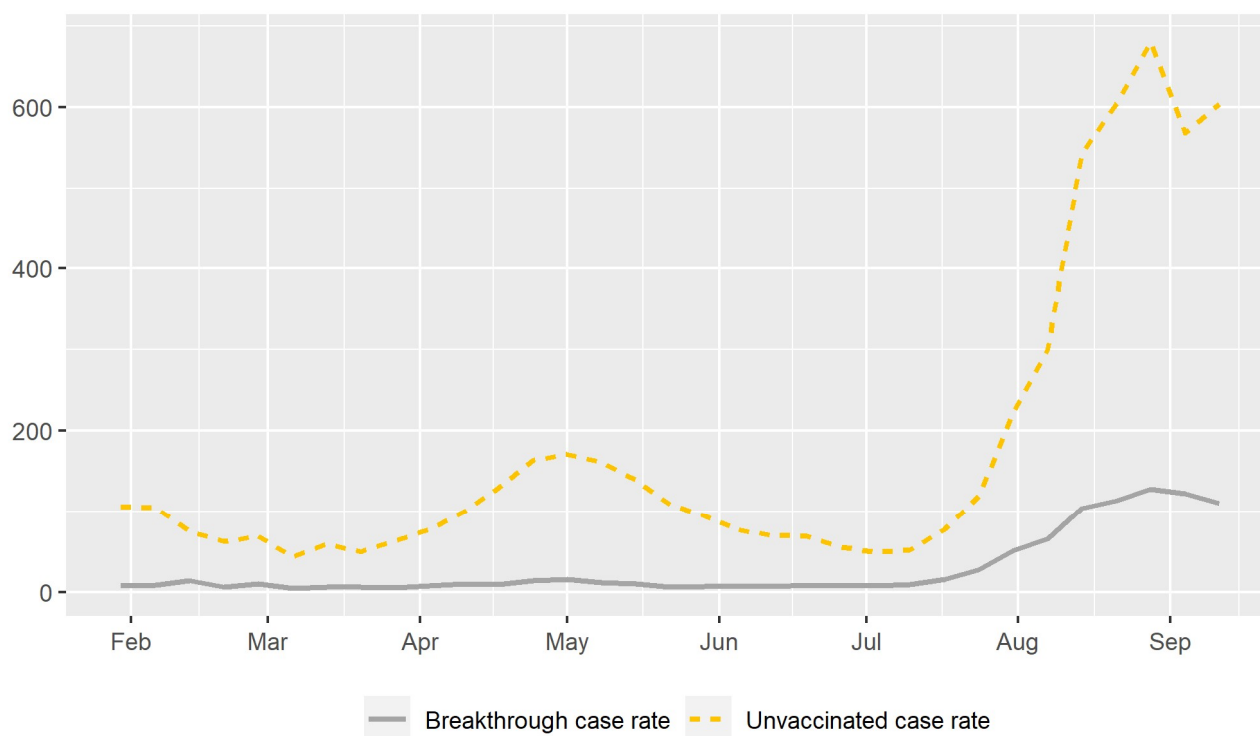
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rates. As COVID-19 cases have increased across Oregon, vaccine breakthrough cases have also increased, but at a much lower rate than in the unvaccinated. Vaccination remains the most effective tool to reduce the spread of COVID-19.

**Figure 1. Rates of COVID-19 cases per 100,000 per week, 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).

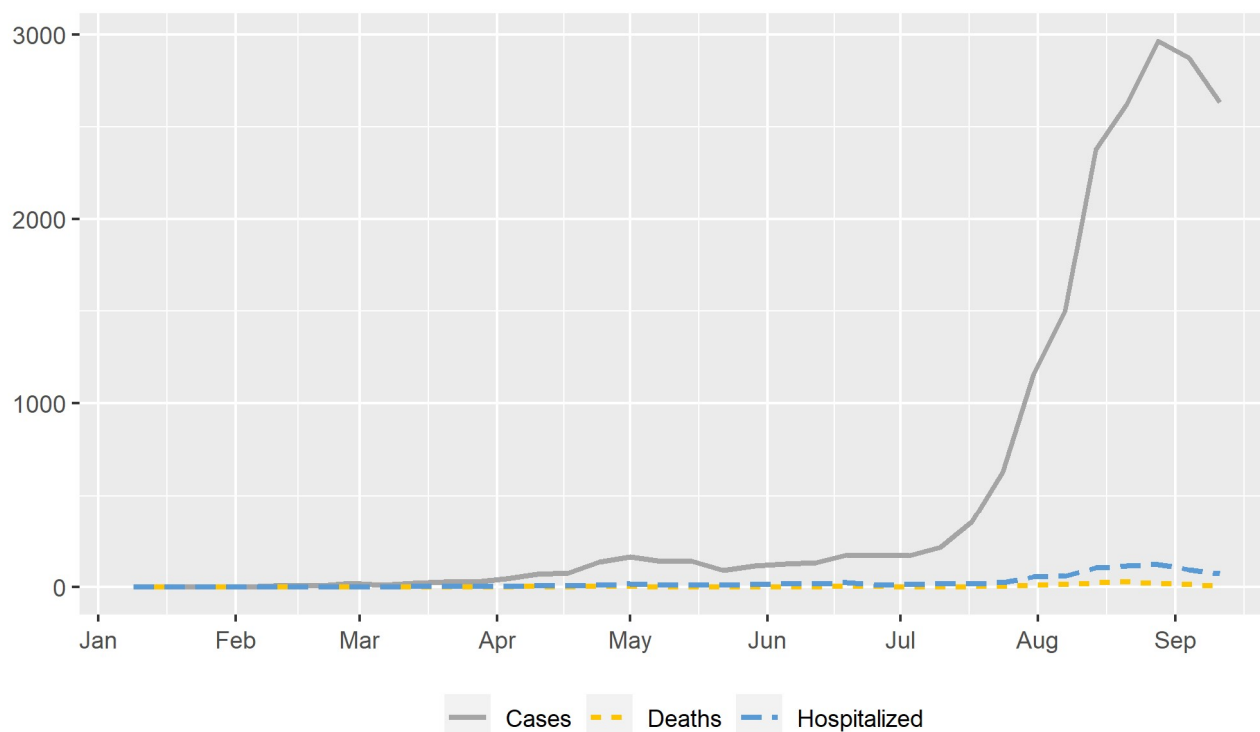
To date, 4.7% of all known breakthrough cases have been hospitalized (n=915), and only 0.9% have died (n=172). The median age of the people who died is 81 (range: 43-101).

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**Figure 2. Weekly count of cases, hospitalizations and deaths among breakthrough cases**



**Table 1. Breakthrough cases by age group and severity**

Age Group	Cases	Hospitalized	Deaths
12-19	747	4	0
20-29	2,828	14	0
30-39	3,298	29	0
40-49	3,281	36	3
50-59	3,003	84	5
60-69	2,784	180	24
70-79	2,167	250	47

Data are provisional and subject to change.

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Age Group	Cases	Hospitalized	Deaths
80+	1,441	318	93
Total	19,549	915	172

## 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)	140
B.1.351 (Beta)	16
B.1.617.2 (Delta)	690
P.1 (Gamma)	47

### Table 3. Variants of interest

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

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

County	Cases
Baker	69
Benton	351
Clackamas	1646
Clatsop	146
Columbia	144
Coos	214
Crook	114
Curry	81
Deschutes	1420
Douglas	766
Gilliam	1-9
Grant	24
Harney	23
Hood River	141
Jackson	1195
Jefferson	96
Josephine	829
Klamath	187

<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
Lake	17
Lane	2512
Lincoln	274
Linn	566
Malheur	100
Marion	2027
Morrow	72
Multnomah	2959
Polk	423
Sherman	1-9
Tillamook	185
Umatilla	455
Union	113
Wallowa	37
Wasco	183
Washington	1740
Wheeler	1-9
Yamhill	422

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