

COVID-19 Breakthrough Report

Oregon's Weekly Surveillance Summary



Breakthrough case report - September 9, 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.¹ 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.² 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 August 29-September 4, there were 13,798 cases of COVID-19. 11,141 (80.7%) were unvaccinated and 2,657 (19.3%) were vaccine breakthrough cases. The median age of breakthrough cases was 48 years. 74 (2.8%) breakthrough cases were residents of care facilities, senior living communities or other congregate living settings. 675 (25.4%) of cases were 65 or older. There were 55 (2.1%) 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.

¹ 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.

² 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	612	20.0
2021-07-31	5,658	1,113	19.7
2021-08-07	7,494	1,431	19.1
2021-08-14	13,136	2,280	17.4
2021-08-21	14,488	2,482	17.1
2021-08-28	16,219	2,817	17.4
2021-09-04	13,798	2,657	19.3

Cumulative summary

Overall, there have been 16,417 vaccine breakthrough cases identified in Oregon. The median age of breakthrough cases is 48 years (range: 12-106). 631 (3.8%) breakthrough cases were residents of care facilities, senior living communities or other congregate living settings. 4,183 (25.5%) of cases were 65 or older. There have been a total of 282 (1.7%) cases aged 12-17. Breakthrough cases have been reported in all 36 counties.

Cases of COVID-19 are much more common in unvaccinated³ 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 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.

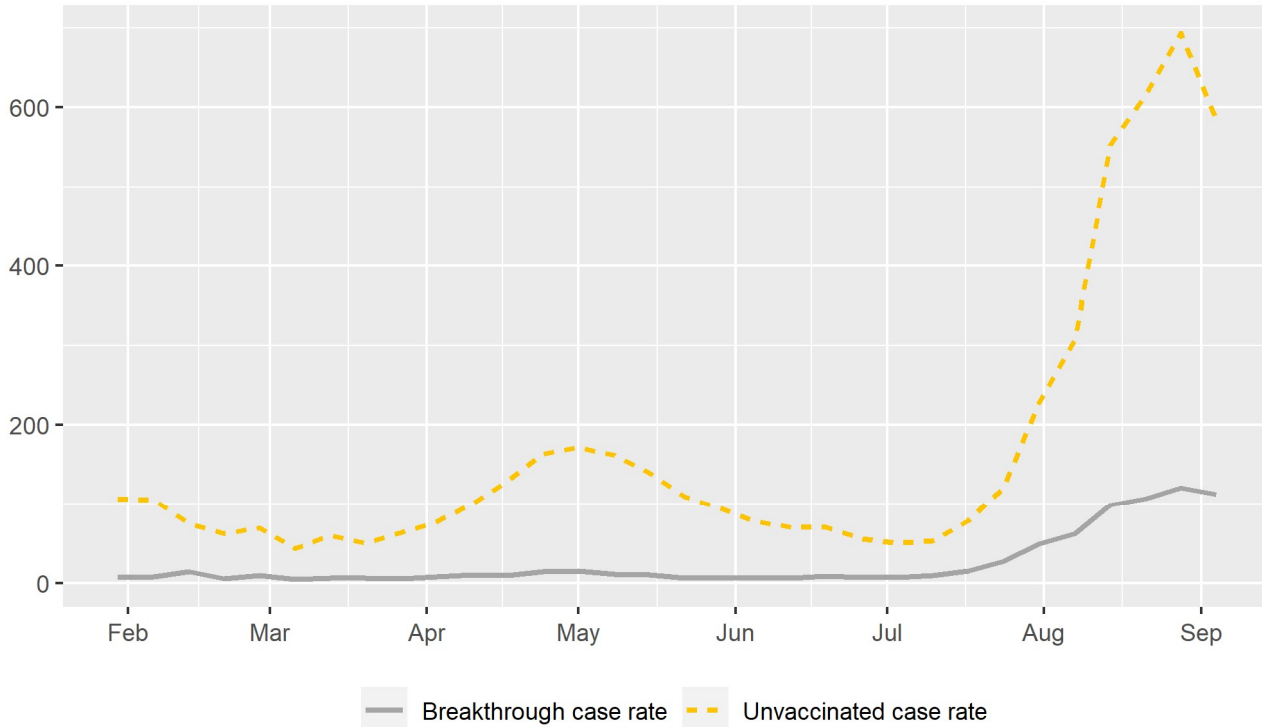
³ Unvaccinated persons are defined as people who have not received an approved COVID-19 vaccine, or who have not completed a COVID-19 vaccine series.

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Figure 1. Rates of COVID-19 cases 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, 4.9% of all known breakthrough cases have been hospitalized (n=798), and only 0.9% have died (n=145). The median age of the people who died is 80 (range: 43-101).

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

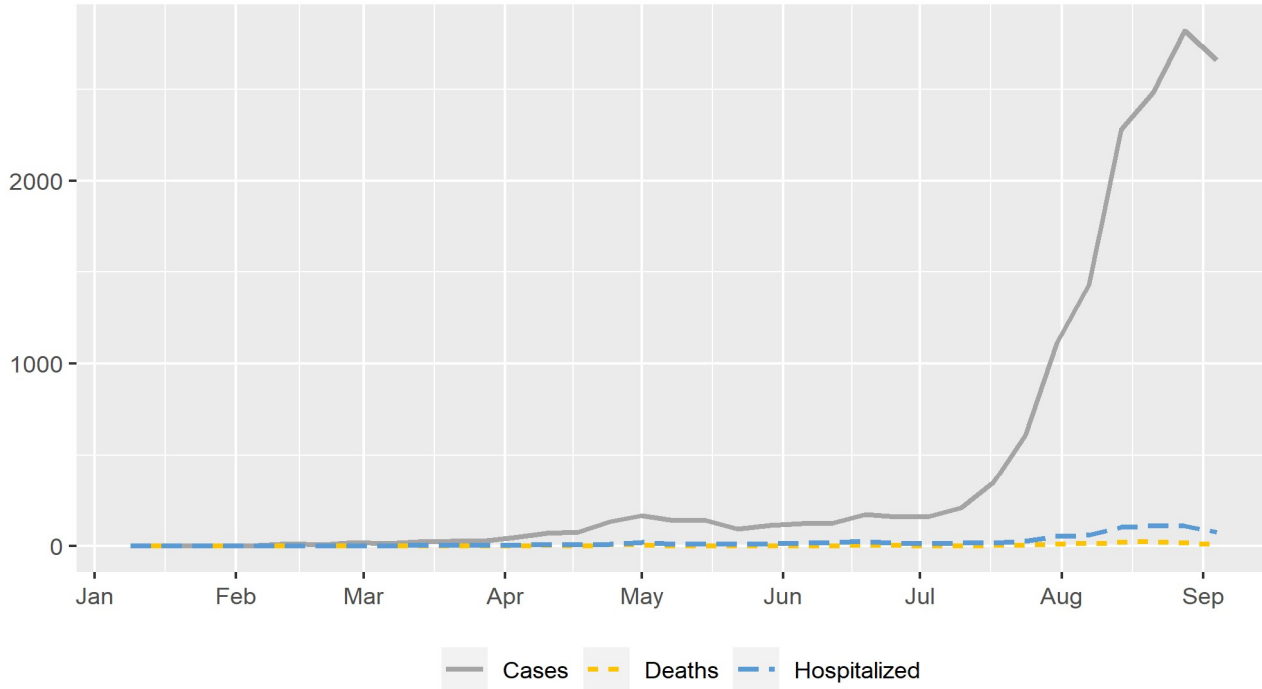


Table 1. Breakthrough cases by age group and severity

Age Group	Cases	Hospitalized	Deaths
12-19	608	3	0
20-29	2,420	14	0
30-39	2,771	25	0
40-49	2,712	31	3
50-59	2,531	79	4
60-69	2,348	154	23
70-79	1,801	223	39
80+	1,226	269	76

Data are provisional and subject to change.

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Age Group	Cases	Hospitalized	Deaths
Total	16,417	798	145

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)	579
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 residence⁴

County	Cases
Baker	55

⁴ Counties that have a total of fewer than 10 cases will be reported as 1-9 cases.

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County	Cases
Benton	309
Clackamas	1359
Clatsop	139
Columbia	124
Coos	154
Crook	91
Curry	48
Deschutes	1115
Douglas	619
Gilliam	1-9
Grant	19
Harney	15
Hood River	123
Jackson	1090
Jefferson	71
Josephine	674
Klamath	144
Lake	1-9
Lane	2161
Lincoln	250
Linn	466

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County	Cases
Malheur	65
Marion	1656
Morrow	66
Multnomah	2535
Polk	331
Sherman	1-9
Tillamook	161
Umatilla	397
Union	93
Wallowa	31
Wasco	158
Washington	1546
Wheeler	1-9
Yamhill	329