

Protective vaccination rates falling out of reach in US; exemptions hit record



Enlarge / A child getting a vaccination on February 19, 2021, in Bonn, Germany.

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For the third consecutive year, kindergartners across the US have fallen short of reaching the protective threshold of 95 percent vaccination coverage, and vaccine exemptions have reached an all-time high of 3 percent, according to a new study led by researchers at the Centers for Disease Control and Prevention.

In the 10 years prior to the COVID-19 pandemic, vaccination

coverage among US kindergartners hovered around the target of 95 percent. But amid the health crises, vaccination rates slipped to 94 percent in the 2020–2021 school year, then to 93 percent in the 2021–2022 school year. For the 2022–2023 school year, overall coverage remained around 93 percent, but exemptions rose to 3 percent, up from 2.6 percent in the previous year. The current exemption rate is the highest ever recorded for the country.

The study, published in the CDC's Morbidity and Mortality Weekly Report, included reported data from 49 states and the District of Columbia. Montana did not report vaccination data to the CDC.

Among the exemptions reported, more than 90 percent are nonmedical, meaning children were exempted from lifesaving, routine vaccinations for religious or personal reasons and not medical needs. Nonmedical exemptions accounted for roughly 100 percent of the rise in exemptions over last year.

Most troubling, perhaps, is that the rise in exemptions is occurring nationwide—40 states reported percentage-point increases in exemptions between the 2021–2022 and 2022–2023 school years. In all, 10 states now have exemption rates above 5 percent, meaning that even if they are able to vaccinate all other non-exempt kindergartners in the state, they will not be able to achieve the 95 percent threshold to protect from the spread of dangerous, vaccine-preventable infectious diseases. In the previous school year, only four states had exemption rates above 5 percent, and in the year before that, there were only two states.

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The current vaccination coverage and exemption rates mean that around 250,000 kindergartners in the US are at risk of measles and other severe infections.

States of disease

Some states saw dramatic increases in exemptions just in the previous year. Hawaii topped the list with a year-over-year increase in exemptions of 3 percentage points, bringing the number of kindergartners in the state with vaccine exemptions to 6.4 percent. Idaho came in second with a 2.3 percentage-point increase, bringing its exemption rate to a startling 12.1 percent.

Other states reporting high exemption rates include Arizona (7.4 percent), Oregon (8.2 percent), Utah (8.1 percent), and Wisconsin (7.2 percent).

For specific vaccines, coverage of two doses of MMR vaccine (measles, mumps, and rubella) across the US spanned a low of 81.3 percent in Idaho to a high of at least 98.4 in Mississippi. For Polio, vaccination coverage across the US spanned a low of 81.8 percent in Idaho to at least 98.4 percent in Mississippi. Both measles and polio have popped up in the US in recent years, threatening outbreaks in under-vaccinated communities. For both MMR and Polio coverage, 13 states reached 95 percent or higher, but 12 states and DC were below 90 percent.

Overall, Idaho had the lowest state-wide vaccination rates, hovering around 81 percent with its 12.1 percent exemption rate. Mississippi had the highest rates, with 98.4 percent or above and an exemption rate of just 0.2 percent.

The study's authors highlighted the troubling increase in exemptions nationwide but acknowledged not knowing why more parents are choosing exemptions. "It is not clear whether this reflects a true increase in opposition to vaccination, or if parents are opting for nonmedical exemptions because of barriers to vaccination or out of convenience," they wrote. But, whatever the driver, it appears the COVID-19 pandemic was a catalyst for the decline in routine childhood vaccination

rates.

While a better understanding of what's driving exemptions could help improve vaccination rates in the future, the authors point to evidence-backed strategies to use in the meantime. These include enforcement of school vaccination requirements, school-based vaccination clinics, reminder and recall systems, and follow-up with under-vaccinated students.

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