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Measles outbreaks likely as covid pandemic leaves millions of world's children unvaccinated, WHO warns

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The risk of outbreaks of measles across the world is mounting because the covid-19 pandemic caused millions of children to miss out on essential vaccinations and has severely affected disease surveillance systems, says a report from the World Health Organization and the US Centers for Disease Control and Prevention.¹

In 2020 around 22.3 million children missed their first dose of the measles vaccine, three million more than in 2019 and representing the largest increase in the number of unvaccinated children since 2000, at the height of unfounded safety concerns over the measles, mumps, and rubella vaccine, says the report.

At the same time measles surveillance has deteriorated, with 2020 seeing the lowest number of specimens sent for laboratory testing in more than a decade.¹

Children in low and middle income countries are more likely to have missed out on measles vaccination, and 59% of those that did in 2020 were from just 10 countries: Nigeria, India, Democratic Republic of the Congo, Ethiopia, Indonesia, Pakistan, Angola, Philippines, Brazil, and Afghanistan. As a consequence, between 2019 and 2020 coverage of the first dose of the vaccine fell in India, for example, from 95.25% to 88.57%.²

In contrast, coverage of the first dose in high income countries has remained relatively stable, even rising slightly. For example, in the UK and the US first dose coverage rose between 2019 and 2020 from 91% to 91.08% and from 90.4% to 90.7%, respectively.²

The effect of lower vaccine coverage has not yet translated to rising case numbers because measures used to mitigate covid-19, such as masks, handwashing, travel restrictions, and social distancing, have also reduced the spread of the measles virus.

Between 2019 and 2020 the global incidence of measles fell by 82%, from 120 new cases per million population to 22 per million. The number of reported cases in the world fell from 873 022 to 149 796 worldwide, from 106 130 to 10 772 in the WHO European region, and from 1092 to 95 in the UK.

Just 26 major measles outbreaks accounted for 84% of all reported cases in 2020, and 17 of these occurred in countries in WHO's African region.

"Evidence suggests we are likely seeing the calm before the storm as the risk of outbreaks continues to grow around the world," said Kate O'Brien, director of WHO's department of immunisation, vaccines, and biologicals. "It's critical that countries vaccinate as quickly as possible against covid-19, but this requires new resources so that it does not come at the cost of essential immunisation programmes. Routine immunisation must be protected and strengthened; otherwise, we risk trading one deadly disease for another."

Ephrem Tekle Lemango, associate director for immunisation at Unicef, said, "Even before the pandemic, we were seeing how even small pockets of low measles immunisation coverage could fuel unprecedented outbreaks, including in countries where the disease had been considered eradicated. And now covid-19 is creating widening gaps in coverage at a pace we haven't seen in decades."

"If we do not act, gaps will become outbreaks, and many children will be exposed to a preventable but potentially deadly disease."

1 Dixon MG, Ferrari M, Antoni S, et al. Progress toward regional measles elimination—worldwide, 2000–2020. *MMWR Morb Mortal Wkly Rep* 2021;70:1563–9. doi: 10.15585/mmwr.mm7045a1 pmid: 34758014

2 World Health Organization. Immunization dashboard. <https://immunizationdata.who.int>.