

PCV vaccines indicator

Service delivery (feasibility)

Number of doses and timing of administrations

The available evidence does not indicate a clear superiority of either 3-dose schedule (i.e., the 2p+1 or 3p+0) over the other for protection from pneumococcal disease or carriage.

WHO recommends the use of either schedule, depending on the local context.

The choice of schedule may be influenced by other programmatic factors relevant at the country level and epidemiological factors that would make one schedule optimal.

- For either schedule, the first dose may be administered at ≥ 6 weeks of age.
- If the 2p+1 schedule is selected, an interval of ≥ 8 weeks is recommended between the 2 primary doses; the interval may be shortened if there is a compelling reason to do so, such as improving timeliness of the second dose and/or achieving higher coverage with a 4-week interval.
- For the 2p+1 schedule, the booster dose should be given at 9–18 months of age, according to programmatic considerations; there is no defined minimum or maximum interval between the primary series and the booster dose.
- If the 3p+0 schedule is used, a minimum interval of 4 weeks should be maintained between doses.
- For unvaccinated children aged 1 to 5 years, catch-up vaccination is recommended. Catch-up vaccination can be done with a single dose of PCV for children ≥ 24 months. Current data are

insufficient for a firm recommendation on the optimal number of doses (1 or 2) required in 12–23-month-olds as part of catch-up vaccination, so countries choosing to use 1 dose should monitor for impact and vaccine failures.

Countries can reduce vaccine costs by using less expensive PCVs in a 3-dose schedule. As another way to reduce costs and possibly reduce programmatic complexity, WHO recommends that alternative PCV strategies could be implemented (1p+1, fractional dose). However, these strategies should only be considered in settings with mature 3-dose PCV programmes and/or well-established population immunity, as described below.

Currently, there is limited real-world evidence for the use of alternative strategies, including in certain high-risk populations (e.g., immunocompromised and malnourished children). The quantity and quality of evidence will improve if these strategies are implemented and evaluated in real-world settings.

WHO recommends that alternate vaccination schedules (2-dose schedules or fractional doses) can be used if certain conditions are met and with a careful consideration of the trade-offs. [1](#)

Sources

1.

World Health Organization (2025). Pneumococcal conjugate vaccines in infants and children under 5 years of age: WHO position paper – September 2025.