COMPREHENSIVE IMMUNIZATION (CIM)

Recommendations for pneumococcus

Pan American Health Organization 2026

PAHO
Pan American Health Organization
World Health Organization
Americas Region

Recommendations for pneumococcus 2026

The Pan American Health Organization, with the support of its Strategic Advisory Group on Vaccine-Preventable Diseases, recommends the following on the use of pneumococcal vaccine in the region of the Americas:

1. PAHO urges countries that have not yet introduced universal vaccination with pneumococcal conjugate vaccine (PCV) in infants, children, and immunocompromised individuals to do so now and encourages the introduction of universal pneumococcal vaccination in people 65 years old or older.
2. PAHO recommends the use of two doses for the priming schedule and a booster during the second year of life (2p+1). In countries that are unable to achieve high coverage in the second year of life, it is better to use three doses in the first year (3p+0) and to increase the interval between the doses, particularly between the 2nd and the 3rd doses. The booster dose during the second year of life plays a key role in sustaining the reduction of carriage and transmission (indicator of indirect effect of pneumococcal vaccination).
3. Only mature programs with at least 80% coverage during the preceding five years, wishing to reduce the cost of their PCV programme or reduce the number of injections in the infant immunization schedule may consider one primary dose and one booster (1p+1) schedule as an alternative to a 3-dose schedule[1]. The first dose of the 1p+1 schedule can be given at 6 weeks of age, and the booster dose can be given at 9 months of age, at time points in the current immunization schedule. Nevertheless, we encourage countries to achieve a PCV coverage of at least 90%.
4. The single most effective approach for preventing pneumococcal disease is to ensure high vaccination coverage with PCV, including final dose of at least 90%, ensuring sub-national vaccination homogeneity: 80% or more municipalities above the cutting point.
5. Countries with low vaccination coverage or that have interrupted the PCV program should reintroduce PCV using a 2p+1 schedule unless they are unable to achieve high coverage in the second year of life, in which case a 3p+0 schedule would be preferred.
6. An evaluation of the risks and benefits, vaccination coverage homogeneity among municipalities, and other parameters, should be analyzed to consider alternative immunization strategies such as 1p+1, as well as follow-up through serotype-specific surveillance of pneumococcal disease or nasopharyngeal carriage should be implemented to monitor the impact.
7. Regarding the specific valency of the PCV to be given, the local epidemiology, the main serotypes causing invasive pneumococcal disease and serotype replacement need to be taken into consideration, as well as the cost to ensure the sustainability of the program.

[1] Evidence supporting the 1p+1 schedule is derived from studies using PCV10-GSK or PCV13-PFZ. Given that immunogenicity data indicate non-inferiority for PCV10-SII, it is reasonable to expect that the 1p+1 schedule would also be effective. However, the use of extended-valency PCVs requires further evaluation before recommending the 1p+1 schedule, due to considerations related to the “immunogenicity creep” phenomenon.

8. For countries considering PCV vaccines with more serotypes than PCV13, it is important to note that fractional dosing is not recommended, partly because the immunogenicity of the multiple valency vaccines is reduced due to immunogenicity creep. The clinical significance of this reduction is not entirely clear.
9. Adults 65 years old or older and high-risk groups such as immunocompromised individuals may benefit from one dose of PCV20 which will simplify the vaccination schedule and improve compliance compared to using PCV13 and 23-valent pneumococcal polysaccharide vaccine (PPSV23).

Additional considerations

- It is essential for countries to invest in research, surveillance, and improved laboratory capacity to better understand serotype circulation in their country, including serotype replacement following vaccination. Investment in epidemiologic and laboratory surveillance is crucial because this information will determine whether to continue with the current vaccine or introduce an alternate product that targets circulating serotypes.
- With regard to the financing needed to sustain the PCV program:
  - Countries must conduct an assessment of the financing needed to sustain all aspects of the PCV program including vaccination, logistics, staffing, as well as the required epidemiological and laboratory surveillance to better support decision-making.
  - Countries should include the technological aspects necessary for adequate surveillance in their budgets, and these budgets should be on-going, not exceptional.
  - Countries should conduct economic evaluations tailored to the policy question to be addressed, including cost-effectiveness studies, budget impact studies, return on investment, cost analyses, and implementation/sustainability cost projections with support from health economics specialists whenever possible. To note, cost-effectiveness analysis should be considered; however, the threshold used to determine if the intervention is good value-for-money may not necessarily be affordable.
- For countries to consider in their immunization research agenda, areas that need further investigation in order of priority are as follows:
  i. Measurement of the impact of PCV on invasive pneumococcal disease, nasopharyngeal carriage, and antimicrobial resistance.
  ii. Assessment of vaccination coverage in high-risk groups and senior citizens including the duration of protection.
  iii. Potential impact on pandemic preparedness.