

# TAG RECOMMENDATIONS FOR PERTUSSIS (WHOOPIING COUGH)

Pan-American Health Organization (PAHO), 2024

**PAHO**



Pan American  
Health  
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World Health  
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Americas Region

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## 2004 Recommendations

- To prevent pertussis outbreaks, high vaccination coverage must be achieved and maintained at the district level. Countries are encouraged to strengthen surveillance and laboratory capacity to confirm diagnosis through culture of *B. pertussis*, thereby contributing to stronger surveillance.
- PAHO should encourage the use of World Health Organization (WHO) standardized case definitions and surveillance and laboratory guidelines.

## 2009 Recommendations

- Countries must consider pertussis control as a priority and strengthen their surveillance system and control measures.
- Changes in immunization policies and control measures should only be justified with adequate documentation and analysis of the basic causes of outbreaks.
- Before shifting from the whole-cell vaccine (wP) to the acellular vaccine (aP), countries should take into consideration the impact of the change on the immunization schedule, delivery issues, and affordability.
- Since adding boosters to the primary three-dose schedule will extend the duration of the immunity, countries should apply a 4th DTP dose as part of the regular vaccination schedule. The coverage of the 4th DTP dose must be monitored and must become part of the reporting system.
- During outbreaks, immunization of newborns can begin at 6 weeks of age, especially if that age group is being affected. Death prevention in neonates will rest in community awareness and medical protocols. The importance of obtaining specimens for culture, especially in neonates, should be underscored.
- The current emphasis on PCR for pertussis diagnostics in the field makes obtaining a culture appear to be less important. However, since PCR can result in false positives, it should be stressed that obtaining specimens for culture is still essential for confirming the diagnosis, especially in neonates.

## 2011 Recommendations

- TAG commends the efforts that countries are undertaking to improve pertussis surveillance and reiterates all previous recommendations on case definitions, quality of surveillance, and vaccination coverage.
- TAG urges countries to undertake initiatives to improve pertussis surveillance.
- For the optimal protection of new born children, TAG recommends immunizing pregnant women in outbreak situations.

## 2012 Recommendations

- Countries should ensure vaccination coverage  $\geq 95\%$  with 3 doses of pertussis-containing vaccines in children aged  $<1$  year; and encourage timely vaccination and completion of the schedule. The 4th dose of the DPT vaccine should be incorporated into the regular vaccination program in every country, and the coverage attained with this dose (as with all vaccine doses) should be the object of careful recording, monitoring, reporting and evaluation.
- Every pertussis outbreak should be thoroughly investigated to improve the understanding of the current epidemiology of the disease in the Region of the Americas. PAHO should provide countries with specific guidance for outbreak investigation.
- Countries should improve surveillance and the use of adequate diagnostic tools. The present surveillance pilot project being implemented in Argentina, Mexico and Panama by the Sabin Vaccine Institute, CDC and PAHO should be expanded to other countries of the Region.
- Considering new evidence suggesting that the immunity conferred by the acellular vaccine may be shorter-lived than the immunity conferred by wP vaccines, countries that are using whole-cell vaccine (wP) should not switch to an acellular vaccine (aP). Similarly, countries currently using aP should not switch back to the use of wP until more evidence is available to support changes in vaccination strategies for pertussis.

## 2013 Recommendations

- Countries using current vaccination schedules with whole-cell pertussis vaccines should continue to do so. There is marginal and insufficient benefit to consider changing from whole-cell pertussis-containing vaccines to acellular pertussis-containing vaccines.
- Countries should continue striving to provide timely vaccination and achieve coverage levels >95% with pertussis-containing vaccines in all municipalities.
- All countries should strengthen pertussis surveillance to better monitor the epidemiology of the disease. Countries should continue assessing the quality of their surveillance systems in order to evaluate the reliability of their data on incidence, case-fatality, age distribution, proportion of cases confirmed by different methods, and vaccine effectiveness.
- Countries should use the guidelines proposed for investigating all outbreaks, to allow national programs and TAG to continue evaluating the epidemiology of pertussis on an ongoing basis.
- TAG reiterates its previous recommendations related to outbreaks. These recommendations include lowering the age for initiating vaccination to 6 weeks and vaccinating pregnant women only in areas affected by the outbreak. Currently, there is no evidence for TAG to recommend routine vaccination of pregnant women.

## 2014 Recommendations

- Although both available pertussis vaccines (aP and wP) elicit a good immune response, evidence suggests aP has a short-lived duration of protection. As such, countries should give preference to the use of wP containing vaccines. Countries using current vaccination schedules with whole-cell pertussis vaccines should continue to do so and countries using aP should actively monitor the risk that waning immunity poses to the population.
- PAHO should engage with partners, including WHO, in discussions with industry to advocate for the research and development of improved pertussis containing vaccines.
- Countries should ensure homogenous vaccination coverage  $\geq 95\%$  with 3 doses of pertussis-containing vaccines in children aged  $<1$  year; and encourage timely initiation and completion of the schedule. Coverage attained with the 4th dose of the DPT vaccine should be the object of careful recording, monitoring, reporting and evaluation.
- All countries should continue strengthening pertussis surveillance to better monitor the epidemiology of the disease. Also, countries should continue assessing the quality of their laboratory diagnostics and surveillance systems in order to evaluate the reliability of their data on incidence, case-fatality, age distribution, proportion of cases confirmed by different methods, and vaccine effectiveness.
- Every pertussis outbreak should be thoroughly investigated to improve the understanding of the current epidemiology of the disease in the Region of the Americas.
- The response to outbreaks of whooping cough should include lowering the age for initiating vaccination to 6 weeks and vaccinating pregnant women only in areas affected by the outbreaks. Currently, there is no evidence for TAG to recommend routine vaccination of pregnant women.



## 2017 Recommendations

- TAG urges Member States to achieve pertussis vaccination coverage levels  $\geq 95\%$  in all children <1 year. Coverage with the DPT4 vaccine should be monitored.
- TAG reiterates its previous recommendation on using whole cell pertussis vaccines for the primary infant vaccination series and on initiating vaccination schedules at 6 weeks of age in outbreak situations.
- TAG endorses PAHO's revised guidelines for pertussis surveillance and urges countries to implement surveillance and improve the diagnostic capacity of the laboratory. This will strengthen the reporting and characterization of pertussis outbreaks in the Region. TAG urges countries to implement special surveillance among hospitalized children under one year of age.
- Maternal Pertussis Immunization
  - TAG recognizes the Region's progress in maternal immunization, including pertussis and seasonal influenza vaccination. Countries must continue to monitor vaccine safety among pregnant women.
  - TAG recognizes the value of vaccinating pregnant women with Tdap to protect the neonate as an effective complementary strategy to routine primary infant pertussis vaccination, particularly in countries or settings with high infant mortality from pertussis. Thus, TAG endorses the SAGE recommendation for Tdap vaccination in pregnancy, during the second or third trimesters, and at least 15 days prior to delivery. TAG also reinforces the need to sustain high vaccination coverage for DTP3 among infants and DTP4 in the second year of life.
  - TAG encourages countries to monitor and report Tdap vaccine coverage among pregnant women as it is important to reach and sustain coverage of more than 50% to ensure effectiveness for this vaccination strategy.
  - TAG encourages that countries whom have introduced maternal Tdap vaccination evaluate impact of the vaccine on the long-term protection of children against pertussis, particularly in countries using infant whole cell pertussis-containing vaccines.
  - TAG recommends considering the vaccination of health care facility personnel with the Tdap vaccine, prioritizing maternity ward personnel and caregivers for newborns and children under 1 year of age.
  - TAG encourages countries to continue documenting maternal immunization practices, associated challenges and best practices to achieve high coverage and the local impact of the strategy.

## 2023 Recommendations

- Member States are encouraged to consider the introduction of the whole-cell pertussis (wP) hexavalent vaccine in the national immunization programs of the Americas. Combined vaccines such as the hexavalent are a key tool to bolster regional vaccination coverage rates, improve the logistics of vaccine transportation, storage, and administration, and reduce medical waste. Furthermore, multiple studies support its non-inferiority status to acellular pertussis (aP) hexavalent vaccine, and the reactogenicity profiles of the two vaccines are similar. Finally, the wP hexavalent vaccine provides longer duration of immunity than the aP hexavalent vaccine. Countries that already use the aP hexavalent vaccine should continue to do so.
- The Revolving Fund should continue its proactive negotiations to ensure enough vaccine doses at competitive prices for Member States, especially considering the expected limited global supply of wP hexavalent vaccine doses worldwide until at least 2027. Countries and the lowest vaccination coverage rates should be prioritized in case of limited vaccine supply.
- The PAHO Comprehensive Immunization Program should work closely with Member States on the introduction of any WHO-prequalified wP hexavalent vaccine as soon as it becomes available and consider how the addition of this vaccine to the national immunization program may affect routine vaccination services as well as the introduction of other new vaccines (e.g., RSV, dengue). Also, PAHO should support countries in the integration of the wP hexavalent vaccine into the national surveillance systems for Events Supposedly Attributed to Vaccination or Immunization (ESAVI).