

QUICK FACTS ON PNEUMOCOCCAL DISEASE AND PREVENTION BY VACCINATION

- According to the World Health Organization (WHO), pneumococcal pneumonia and meningitis are responsible for 800,000 to one million child deaths each year.^{1,2}
- More than 90% of pneumococcal pneumonia deaths in children occur in developing countries.³
- In developing countries, pneumococcal meningitis kills or disables 40–75% of the children who get the disease.^{4,5}
- Children with HIV/AIDS are up to 40 times more likely to get pneumococcal disease than children without HIV/AIDS.^{6,7}
- Increasing rates of drug-resistant pneumococcal infections threaten the effectiveness of antibiotic treatment.^{8–10}
- Conjugate pneumococcal vaccination is safe and effective for preventing severe childhood pneumococcal disease caused by serotypes included in the vaccine.¹
- Conjugate vaccines containing 7 to 13 pneumococcal serotypes are expected to prevent 50–80% of all serious childhood pneumococcal disease worldwide.¹¹
- High-risk infants and children, including those with HIV infection, can be safely and effectively vaccinated with pneumococcal conjugate vaccines.¹²
- Conjugate pneumococcal vaccines represent an effective tool for preventing antibiotic-resistant infections.^{1,13,14}
- Routine pneumococcal conjugate vaccination in developing countries could contribute to achieving the United Nations' Millennium Development Goal to decrease childhood deaths by two-thirds by 2015.

References:

1. World Health Organization. Pneumococcal vaccines. *The Weekly Epidemiol Record* 2003;14:110-9.
2. Goba Alliance for Vaccines and Immunization. Annual deaths in 2001 from diseases for which vaccines will be available soon WHO estimates (June 2003). [Online]. Available: http://www.vaccinealliance.org/home/General_Information/Immunization_informa/Diseases_Vaccines/vaccine_preventable_deaths.php

3. Williams BG, Gouws E, Boschi-Pinto C, Bryce J, Dye C. Estimates of world-wide distribution of child deaths from acute respiratory infections. *The Lancet Infectious Diseases* 2002;2(1): 25-32.
4. Goetghebuer T, West TE, Wermenbol V, et al. Outcome of meningitis caused by *Streptococcus pneumoniae* and *Haemophilus influenzae* type b in children in The Gambia. *Tropical Medicine and International Health* 2000;5(3): 207-13.
5. Madhi SA, Petersen K, Madhi A, Wasas A, Klugman KP. Impact of human immunodeficiency virus type 1 on the disease spectrum of *Streptococcus pneumoniae* in South African children. *Pediatric Infectious Diseases Journal* 2000;19:1141-7.
6. Mao C, Harper M, McIntosh K, et al. Invasive pneumococcal infections in human immunodeficiency virus-infected children. *Journal of Infectious Diseases* 1996;173:870-6.
7. Klugman KP, Madhi SA, Huebner RE, Kohberger R, Mbelle N, Pierce N, Vaccine Trialist Group. A trial of 9-valent pneumococcal conjugate vaccine in children with and those without HIV infection. *New England Journal of Medicine* 2003;349:1341-8.
8. Baraff LJ, Lee SI, Schriger DL. Outcomes of bacterial meningitis in children: a metaanalysis. *Pediatric Infectious Diseases Journal* 1993;12:389-94.
9. Klugman KP. Bacteriological evidence of antibiotic failure in pneumococcal lower respiratory infections. *European Respiratory Journal Supplement* 2002;36:3s-8s.
10. Dagan R. Clinical significance of resistant organisms in otitis media. *Pediatric Infectious Diseases Journal* 2000;19(4):378-82.
11. American Academy of Pediatrics. Therapy for children with invasive pneumococcal infections. *Pediatrics* 1997;99(2):289-99.
12. Whitney CG, Farley MM, Hadler J, et al. Decline in invasive pneumococcal disease after the introduction of protein-polysaccharide conjugate vaccine. *New England Journal of Medicine* 2003;348(18):1737-46.
13. Hausdorff WP, Which pneumococcal serogroups cause the most invasive disease: Implications for conjugate vaccine formulation and use, Part I. *Clinical Infectious Diseases* 2000;30:100-21.
14. Klugman KP. Efficacy of pneumococcal conjugate vaccines and their effect on carriage and antimicrobial resistance. *The Lancet Infectious Diseases* 2001:85-91.

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