



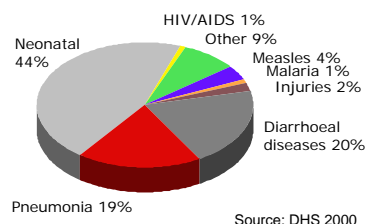
Hib in India

Haemophilus influenzae type B (Hib) is a bacterium which causes severe pneumonia, meningitis and other life-threatening conditions in children under five years of age. Although safe and effective Hib vaccines exist, they are under-utilized in developing countries, especially in India.

Hib pneumonia and meningitis is a threat for children in India

- Hib is a leading cause of bacterial childhood meningitis and important cause of severe pneumonia in India
- Approximately 19% (410,000) of under 5 deaths in India are due to pneumonia¹
- India accounts for almost 40% of worldwide childhood pneumonia cases¹
- In most studies, Hib is estimated to cause over 20% of life-threatening childhood pneumonia (Bangladesh², Chile³, The Gambia⁴)
- The case-fatality rate for Hib meningitis was 11% overall in a study conducted in India⁵
- A study shows that for Indian children that survive Hib meningitis, about 30% suffer from major disabilities⁶

Distribution of cause-specific mortality among Indian children under five

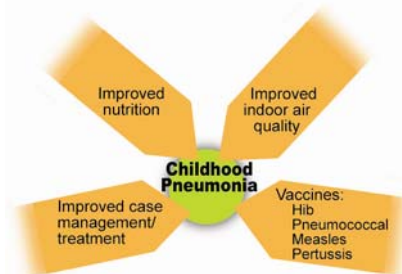


Hib pneumonia and meningitis in India may be more prevalent than previously thought

- There is an increasing consensus among experts that the estimates of Hib pneumonia rates in India are underestimated
- A large percent of Indian children are thought to be at a high risk due to increasing resistance to antibiotics as well as to limited access to health care facilities
- Data in India have been variable, generally showing a moderate amount of Hib disease⁷
- Neighboring countries show even higher rates of Hib disease burden (Bangladesh², Sri Lanka⁸ and Pakistan⁹)
- Vaccine efficacy studies demonstrate that disease is routinely underestimated through surveillance
 - Hib vaccine prevented almost 1/3 of hospitalized child pneumonias in a study conducted in Bangladesh²
 - Hib vaccine was shown to prevent a significantly higher rate of Hib pneumonia and meningitis than previously measured through routine surveillance in a Hib vaccine probe study in Indonesia¹⁰
- World Health Organization (WHO) will soon be releasing updated country level disease burden estimates

Hib pneumonia and meningitis can be prevented

- Key prevention measures include adequate nutrition, reducing indoor air pollution and raising immunization rates
- In developing countries that introduced Hib vaccine into routine immunization programs, incidence of Hib pneumonia and meningitis was drastically reduced (Kenya¹¹, Malawi¹² and The Gambia¹³)
- A large percent of Indian children are at a higher risk due to increasing resistance to antibiotics as well as to limited access to health care facilities



Hib vaccine is safe, effective, cost-effective and readily available

- Hib vaccine is used by over 120 countries worldwide and has been proven to be safe and effective
- It can be given in combination with DTP and Hepatitis B therefore not requiring a separate injection
- It is compatible with the routine immunization schedule (it can be given at 6, 10, and 14 weeks)
- Studies show that Hib vaccine is highly cost effective (Kenya¹⁴, Indonesia¹⁵)
- Currently 5 Indian suppliers have licensed Hib vaccines of which 3 have licensed pentavalent (DTP-HepB/Hib) vaccines

Recommendation of the Indian Academy of Pediatrics (IAP)

- IAP recommends that "HepB, Hib and MMR vaccines should be included in the national immunization program with immediate effect."¹⁶

Recommendation of WHO, Weekly Epidemiology Record, Geneva

- WHO recommends Hib vaccine for all children and that the lack of local surveillance data should not be a reason for delay of introduction. "In view of their demonstrated safety and efficacy, conjugate Hib vaccines should be included in all routine infant immunization programmes"¹⁷

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For more information visit the Hib Initiative at www.HibAction.org
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