theHib initiative
TAKING ACTION TO PREVENT CHILDHOOD PNEUMONIA & MENINGITIS

# FACT SHEET

## *Haemophilus influenzae* type b (Hib) in Central Asia

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

### Hib disease: A threat for children in Central Asia and around the world

- Hib is a leading cause of bacterial childhood meningitis and important cause of severe pneumonia.
- Increasing multi-drug resistance poses an even greater threat.
- Globally, over 1000 children < 5 years old die daily from Hib disease.

### Hib pneumonia and meningitis are difficult to detect and burden is often significantly underestimated

- In Ulaanbaatar, Mongolia, Hib was shown to be the leading cause of childhood bacterial meningitis, and the incidence (>35/100,000) was higher than reported from other countries prior to vaccination.
- A Lombok, Indonesia Hib vaccine trial reported incidence rates of Hib meningitis greater than 60/100,000 children under 5 years of age. Previous routine surveillance was not able to detect the full extent of disease, reporting much lower rates, less than 10/100,000.[1]
- A Bangladesh case-control study showed that Hib vaccine prevented over 1/3 of hospitalized pneumonias and over 80% of probable bacterial meningitis cases.[2]

### Hib vaccine helps prevent pneumonia, the leading cause of infectious death in children <5 years old

- A Bangladesh vaccine effectiveness study, a study in the Gambia[3], Chile[4], Brazil[5] and Colombia[6] suggest that Hib causes 20% of severe, x-ray confirmed pneumonias.

### The World Health Organization recommends Hib vaccine for all children–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." [7]
- Surveillance often captures only a very small portion of the true burden of disease:
  - Hib is a fastidious organism making it difficult to detect; lab infrastructure is not always sufficient; prior use of antibiotics may mask the existence of the bacteria; lumbar punctures (for meningitis) are not always done; or children with Hib never reach a healthcare facility.

### Hib vaccine is safe, effective and shown to be a highly cost-effective intervention

- Hib vaccine has been available for over 17 years.
- Studies in The Gambia[8], Chile[9], Brazil[10], Colombia[11] and Bangladesh showed that Hib vaccine prevented a significant portion of x-ray confirmed pneumonia.
- Kenya[12], Malawi[13] and The Gambia[14] surveillance studies all showed Hib vaccine drastically reduced Hib disease following routine use.
- A study in Lombok, Indonesia showed that Hib vaccine prevented a statistically significant portion of clinical pneumonia.[15]
- A recent impact study of Hib vaccine effectiveness against Hib meningitis in Uganda showed a drop in Hib meningitis by 85% within 4 years of vaccine introduction and fell to zero in the fifth year. Inclusion of Hib vaccine in the Ugandan immunization programme annually prevents almost 30,000 cases of severe Hib disease and 5,000 deaths in children under 5 years of age.[16]

### There is a sustainable, affordable supply of Hib vaccine for resource-constrained countries

- Funding from the GAVI Alliance enables eligible countries to purchase vaccine at a subsidized price through 2015.
  - Countries in central Asia eligible for GAVI support could receive Hib containing vaccines for a co-payment of 30 cents per dose.

- Currently, 2 pentavalent (DTP-Hep B-Hib) combinations are available; additional pentavalent formulations are expected in coming years.

## The Hib Initiative

- The Hib Initiative aims to guide countries in making informed decisions regarding introduction or continuation of Hib vaccine programs in the context of other health problems and offers technical assistance and support in the following areas:
  - Research and surveillance, planning coordination in decision making and implementation, and advocacy and communication support for GAVI-eligible countries
- The Hib Initiative unites experts from Johns Hopkins Bloomberg School of Public Health, the London School of Hygiene and Tropical Medicine, the World Health Organization, and the Centers for Disease Control and Prevention (CDC)
- The Hib Initiative is supported by a 4-year grant from the GAVI Alliance (www.gavialliance.org)

***Help reduce child meningitis and pneumonia today!***

**Visit the Hib Initiative at www.HibAction.org or contact your local or regional WHO immunizations representative for more information**

## References


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