Hib vaccine can reduce the incidence and mortality of Hib-related disease.

- A Cochrane Review determined the effect, duration of protection, and age-specific effects of polysaccharide serogroup A vaccine (SgAV) to prevent meningococcal meningitis in children. The vaccine had a 95% protective effect during the first year in children older than 5 years old, but its efficacy after the first year could not be determined. Children 1 to 5 years old in low-income countries were also protected, but the exact efficacy could not be determined (Patel and Lee, 2005).

- A systematic review assessed the impact of the 7-valent pneumococcal vaccination on morbidity and mortality from invasive pneumococcal diseases. The six studies from North America consistently reported a decline in invasive pneumococcal disease mortality after the introduction of the pneumococcal vaccine, with reductions ranging from 57% to 62% among children and 37% to 76% among all age groups (Myint, Madhava, Balmer, et al, 2013).

- Comparing invasive pneumococcal disease (IPD) in children from the pre-PCV 13 (2007–2009) to the post-PCV 13 (2010–2012) eras, Iroh Tam, Madoff, Coombes, and colleagues (2014) found a significant decline in incidence rates among the two groups (46/100,000 pre-PCV 13 and 23/100,000 post-PCV 13, $p < 0.00001$) but no difference in mortality (3.6% pre-PCV13 and 3.5% post-PCV 13).

- Using laboratory based and population based data, IPD was compared to actual incidence versus expected incidence if PCV 13 had not replaced PCV 7. Moore, Link-Gelles, Schaffner, and colleagues (2015) estimated that 10,000 IPD cases and 90 deaths among children were prevented in the first 3 years after the introduction of PCV 13.

Apply the Evidence: Nursing Implications

The evidence strongly suggests that all children should be immunized against the most common organisms responsible for