Current State Of Pneumonia Prevention Through Vaccination

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The Pneumonia Etiology Pie

How Good Are The Conjugate Vaccines?

<table>
<thead>
<tr>
<th>Endpoints</th>
<th>PCV Efficacy</th>
<th>Hib Efficacy</th>
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<tbody>
<tr>
<td>Bacteremia</td>
<td>80%</td>
<td>86%</td>
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<tr>
<td>CXR-confirmed pneumonia</td>
<td>27%</td>
<td>20%</td>
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<tr>
<td>Clinical pneumonia</td>
<td>6%</td>
<td>4%</td>
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<tr>
<td>Mortality</td>
<td>16% (Gambia)</td>
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Lucero, Cochrane Database of Systematic Reviews, 2009.
How Is The Rollout Of PCV And Hib Vaccine Going?
GAVI Countries Introduction Status of Hib Vaccine

Already Introduced (Universal)
68 Countries

Already Introduced (Regional)
2 Countries

GAVI Approved/Approved with Clarification

Countries Eligible for GAVI Support*

Source: IVAC, Johns Hopkins Bloomberg School of Public Health. Vaccine Information Management System (VIMS) [www.jhsphs.edu/ivac/vims.html](http://www.jhsphs.edu/ivac/vims.html), March, 2013
GAVI Countries Introduction Status of PCV

Important Issues Remain!
Figure 3: Ten countries with the greatest number of pneumococcal deaths in children aged 1-59 months*
Dosing Schedule And Catch-up

• Are 3 doses better than 2 doses?
• Is a booster dose necessary?
• Is a catch-up campaign necessary?
Measuring Impact

- New vaccines
- New regions with different epidemiology
- Mortality impact hard to measure
Non-vaccine Pneumonia Prevention

- Household air pollution
  - Relative risk 1.8 (95% CI 1.5-2.2), Dherani 2008.
- Exclusive Breastfeeding
- Prevention of malnutrition
- Handwashing
- Cotrimoxazole prophylaxis in HIV infection