JOHANNESBURG – The 4th Regional Pneumococcal Symposium was held in Johannesburg, South Africa on 2-3 March 2009. Over 180 people from 38 countries, including 23 African countries, attended the two-day meeting in South Africa. During the symposium, participants heard presentations and discussed topics ranging from pneumococcal epidemiology to country perspectives on vaccine introduction and disease surveillance. The meeting was organized by the Sabin Vaccine Institute and PneumoADIP in partnership with the World Health Organization, the South African Paediatric Association, the US Centers for Disease Control and Prevention, the Kenya Paediatric Association, and the University of Witwatersrand.

The South African Deputy Minister of Health, Dr. Molefi Sefularo helped start a very successful meeting by discussing the importance of pneumococcal disease in South Africa and spoke about the country’s recent introduction of the 7-valent pneumococcal conjugate vaccine (PCV7). While the meeting carried several key messages throughout the two days, there was a particular focus on the burden of pneumococcal disease and shifting the perception of health from being expenditure to investment.

Throughout the meeting there was a sense that introducing pneumococcal conjugate vaccines could contribute to countries’ efforts to reach Millennium Development Goal 4 to reduce child mortality. “By increasing the priority to prevent pneumonia, meningitis and pneumococcal disease, African countries can make substantial progress towards reaching the Millennium Development Goals for improved child survival and health,” said Orin Levine, executive director of PneumoADIP.

Many of the 28 presentations at the symposium offered new and emerging data on pneumococcal disease, highlighting the urgency of action in Africa which, along with Asia, carries the largest burden of pneumococcal disease in the world. The consensus among researchers and other participants was that

“As from April 2009, South Africa will introduce the PCV into the national immunization schedule.”

- Dr. Molefi Sefularo, South Africa Deputy Minister of Health
“In light of the risks and devastating consequences of pneumococcal disease, particularly in Africa, protecting African children from this disease is an urgent priority.”
- Dr. Ciro de Quadros, Executive Vice-President, Sabin Vaccine Institute and co-chair of the symposium

African countries would greatly benefit from introducing a vaccine against pneumococcal disease.

Among the presentations with new data were two studies conducted by the Sabin Vaccine Institute, the Pneumococcal Awareness Council of Experts (PACE) and PneumoADIP, with results indicating a high burden of pneumococcal meningitis neurological sequelae and an increased risk of invasive pneumococcal disease for people with sickle cell disease in African populations. There were also presentations looking at serotype distribution and replacement disease as well as the high burden of pneumococcal disease and the benefits of PCV in HIV-infected individuals.

Participants also heard from industry representatives about the latest news on vaccines in the pipeline including updates on clinical trials and licensure. GSK recently received market authorization in Canada for its 10-valent pneumococcal vaccine and expects to shortly receive licensure from European Medicines Agency (EMEA). Wyeth has submitted its 13-valent vaccine candidate for licensure with EMEA, Chile, and Brazil, and received designation for fast-track status in the USA and South Africa. Both GSK and Wyeth have or are planning to apply for WHO prequalification for their respective vaccines. In addition, representatives from PATH and Brazil’s FIOCRUZ discussed their organizations’ roles in driving vaccine research and development forward.

Country representatives candidly shared their previous experiences with vaccine introduction including some of the hurdles that remain for PCV introduction in their countries. According to the speakers, some of the bigger challenges that remain were affordability and having a sustainable financing plan, developing the infrastructure and capacity to safely and properly handle the vaccine, generating the political will, and having a coordinated immunization campaign.

<table>
<thead>
<tr>
<th>Annual Incidence of Pneumonia</th>
<th>Among Children Under Five, by Region</th>
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<tbody>
<tr>
<td>South Asia</td>
<td>169,300,000</td>
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<tr>
<td>East Asia and Pacific</td>
<td>146,400,000</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>117,300,000</td>
</tr>
<tr>
<td>Latin American and Caribbean</td>
<td>56,500,000</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>43,400,000</td>
</tr>
<tr>
<td>CEE/CIS*</td>
<td>26,400,000</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>533,000,000</td>
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<tr>
<td>Industrialized Countries</td>
<td>54,200,000</td>
</tr>
<tr>
<td>World</td>
<td>613,600,000</td>
</tr>
</tbody>
</table>

* Central and Eastern Europe/Commonwealth of Independent States
Source: UNICEF 2006—“Pneumonia: The Forgotten Killer of Children”

Left to right: Dr. Michael McQuestion from the Sabin Vaccine Institute, Jim Dobbin MP from UK Parliament and Dr. José Ignacio Santos from the National Autonomous University of Mexico
In addition to the African country perspective, participants were treated to a visit by British parliamentarian, Jim Dobbin MP, who spoke about his work as the vice-chair of the All-Party Parliamentary Group on Pneumococcal and the role of donor countries.

Wrapping up a great symposium, the final session was focused on moving forward and continuing efforts to advocate for the prevention of pneumococcal disease. Orin Levine, co-chair of the symposium, described the meeting as a “call for continuing action.” A member of the organizing committee, Fred Were of the Kenya Paediatric Association, prompted his colleagues to continue working hard to “get the map [of PCV introduction status] the same color.” While optimistic about the steps taken, challenges remain. Ciro de Quadros summed up the symposium “Africa can do it, but support is needed.”

"Millions of lives can be saved through the routine introduction of pneumococcal vaccine in developing countries. The World Health Organization recommends that countries of all income levels introduce this vaccine, with the highest priority given to countries with high child mortality rates”
- Dr. Jean Marie Okwo-Bele, Director of the Department of Immunization, Vaccines and Biologicals, World Health Organization

Highlights from Symposium presentations

- Sickle cell disease increases the risk of pneumococcal disease by 37 times, and together with HIV infection, malnutrition and indoor air pollution, puts African children at high risk
- Even when treated with antibiotics in a hospital, up to one-half of all children in Africa who get pneumococcal meningitis will either die or be disabled as a consequence of the disease
- Of approximately 14 million cases of pneumococcal disease worldwide, 4 million (28%) are in Africa
- Of approximately 820,000 deaths due to pneumococcal disease worldwide, 440,000 (49%) are in Africa
- About 90,000 of pneumococcal deaths worldwide are HIV-positive children
- 89% of pneumococcal deaths are from pneumonia, 7% meningitis, and 4% from NPNM
- Pneumococcal conjugate vaccine reduced under 5 mortality by 16% in rural African setting
- PCV reduced hospitalizations by 15% in rural African setting and prevents the long-term costs of caring for disabled survivors
- PCV prevented hearing loss by reducing ear tube surgeries by 20%
- PCV prevents 9 times more pneumonia in HIV infected children than non-HIV infected children
4th Regional Pneumococcal Symposium
Organizing Committee

Ciro de Quadros, Sabin Vaccine Institute * Orin Levine, PneumoADIP * Deo Nshimirimana, World Health Organization * Humphrey Lewis, South African Paediatric Association * Cynthia Whitney, US CDC * Fred Were, Kenya Paediatric Association * Shabir Madhi, The University of the Witwatersrand

Proceedings of the 4th Regional Pneumococcal Symposium will be available soon

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