MARKET & SUPPLY UPDATE

Typhoid Conjugate Vaccine (TCV)

CONTEXT

• The TCV is the first typhoid vaccine to be developed that is suitable for children from 6 months of age. It is the preferred vaccine due to its improved immunological properties, use in younger children and longer duration of protection. It is recommended to be administered as a single dose for routine use in children from 6 months and adults up to 45 years in endemic areas. Catch-up campaigns are recommended up to 15 years when feasible and supported by immunological data.

• Gavi supports countries to introduce TCV into their routine immunization programmes and catch-up campaigns for children from 6 months to 15 years of age, including for outbreak response. Countries determine their immunization strategy based on epidemiological profile. Six countries (Kenya, Liberia, Malawi, Nepal, Pakistan and Zimbabwe) have been approved by Gavi and five of these countries have introduced the vaccine.

• WHO Prequalified vaccines: Vaccines from both manufacturers are expected to have similar performance despite a difference in the conjugate protein.

SUPPLY & DEMAND

• UNICEF procures almost 100% of the market share for LICs and LMICs. This is expected to continue until the uptake of TCV by UMICs.

• The uptake of TCV by countries has been slow due to countries’ competing health priorities, limited capacity to define local typhoid epidemiology and lack of commitment to typhoid control in endemic countries. These factors have contributed to the uncertainty of the demand forecast for TCV.

• Certain demand is expected to increase in 2024 with introductions in 3 countries (catch-up campaigns and routine).

• Current supply availability is sufficient to meet the demand as manufacturers have scaled up their production capacity in anticipation of the roll-out of TCV in countries.

• UNICEF currently has LTAs with 2 manufacturers. For Gavi supported countries, awards were made for confirmed demand with additional awards to be made as demand materializes.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Vaccine</th>
<th>Market</th>
<th>Price per Dose</th>
<th>Schedule</th>
<th>Total Doses Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bharat Biotech (IA)</td>
<td>Conjugate Vi-TT</td>
<td>Gavi</td>
<td>USD 1.50</td>
<td>1-dose</td>
<td>15,741,250</td>
</tr>
<tr>
<td>Biological E (IA)</td>
<td>Conjugate Vi-CRM197</td>
<td>Gavi</td>
<td>USD 0.95</td>
<td>1-dose</td>
<td>23,524,130</td>
</tr>
<tr>
<td>Biological E (IA)</td>
<td>Conjugate Vi-CRM197</td>
<td>MICs</td>
<td>USD 1.50</td>
<td>1-dose</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>39,265,380</strong></td>
</tr>
</tbody>
</table>

ISSUES & CHALLENGES

• With the slow uptake of TCV by countries, the demand uncertainty has been further exacerbated by the limited information on country introduction plans, vaccination strategy (national or targeted) and outbreaks.

• Manufacturers awarded UNICEF LTAs are concerned about the slow uptake of TCV and the lack of visibility on any planned country introduction schedule and timing. They have scaled up production capacity and need to manage and mitigate the supply and demand risk uncertainty.

LOOKING AHEAD

• UNICEF is engaging with countries to obtain the information necessary to shape the demand in the market and improve forecast accuracy to secure supply volumes.

• UNICEF will provide industry with updated country forecast data as new information becomes available.

• UNICEF and Gavi are engaging with industry to manage expectations around anticipated country demand to manage the potential risks of low demand. UNICEF and Gavi will seek to identify ways to ensure continued interest in this market.

FURTHER QUESTIONS OR ADDITIONAL INFORMATION? PLEASE CONTACT: Oluwaseun Ayanniyi Contracts Manager oayanniyi@unicef.org