Current DTP Supply & Outlook

UNICEF Supply Division

Update: September 2013
A more recent note covering DTP vaccines exists. Please visit [http://www.unicef.org/supply/index_54214.html](http://www.unicef.org/supply/index_54214.html)

1. **Summary**

- During 2013, UNICEF has continued to rely on only one remaining manufacturer with WHO pre-qualified DTP vaccine. The overall market remains fragile with low demand visibility and limited supply base.
- The dedication of existing bulk supplies of WHO-prequalified DTP to the manufacture and development of other DTP-containing vaccines, in addition to the removal of some supplies from the market, has reduced general availability of standalone DTP products compared to previous years.
- In that context, while the original forecast vaccine requirement for 2013 was for 12 million doses, UNICEF procurement this year has only totalled 6.4 million doses. Additionally, the previously anticipated incremental orders from two middle income countries did not ultimately materialise.
- A balance of 3.6 million doses of DTP remains available for procurement during Q3/Q4 2013, as some supplies were retailed to other buyers after UNICEF procurement levels were less than anticipated.

2. **Background & Procurement History**

DTP has been part of the Expanded Programme of Immunisation (EPI) vaccination schedule since 1974,\(^1\) and historically has had a solid supply base. For the purpose of this document, DTP refers to whole cell pertussis (DTwP). UNICEF primarily procures DTwP containing vaccines and only exceptionally has procured DTaP vaccine upon specific request from countries. DTwP bulk is incorporated into 4 different forms and combinations:

- DTwP (a whole cell vaccine);
- DTwP-HepB (a tetravalent combination including hepatitis antigens);
- DTwP-Hib (a tetravalent combination including *haemophilus influenzae* antigens);
- DTwP-HepB-Hib (a pentavalent combination form)

Until 2005, the demand for DTP through UNICEF averaged approximately 110 million doses per year, fluctuating between 136 and 81 million doses. Since 2005, however, the demand through UNICEF for DTP as a standalone vaccine has declined substantially. The growing demand for tetravalent and subsequently pentavalent combination vaccines has principally contributed to this shift. The increased combination product demand has largely been led by GAVI funding of other DTP-containing vaccines.

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The 2012 demand through UNICEF for standalone DTP represented 17% of DTP-containing vaccine orders, and its share continues to decrease further. Many manufacturers have as a consequence allocated their existing DTP bulk to the development and production of other DTP-containing vaccines.

3. Current Market Situation

3.1 Demand

The declining demand for DTP makes it difficult to accurately identify the threshold of lower baseline, “steady-state” requirements. In 2014, UNICEF expects that the baseline level demand for DTP procurement will have decreased and stabilised to approximately 6 million doses per year. UNICEF anticipates that this amount will cover the routine requirements of the 18 countries that implement one dose of DTP as a booster vaccine in their routine national immunisation programmes.

Within this context, the reduction in dedicated standalone DTP availability also has global implications. Accommodation of requests on behalf of countries that normally self-procure was difficult during 1H2013. With UNICEF’s DTP manufacturer base decreasing to one remaining supplier (from two suppliers in 2012 and three in 2010), countries seeking supply of DTP will need to provide sufficient lead time of several months and confirm demand.
3.2 Supplier Base

During the past 6 years, there have only been 3 suppliers with WHO-prequalified DTP (Bio Farma, Indonesia; Sanofi Pasteur, France; and Serum Institute of India), but only one supplier now maintains availability (Bio Farma) through UNICEF.

There are no new suppliers of WHO-prequalified DTP expected in the near future.

Source: UNICEF Supply Division.

Figure 3. DTP Procurement by Year

Source: UNICEF Supply Division.

Figure 4. Suppliers Engaged in the Provision of DTP to UNICEF

Source: UNICEF Supply Division.
Of the three suppliers with WHO pre-qualified DTP, Bio Farma is able to increase their supply of DTP if orders are placed in advance with a lead time of 4 months. Serum Institute of India retains a sizeable capacity to produce DTP.

Figure 5. Price per Dose of DTP through UNICEF

Despite the decline in demand, availability and the supplier base for DTP through UNICEF, the price per dose for DTP has been relatively stable. However, there have been modest price increases over the past 6 years. A limited market share, a stable contractual framework arrangement and a continuous engagement with suppliers by UNICEF have contributed to ensuring this stability.

3.3 Issues / Challenges to Address

- For 2013 year-to-date, UNICEF has procured 6.4 million doses for 18 countries that implement a one dose of DTP as a booster vaccine in their routine national immunisation programmes.
- The one remaining manufacturer supplying WHO-prequalified DTP to UNICEF advises that a current balance of 3.6 million doses remains available for procurement during Q4 2013.
- The current surplus is a result of the uncertain forecast requirements of some countries for 5 million doses. Of this surplus, 2 million doses were retailed by the manufacturer to alternative purchasers. The previously anticipated orders from two middle income countries also did not ultimately materialise.
- Some suppliers continue to prioritise the use of their DTP bulk in other DTP-containing (combination) vaccines, while others have withdrawn supplies from the market. This leaves UNICEF reliant on one supplier for WHO-prequalified DTP.

4. Steps Forward

- WHO published its vaccine prequalification priority list for 2013-2014 and identifies DTwP as a “High Priority” vaccine, reflecting, in part, its declining supply security.\(^2\) For 2011-2012, DTwP had previously been ranked as “Low Priority”.

• If additional suppliers do indeed become WHO-prequalified for DTP, UNICEF will continue to track whether DTP bulk is directed towards standalone or combination product. (Note: The process to prequalify vaccines can take up to 18 months to complete).
• UNICEF will continue to monitor ex-UNICEF supply markets to assess supply availability or shortages which could result in alternative sources of product or new incoming procurement inquiries to UNICEF, respectively. Any substantive changes will continue to be communicated to partners, stakeholders and industry.
• UNICEF will continue to explore with partners and suppliers the potential attractiveness of any supply arrangements which will give suppliers the confidence of the continued importance of the DTP-market.
• Offices and countries should continue to monitor stock levels and wastage and should give early indication if support is needed.

For further questions or additional information, please contact:

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Information notes can be found:  [http://www.unicef.org/supply/index_54214.html](http://www.unicef.org/supply/index_54214.html).