



The Strategic Demand Forecast (SDF) version 8.0 for pneumococcal conjugate vaccines (PCV) is issued in accordance with the GAVI Alliance Forecasting Standard Operating Procedure. The forecast captures all demand from AMC-eligible countries which introduce with GAVI support, graduate from GAVI support, or are fully self-financed. The AMC SDF projects country demand for a 3-dose course of PCV, buffer stocks, and wastage.

This forecast reflects actual introduction dates for countries that have already introduced PCV and the best possible estimates of countries' expected time of introduction for countries yet to introduce or submit an application. The forecasted timeline for future introductions does not constitute any commitment or obligation for any of the countries.

### **OVERVIEW OF KEY ASSUMPTIONS**

- Available financing for the entire forecast duration for product purchase and introduction expenses; sufficient supply to meet demand; all prequalified products meet or exceed AMC Target Product Profile.
- Current status of country approvals:
  - 55 out of 73 AMC-eligible countries are currently approved to receive supply under the AMC terms and conditions of which 54 will receive financial support from GAVI (with the exception of one graduating country). The certainty of introduction timing is greater for approved countries yet to introduce than those who have not yet applied for support.
  - Graduating countries: Bhutan, Cuba, Indonesia, Mongolia, Sri Lanka, Ukraine have graduated from GAVI support (i.e. have exceeded GNI per capita eligibility threshold of \$1,570); all of these countries are able to access vaccine under the terms and conditions of the AMC including pricing based on self-financing, provided procuring through UNICEF.
- Data sources
  - Surviving infant population from UNPD World Population Prospects (WPP) 2012 revision, medium variant.
  - Coverage based on WHO/UNICEF Estimates of National Immunization Coverage (WUENIC) estimates as of July 2013; Indian state estimates from DLHS, CES, and NFHS analyses; Demand analogue coverage projected to increase up to 90%.
- Vaccine uptake: 24 months for small countries / 36 for medium and large countries (defined as >1 million surviving infants) / 48 months for very large countries (defined as >3.5 million surviving infants)
- For countries introducing the single dose or two dose vial presentation, wastage rates of 5% and 10% wastage rates assumed respectively. For countries which have not yet submitted an application, a wastage rate of 10% has been assumed.

Figure 1 illustrates the projected AMC demand during 2013-2020. In the short and medium term, SDF version 8.0 is lower than the previously published SDF v.5 primarily due to updated data sources and a later PCV introduction in India than previously projected. The GAVI Alliance also prepares an Adjusted Demand Forecast (ADF) to reflect the volume of PCV doses which have been financially committed by GAVI to countries that have already been approved for GAVI support, based on their applications to GAVI. The ADF uses country estimates of surviving infants and coverage which can be materially higher than the UNPD WPP and WUENIC data, respectively. Importantly, in 2018 the ADF is over 20% higher than the SDF (178 million doses versus 137 million doses in the SDF).

**Figure 1 – SDF version 8.0 Forecasted Demand (73 AMC- eligible countries)**

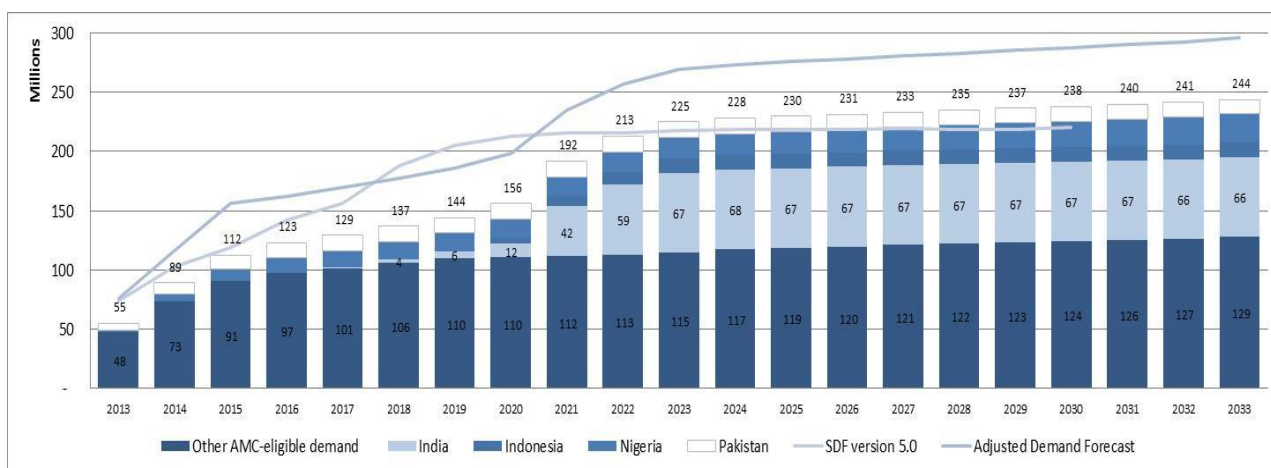
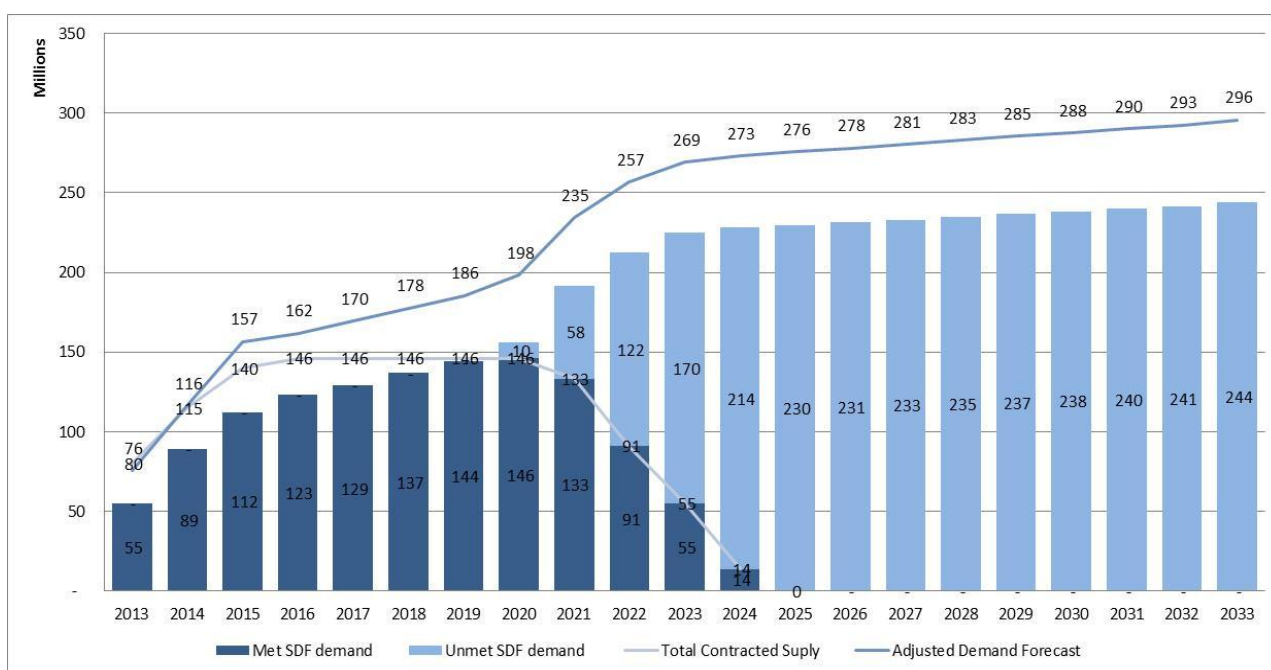


Figure 2 shows the total contracted supply based on existing supply agreements, versus SDF and ADF v.8.

**Figure 2 – Estimated Strategic Demand and Contracted Supply<sup>1</sup> of AMC Eligible Vaccines**



In 2013, GAVI undertook a review of the SDF accuracy based on experiences to date on several vaccine programmes, including the pneumococcal vaccine programme. The SDF methodology was first established in 2009. One of the findings is that the SDF under-estimates the projected demand for the GAVI market in the short term compared to actual doses shipped (determined based on GAVI-committed doses, actual country requests and available supply). The use of country population and coverage data for calculating doses versus UNPD and WUENIC data used for calculating the SDF is the primary driver of the difference identified in the accuracy review. Adjustments to SDF methodology resulted from this review and will be reflected in future versions of the SDF. Continued work is underway to track forecasted volume versus actual usage in countries. It should be noted that the SDF was originally not established to project short term (0-3 years) demand, and that procurement forecasts have been developed by UNICEF for the near- term which together with the ADF has been used as a basis for award making for the near term.

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<sup>1</sup> The Estimated Supply is based on the AMC Supply Agreements signed in March 2010, December 2011, and July 2013. [http://www.vaccineamc.org/supply\\_agreements.html](http://www.vaccineamc.org/supply_agreements.html)