



# TECHNICAL BRIEF: DEMAND PLANNING

## GLOBAL HEALTH SUPPLY CHAIN PROGRAM – TECHNICAL ASSISTANCE

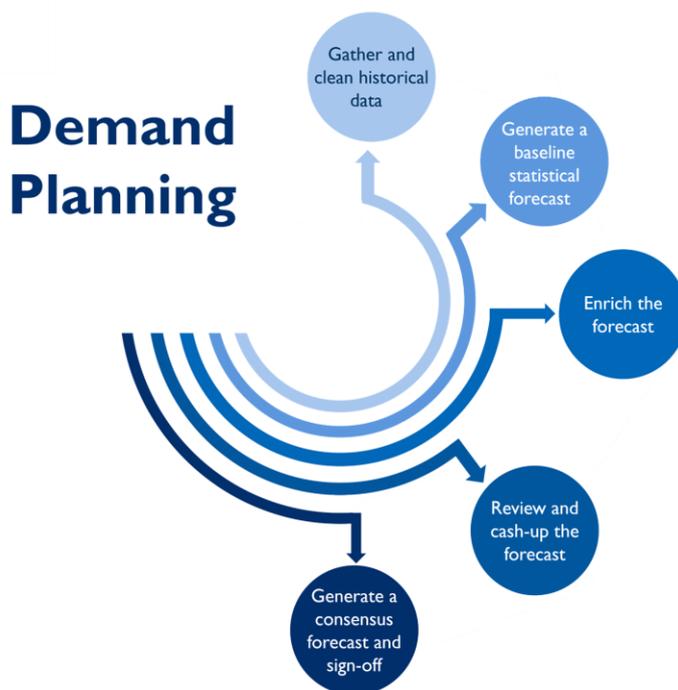
The United States Agency for International Development (USAID)-funded Global Health Supply Chain Program – Technical Assistance (GHSC-TA) provides technical assistance to the South African government to strengthen public health systems and supply chains to advance an AIDS-free generation, increase medicine availability, and contribute to the achievement of universal health coverage.

Demand planning is a key component of supply chain planning. Demand planning involves combining statistical forecasting techniques and judgment to construct demand estimates for medicines to fulfill forecasted patient needs. Accurate demand planning has a profound impact on health outcomes, quality of life, and a nation's economy. In South Africa, demand planning will assist in improving the availability of medicines used to fight HIV/AIDS, tuberculosis (TB), and other diseases.

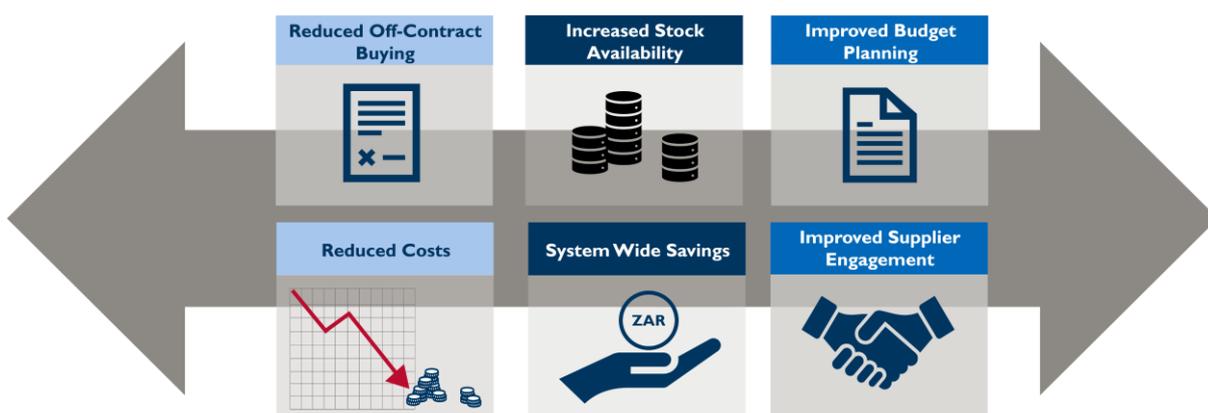
## OBJECTIVES

Demand planning together with supply planning and distribution planning are the three core components of supply chain planning. It is used in health supply chain planning to accurately forecast demand for health products so that governments, public and private providers, and suppliers can fulfill patients' needs.

The first step in demand planning is to gather and cleanse historical data. Demand planners use this data to generate a baseline statistical forecast which is then enriched by taking national and provincial insights into account. These insights include population changes, previous stock shortages, introduction of new products, changes to standard treatment guidelines, and more. Next, the planners review and cash-up the forecast, i.e. translate a volume number into a value number.<sup>1</sup> This final forecast is reviewed at a Demand Review meeting to establish consensus among stakeholders and sign off on the forecast. The forecast is then used for replenishment planning, managing suppliers' ability to meet future demands, enabling effective procurement, and compiling accurate budget plans.



Accurate demand planning has a profound impact on health outcomes, quality of life, and a nation's economy. It improves stock availability, improves budget planning, reduces the cost of inventory, reduces the cost of distribution, and improves supplier engagement, among other benefits.



<sup>1</sup> Volume number refers to number of product units; value number refers to the cost of those units.

## APPROACH AND KEY ACTIVITIES

GHSC-TA partners with provincial departments of health in South Africa to improve their demand planning in order to increase medicine availability countrywide. GHSC-TA works with the National Department of Health (NDOH) to produce innovative processes, tools, and workforce training that will transform South African demand planning at the provincial level and build a customer base for new, more analytically defensible demand forecasts among suppliers.

The program develops new processes and governance structures for building on progress from an initial pilot in 2018. The pilot in the Eastern Cape province aimed to establish an implementation approach and test the concepts that had been designed and the new tool that had been acquired for the statistical forecasting. The first three groups of medicines that were reviewed by GHSC-TA in collaboration with the province were Antiretroviral Drugs (ARVs), TB, and Vaccines. The program documented lessons learned, which formed the basis of the Demand Planning Guideline. This Guideline was used to inform implementations in North West province, Gauteng province, and, more recently, KwaZulu-Natal province.

As a result of a resolution made at the Presidential Health Summit to ring-fence the medicine budget, a national budget planning exercise was undertaken following the same process, where the budget for the following financial year was generated down to the facility product level, something that had never been accomplished before. The result was an accurately generated budget that could then be used to track actual performance and assist to avoid supplier payment delays, leading to improved medicine availability.

Furthermore, the NDOH demand planning team has been trained on the demand planning process and the forecasting tool. The forecasting for the procurement process has now been handed over to the NDOH demand planning team, increasing their capacity as well as the sustainability of the process at the national level.

In addition, GHSC-TA supports demand planning as part of the NDOH's transition from using Tenofovir/Emtricitabine/Efavirenz (TEE) to Tenofovir/Lamivudine/Dolutegravir (TLD) to treat HIV/AIDS in South Africa.<sup>2</sup>

## ACHIEVEMENTS

GHSC-TA's intervention and demand planning technical assistance have resulted in the following improvements, strengthening the health supply chain in South Africa:

- More accurate and available demand planning data to inform decision making processes.
- Increased capacity and skill among national and provincial demand planning teams.
- Improved NODH demand projections for procurement.
- An accurate budget plan for the next financial year down to the facility product level.

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<sup>2</sup> See technical brief on TLD transition for more information.

- Increased collaboration and improved supplier engagement.
- Demand Planning Guideline and Standard Operating Procedures (SOPs) to support future implementations.
- Successful forecasting to support the transition from TEE to TLD.

## **LESSONS LEARNED**

Inaccurate and unavailable data coupled with limited availability of skilled personnel are the main challenges to successful demand planning. If the initial data inputs are incorrect, forecasting will be inaccurate. This can have severe negative consequences, as incorrect demand planning can result in limited availability of life-saving medicines. GHSC-TA has focused on understanding the data sources and worked with the State Information Technology Agency (SITA) to supply updated monthly data where available. Provinces have also assisted by mapping provincial data to national master data to enable a consolidation of total volume at the national level. Medicine master data is critical to the sustainability of the demand planning processes and the aggregation of provincial demand plans.

Each of the provinces where demand planning has been implemented have held an overall demand planning workshop with the relevant stakeholders as well as tool-specific trainings for the individual demand planning points of contact. The demand planning process takes place on a monthly basis to review additional medicine groups and accuracy of forecasts. Now, with GHSC-TA support, the NDOH, public health providers, and suppliers have more accurate demand forecasts that enable them to better meet patients' needs.