

TECHNICAL BRIEF

QuanTB



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SIAPS
Systems for Improved Access
to Pharmaceuticals and Services



A QUANTIFICATION AND COST ESTIMATION TOOL

QuanTB is an electronic forecasting, quantification, and early warning tool designed to improve procurement processes, ordering, and planning for tuberculosis (TB) treatment. When used on a regular basis, QuanTB serves as an early warning mechanism, providing information on actual versus planned consumption, impending expiries, and stock-outs of medicines.



CHALLENGE

Ensuring that patients have continuous access to TB treatment requires complex projections and calculations by TB program staff. Making these predictions is becoming more challenging as new diagnostic devices rapidly increase the number of individuals diagnosed and the quantity of medicines needed. Additionally, when treatment regimens change because new medicines or guidelines are introduced, national programs must plan carefully on how to phase medicines in and out to avoid stock-outs or expiries. Frequent forecasting and quantification, along with vigilant stock management, are vital to ensuring that appropriate types and quantities of medicines are available to meet the evolving needs of TB programs as they scale up treatment.



A SOLUTION

To promote a systems-strengthening approach to TB medicines management, SIAPS recently developed QuanTB—a downloadable, desktop tool that transforms complex calculations into a user-friendly dashboard displaying key quantification and supply planning information. By alerting users to risks of stock-out and overstock, QuanTB operates as an early warning mechanism.



FEATURES

- Accurate quantification estimates: combines key aspects of morbidity and consumption methods of quantification, including adjustment for attrition rates
- Multiple options for quantification: based on either the number of cases, type of treatment regimen prescribed, or individual medicine usage
- Flexible design of regimens for adults and children: allows up to 10 phases, built in weeks, months, or a combination of both to fit new medications, such as bedaquiline and delamanid; also allows phase-in and phase-out of new and current regimens
- Adaptable and customizable: users can modify parameters, such as lead time, buffer stock, and minimum and maximum months of stock so that quantification reflects local procurement, distribution, and funding considerations
- Manipulatable files: forecasting files from different settings can be consolidated and multi-year forecasts can be divided to support supply planning
- Early warning mechanism: enhanced dashboard alerts staff when risk is high for medicine expiries, stock-outs, and over-stock and when emergency orders are needed, allowing sufficient time to address supply problems
- Interoperability with other software: importing and exporting data on medicines stocks, cases on treatment, and expected cases
- Builds additional models for different scenarios: compares planned versus actual consumption and costs
- Full cost of order: incorporates cost of medicine, shipment, and customs clearance, among other additional expenses
- Available in 6 languages: English, Russian, French, Spanish, Portuguese, and Chinese

