Technical Brief

Using Reality Check and PipeLine for Contraceptive Forecasting and Supply Planning

Purpose: This technical brief, an overview and a comparison of Reality Check and PipeLine, includes guidance on how to effectively pair the two tools for contraceptive quantification: forecasting and supply planning. This guidance will be helpful when a country or program uses the two tools together during a quantification exercise, or if the country wants to select a tool or tools to assist in family planning program planning and quantification. For a full list of quantification tools, see *Quantification of Health Commodities: A Guide to Forecasting and Supply Planning for Procurement.*[1] For a list of tools that can be used more broadly for family planning cost and impact estimates, see *Crosswalk of Family Planning Tools: A Guide to Costing, Planning, and Impact Analysis Tools.*[2]

What is Reality Check and What Does it Do?

Reality Check is an easy-to-use tool that can generate family planning (FP) data for evidence-based advocacy and strategic planning for programs and national plans. Users can set realistic FP goals, plan for service expansion to meet program objectives, and evaluate alternative approaches to achieve specific goals.[3] It can also help managers understand the costs and benefits of changing the method mix in a country or region. Reality Check generates data—both national and subnational—using the most recently available data from population-based surveys for unmet need, contraceptive prevalence rate (CPR), and method mix—either the Demographic and Health Surveys (DHS) or the Multiple

[1] USAID | DELIVER PROJECT, Task Order 4. 2014. *Quantification of Health Commodities: A Guide to Forecasting and Supply Planning for Procurement.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.

[2] Godbole, R., and E. Smith. 2012 (Updated 2014). *Crosswalk of Family Planning Tools: A Guide to Costing, Planning, and Impact Analysis Tools.* Washington, DC: Futures Group, Health Policy Project.

[3] The RESPOND Project. 2014. *Reality Check: A planning and advocacy tool for strengthening family planning programs: Version 3. User's guide.* New York: EngenderHealth. http://respond-project.org/archive/files/4/4.1/4.1.4/RealityCheck-Files/Reality-Check-User-Guide-Version3.pdf

Indicator Cluster Surveys (MICS). The tool also uses other inputs to generate estimates: United Nations population data, maternal mortality ratios from the World Health Organization, and internationally agreed-upon standard method discontinuation rates and estimated couple-years of protection (CYP). Reality Check also enables users to input their own CPR data if more recent data are available, but are not yet reflected in the Reality Check back-end database,[4] or if users have subnational data that are not included in the database.

Reality Check produces two categories of outputs: *planning* and *advocacy* (see the details in Table 1).

Table 1. Reality Check Outputs

Planning Outputs	Advocacy Outputs
CPR	CYP
Number of users	Unintended pregnancies averted
Number of adopters (i.e., new users)	Abortions averted
Contraceptive consumption	Unsafe abortions averted
Contraceptive costs	Live births averted
Caseload	Maternal deaths averted

All outputs are presented both annually and as a total for a given time period; the outputs can be adjusted based on the scenario that the user creates.

When Should Reality Check be Used?

Reality Check has three main purposes. First, it is a goal-setting tool, helping programs set realistic FP program goals for increasing CPR and/or decreasing unmet need and/or for validating existing goals. One important feature is that goals can be set at national and subnational levels. Country programs often set goals that would require a faster CPR growth than they are actually experiencing; Reality Check can show what programmatic inputs would be needed to increase the CPR at that rate. The tool's *planning outputs* can estimate the financial resources, the number of users—new and/or continuing—and the intensity of programmatic activities needed to reach a specific goal. Users can then determine if a specific goal is realistic.

Second, Reality Check is an effective planning tool. After a goal is set, Reality Check generates the data needed to determine how many contraceptive commodities need to be consumed each year to meet that goal, and it includes their estimated costs. Similarly, data generated on the number of users and the required average caseload can help FP programs determine the human resources needed to meet demand. In this way, Reality Check helps identify the gap between the resources needed to achieve a country's national FP goals and the resources currently available, facilitating a discussion about strategic planning for meeting the goals.

Third, Reality Check is an advocacy tool. The tool's *advocacy outputs* are instrumental in advocating for appropriate funding with governments and donors. Estimates of health impact—for example, unintended pregnancies, maternal deaths, and abortions averted—offer compelling evidence of the benefit of achieving a particular FP goal. In addition, the tool can tangibly illustrate the difference in impact between a FP program comprising largely highly effective long-acting methods versus one relying primarily on short-acting methods. These outputs provide the evidence needed to support advocacy for investments in access to long-acting methods.

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[4] Data inputs are updated biannually.

What is PipeLine and What Does it Do?

Program managers can use PipeLine, a software tool, to plan optimal procurement and delivery schedules for health commodities, estimate shipment costs, monitor stock levels in-country, and adjust delivery schedules, as needed. PipeLine was developed to address the unique considerations of supply planning and pipeline monitoring for public health programs in resource-poor and limited settings. PipeLine's key outputs include a detailed procurement and delivery schedule for each product—including received, ordered, and planned shipments—as well as cost estimates, by supplier. These outputs usually cover a two-year period and are used to inform donors and suppliers of procurement needs; coordinate shipments; estimate procurement funding requirements; and, if there are financing gaps, assist in mobilizing additional resources.

To produce these key outputs, users must enter several data inputs into PipeLine, including actual and forecast consumption; stock on hand; maximum and minimum stock levels of the supply chain; a list of suppliers and funding sources for the program; cost of each product, by supplier (including an estimate of freight costs); quantities and delivery dates of shipments received or expected; and suppliers' lead times.

When Should PipeLine be Used?

PipeLine should be used during the supply planning step of a national quantification, as well as to monitor the supply plan and commodity stock levels between quantifications. The supply planning step takes place after the health program has decided on a forecast of future consumption for each product included in the quantification. During this step in the quantification process, stakeholders determine when shipments need to arrive in-country to maintain an uninterrupted supply of commodities (usually over a two-year period). PipeLine considers the various factors that will influence the supply plan, including procurement and supplier lead times, minimum and maximum stock levels, and commodities currently in the system.

How Do Reality Check and PipeLine Work Together?

Reality Check and PipeLine are valuable, pragmatic planning tools that can be used together to support a national contraceptive quantification, including the development of a reliable forecast and a supply plan.

Forecasting

The forecasting step of the quantification includes developing and comparing up to three types of forecasts, which were developed based on three different types of data: (1) consumption, (2) services, and (3) demographic. The three forecasts are analyzed and compared; a final forecast is determined based on the strengths and weaknesses of each forecast.

Reality Check can project the future consumption of each FP method, based on attaining certain defined goals for CPR, method mix, or meeting unmet need. Reality Check projections are based on demographic data; therefore, Reality Check can be used to prepare a demographic-based forecast in the forecasting step of the quantification.[5] The demographic forecast can then be compared to consumption-based and services-based forecasts to determine the final forecast for the quantification.

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[5] The Reality Check forecast does not consider the brand mix of pills, or the source of supply, for contraceptive users in the country. To consider these variables, the user must export the results to Microsoft Excel and make these additional calculations outside Reality Check.

PipeLine can be used to conduct a consumption-based forecast, if desired, using trend analysis, cloning, or interpolation of historical consumption data in the database. These forecasts should be adjusted manually to take into account program plans during the forecast period before they are compared with the services-based and demographic-based forecasts. PipeLine can also accept and use forecasts developed outside PipeLine for supply planning and monitoring.

Supply Planning

After the forecast is finalized, PipeLine can develop an actionable supply plan for procurement and delivery, including the estimated cost of each shipment and identification of short-term funding gaps. Table 2 summarizes the capabilities of each tool.

Table 2. Reality Check and PipeLine Capabilities

Capability	Reality Check	PipeLine
Provides macro estimate of contraceptive costs for advocacy	Yes	No
Estimates detailed contraceptive and shipping costs for procurement	No	Yes
Estimates no. of FP users based on demographic and CPR data	Yes	No
Estimates consumption based on demographic data	Yes	No
Estimates consumption based on services data	No	No
Estimates consumption based on consumption data	No	Yes
Estimates health impact (e.g., maternal deaths averted, abortions averted)	Yes	No
Models changes in method mix	Yes	No
Models FP program goals (CPR, unmet need)	Yes	No
Develops procurement plans	No	Yes
Monitors contraceptive stock levels to update procurement plans, as needed	No	Yes

Conclusions

Reality Check and PipeLine can be used together to assist countries in forecasting and supply planning for contraceptives. Reality Check's ability to project future contraceptive consumption using demographic data and to create multiple scenarios, including scenarios in which a country's national FP goals are met, makes it a useful tool in the quantification process. PipeLine's ability to create concrete procurement plans, and to estimate the costs of each shipment, helps health programs plan and take the necessary steps to ensure adequate contraceptive supplies.