

policy

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CROSSWALK OF FAMILY PLANNING TOOLS

*A Guide to Costing,
Planning, and Impact
Analysis Tools*

This publication was prepared by Ramona Godbole
and Ellen Smith of the Health Policy Project.



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Crosswalk of Family Planning Tools:

A Guide to Costing, Planning, and Impact Analysis Tools

SEPTEMBER 2012 (UPDATED SEPTEMBER 2014)

This publication was prepared by Ramona Godbole¹ and Ellen Smith¹ of the Health Policy Project.

¹ Futures Group

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Abbreviations

AIU	Adding It Up
DALY	disability-adjusted life years
CastCost	Contraceptive Forecast and Cost Estimate
CDC	U.S. Centers for Disease Control and Prevention
CPR	contraceptive prevalence rate
GAP	Gather, Analyze, Plan
ENGAGE	Eliminating National Gaps—Advancing Global Equity
FP	family planning
HPP	Health Policy Project
ICPD	International Conference on Population and Development
JSI	John Snow, Inc.
LiST	Lives Saved Tool
MSI	Marie Stopes International
MCH	maternal and child health
MBB	Marginal Budgeting for Bottlenecks
MDG	Millennium Development Goals
MH	maternal health
MNCH	maternal, newborn, and child health
NGO	nongovernmental organization
PRB	Population Reference Bureau
RAPID	Resource for the Awareness Population Impacts on Development
RH	reproductive health
RHCT	Reproductive Health Costing Tool
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
TB	tuberculosis
WHO	World Health Organization

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Introduction

Development agencies and research institutions have designed a variety of tools to help advocates, policymakers, donors, and program staff determine the costs and impacts of investing in family planning. These tools differ greatly in their intended uses and scope, timeframe, methodologies, outputs, level of precision and flexibility, and ease of use. Further, given the sheer number of tools available, potential users sometimes find it difficult to (1) determine which tools are appropriate to address their specific questions and goals or (2) interpret the results produced by different tools.

To address these challenges, the Health Policy Project developed this guide to provide a comparison of 18 commonly used family planning costing and impact analysis tools:

- Adding It Up
- CastCost
- ENGAGE
- FamPlan
- Family Planning Sustainability Tool
- Gather, Analyze, Plan (GAP) Tool
- ICPD Update
- Impact 2
- Invest-FP Calculator
- Lives Saved Tool (LiST)
- Marginal Budgeting for Bottlenecks
- MDG Analyses
- Mother-Baby Package
- OneHealth
- PipeLine
- RAPID
- Reality Check
- Reproductive Health Costing Tool

The project used a participatory approach to identify which tools to include in the guide. An initial list of tools was shared widely with other development organizations, as well as an external advisory committee reviewing modeling approaches, and was then revised to incorporate their suggestions. While *Adding it Up* and the ICPD Update are not dynamic “tools” in the strictest sense, both provide widely cited estimates of the costs and/or impacts of family planning. Although ENGAGE is not a predictive model, these multimedia presentations highlight data on the costs and impact of family planning. Some tools focus exclusively on family planning, while others include it as one of many reproductive or child health interventions. Some costing tools and approaches are designed to estimate unit costs, while others use unit cost inputs to estimate programmatic costs.

Development of the guide included three steps:

1. **Information gathering on each tool from websites, manuals, and associated publications.**
 - Overall goal of the tool
 - Intended uses and primary target audiences
 - Interventions included in the analysis
 - Unit costing approach (if applicable)
 - Health, cost, economic, or demographic outputs produced by the tool
 - Data requirements, training/skills needed to use the tool, and other usability concerns
 - Information on use to date and related publications
2. **Drafting of summary tool descriptions for review.** The description of each tool, encompassing the above information, was either sent to the tool’s primary contact or an extensive user of the tool to ensure the description’s accuracy.
3. **Comparison of the tools.** Each tool was compared for overall usability in terms of data needs, ease of use, and availability of continued tool support for users. While this can be subjective,

attempts were made to standardize the definitions of data needs (low, medium, or high) and ease of use (easy, medium, and difficult). Each rating category is defined in Table 1.

Table 1. Ease-of-Use Categories and Definitions

Data Needs	
Low	<ul style="list-style-type: none"> • Low volume of inputs are required • Default data are included for most or all of the inputs • Default data are up-to-date and country-specific, with few or no regional or global estimates • User-entered data are easily and quickly obtained from publicly available sources
Medium	<ul style="list-style-type: none"> • Greater volume of inputs/data are required • Default data are included for some of the inputs • Default data are somewhat up-to-date and may include a mix of country-specific estimates and regional/global estimates • Some user-entered data are more difficult to find and not publicly available; user may need to generate or collect data to produce more robust output estimates
High	<ul style="list-style-type: none"> • Large volume of inputs are required • Few or no default data are included; default data are outdated and/or not country-specific • Some or most of user-entered data are very difficult to find, not publically available, or must be collected by user
Ease of Use	
Easy	<ul style="list-style-type: none"> • Easy to use for non-technical users • Requires only basic understanding of public health and/or economic concepts • Requires minimal or basic Excel or computer skills • Is self-explanatory with manual or requires limited introductory training of a few hours for most users
Medium	<ul style="list-style-type: none"> • More difficult to use • Requires some understanding of public health and/or economic concepts and terms • Requires intermediate Excel or computer skills • Requires introductory training of 1–2 days for most users
Difficult	<ul style="list-style-type: none"> • Highly complex and would not be appropriate for non-technical users • Requires advanced understanding of public health and/or economic concepts and terms • Requires advanced education and technical skills • Requires advanced Excel or computer skills • Requires extensive training of more than two days for new users • Requires a team of experts to apply the tool

The guide comprises two parts: (1) a chart that serves as a quick reference for general information on each tool, its purpose and uses, methodology, and usability (see Figure 1); and (2) this longer narrative report that provides more detailed information on each tool, including contact information and websites. This guide is intended to help advocates, program planners, decisionmakers, and others select which tool might best address their goals or questions, as well as provide insight into how to interpret the outputs of each tool.

Adding It Up

Developer

Guttmacher Institute and United Nations Population Fund (UNFPA)

Contact

info@guttmacher.org

Website

<http://www.guttmacher.org/pubs/AIU-2012-estimates.pdf>

Description

First published in 2003 and updated in 2009 and 2012, *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health* (AIU) estimates the costs of providing family planning, maternal, and newborn healthcare to current users of these services and the costs to meet unmet need in developing countries in a single year. Estimates for 2012 include only family planning costs and benefits. Full 2013 estimates will be published in early 2014. The report includes useful information for family planning advocates:

- Provides an overview of reproductive health in the developing world, including on the levels of unintended pregnancies, abortions, maternal and newborn deaths, contraceptive use, and use of maternal healthcare
- Estimates the costs and direct health benefits of providing modern family planning methods to prevent unintended pregnancies
- Estimates the costs and direct health benefits of providing adequate maternal and newborn healthcare to reduce maternal and infant morbidity and mortality
- Examines the additional health benefits and financial savings that result from investing simultaneously in family planning and maternal and newborn services
- Discusses the implications of the findings and the need for renewed commitment to sexual and reproductive healthcare for all

Primary Uses: Country-level and donor advocacy

Key Messages

Family planning can provide significant health and economic benefits. The number of women who have an unmet need for modern contraception in 2012 is 222 million. This number declined slightly between 2008 and 2012 in the developing world overall but increased in some subregions, as well as in the 69 poorest countries. In the developing world, contraceptive care in 2012 will cost \$4.0 billion, and an estimated \$8.1 billion per year will be needed to fully meet the existing need for modern contraceptive methods of all women. However, spending \$8.1 billion to meet the needs of all women would save a total of \$11.3 billion in maternal and newborn health services alone.

Model and Methodology

In AIU-2012, estimates of costs and benefits are made for three scenarios. The report first presents the costs of providing services to women in developing countries currently using modern contraceptive methods in 2012 and then discusses one alternative scenario in which all women currently using modern

methods would use no contraceptive and another in which those women who currently have unmet need would use modern methods. The report applies the most recent available data on the proportions of women ages 15–49 in developing countries who are in need of and are using contraceptives to the population of women ages 15–49 in 2012 to estimate levels of method use and unmet need. In the scenario in which all demand for family planning is met, the types of modern methods adopted and the distribution of these methods was assumed to reflect the method mix of current modern method users in their country, with the same childbearing intentions and marital status.

Direct costs were estimated for contraceptive commodities, supplies, and labor needed for counseling, method provision and supply, follow-up, and method removal. Program and systems costs were calculated as a proportion of direct costs, based on estimates published by the UNFPA.

Usability and Flexibility

The Adding It Up methodology is not a “tool” in the sense that individuals cannot create their own estimates and the data cannot be manipulated under different assumptions. Calculations in the report regarding meeting all unmet need for modern methods are based on a hypothetical assumption of fulfilling unmet need in one year.

Country Applications

The report includes all developing countries.

Tool Citations

Darroch, J., and S. Singh. 2012. *Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012*. New York: Guttmacher Institute and United Nations Population Fund. Available at: <http://www.guttmacher.org/pubs/AIU-2012-estimates.pdf>.

Darroch, J., and S. Singh. 2011. *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health—Estimation Methodology*. New York: Guttmacher Institute. Available at: <http://www.guttmacher.org/pubs/AIU-methodology.pdf>.

Singh, S., J. Darroch, L. Ashford, and M. Valssoff. 2009. *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*. New York: Guttmacher Institute and United Nations Population Fund. Available at: <http://www.guttmacher.org/pubs/AddingItUp2009.pdf>.

Related Products and Publications

- Facts on Investing in Family Planning and Maternal and Newborn Health *In Brief* Series Available at:
 - Summary (2012 data): <http://www.guttmacher.org/pubs/FB-Costs-Benefits-Contraceptives.pdf>
 - Summary (2008 data): <http://www.guttmacher.org/pubs/FB-AIU-summary.pdf>
 - Sub-Saharan Africa: <http://www.guttmacher.org/pubs/FB-AIU-Africa.pdf>
 - Arab Countries: http://www.unfpa.org/webdav/site/global/shared/additup/factsheet_aiu_arab_en.pdf
 - Latin America and Caribbean: http://www.unfpa.org/webdav/site/global/shared/additup/factsheet_aiu_lac_en.pdf
 - South Central and South East Asia: http://www.unfpa.org/webdav/site/global/shared/additup/factsheet_aiu_asia.pdf

- Benefits of Meeting Women's Contraceptive Needs *In Brief* Series. Available at:
 - Philippines: http://www.guttmacher.org/pubs/2009/04/15/IB_MWCNP.pdf
 - Ethiopia: <http://www.guttmacher.org/pubs/IB-Contraceptive-Needs-Ethiopia.pdf>
 - Uganda: http://www.guttmacher.org/pubs/IB_Contraceptive-Needs-Uganda.pdf
 - Burkina Faso: <http://www.guttmacher.org/pubs/contraception-Burkina-Faso.pdf>

CastCost

Developer

Centers for Disease Control and Prevention (CDC), Division of Reproductive Health

Contact Information

drhinfo@cdc.gov

Website

www.cdc.gov/reproductivehealth/Global/CastCostEnglish.html#download

Description

The Contraceptive Forecast and Cost Estimate (CastCost) Excel spreadsheet is used to estimate the quantity and cost of contraceptives needed in a country for five years. These estimates are based on data from the country's Reproductive Health Survey or Demographic and Health Survey. CastCost can provide estimates of contraceptive needs for the country as a whole, for the public or private sector alone, or for individual service provider organizations. Although CastCost provides an estimate of the quantity of contraceptives needed and their cost, the decision of exactly what quantities of contraceptives to procure should be based primarily on logistics (usage) data; CastCost estimates can be helpful in validating the quantities that have been suggested by a logistics-based forecast. CastCost can also be used to test different scenarios, such as projecting the cost if injectable contraceptives were to increase substantially in the next five years or the differences in cost of a particular contraceptive if it is procured from different sources or to see the financial implications of different method mixes. While it is most useful for policymakers and program planners in strategic and program planning and budgeting, the tool can also be useful for contraceptive security teams and contraceptive logistics managers in planning and advocating for contraceptive funding at the country level.

Primary Uses: Strategic planning, program planning, budgeting, country-level advocacy

Key Messages

Cost and quantity estimates of family planning can help plan for the future and be useful in advocacy.

Model and Methodology

CastCost helps estimate the quantity and cost of contraceptives in a country for five years based on the following:

- Number of women of reproductive age
- Percent of women of reproductive age who are married or in a union (for futures years, this is multiplied by the annual rate of population increase)
- Contraceptive prevalence by method (current or projected)
- Couple-year-of-protection (CYP) factor
- Unit cost of contraceptive commodities by method and source

CastCost provides unit costs for contraceptives purchased from the United Nations Population Fund (the high and low ends of the price range for each method) and donated by USAID; however, the user may enter unit costs from other sources. For future years, the projected year-specific prevalence is used. Reports can be produced by source (e.g., public sector facilities or pharmacies) by multiplying the number of units per method by the percent from that source. Historical prevalence data can also be entered to

produce trend charts to help guide projections. The main outputs projected are annual quantities and both marginal and total costs of contraceptives required to achieve projected prevalence levels. CastCost produces graphs of contraceptive prevalence trends by method and projection tables of the number of users and contraceptive units.

Usability and Flexibility

Data requirements are low to medium—the data are all readily available via the Census Bureau and StatCompiler websites. If past data are used, defaults are available for the five-year projection and unit costs; however, the user must enter demographic, prevalence, and source data. Minimal training is required (1–2 hours) and basic Excel skills are needed. Although CastCost provides suggested future prevalence trends by method based on the historical data entered, the user will also want to factor in any additional knowledge of the family planning program plans and limitations, in making a best guess about future prevalence. Multiple prevalence and cost scenarios can be analyzed. The tool can analyze cost data for a country, region, public or private sector, and a provider if the input data are available.

The tool has instructions embedded within the Excel workbook, and a user's guide is also available. There is limited continuing support for the tool; however, the CDC can answer questions and troubleshoot.

Country Applications

Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Nigeria, Paraguay, Yemen

Tool Citation

Binzen, S., T. Johnson, and A. Ruiz. 2010. *Contraceptive Forecast and Cost Estimate Spreadsheet User's Guide*. Atlanta: MEASURE CDC Project. Available at:
<http://www.cdc.gov/reproductivehealth/Global/CastCost/PDF/CastCostManualTag508.pdf>.

Related Products and Publications

No published products or publications to date.

ENGAGE

Developer

Population Reference Bureau (PRB)

Contact

Rhonda Smith (rhondas@prb.org)

Website

<http://www.prb.org/Journalists/ENGAGEPresentations.aspx>

Description

ENGAGE multimedia presentations show the impact of high fertility, unplanned pregnancies, and high unmet need and their costs, consequences, and solutions. ENGAGE is designed to create an enabling policy environment for strengthening family planning/reproductive health and other health services by stimulating debate and fostering policy dialogue. A central feature is the innovative use of state-of-the-art software technologies such as Google Earth, flash animations, and the pioneering *Trendalyzer* bubble graphs created by Hans Rosling (www.gapminder.org). *Trendalyzer* explores relationships among fertility, gender, health, and economic indicators across time and in a visually stimulating way that brings new perspectives to traditional messages. Advocacy using ENGAGE has mobilized high-level commitment and contributed to increased resources for family planning and reproductive health services.

To strengthen local coalitions, ENGAGE uses a three-phased participatory approach to develop presentations:

1. Setting the stage by engaging a multisectoral advocacy task force to guide all project activities, develop a “policy and data profile” for the topic, and collect data from multiple sources.
2. Developing multimedia presentations. Task force members identify priority issues and key audiences, as well as shape messages that guide the development of the presentations.
3. Implementing a sustained national roll-out of policy advocacy events to maintain the issues high on the national agenda.

Primary Uses: Country-level and donor advocacy

Key Messages

Family planning accelerates the achievement of health, social, and economic goals for individuals, families, and nations.

Model and Methodology

ENGAGE is not a predictive model but rather an advocacy tool that presents data and analyses, such as the health and economic benefits of family planning, in innovative formats. Targeted analyses are frequently conducted to better illustrate key messages. The timeframe is variable. *Trendalyzer* is usually used for historic comparisons but can also be used for projections.

Usability and Flexibility

ENGAGE has no pre-set template. The presentations can be adapted to fit any theme or combination of messages depending on local needs. ENGAGE presentations are custom-designed and flash-based.

Individual users cannot adapt or change the visuals but are encouraged to adapt the narration. Each presentation can be modified to create presentations of varying lengths for varying forums. In addition, narrated voiceovers of the presentations, frequently using local celebrities or “professional” voices, are produced in local languages and made available on CD-ROMs for easy viewing and distribution.

The *Trendalyzer* software is not yet available commercially. The *Trendalyzer* database contains an estimated 15 indicators for more than 160 countries to show country comparisons (e.g., gross national income per capita, life expectancy, total fertility rate, contraceptive prevalence rate, infant and child mortality rates, maternal mortality rates, etc.). Country subnational data can be added to the *Trendalyzer* database to show regional trends and differences.

Country Applications

ENGAGE presentations have been shown to more than 12,000 parliamentarians, high-level government decisionmakers, and private sector officials in seven countries (Burkina Faso, Ethiopia, Kenya, Pakistan, Senegal, Uganda, and Malawi). An ENGAGE presentation is being developed in Bangladesh (2012).

Tool Citation

No manual or guide is available for this tool. See the website for more information.

Related Products and Publications

Related materials include multimedia presentations, scripts, accompanying fact sheets and policy briefs, frequently asked questions, and user guides for presentations. All ENGAGE presentations can be watched via PRB’s YouTube playlist and are available at:

<http://www.prb.org/Journalists/ENGAGEPresentations.aspx>.

FamPlan

Developer

Developed by the USAID POLICY Project and maintained by the Health Policy Project

Contact

John Stover (jstover@futuresinstitute.org)

Website

www.healthpolicyproject.com/index.cfm?id=software&get=Spectrum

Description

FamPlan is a model (part of the Spectrum System of Policy Models) that projects the family planning requirements needed to reach national goals for increasing contraceptive use, addressing unmet need, or achieving desired fertility. It can be used to set realistic goals, plan for the service expansion required to meet program objectives, and evaluate alternative methods of achieving goals. The program uses assumptions about the proximate determinants of fertility and the characteristics of the family planning program (e.g., method mix, source mix, etc.) to calculate the cost and the number of users and acceptors of different methods by source.

Key Messages

Projections for family planning requirements can help set realistic goals, plan for the service expansion required to meet program objectives, and evaluate alternative methods of achieving goals.

Model and Methodology

FamPlan uses the proximate determinants of the fertility framework to determine the level of contraceptive prevalence needed to achieve national goals or the effects of achieving a national goal of increasing contraceptive prevalence or decreasing unmet need for family planning. The relationship between contraceptive prevalence and the total fertility rate is influenced by other proximate determinants: proportion of women married, duration of postpartum insusceptibility, abortion, sterility, and effectiveness of family planning methods. The model calculates the number of users and acceptors of different methods and the costs of achieving the goal. As part of Spectrum, it interacts with the population projection generated by the DemProj Model.

Usability and Flexibility

FamPlan is relatively easy to use after one day of training. If already familiar with the concepts used, individuals can teach themselves how to use the model by reading the manual. Default data are provided for all countries with available Demographic and Health Survey data. FamPlan cannot be adapted (it is hard-coded) and does not help the user to build up unit costs. While the model itself cannot be changed, the outputs can be easily copied to Excel for further analysis. The model allows for multiple scenarios (up to 10 at once) and can be used to analyze multiple goals (meeting unmet need, meeting desired fertility, or achieving a future goal for fertility or contraceptive prevalence).

Country Applications

More than 100 countries globally.

Tool Citation

Stover, J., L. Heaton, and J. Ross. *FamPlan User's Guide*. Washington, DC: USAID POLICY Project. Available at http://www.healthpolicyinitiative.com/Publications/Documents/1256_1_FampmanE.pdf.

Related Products and Publications

FamPlan has been taught in universities; peer reviewed; and used for many analyses, papers, and articles in peer-reviewed journals, including the following:

- Moreland, S., E. Smith, and S. Sharma. 2010. World Population Prospects and Unmet Need for Family Planning. Washington, DC: Futures Group. Available at: http://www.futuresgroup.com/resources/publications/world_population_prospects_and_unmet_need_for_family_planning.
- Halperin, D., J. Stover, and H. Reynolds. 2009. “Benefits and Costs of Expanding Access to Family Planning Programs to Women Living with HIV.” *AIDS* (suppl 1): S123–S130.
- Hladik, W., J. Stover, G. Esiru, M. Harper, and J. Tappero. 2009. “The Contribution of Family Planning towards the Prevention of Vertical HIV Transmission in Uganda.” *PLoS ONE* 4(11): e7691. doi:10.1371/journal.pone.0007691.

Contraceptive Financial Sustainability Tool

Developer

John Snow, Inc.

Contact

Marie Tien (marietien@jsi.org)

Websites

www.deliver.jsi.com

Description

This Excel-based tool is designed to help identify funding gaps by developing contraceptive scenarios and projecting the related financial requirements and commitments. The tool can make projections for a variety of modern methods and enables the user to adjust the projected increase in the contraceptive prevalence rate (CPR) for each method, annually. The scenarios can reflect (1) potential changes in CPR, based on historical trends from demographic and consumption data, to meet national CPR targets or (2) information from stakeholder interviews. The tool can help countries estimate the financing resources needed and plan ahead for their needs. Specifically, the tool can help

- Determine different contraceptive growth rates, by method;
- Project contraceptive commodity unit and financing requirements;
- Determine the financing gap; and
- Understand potential supply market options and the financial impact.

The tool is ideal for program managers, financial planners or managers, and technical assistance providers.

Primary Uses: Strategic planning, program planning, budgeting, country-level and donor advocacy

Key Messages

Developing various contraceptive scenarios can help identify strategies to fill the gap between need and availability and potentially improve the country's financial ability to sustain a sufficient supply of family planning commodities.

Model and Methodology

A user must first assess the overall contraceptive context in the country, gather existing data and information on the current sources of contraceptive financing, and assess the total market for contraceptive commodities.

After the general assessment and data collection are complete, users can begin entering data into the tool. The tool generates commodity projections, cost projections, prevalence, and market share outputs in separate Excel worksheets. The financing tool uses two types of worksheets: *Input* and *Results*. Users enter specific data into five different input worksheets: (1) Background Information, Scenarios, & Projections; (2) Contraceptive Forecast; (3) Unit Price; and (4) Funding. The user enters the unit price for commodities, although the user manual provides resources to obtain this data. The user can also enter the timeframe.

The inputs generate a number of results or outputs in the four *Results* worksheets: (1) Commodity (2) Projections, (3) Summary Tables, and (4) Market Share. The results include the following:

- Aggregated total commodities by year and scenario
- Projected costs by scenario and year and total costs required by scenario and method each year
- Total financing costs and financing costs by year and scenario
- Funding commitments by source and year
- Funding gap/surplus

The Market Share worksheet includes background information on different market share possibilities and can be used to calculate different scenarios. The markets are grouped into three categories: (1) Public, (2) Private Non-Profit, and (3) Commercial Sector.

Usability and Flexibility

The tool is relatively easy to use. Users need to have basic Excel skills and should receive approximately one hour of training. A manual is available as a reference.

Data needs are medium to high—there are no default data. Users need information on the increase in use of contraceptives by method and by year, as well as the number of women of reproductive age (either as an absolute number or a percentage increase from year to year). The user will also need to have past consumption or issues data, the funding source of contraceptives, future funding commitments, and contraceptive unit cost data. Users should note that the level of effort involved in each step will vary depending on how much work has been done recently using an existing contraceptive security assessment or contraceptive forecast.

Up to three scenarios can be created at one time. The Excel file is locked to prevent accidental deletion or modification of the formulas, rows, columns, and links.

Country Applications

None to date.

Tool Citation

USAID | DELIVER PROJECT, Task Order 1. 2011. *Contraceptive Financial Sustainability Tool User's Manual*. Arlington: USAID | DELIVER PROJECT, Task Order 1.

Products and Related Publications

The “Contraceptive Financial Sustainability: A Primer” provides background information on different options for increasing the financing of contraceptives. The primer also describes the strengths and limitations of those options, including country experiences in implementing them. In addition, it includes a section on developing and implementing a strategic plan. This document, as well as the manual and tool, are available on the JSI website at <http://deliver.jsi.com/dhome/resources/publications/guidelines>.

Gather, Analyze, Plan (GAP Tool)

Developer

Developed and maintained by the USAID-funded Health Policy Project

Contact

John Stover (jstover@fututesinsitute.org)

Website

www.healthpolicyproject.com/index.cfm?id=software&groupID=33

Description

GAP (Gather, Analyze, and Plan) is a simple Excel-based tool developed to help policymakers, ministry officials, and health officials understand the costs associated with expanding family planning to achieve their country's contraceptive prevalence or fertility goals.

This strategic planning tool helps to determine the required funding level to achieve national goals by linking a country's family planning goals with what it will cost to reach those goals. The two main outputs produced by the tool are the country's funding gaps for a national family planning program and for family planning commodities. By making direct and indirect costs explicit and tying strategic goals to budgets, the GAP Tool offers further opportunity to keep countries and donors on track. The tool provides decisionmakers with information about the distribution of costs by type of cost (labor, overhead, program support, and commodities), as well by sector (NGO, private, and public). This level of disaggregation allows for discussion and planning on how new initiatives—such as increased community-based distribution of family planning or provision of free commodities in the public sector—may impact future financing gaps for governments at the country level.

Primary Uses: Strategic planning, budgeting, country-level advocacy, donor advocacy

Key Messages

Information on the direct and indirect costs of delivering family planning services in-country can help users understand what is needed to fully fund a national family planning program.

Model and Methodology

A national goal is stated as an increase in contraceptive prevalence or a decline in the total fertility rate. If the goal is a decline in total fertility, then the required contraceptive prevalence is estimated using the proximate determinants of the fertility framework. Total use is divided into users and acceptors by method and source according to current patterns (from the Demographic and Health Survey) and future expectations. Commodities and costs are calculated from the number of users and acceptors by method and source; unit costs include commodities, human resources, facilities/infrastructure, program management, and indirect costs. The requirements to achieve the goal can be compared against existing resources. The final year of the projection can be any year between 2015 and 2020. The GAP Tool produces two key results: the funding gap for the entire family planning program and for commodities. The tool provides charts on method mix and source mix.

Usability and Flexibility

The Excel-based tool is easy to use and includes many preloaded default data. Basic Excel skills are required to run the model, and some familiarity with family planning programs is helpful. The tool is flexible—it is an unlocked Excel file that can be customized by the user if desired. The basic tool is set up to explore funding needs and gaps. Users should note that it is often difficult to obtain disaggregated country-level data, as family planning is increasingly delivered as a package of services. The tool does not capture capital investments and pre-service training costs.

Country Applications

Ethiopia, Nigeria, and an upcoming application in Ghana (2012)

Tool Citation

Health Policy Project. 2011. *The GAP Tool: A Guide to Assessing the Funding Needed to Achieve Family Planning Goals*. Washington, DC: Health Policy Project, Futures Group. Available at: http://www.healthpolicyinitiative.com/Publications/Groups/group_33/33_GAP_Tool_Manual_FINAL_8_3_11_acc.pdf.

Related Products and Publications

Health Policy Project. 2011. The GAP Tool. PowerPoint presentation. Washington, DC: Health Policy Project, Futures Group. Available at: <http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=3>.

Health Policy Project. 2011. The GAP Tool. Brief. Washington, DC: Health Policy Project, Futures Group. Available at: <http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=6>.

DemDiv

Developer

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Website

<http://www.healthpolicyproject.com/index.cfm?id=index>

Description

In response to growing enthusiasm among policymakers for the potential economic benefits of the demographic dividend, the Health Policy Project developed DemDiv, a cross-national, customizable projection model. The DemDiv model is intended to be a user-friendly, evidence-based tool that can inform policymakers in high-fertility countries of the potential benefits of the demographic dividend and generate their support for investments in the multisectoral policies required to achieve those benefits. The model, which can be applied in any country, allows users to design multiple scenarios showing how the combined power of policy investments in family planning, education, and the macroeconomic environment can generate a demographic dividend not possible under the status quo.

Key Messages

The combined power of policy and program investments in family planning, education, and the economy can generate a demographic dividend not possible under a scenario of single-sector reforms. Policy changes in these areas must begin now in order to see the benefits of a demographic dividend in coming decades.

Primary Uses: Country-level advocacy, strategic planning, and program planning

Model and Methodology

DemDiv is structured as a two-part demographic-economic model. The demographic component projects fertility, population size and structure, child mortality, dependency ratios, and life expectancy. These demographic calculations feed into the economic model, which comprises three equations describing capital formation, employment growth, and total factor productivity. These are then used to project gross domestic product (GDP) and GDP per capita. The two linked model components interact over the projection period to describe the effects of different development trajectories on economic output over time.

For generating projections, DemDiv requires base year data inputs (country-specific data from national sources such as censuses and national development plans, as well as the World Economic Forum's Global Competitiveness Index) for several family planning, health, education, and economic indicators. Users may design four different end-year policy scenarios by manipulating the following variables:

- Contraceptive prevalence rate
- Education
- Institutional quality
- Labor market flexibility
- Financial market efficiency

- Imports
- Information and communication technologies infrastructure

The demographic and economic submodels interact to quantify the range of economic and development benefits that can accrue from the various policy scenarios, showcasing the investments required to open the opportunity for and achieve the demographic dividend. The key outputs of DemDiv include the following:

- | | |
|---------------------------------------|--|
| • Economic | • Demographic |
| • Labor force by age and sex | • Population by age and sex |
| • Employment | • Dependency ratio |
| • Investment or new capital formation | • Fertility rate |
| • GDP | • Life expectancy at birth |
| • GDP per capita | • Infant, child and maternal mortality |
| • GDP growth rate | |

Usability and Flexibility

The model is both adaptable and accessible to a range of users in countries around the world. Like other models developed by Futures Group, the Health Policy Project, and its predecessors, use of the DemDiv model can be taught to diverse audiences from various sectors (including data analysts who are not statisticians or computer scientists) over sessions as short as one day, and no special or proprietary software is needed. The model is scenario- and projection-based, comparing several possibilities for future development to show the varying benefits of different combinations of investments. Although the model contains default data from international sources, it is also customizable, allowing users to select and enter specific data and future policy goals. These features enable the model to be fully “owned” by its users and applied repeatedly over time within each setting where it is applied.

Country Applications

Current applications include Kenya and Uganda. Can be applied to any high-fertility country.

Tool Citation

Moreland, S., E. Leahy Madsen, B. Kuang, M. Hamilton, and P. Brodish. 2014. The DemDiv Model. Washington, DC: Futures Group, Health Policy Project.

Related Products and Applications:

National Council for Population and Development and Health Policy Project. 2014. “Demographic Dividend Opportunities for Kenya: Results from the DemDiv Model.” Washington, DC: Health Policy Project, Futures Group. Available at:

<http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=384>.

ICPD Update/ICPD Costing Approach

Developer

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http://www.unfpa.org/webdav/site/global/shared/documents/publications/2010/Revised_Costing_ICPD.pdf

Description

The 2009 International Conference on Population and Development (ICPD) Update provides the estimated minimum financial resources required to achieve the ICPD Program of Action and MDG 5 in developing and transitioning countries. Estimates were calculated for three components: (1) sexual/reproductive health/family planning (both direct and indirect costs for family planning and maternal health); (2) HIV/AIDS; and (3) basic research/data/policy analysis. Total annual costs for all three areas rise from \$50 billion in 2009 to \$70 billion in 2015. The document will likely be reviewed and updated prior to the 2014 UN General Assembly Special Session (UNGASS) on ICPD Beyond 2014.

Key Messages

The estimated annual cost for sexual/reproductive health and family planning rises from \$23.5 billion in 2009 to \$33 billion in 2015, including \$11–18 billion annually in program- and system-related costs.

Model and Methodology

Estimates were calculated for three components: (1) sexual/reproductive health/family planning, which comprises the subcomponents of family planning, maternal health (including reproductive and newborn health), and program- and systems-related costs; (2) HIV/AIDS (UNAIDS data); and (3) basic research/data/policy analysis, which primarily includes the costs associated with civil registries and censuses. The approach calculates direct costs for family planning, maternal health, and reproductive health using the Reproductive Health Costing Tool. Program- and systems-related costs are presented separately. Global- and regional-level estimates are reported, while national estimates must be produced through national consultations and use of the contributing software components (e.g., Reproductive Health Costing Tool or, more recently, OneHealth).

Usability and Flexibility

The ICPD Update is not a dynamic and publically available tool.

Country Applications

Costing includes all developing and transitioning countries.

Tool Citation

UNAIDS. 2010. Looking Back, Moving Forward: Results and Recommendation from the ICPD-at-15 Update. UNAIDS 2010. Available at:

http://www.unfpa.org/webdav/site/global/shared/documents/publications/2011/UNFPA%20ICPD%20Report_web.pdf

Related Products and Publications

The ICPD estimates are cited primarily in connection with efforts at the United Nations, including the associated report *ICPD at 15: Looking Back, Moving Forward*, available at:

http://www.unfpa.org/webdav/site/global/shared/documents/publications/2011/UNFPA%20ICPD%20Report_web.pdf.

ICPD estimates are used to inform the UN's annual Commission on Population and Development meetings.

Impact 2

Developer

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Website

<http://www.mariestopes.org/impact-2>

Description

Impact 2 enables the user to estimate a service provider's past, current, and future contributions to national family planning use and contraceptive prevalence, as well as the wider health and economic impact of these services. The model includes safe abortion and post-abortion care components. Impact 2 is useful for

- Planning a realistic program that is highly effective at the national level, and monitoring this contribution over time;
- Communicating with national governments and donors by demonstrating the relative value of investing in family planning compared to other investments; and
- Motivating staff by expressing their achievements in more human terms, such as the number of women's lives they have saved.

The tool can either convert annual family planning service provision data to family planning, health, demographic, economic, and environmental impact, or vice versa. Thus, inputs are either related to service provision numbers (by method and year) or impact goal (contraceptive prevalence contribution; market shares; maternal deaths, or unsafe abortions averted). Impact 2 is designed to be used at a program level rather than by national planners.

Impact 2 seeks to quantify a wide range of benefits from increased family planning use and reductions in unintended pregnancies. The results are intended for use by different audiences and purposes, including advocacy, planning, and monitoring and evaluation.

Key Messages

Users can demonstrate the value of investing in a specific family planning program by estimating that program's health and economic impacts.

Model and Methodology

The user can either enter service provision data to estimate the family planning, health, demographic, economic, and environmental impacts *or* enter the impact goals and estimate the service provision necessary to achieve those goals. The model does not actually project costs—this is a user input. The model works on a micro level by estimating the number of pregnancies averted among family planning users and then tracing out the impacts of averting a pregnancy. Published data on the maternal mortality ratio, abortion rates, unsafe abortion mortality, disability-adjusted life years (DALYs), health system costs, and so on are used. All data sources can be viewed and edited by the user. The tool only allows users to conduct a cost-effectiveness analysis and a partial cost-benefit analysis, since the benefits

quantified are limited to direct cost savings to the healthcare system—not the full benefit of the program. The user can select any timeframe (of any length) from 2001 up to 2020.

Usability and Flexibility

The model is pre-loaded with national data for all developing countries (from sources including the Demographic Health Survey, UN Population Prospects, UN maternal and child mortality data, World Health Organization Global Burden of Disease, and the Guttmacher Institute). The user can edit any assumption, but all the needed data have been pre-loaded. The minimum data required include either (1) service provision numbers or (2) an impact goal.

The Excel-based model is designed for program staff without expertise in modeling and includes a user-friendly interface that does not require advanced Excel skills. For basic use of the model, a 1–2 hour introduction session is available. Additional 1 hour sessions are available for more advanced features, such as setting contraceptive prevalence goals. Training materials are being developed to support use of the model.

The model is highly flexible. The user can easily run various scenarios by tweaking different assumptions—for example, changing the method mix of services provided to reach a goal. The model also allows for answering a variety of questions, as it includes a range of results such as contraceptive prevalence contribution, market share, DALYs averted, maternal deaths averted, and cost-savings. While the model is pre-loaded with data, every assumption can easily be edited by the user. The file is unlocked for public use. In addition, a detailed methodology paper accompanies the model, explaining all the calculations.

Because the tool is based on a micro-level approach, with benefits attributed to the number of pregnancies averted due to women using family planning, it is unable to account for the population-level impacts of reducing the total fertility rate.

Impact 2 is the new hybrid of the previous Impact Estimator and REACH Calculator. The REACH Calculator was widely used by MSI's national and global teams for advocacy, resource mobilization, monitoring of program performance, and planning for more effective programs.

Country Applications

Countries in which MSI is currently or planning to work in. More information is available at: <http://www.mariestopes.org/where-in-the-world>.

Tool Citation

Marie Stopes International. 2012. *Impact 2: An innovative tool for measuring the impact of reproductive health programmes*. London: Marie Stopes International. Available at: <http://www.mariestopes.org/impact-2>.

Related Products and Publications

Numerous supporting materials are available for Impact 2, including a short summary document, presentations, training sessions, and a methodology paper. All are available on the Marie Stopes website at <http://www.mariestopes.org/impact-2>.

ImpactNow

Developer

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Website

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Description

ImpactNow is an Excel-based model that estimates the health and economic impacts of family planning in the near term. It is designed to model the effects of different policy scenarios and inform the development of evidence-based advocacy materials. It can help answer the many “what if” questions about policy options. ImpactNow is designed to analyze scenarios over a two- to seven-year time horizon; for example, it could be used to estimate the effects of meeting FP2020 commitments. It can be used to model the impacts of reaching three types of goals: CPR, unmet need, and family planning budget. ImpactNow automatically compares the outcomes of up to three scenarios at once. The outcomes are focused on reproductive health metrics, as well as economic metrics, such as cost-benefit ratios and incremental cost-effectiveness ratios. It is designed to be user-friendly, with click-through navigation, default data, and automatic scenario comparison.

Primary Uses: Country advocacy, donor advocacy, and strategic planning

Key Messages

Family planning use has many health and economic benefits in the near term. Comparing multiple scenarios can inform evidence-based advocacy, as well support strategic decision making.

Model and Methodology

ImpactNow is an Excel-based tool estimating health and economic impacts of family planning. Its user-friendly format allows quick entry of inputs for up to three scenarios—including one baseline—and immediate reviewing of results. Results include estimates of the number of FP users, unintended pregnancies averted, maternal deaths averted, child deaths averted, disability-adjusted life years averted, direct healthcare costs averted, cost-benefit ratio, and incremental cost-effectiveness ratio (ICER) for a variety of outcomes. Users can base the analysis on a specific goal for the CPR, level of unmet need for family planning, or assumptions about the future level of FP funds. Default data are provided for all inputs but can be replaced.

Impacts are calculated by estimating the method-specific number of FP users based on the CPR, unmet need, or budget goal. All other impacts are based on the number of FP users. Direct healthcare costs averted are based on the average cost per pregnancy, considering coverage and unit costs of various maternal health interventions. The cost-benefit ratio compares costs averted to FP program costs based on the contraceptive method mix and cost-per-user by method. The ICER can be displayed for any output, comparing FP program costs and effects to the baseline scenario. Core methodology is coordinated with Marie Stopes International’s Impact 2 methodology.

Usability and Flexibility

Because of its click-through navigation, the user does not need advanced Excel skills. Defaults make quick analysis possible. The user can also override the defaults for any of the inputs, when better data are available or to model the impacts of policy implementation. The user can choose the type of policy goal—CPR, unmet need, or budget—to be modeled. The user can also select which outputs to focus on and change the output variable of interest for the ICER calculations.

Country Applications

Ethiopia (Amhara Region), Zimbabwe, and Kenya

Tool Citations

Smith, E. 2014. *The ImpactNow Model*. Washington, DC: Futures Group, Health Policy Project.

Related Products and Publications

- Health Policy Project and Regional Health Bureau, Ethiopia. 2014. “ImpactNow Demonstrates the Short-Term Benefits of Investing in Family Planning.” Washington, DC: Health Policy Project, Futures Group. Available at: http://www.healthpolicyproject.com/pubs/259_ImpactNOWBriefOct.pdf.
- Health Policy Project. 2014. The Near-Term Health and Economic Benefits of Family Planning in Zimbabwe. Washington, DC: Health Policy Project, Futures Group. Available at: http://www.healthpolicyproject.com/pubs/333_NearTermBenefits.pdf.
- Zimbabwe Ministry of Health and Child Care and Zimbabwe National Family Planning Council. 2014. *How Family Planning Saves the Lives of Mothers and Children and Promotes Economic Development*. Washington, DC: Health Policy Project and United Nations Population Fund. Available at: http://www.healthpolicyproject.com/pubs/402_ZimbabweBookletWebSingles.pdf.

Invest-FP Calculator

Developer

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Website

<http://archive.k4health.org/toolkits/cba2i/invest-fp-calculator>

Description

The Invest-FP Calculator is an Excel-based tool that uses readily available data to model the financial and programmatic impacts of different rural public-sector family planning (FP) service delivery strategies. Unlike other tools, the Invest-FP Calculator focuses on community-based strategies for delivering FP services. It allows users to explore the financial and human resource requirements of different community health worker (CHW) deployment options through modeling based on country-specific data. The Invest-FP Calculator is designed to help decisionmakers explore different strategies for expanding rural public-sector family planning (FP) programs to achieve their country's contraceptive prevalence goals.

Key Messages

The Invest-FP Calculator illustrates how the use of CHWs could result in substantial time savings for facility-based providers, thereby freeing them to provide services that require higher medical training. In settings where facility-based providers are overburdened due to human resource shortages, task sharing with CHWs has the potential to make more efficient use of facility-based providers' time and more efficient use of investments within the health sector.

Model and Methodology

The Invest-FP Calculator uses a series of calculations based on variables supplied by the user to model the financial expenditures associated with different FP service delivery strategies. Data from multiple sources are combined with productivity estimates of CHWs to determine the resources required to meet a 2015 contraceptive prevalence rate (CPR) goal; three service delivery strategies are considered, in which FP services: (1) are only provided in facilities; (2) are provided in facilities and by CHWs who provide pills and condoms only; and (3) are provided in facilities and by CHWs who provide pills, condoms, and injectable contraceptives. The user can input any 2015 CPR goal, adjust the 2015 method mix, and determine the number of CHWs to be deployed to explore how resource requirements for each strategy would be affected.

Usability and Flexibility

Data needs are low and the few inputs needed are readily available. Defaults are available for most of the data. A working knowledge of Excel is helpful but not required to use the Invest-FP Calculator; basic comfort with a computer screen, mouse, and keyboard is all that is needed to use the tool properly and effectively. On-screen prompts and directions will guide the user through the tool. For additional guidance, the user can follow a simple English language user guide to walk through the tool.

The country-specific tool is designed to allow the user to explore multiple scenarios for delivering FP services. The interactive interface allows the user to explore different options and view the potential

outcomes of altering variables within the tool, such as contraceptive prevalence goals, method mix, number of CHWs deployed, the level of effort CHWs devote to family planning, the monthly compensation for CHWs, and the FP methods that the CHWs can provide. Users can enter numbers in selected cells directly in the Excel file. At this time, the Calculator can only be used to explore options at the national level.

Because of the user-friendly design of the tool, it can serve as a presentation aid to effectively communicate information to stakeholders with varying levels of technical knowledge regarding alternative FP programs and strategies.

Country Applications

To date, the tool has been presented to international audiences and plans are underway to implement the tool in several sub-Saharan African countries.

Tool Citation

FHI 360 and Progress in Family Planning. *The Invest-FP Calculator: A User's Guide*. Washington, DC: USAID. Available at: http://archive.k4health.org/system/files/PROGRESS_Invest-FP-UsersGuide_FINAL_Feb2012%20%282%29.pdf.

Related Products and Publications

A brief for the Invest-FP Calculator is available at:
http://archive.k4health.org/system/files/PROGRESS%20Invest-FP%20Calculator%20Brief_FINAL_Feb%202012%20%282%29.pdf.

Lives Saved Tool (LiST)

Developer

Developed by a consortium of academic and international organizations supported by the U.S. Fund for UNICEF and maintained by Futures Institute.

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Website

<http://software.futuresgroup.com/archive/spectrum/CSmanual.pdf>

Description

The Lives Saved Tool (LiST) is an evidence-based, decision-making tool for estimating the impact of different intervention packages and coverage levels at the country, state, or district level on reducing child mortality. It is a computer-based tool that is part of the Spectrum System of Policy Models. It allows the user to set up and run multiple scenarios, providing a structured format to combine the best scientific information about the effectiveness of interventions for maternal, neonatal, and child health with information about cause of death and current coverage of interventions. The information helps program managers or Ministry of Health personnel to conduct strategic planning and decision making, prioritize investments, and evaluate existing programs.

LiST can be used as (1) a stand-alone piece to evaluate the impact of scaling up all of the included interventions, a subset of them (for example, malaria control interventions), or a single one; and (2) a tool to estimate the number of lives saved by different interventions or a combination of them.

Key Messages

Evidence can help program managers or Ministry of Health personnel to conduct strategic planning and decision making, prioritize investments, and evaluate existing programs.

Model and Methodology

LiST estimates the effects of 80+ maternal and child survival interventions on maternal and child mortality. Child mortality is disaggregated into neonatal, infant, and under-five mortality and by cause of death. The effectiveness of each intervention has been determined by the Child Health Epidemiology Reference Group. LiST estimates the independent and joint effects of interventions both directly on each cause of death and indirectly through stunting, intrauterine growth restriction, and other risk factors.

The LiST program comprises two modules: EasyLiST and ExpertLiST. EasyLiST is a special feature of the Lives Saved Tool that allows the use of previously prepared health and intervention coverage data to quickly make child and maternal survival projections by simply choosing the interventions and target coverage for each projection desired. ExpertLiST allows for detailed editing of projection inputs, such as intervention coverage by year; baseline health status, child and maternal mortality, abortion, stillbirth, or economic status data; the effectiveness of interventions; and the impact of under-nutrition on mortality.

LiST estimates the mortality impact via five age bands: 0 months, 1–5 months, 6–11 months, 12–23 months, and 24–59 months. For each age band, reductions in cause-specific mortality are estimated by combining each intervention's effectiveness and coverage. The impacts of interventions are calculated

separately for eight causes of death in the neonatal period and nine causes of death in the 1–59 month period.

To model the impacts on child health, LiST interacts with DemProj, another model within Spectrum that calculates demographic data—such as the numbers of deaths disaggregated by age band—while using neonatal, infant, and under-five mortality rates from LiST. LiST also estimates the impact of interventions on maternal mortality via similar methods.

List can interact with other models of Spectrum to take into account the impacts of demographic change, family planning, and HIV/AIDS on child mortality. The FamPlan and DemProj models can affect the LiST model by reducing the number of child or maternal deaths. The impact of HIV/AIDS on child mortality can be accounted for in LiST by using AIM (AIDS Impact Model).

Usability and Flexibility

There are a large number of inputs, but default values are provided for all of them. Some training or familiarity with Spectrum models will facilitate use. The EasyLiST module is easy to use. The user only needs to choose a country and specify a scenario. Multiple scenarios (up to 10) can be analyzed at once. LiST can be used to explore a variety of maternal and child survival packages, and a research version of the tool allows customization of interventions. LiST cannot be adapted (it is hard-coded), but the user can easily copy results tables into Excel for further, customized analyses.

Users should note that for some interventions, estimates of effectiveness may rely on a small number of studies. The current version does not consider cost, but work is underway to add a costing component to the model.

Country Applications

LiST has been used for global and country analysis, including for the 68 countries of the Count Down to 2015 Initiative.

Tool Citation

Plosky, W., J. Stover, and B. Winfrey. 2011. *The Lives Saved Tool: A Computer Program for Making Child Survival Projections—User’s Manual*. Glastonbury, CT: Futures Institute. Available at: <http://futuresinstitute.org/Download/Spectrum/Manuals/ListManE.pdf>.

Related Products and Publications

In addition to being used extensively for research purposes and published peer-reviewed journals, LiST has been used and cited widely in reports, speeches, and campaigns, including the following:

- Bill & Melinda Gates Foundation. 2010. “Decade of Vaccines.” Available at: <http://www.gatesfoundation.org/vaccines/pages/decade-of-vaccines.aspx>.
- Bill & Melinda Gates Foundation. 2009. “Impatient Optimist Speech.” Available at: <http://www.gatesfoundation.org/livingproofproject/Pages/impatient-optimists-speech.aspx>.
- UNICEF. 2009. *Global Action Plan for Prevention and Control of Pneumonia*. New York: UNICEF. Available at: http://www.unicef.org/media/files/GAPP3_web.pdf.
- Norwegian Agency for Development Cooperation. 2008. *The Global Campaign for the Health Millennium Development Goals: First Year Report*. Oslo: Norwegian Agency for Development Cooperation. Available at: <http://www.norad.no/en/thematic-areas/global-health/maternal-child-and-womens-health/health-mdgs-reports>.

- Kinney, M., J. Lawn, and K. Kerber, eds. 2009. *Science in Action: Saving the Lives of Africa's Mothers, Newborns, and Children*. Cape Town: African Academy Science Development Initiative. Available at: http://www.nationalacademies.org/asadi/2009_Conference/PDFs/ScienceInActionFullReport.pdf
- Save the Children. 2011. *Missing Midwives*. London: Save the Children. Available at: <http://www.savethechildren.org.uk/resources/online-library/missing-midwives>.

Marginal Budgeting for Bottlenecks

Developer

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Description

The Marginal Budgeting for Bottlenecks (MBB) tool estimates the potential impact, resource needs, costs, and budgeting implications of country strategies to remove systemic bottlenecks and implementation constraints of the health system.

MBB helps users analyze the performance of the health system using the “bottleneck identification and analysis approach.” This approach identifies any weakness and gaps across six determinants:

- Availability of essential commodities
- Availability of human resources
- Geographical or financial access to health services
- Initial utilization of health services
- Continuous utilization or adequate coverage
- Effective coverage or quality of care

As such, the tool helps users identify the main areas of a health system that could benefit from additional resources to improve health Millennium Development Goal (MDG)-related indicators. By identifying these bottlenecks, the tool’s outputs help policymakers

- Select the priority health interventions, policies, and strategies they wish to implement;
- Estimate the additional resources needed and progress toward achieving the health MDG-related goals; and
- Project the estimated impact of the chosen strategies on the health MDGs.

MBB is intended to help formulate medium-term (one to 10 years) national or provincial expenditure plans and poverty reduction strategies that explicitly link expenditure to health and nutrition MDGs. MBB is designed to facilitate the budgeting process for government health expenditures and provide a basis for policy dialogue and planning. One strength of the tool is that it helps simulate the potential effects and additional cost and budget implications of alternative health service delivery strategies using different integrated production functions (community/family-based, population/outreach-based, or clinic-based).

Primary Uses: Policymakers, program managers, and planners dealing with budgeting and country-level and donor advocacy

Key Messages

Evidence can be used to prioritize high-impact interventions to allocate efficiently resources for better health outcomes. The identification, analysis, and removal of system bottlenecks and prioritization of evidence-based solutions help to improve the performance of a health system.

Model and Methodology

The MBB estimates the additional resources required to remove health system bottlenecks that hinder the performance and coverage of the health system. The change in total cost is expressed as the new total cost less the original total cost, where the cost is the product of the price (P) X (time) quantity of inputs (Q) needed at each level of output.

In the MBB approach, the impact calculation is a function of change in coverage (the difference between the baseline and the coverage goals) and the efficacy level of the intervention. The model uses three key parameters: (1) health burden (e.g., mortality attributable to key cause-specific diseases); (2) change in intervention coverage; and (3) intervention population efficacy.

To estimate the impact for each sub-package and service delivery mode, the MBB tool computes the sum of the residual impact for (1) the interventions in each sub-package, (2) the sub-packages in each service delivery mode, and (3) the sum of the residual impact of each service delivery mode.

Usability and Flexibility

The MBB is a complex tool with high data requirements and is not meant to be used by a single person. A guide is designed to lead the user through the tool; however, an MBB application requires a multidisciplinary team and training and understanding of public health and economic concepts.

Seven choices for default values are available in the tool. The MBB is country-specific; it allows the user to model customized scenarios based on country context, national goals, policies, strategies, and so on. Results are easy to interpret and understand by various audiences, including program managers, decisionmakers, and policymakers. Users should note that, as is the case for the majority of tools designed for strategic planning, costing, and budgeting, data availability and quality is a challenge and outputs should be interpreted as estimates.

Country Applications

Since 2003, the tool has been used in more than 50 countries mainly to develop and cost national health strategic plans, medium-term expenditures frameworks, MDG needs assessments, and so on.

Tool Citation

Marginal Budgeting for Bottlenecks: An analytical tool for evidence-based health policy, planning, costing, and budgeting—Concise User Guide. Available for download on CD at:
<http://www.devinfolive.info/mbb/mbbsupport/>.

Related Products and Publications

MBB was used to model the Asia & Pacific investment case and to develop the African investment case adopted by all ministers of health and finance:

- Maternal, Newborn and Child Health Network for Asia and the Pacific. 2009. *Investing in Maternal, Newborn and Child Health: The Case for Asia and the Pacific*. Geneva: World Health Organization. Available at:
http://www.who.int/pmnch/topics/economics/20090501_investinginmnch/en/index.html.

- Harmonization for Health in Africa. 2011. *Investing in Health for Africa: The Case for Strengthening Systems for Better Health Outcomes*. Available at: http://www.who.int/pmnch/topics/economics/20110414_investinginhealth_africa/en/ and at <http://www.hha-online.org/hso/hha/news/2786/investing-health-africa-case-strengthening-systems-better-health-outcomes>.

UNICEF used the MBB tool in 2010 to evaluate an equity-focused strategy that aims to move countries more quickly, strategically, and cost-effectively toward meeting MDGs 4 and 5.

MDG Analyses

Developer

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Websites

www.healthpolicyinitiative.com/Publications/Documents/788_1_Family_Planning_and_the_MDGs_FIN_AL_June_09_acc.pdf

Description

The family planning Millennium Development Goal analyses and briefs are flexible, evidenced-based advocacy tools that help demonstrate that family planning is a strong complement to—rather than a trade-off with—other health, development, and poverty reduction efforts. The methodology involves applying a benefit-cost analysis and focuses on selected indicators under the MDG targets. The specific indicators vary, depending on the key issues in the selected country, but typically fall under five MDGs: achieving universal primary education (#2); reducing child mortality (#4); improving maternal health (#5); combating HIV/AIDS, malaria, and other diseases (#6); and ensuring environmental sustainability (#7).

The MDG analyses are highly valuable advocacy tools. By showing the economic benefits of investing in family planning, the analyses and briefs can reach diverse audiences that might not traditionally champion FP issues, such as ministry of finance or planning officials. The analyses and briefs illustrate that savings are gained across sectors, which enables advocates to tailor advocacy strategies toward stakeholders involved in primary education, environmental and energy conservation, and other issues. Moreover, FP programs contribute to efforts to reduce maternal and child mortality, prevent HIV transmission (by providing counseling on condom use), empower women, and help families create a path out of poverty—key priorities that governments are accountable for in achieving the MDGs.

Primary Uses: Strategic planning, country-level advocacy, donor advocacy

Key Messages

Family planning is a strong complement to—rather than a trade-off with—other health, development, and poverty reduction efforts.

Model and Methodology

Two scenarios are projected, with both assuming that the MDG indicators are achieved. Interventions included in the model are family planning, maternal and child health, and water. In one scenario, the country's unmet need for family planning is gradually met by 2020; in the second scenario, unmet need is not met and the contraceptive prevalence rate remains constant. The analysis uses published estimates of cost per FP user or cost per couple year of protection to estimate the cost of FP programs. The costs of family planning and of meeting selected MDG indicators are estimated under both scenarios for each country. A comparison of the two scenarios reveals the country's net cost savings and maternal and child deaths prevented from 2005–2015 by investing in family planning. Health outputs include estimates of HIV and malaria in addition to family planning and maternal, neonatal, and child health. The model also

estimates the impacts on environmental sustainability and education, as well as provides a cost-benefit analysis.

Usability and Flexibility

The tool used for the MDG analyses is not available publically; however, the tool and support is available upon request from the developer. Country briefs and PowerPoint presentations are available for 30 countries. The data requirements to use the tool are medium; however, the tool is easy to use and highly flexible.

Country Applications

Briefs and PowerPoint presentations have been created for 30 countries.

Tool Citation

USAID | Health Policy Initiative, Task Order 1. “Family Planning and the MDGs: Saving Lives, Saving Resources.” Washington, DC: USAID | Health Policy Initiative, Task Order 1, Futures Group. Available at:

http://www.healthpolicyinitiative.com/Publications/Documents/788_1_Family_Planning_and_the_MDGs_FINAL_June_09_acc.pdf

Related Products and Publications

More than 30 MDG briefs and PowerPoint presentations have been produced using the MDG analyses. Results from the MDG Analyses have been used in a number of reports and advocacy approaches, including the following:

- Population Reference Bureau. ENGAGE Presentations. Available at: <http://www.prb.org/Journalists/ENGAGEPresentations.aspx>.
- USAID | Health Policy Initiative, Task Order 1. 2006. *Achieving the Millennium Development Goals: The Contribution of Family Planning*. Washington, DC: USAID | Health Policy Initiative, Task Order 1, Futures Group. Available at: <http://www.healthpolicyinitiative.com/Publications/Documents/MDGMaster%209%2012%2006%20FINAL.pdf>.
- Health Policy Project. 2011. *Achieving the MDGs: The Contribution of Family Planning in Francophone West Africa*. Washington, DC: Health Policy Project, Futures Group. Available at: http://www.healthpolicyproject.com/pubs/24_MDG%20%20CountriesJanuary%20.pdf.
- Bill & Melinda Gates Foundation and Johns Hopkins University. 2009. *Making the Case for U.S. International Family Planning Assistance*. Seattle, WA: Bill & Melinda Gates Institute and Johns Hopkins University. Available at: <http://www.jhsph.edu/research/centers-and-institutes/bill-and-melinda-gates-institute-for-population-and-reproductive-health/pdf/publications/MakingtheCase.pdf>.

Mother-Baby Package Costing Spreadsheet

Developer

World Health Organization (WHO)

Contact

None

Websites

www.who.int/reproductivehealth/publications/maternal_perinatal_health/RHR_99_17/en/index.html

whqlibdoc.who.int/hq/1999/WHO_FCH_RHR_99.17.pdf

Description

The Mother-Baby Package Costing Spreadsheet is used to estimate the cost of implementing a set of maternal and newborn health interventions at the national or district level. The default settings of the model represent a hypothetical rural, low-income district population. For a very rough estimation of total cost, based on “standard” treatment, the default settings can be used with minimal modification. For a more rigorous analysis that better reflects the local situation, the inputs should be more critically examined and modified. Specifically, using locally collected data, the model can be used first to estimate the actual cost of current services and second to estimate the cost of upgrading the health system to meet the standards in the Mother-Baby Package, which include the WHO standard recommendations. The difference between the “current” and “standard” cost estimates represents the additional cost needed to strengthen the health system to meet WHO standards. Included are estimates of total, average per capita and per birth cost for the district or national level. The estimates are further broken down by input (e.g., drugs, vaccines, salaries, and infrastructure); intervention (e.g., management of normal birth, hemorrhage, eclampsia, and sepsis); and service location or level (e.g., hospital, health center, and health post). The tool provides an abundance of outputs.

Primary Uses: Strategic planning, program planning, budgeting, country-level and donor advocacy

Key Messages

The tool highlights the difference between actual maternal health expenditures and the budget required to meet established standards.

Model and Methodology

The tool has two files: one that estimates the actual cost of current interventions and another that estimates the costs of interventions under a standard situation based on international or government guidelines for high-quality health services. The difference between the “current” and “standard” cost estimates represents the incremental cost of strengthening the health system in the area under study. Included are estimates of total, average per capita and per birth cost. The estimates are further broken down by input (e.g., drugs, vaccines, salaries, and infrastructure); intervention (e.g., management of normal birth, hemorrhage, eclampsia, and sepsis); and service location or level (hospital, health center, and health post).

Inputs include direct, recurrent, and capital costs. The direct costs are specific to 12 maternal and child health services. These costs are calculated using data collected from facilities on the content of care, type of provider, and amount of time per service. Facility-level data also determine the proportion of recurrent

and capital costs allocated to these maternal and child health services. This is based on the percentage of overall clinic time used to provide these services.

The user also specifies the percentage of women that receive these services at each level (health post, clinic, and hospital), which allows for straightforward calculation of costs when the number of clients is increased.

Usability and Flexibility

Data needs are high; a rigorous analysis requires both national- and facility-level data collection. Much of the data are readily available but need to be collected from a variety of venues. There is a large amount of data entry and more than one data validation meeting is needed. Default data are available for the standard file, which can be used with minimal modification, as most countries use the WHO standards.

Users should have a health economics background and strong Excel skills. A training of 3–5 days would be advantageous. While unlocked for editing, the Excel file is quite complex. The tool is accompanied by a detailed users' guide. With the guide and a strong background in Excel, manipulating the spreadsheet is straightforward. The complexity comes in modifying the inputs, and the assistance of a health economist and health provider would be beneficial. Once the initial files are completed, running a variety of scenarios is easily done. The tool can answer many questions and be adapted to national and sub-national populations.

The tool automatically produces graphs of outputs on current health services, standard WHO services, and the gap between current and standard WHO services. The tool has been used widely across sub-Saharan Africa and is being rolled out in the Asia Pacific.

Country Applications

Afghanistan, Burkina Faso, Ecuador, Haiti, Kenya, Malawi, Mexico, Mozambique, Nepal, Nigeria, Rwanda, Senegal, Uganda, Zanzibar

Tool Citation

Maternal Health and Safe Motherhood Programme, Division of Family Health, World Health Organization. No date. *Mother-Baby Package: Implementing Safe Motherhood in Countries: A Practical Guide*. Available at: http://whqlibdoc.who.int/hq/1994/WHO_FHE_MSM_94.11_Rev.1.pdf.

Related Products and Publications

No published products or publications to date.

OneHealth

Developer

Inter-Agency Working Group (IAWG) on Costing
(UNICEF, World Bank, WHO, UNFPA, UNDP, and UNAIDS)

Contact

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Bill Winfrey (bwinfrey@futuresinstitute.org)

Websites

www.internationalhealthpartnership.net/en/working_groups/working_group_on_costing

<http://www.futuresinstitute.org/Pages/OneHealth.aspx>

Description

The IAWG has been working since January 2008 on the harmonization of costing and impact assessment tools used for health sector planning. The OneHealth Model is a new software tool included in the Spectrum System of Policy Models designed to strengthen the development of national strategic health plans, by facilitating health system analysis, costing, and financing scenarios at the country level. Its primary purpose is to assess public health investment needs in low- and middle-income countries. For the first time, planners have a single framework for planning, costing, impact analysis, and budgeting and financing of strategies for all major diseases and health system components. While primarily a planning tool, results are easily understood by lay people, and the model focuses on issues relevant to policymakers, making it valuable for advocacy purposes.

The current version of OneHealth (June 2012) includes modules to support MDG-related health activities, as well as planning and costing components for the supply side of health systems (human resources, infrastructure, and logistics). The tool also includes a financial space analysis and health impact prediction for the MDGs. Various components of the tool have been field tested and reviewed by experts, and its overall framework has been reviewed as part of country desk reviews. For the second version, the IAWG will include additional modules for health information systems, governance, and non-communicable diseases to allow for comprehensive health systems planning.

FamPlan is integrated within OneHealth, allowing the user to estimate the intervention, program, and health systems costs associated with scaling up a family planning program. Since FamPlan is integrated within OneHealth, the user can examine the financial and impact synergies of family planning scale-up within the larger ambit of reproductive, maternal, and child health. Similarly, the user can examine the possibilities for scaling up family planning within a comprehensive maternal and child health or national health program.

Components available in the June version:

- Planning by levels: community, outreach, health center, hospital
- Planning by programs: child health, reproductive and maternal health, immunization, nutrition, water and sanitation, HIV, TB, and malaria

- Impact modules: Lives Saved Tool (LiST)—for a range of child and maternal health interventions, including malaria interventions; AIDS Impact Model (AIM)—for HIV/AIDS interventions; FamPlan Model—for family planning and total fertility; and a newly developed TB impact model
- Health systems planning: human resources, infrastructure, and logistics; bottleneck analysis; projections of future available health financing and financial space; budget mapping; and results for total and additional costs, outputs, and health impact

Future additional components for version 2 will include planning by programs (non-communicable diseases, neglected tropical diseases, general care); health systems planning (health information systems, governance, health financing activities); and impact modules (for adult malaria and non-communicable diseases).

Primary Uses: Strategic planning, program planning, budgeting, country-level advocacy

Key Messages

Planners should have a single framework for planning, costing, impact analysis, and budgeting and financing of strategies for all major diseases and health system components.

Model and Methodology

OneHealth builds on DemProj, FamPlan, LiST, and AIM for calculating the impacts via pre-loaded epidemiological and demographic inputs. Default unit costs for commodities are provided but users can adjust them. Unit costs for family planning include commodities, as well as human resources, facilities, indirect costs, and health systems (calculated using a systems approach). OneHealth estimates intervention costs by multiplying coverage scale-up by intervention-specific resource requirements. Program support costs are calculated via adaptable elements that include program management, supervision, training, communication, advocacy, and so on. Health systems are costed by multiplying the scale-up of crucial elements by appropriate cost structures. Family planning is costed via the maternal, newborn, and reproductive health program area. If the user wishes to emphasize a vertical FP program, a custom program may be created. Outputs include maternal health, child health, infant/newborn health, FP, and total and marginal cost projections for FP and MCH. Budgets can be disaggregated by source of funding, and the tool can calculate resource needs and the funding gap. The timeframe is flexible, but the tool is recommended for medium-range planning of 3–10 years.

Usability and Flexibility

Data requirements are medium to high. Epidemiologic information, default intervention coverage, and demographic data are pre-loaded. Default unit costs for commodities are included but can be adjusted by the user; health systems costs must be supplied by the user. The tool is fairly complicated and users require a one-week training, a high level of education and quantitative skills, and intermediate Excel skills. Input load is high and is recommended only for costing real plans (i.e., not for quick estimations).

Categories of expenditures, health system set-up, and so on are highly flexible, but the method of calculation is not. The model cannot be adapted (it is hard-coded), but outputs can easily be copied into Excel for further analyses. Input load is high, thus the tool is recommended only for costing real plans (i.e., not for quick estimations).

Country Applications

Burkina Faso (re-costing of strategic plan); Ethiopia (costing of maternal health roadmap); Senegal (costing of national health plan). There are also 5–10 applications envisioned for 2012.

Tool Citation

Datta, S., and B. Winfrey. *OneHealth Start-up Manual: A Computer Program for Making Informed Health Programming Decisions*. Glastonbury, CT: Futures Institute. Available at: http://futuresinstitute.org/Download/Spectrum/Manuals/OneHealth_Startup_Draft.pdf.

Related Products and Publications

No published products or publications to date.

PipeLine

Developer

John Snow, Inc.

Contact

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Website

<http://deliver.jsi.com/dhome/resources/tools/softwaretools/pipeline>

Description

The PipeLine Monitoring and Procurement Planning System (PipeLine 5.1), a software tool, was designed to help plan optimal procurement and delivery schedules for health commodities (including but not limited to family planning commodities) and monitor stock levels throughout the supply chain. Policymakers, product suppliers, and donors can generate reports, estimate future product needs, and use the software as a key tool in program planning. PipeLine provides information needed to initiate and follow up on actions to ensure the regular and consistent stock of products at the program or national level.

PipeLine helps a user achieve the right quantities at the right time. For each product, PipeLine monitors

- The total quantities consumed (i.e., amounts dispensed to users or sold to clients);
- Shipments of new products (planned, ordered, shipped, or received) into your program and the values of your products;
- Inventory levels for each product in your program's logistics system (desired and actual); and
- Inventory-level changes (e.g., product losses or transfers out of or into your program).

With these data and an understanding of the lead time required for each step in the procurement process, PipeLine can

- Indicate the needed actions to take for efficient procurement planning and management and when these actions should be taken;
- Identify impending problems (i.e., surpluses, shortfalls, or stockouts) before they occur;
- Calculate procurement quantities needed to keep the pipeline in balance; and
- Calculate the estimated value of shipments or maintain the actual value (if known).

Primary Uses: Program planning, country-level and donor advocacy, budgeting

Key Messages

PipeLine encourages sound supply chain management practices through proactive supply planning and monitoring of stocks on a programmatic level.

Model and Methodology

PipeLine translates the three key logistics data items (stock on hand, consumption or supply chain issues, and losses and adjustments) into a readily understandable "balance sheet" format. This format allows the user to determine how long existing quantities will last at the current or projected future rate of use, as well as the potential impact of delayed shipments or expiries. Users can easily plan new shipments and

view and project trends in consumption and stock levels. If additional data such as per unit cost are provided, PipeLine can also provide detailed cost breakdowns per product or group of products or shipments. PipeLine is not limited to use for family planning programs; however, because of its long history of use for such programs, estimates of couple-years of protection (CYP) may also be calculated. The smallest unit of time calculated by PipeLine is one month. There is no maximum unit of time, and the user determines the timeframes for reports and data entry.

Usability and Flexibility

PipeLine can be easy to use, with little more than a product list and basic stock data (stock on hand, consumption, losses, and adjustments). However, the more inputs provided, the more sophisticated PipeLine's outputs can be (e.g., per unit cost, freight costs, and case and pack sizes can all enhance use of the tool).

PipeLine is a Microsoft Access-based software. While it is hard-coded (the source code cannot be readily accessed and manipulated), the inputs are extremely flexible in terms of source and use. It can analyze multiple scenarios, as input by the user. PipeLine also has the ability to import product information and consumption data. A person with basic computer skills in Microsoft Access can learn to use the tool in approximately three days. While formal education is not needed, understanding the basics of supply chain management is helpful.

PipeLine comes with extensive user documentation to help new and experienced users take advantage of its many features. Training is offered by request and for a fee. PipeLine and all user documentation is freely available through the USAID | DELIVER PROJECT website, and a support person is available via email to assist users who experience problems or have questions using the tool. The most recent version was released in 2011.

Users should note that PipeLine does not monitor flows of commodities between points in a supply chain: rather, it monitors the entire supply chain. It should not be used as a stand-alone Logistics Management Information System but rather used in conjunction with other tools as a part of a system. PipeLine does not track individual lot or batch numbers and cannot therefore be easily used to track expiration dates of products within the system. It is not intended to be used as a Warehouse Management System.

Country Applications

PipeLine has been used in more than 40 countries for reproductive health products, essential medicines, antiretroviral testing and treatment, malaria testing and treatment, lab supplies, and tuberculosis treatment.

Tool Citation

USAID | DELIVER PROJECT, Task Order 4. 2012. *PipeLine Software Database Administrator's Guide*. Arlington, VA: USAID | DELIVER Project, John Snow, Inc. Available at: http://deliver.jsi.com/dlvr_content/resources/allpubs/softwaremanuals/PipeLine_AdminGuide.pdf.

Related Products and Publications

PipeLine has been cited in countless publications, including quantification reports and various trip reports. Case studies of PipeLine use in various countries are provided in the tool administrator's guide.

RAPID

Developer

Developed by Futures Group and maintained by the USAID-funded Health Policy Project

Contact

policyinfo@futuresgroup.com

Website

www.futuresgroup.com/resources/software_models/rapid

Description

Developed in 1978, RAPID (Resources for the Awareness of Population Impacts on Development) has been continually improved and updated with the latest information. RAPID projects the social and economic consequences of high fertility and rapid population growth for development sectors such as labor, education, health, urbanization, and agriculture. It is intended to provide projections that can stimulate policy dialogue about the importance of population factors to social and economic development. RAPID is part of the Spectrum System of Policy Models and can be downloaded online.

RAPID presentations and booklets, based on the analyses, convey key information to policymakers in a concise, user-friendly manner. The model can be used with diverse audiences (e.g., senior decisionmakers, budget planners, religious leaders); for various sectors (e.g., environment, health, education, economy); and at different levels (e.g., national, decentralized). In many countries, advocacy using RAPID has led to policy and programmatic change. From a policy perspective, RAPID shows the benefits of

- Taking policy actions sooner rather than later;
- Evaluating the economic efficiency of a set of policy actions;
- Showing the interrelatedness of population dynamics with other sectors; and
- Highlighting that a population's composition affects its needs and well-being.

RAPID can be tailored to address the highest priority policy goals and objectives in a given setting.

Recently, RAPID/*Women* was developed to build on typical RAPID analyses and demonstrate how investing in family planning and women-centered strategies can increase quality of life for women, girls, and families, as well as overall development. In addition to presenting the quantitative projections of infant, child, and maternal mortality and GDP per capita, RAPID/*Women* emphasizes putting a human face and story behind national reproductive health statistics. The model can be used to create an evidence base for women's rights advocates, government leaders, and women's organizations to advocate for increased investments in family planning/reproductive health and other women-centered interventions in their countries.

Primary Uses: Country-level advocacy

Key Messages

Slowing population growth can alleviate the demand on resources across various development sectors.

Model and Methodology

The model combines socioeconomic indicators—such as labor force participation, primary school enrollment, and number of nurses per capita—with demographic information and population projections to estimate the impact on social and economic development up to 50 years into the future.

RAPID is based on demographic information (e.g., population size, age, and sex distribution) over a period determined by the user. Population projections are generated in the DemProj Model of the Spectrum System of Policy Models. Using this demographic information, RAPID generates projections of the socioeconomic impacts of population change on various sectors, including the economy, education, health, urbanization and agriculture. The model quantifies the human resources and other indicators (e.g., teachers, schools, jobs, and healthcare workers) that will be required in the future based on the underlying population projections. RAPID also uses the demographic data to calculate changes in common development indicators, such as GDP per capita and arable land.

The timeframe is variable and can be adjusted for historic estimates and future projections; however, RAPID is typically used for a minimum 20-year projection period.

Usability and Flexibility

RAPID requires demographic data (prepared in the DemProj Model) and policy planning goals (e.g., a target contraceptive prevalence rate or total fertility rate). The model requires some training as well as understanding of demography and software. The main RAPID software cannot be changed (it is hard-coded in Spectrum), but it is fairly easy to add or adapt additional sectors via Excel analyses.

Country Applications

RAPID analyses have been presented to cabinet-level officials, including 15 heads of state, in more than 40 countries.

Tool Citation

Abel, E. No date. *RAPID Computer Programs for Examining the Socioeconomic Impacts of Population Growth*. Washington, DC: POLICY Project and USAID | Health Policy Initiative, Task Order 1. Available at: <http://futuresinstitute.org/Download/Spectrum/Manuals/RapmanE.pdf>.

Related Products and Publications

Presentations, booklets, and briefs exist for many countries and are available on the Health Policy Project website. Recent RAPID presentations include the following:

- Health Policy Project. 2012. “Malawi RAPID: Population and Development.” Washington, DC: Health Policy Project. Available at: <http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=70>.
- Health Policy Project. 2011. “RAPID Nigeria: The Change We Seek: Health.” Washington, DC: Health Policy Project. Available at: <http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=37>.
- Health Policy Project. 2011. “RAPID/Women Policy Presentation: A New Advocacy Tool for Women Leaders.” Washington, DC: Health Policy Project. Available at: <http://www.healthpolicyproject.com/index.cfm?id=software&get=RAPIDW>.

Reality √

Developer

USAID ACQUIRE and RESPOND Projects/EngenderHealth

Contact

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Website

<http://www.respond-project.org/pages/pubs/tools.php>

Description

Reality √ is an Excel-based tool developed to facilitate the generation of data for evidence-based planning and advocacy in family planning programs. Reality √ helps users plan based on informed estimates of contraceptive need by examining the relationship between widely available demographic data (contraceptive prevalence and population) and numbers of family planning users, adopters, and commodities and caseload. It can be used for advocacy—helping users set realistic family planning goals by illustrating the resources required as well as the potential impact (e.g., averted unintended pregnancies, induced abortions, and maternal, infant, and child deaths) of realizing these goals. The tool requires minimal data inputs and basic Excel skills, thus facilitating use by professionals with limited technological and/or data analysis skills; and it can be used at the national and subnational levels of the health system.

Reality √ is best used as a strategic planning and advocacy tool; donors, program managers, and planners can use the tool to set evidence-based family planning goals and plan for the inputs necessary to reach those goals.

Primary Uses: Program planning, strategic planning, donor and country-level advocacy, budgeting

Key Messages

Projections for family planning requirements can be used not only to help determine realistic family planning goals but also for country-level and donor advocacy.

Model and Methodology

Reality √ applies demographic data (contraceptive prevalence and population of women of reproductive age) to estimate the numbers of family planning users, adopters, commodities, and costs, as well as impact. The tool contains two separate worksheets:

1. Past Trend Continuation—uses a linear projection to estimate the future contraceptive prevalence rate if past trends continue
2. Future Goals—allows users to examine the resources necessary to meet a future contraceptive prevalence goal and the impact of meeting that goal.

Reality √ can project trends and estimate the resources necessary to meet family planning goals for up to 25 years. The accuracy of assumptions is much higher for short-term projections.

Usability and Flexibility

Reality √ is best used as a strategic planning and advocacy tool; program managers and planners can use the tool to set evidence-based family planning goals and plan the inputs necessary to reach those goals. Data requirements are low; users must enter contraceptive prevalence rates from sources such as the Demographic and Health Survey and Multiple Indicator Cluster Survey and the population of women of reproductive age. An Excel-based tool is provided to help users estimate these population figures. Countries without recent surveys (within three years) may struggle to estimate the current contraceptive prevalence rate. Further, use of the tool at the district level may be difficult if available data are unreliable.

Default international values are provided for method-specific discontinuation and failure rates, couple-years of protection factors, and per-unit commodity and supply costs. Optional values include the number of facilities that provide each method, maternal mortality ratios, infant and child mortality rates, and abortion rates. Default values can be changed, although formula cells are locked.

Reality √ users are expected to have basic Excel skills (entering data, copying and pasting values, and navigating between multiple Excel workbooks and between multiple sheets within the same workbook). Although the Reality √ suite includes a step-by-step user's guide, the RESPOND Project recommends that users participate in a three-day training to become comfortable with the tool and consider the strategic implications of the outputs. A trainer's guide is available.

Country Applications

Reality √ has been used for national strategic planning activities in Kenya, Senegal, and Tanzania and has been used for district-level planning activities in Bangladesh, Ghana, and Kenya. It has also been used specifically for quantification purposes in Malawi and Senegal.

Tool Citation

USAID ACQUIRE Project. 2007. *Reality √ Family Planning Forecasting Tool: User's Guide*. New York: The ACQUIRE Project, EngenderHealth. Available at:

http://www.acquireproject.org/fileadmin/user_upload/ACQUIRE/Publications/Reality_Check_User_s-Guide-Dec._2007_v1.pdf.

Related Products and Publications

USAID RESPOND Project. 2010. "A Planning and Advocacy Tool for Strengthening Family Planning Programs." New York: The RESPOND Project, EngenderHealth. Available at: http://www.respond-project.org/pages/files/6_pubs/tools/Reality-Check-2pager-final-December2010.pdf.

USAID RESPOND Project. 2011. *Reality √ A Planning and Advocacy Tool for Strengthening Family Planning Programs: Trainer's Guide*. New York: The RESPOND Project, EngenderHealth. Available at: http://www.respond-project.org/pages/files/6_pubs/tools/Reality-Check-Trainers-Guide_final_May%204-forweb.pdf.

Reproductive Health Costing Tool

Developer

United Nations Population Fund (UNFPA)

Contact

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Website

None

Description

The Reproductive Health Costing Tool (RHCT) is designed to estimate the resource requirements and costs of providing an essential package of reproductive/maternal health interventions at the country or state/provincial level. Its main purpose is to help countries quickly cost and budget for existing sector strategies and plans, such as maternal road maps or reproductive health action plans.

In particular, the model calculates the cost of

- Providing/scaling up an essential package of RH interventions (family planning, antenatal care, delivery care, emergency obstetric care, and sexually transmitted infection and HIV prevention and treatment); and
- Activities/health systems improvements required to improve RH/MH in a country/district (training and supervision; equipment; referral system; information, education, and communication, etc.).

One key feature of the tool is the incorporation of population dynamics (e.g., the impact family planning has on the demand for maternal and child health services). The tool estimates direct service costs and analyzes cost-benefit and cost-effectiveness to inform advocacy efforts but does not automatically create advocacy messages.

Primary Uses: Strategic planning, budgeting, donor and country-level advocacy

Key Messages

The tool shows the resource requirements and costs of providing an essential package of reproductive and maternal health interventions.

Model and Methodology

The model estimates the direct costs (including drugs, supplies, and personnel requirements) of 45 reproductive health interventions, as well as the investments required for scale-up, using the “ingredients” method, where the value of inputs are based on the quantities and unit prices of each of the direct costs included in the estimates. The loaded default values are based on World Health Organization standards of care and international estimates of drugs, supplies, and so on; although, users can also simply enter a unit cost (overriding the ingredients method). The model first calculates the average cost of providing each intervention contained in the RH essential package by identifying all the drugs, supplies, and personnel inputs required to provide the intervention. The model then identifies the target population for each intervention (e.g., all pregnant women for antenatal care or all married women or women in union for

family planning). Current coverage (defined as coverage in the most recent Demographic and Health Survey since 2010) with these interventions is assessed, and target coverage rates are defined. The focus is on direct service costs, but there are components for calculating health systems costs. Bongaart's formula is used to compute expected fertility given a particular method mix and contraceptive prevalence rate.

Usability and Flexibility

Default data are pre-loaded. Intermediate Excel skills are required to get the most value out of the tool; an individual with basic Excel skills could obtain some information but would not be able to customize the tool. Users are encouraged to review the standards of care, input unit costs, demography, epidemiology, and coverage assumptions and to modify them when appropriate. In terms of flexibility, the tool automatically develops two family planning scenarios and compares the cost-benefit and cost-effectiveness but can also be customized. Support for the tool is limited, and it is not being updated.

Country Applications

Azerbaijan, Dominican Republic, Georgia, Indonesia, Laos, Rwanda, Turkey, Uganda, Yemen, Zimbabwe.

Tool Citation

No manual or guide is available for this tool.

Related Products and Publications

The Reproductive Health Costing Tool has been used widely, including for the costing components of the ICDP Update and Adding It Up. The tool has also been used for costing national reproductive health strategies, as well as for other specific costing exercises.

Additional Resources

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