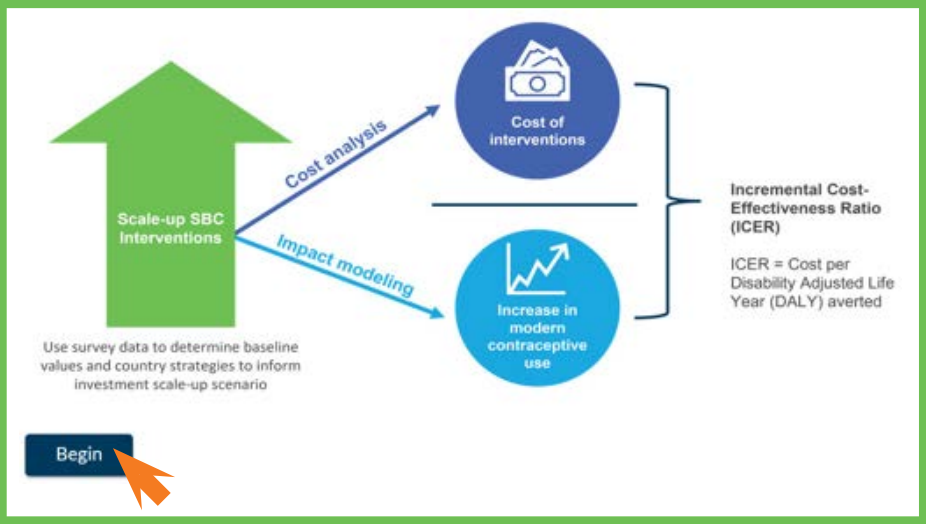
USER GUIDE

The Social and Behavior Change Business Case Model for Family Planning: Web Application



SEPTEMBER 2022

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Avenir Health
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Breakthrough RESEARCH FOR SOCIAL & BEHAVIOR CHANGE

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Avenir Health was founded in 2006 as a global health organization that works to enhance social and economic development by providing tools and technical assistance in policy, planning, resource allocation and evaluation. Its focus is on developing and implementing demographic, epidemiological and costing models for long-range planning to assist with setting goals, strategies, and objectives. Avenir Health assists in both developing and implementing programs in HIV/AIDS, reproductive health, maternal health and other programming areas. Avenir Health works with government agencies, foundations, corporations, and nongovernmental organizations around the world.

The Population Council confronts critical health and development issues—from stopping the spread of HIV to improving reproductive health and ensuring that young people lead full and productive lives. Through biomedical, social science and public health research in about 50 countries, the Council works with our partners to deliver solutions that lead to more effective policies, programs, and technologies to improve lives worldwide. Established in 1952 and headquartered in New York, the Council is a nongovernmental, nonprofit organization with an international board of trustees.

Breakthrough RESEARCH catalyzes social and behavior change (SBC) by conducting state-of-the-art research and evaluation and promoting evidence-based solutions to improve health and development programs around the world. Breakthrough RESEARCH is a consortium led by the Population Council in partnership with Avenir Health, ideas42, Institute for Reproductive Health at Georgetown University, Population Reference Bureau, and Tulane University.

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BUSINESS CASE SEPTEMBER 2022

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Avenir Health

Contents

Abbreviations

CHW	Community health worker
DALY	Disability-adjusted life year
FP	Family planning
GDP	Gross domestic product
ICER	Incremental cost-effectiveness ratio
IPC	Interpersonal communication
mCPR	Modern contraceptive prevalence rate
OR	Odds ratio
SBC	Social and behavior change
USAID	United States Agency for International Development
USD	United States dollars

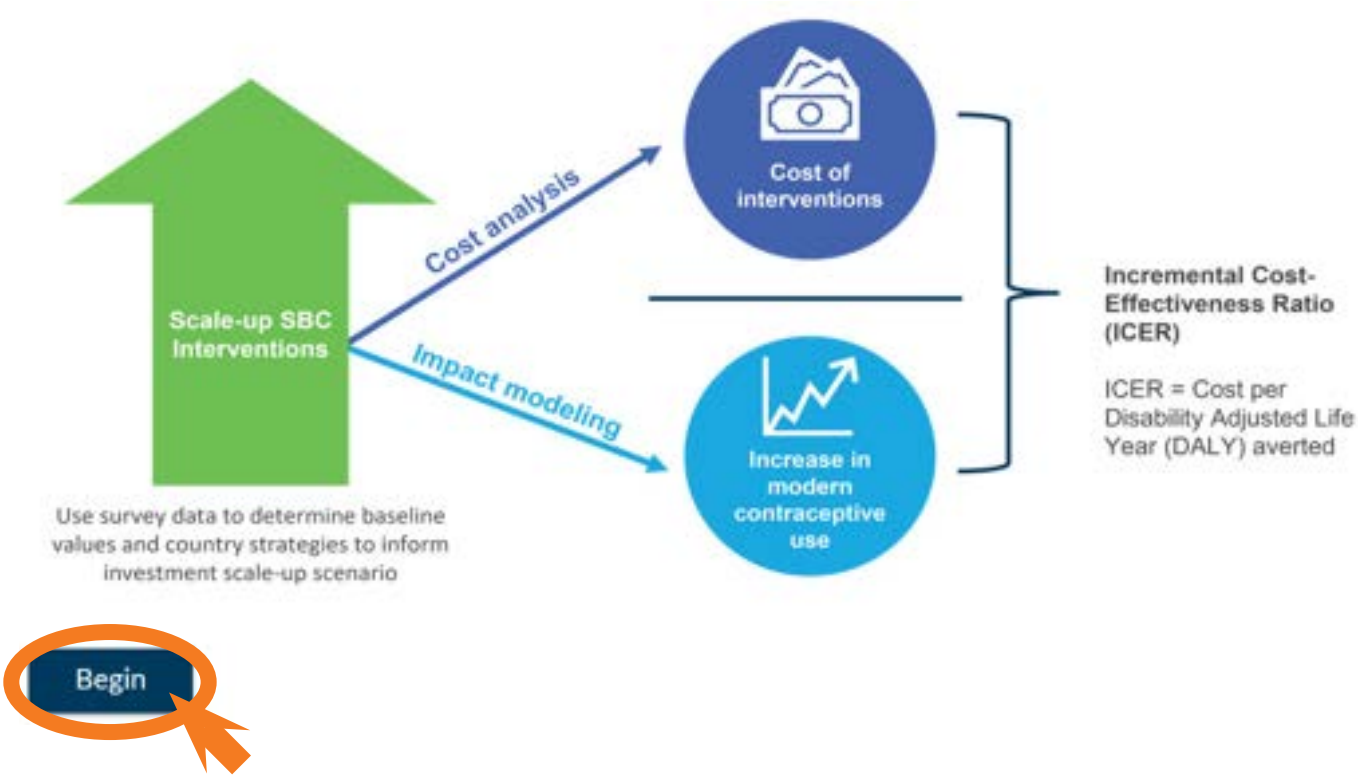
Introduction

The ***Social and Behavior Change Business Case Model for Family Planning*** is an interactive web application developed by Breakthrough RESEARCH, which leverages prior research on the costs of social and behavior change (SBC) interventions and the impact SBC interventions on family planning (FP) use. A version of the model was used for the 2019 report, ***The Business Case for Investing in Social and Behavior Change for Family Planning***, which demonstrated that SBC investments for FP can be highly cost-effective by applying illustrative investment scenarios in Guinea and Zambia. Since the 2019 report, the model has been updated to incorporate more research on the link between SBC investments and health outcomes and model refinement so that users can enter their own country-specific investment scenarios and review the estimated health impact and cost-effectiveness results.

There are six basic pages in this interactive web application:

1. Set and review **model parameters**
2. **Review impact odds ratios (ORs)—**optional, no inputs required
3. Review **unit costs—**optional, no inputs required
4. Specify **intervention reach—***main input page*
5. **Sense check intervention reach—***review step, no inputs required*
6. View health **impact and cost-effectiveness results**

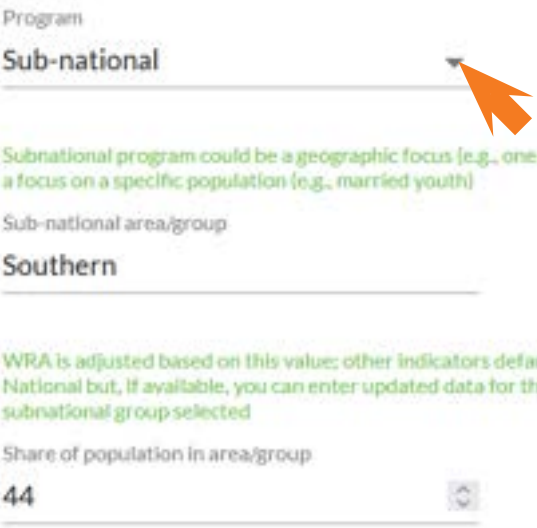
Throughout the six pages, you can click on the ⓘ symbol for more information. To start generating your own investment scenario, go to ***FP Business Case Model (https://sbcbusinesscaseforfp.avenirhealth.org/)*** and click on the "**Begin" button.**



1 Set and review model parameters

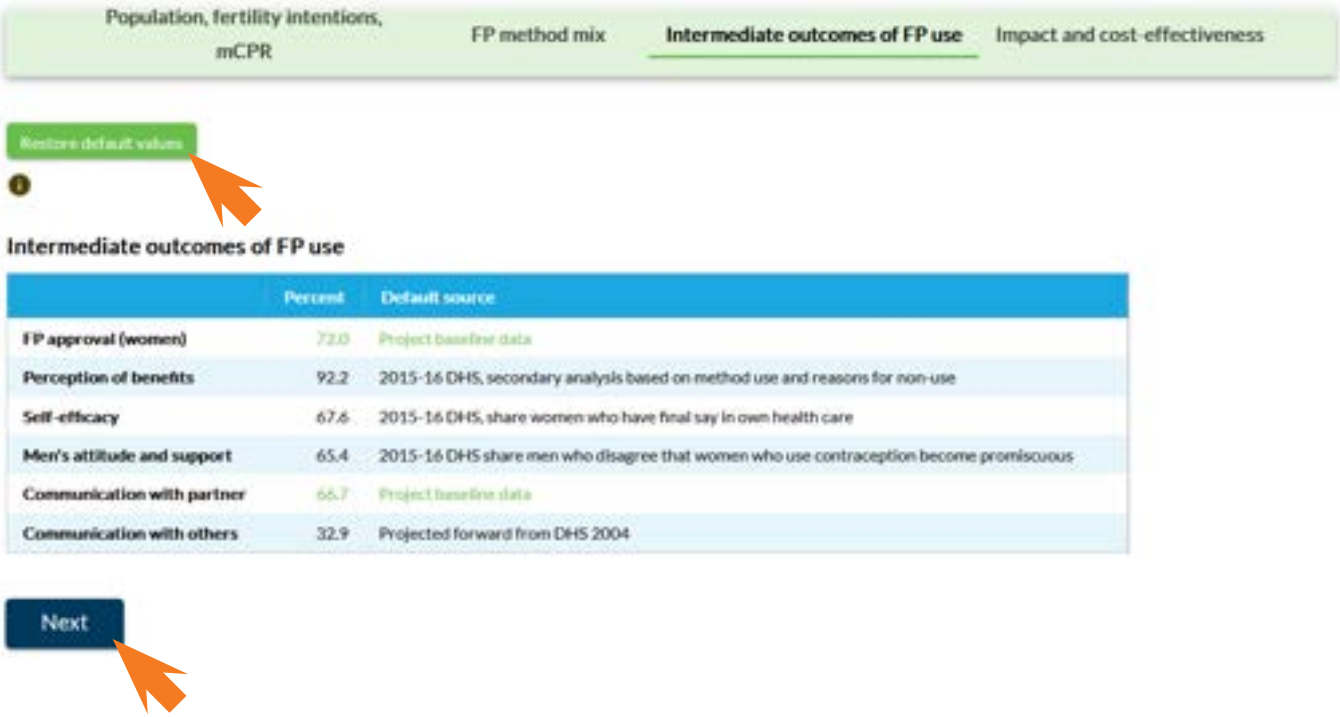
First, use the dropdown menu to select one of the 31 included countries. Note that this is a "required" input. Many of the inputs rely on default data and changes are optional. Required inputs are indicated by a red asterisk.

Second, select whether you are planning on conducting a national or sub-national application, to use if you are only planning for SBC investments in part of the country (e.g., region) or for a specific group (e.g., married youth). The default value for this input is national. If you select subnational, enter the name of the area/group and percent of the women of reproductive age (WRA) located in that area.



Third, specify the first year of the five-year investment timeframe using the dropdown menu. A five-year investment time frame is used to best approximate a typical FP SBC funding cycle. By default, 2020 is the start year but any year between 2020 and 2026 can be selected. The end year will be automatically calculated.

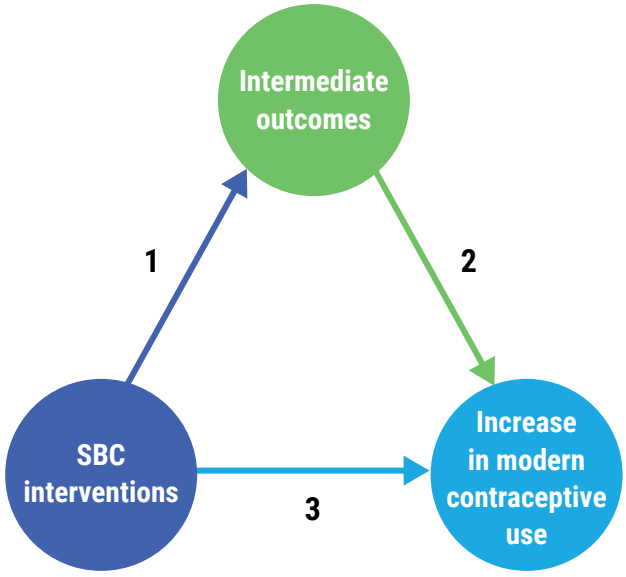
No other inputs are required for this page; however, you can review the parameters used in the calculations in the section below. You can also edit these parameters if you have robust context-specific data to make changes. There are four sub-sections; you can click on the tabs to move between sub-sections. To edit a parameter, click on the number in the 'Value' column and enter your revised value. Once a revised value is entered, the font turns green to highlight where changes were made. You can also edit the default source column to note your source for the revision. If after making changes you would like to return to using the default values, you can click on the green "**Restore default values**" button. Once you have reviewed and/or edited the default values for all four sub-sections, click on the "**Next**" button to proceed to the next page.


Population, fertility intentions, mCPR
FP method mix
Intermediate outcomes of FP use
Impact and cost-effectiveness
Restore default values
Intermediate outcomes of FP use
Percent
Default source
FP approval (women) 72.0 Project baseline data
Perception of benefits 92.2 2015-16 DHS, secondary analysis based on method use and reasons for non-use
Self-efficacy 67.6 2015-16 DHS, share women who have final say in own health care
Men's attitude and support 65.4 2015-16 DHS share men who disagree that women who use contraception become promiscuous
Communication with partner 66.7 Project baseline data
Communication with others 32.9 Projected forward from DHS 2004
Next

2 Review SBC effectiveness ORs

No inputs are required for this page.

The impact ORs shown in the tables are based on a synthesis of the literature on SBC impact in low- and middle-income countries. The median ORs are shown for three linkages in the impact modeling: 1) the relationship between SBC interventions to intermediate outcomes, 2) the relationship between intermediate outcomes and modern contraceptive use, and 3) the direct relationship between SBC interventions and modern contraceptive use.



You may choose different types of ORs from the dropdown list; the initial type is median ORs, which represents the median impact of SBC interventions on the outcomes in the literature. We recommend using the median ORs; however, if desired, you can later conduct sensitivity analysis by using the dropdown menu to select less effective ORs (Q1, meaning the first quartile ORs) or more effective ORs (Q3). This will allow you to see what the projected health impact and cost-effectiveness of your investment scenario might be in your interventions are less or more effective than the median effect found in the literature.

As with the Model Parameters page, you can edit the ORs if you have impact data for your particular SBC interventions. For example, if you have already done a study that looks at the relationship between the mass media interventions you are implementing and modern contraceptive use (mCPR), you can update the OR here to reflect your findings and better inform the health impacts and cost-effectiveness results. See the example to the left where a user entered different intervention-specific ORs for mass media and interpersonal communication (IPC)+ community engagement to modify the effect of the intervention type on modern contraceptive use. After reviewing and/or editing, click "**Next**".

	mCPR
Mass media	1.60
Mobile/SMS	1.42
Individual IPC	1.56
Group IPC	1.56
IPC + Community engagement	2.30

3 Review unit costs

No inputs are required for this page.

The default unit costs shown in the first table are based on a synthesis of the literature on SBC costs for interventions in low- and middle-income countries, adjusted for interventions focused on FP and 2020 USD values. If you have known unit cost data for your SBC intervention(s), you can edit the default values in Table 1. See the example below where unit costs were edited for TV and IPC+ Community engagement.

The regional default unit costs for service delivery for additional FP users are shown in Table 2 based on ***Adding It Up 2019***. These costs include the cost of commodities, supplies and personnel and have been adjusted to 2020 USD. These costs can also be edited if reliable data are available.

1. Review SBC unit costs

Intervention	Reach denominator	Median unit costs
Mass media		
Radio	per person exposed	0.27
TV	per person exposed	0.32
Newspaper/magazine	per person exposed	0.25
Mixed mass media	per person exposed	0.37
Middle media		
Billboards/flyers	per person exposed	0.25
Live drama	per person exposed	0.43
Community announcements	per person exposed	0.43
Phone/SMS		
SMS/text message reminders	per person contacted	0.90
Interpersonal communication		
Individual/household IPC	per person participated	6.09
Group IPC	per person participated	5.96
IPC + Community engagement	per person participated	8.62

4 Specify intervention reach

This page is the main input page where you enter the number of persons reached by your SBC intervention(s) for each of the five years. There are no default data available for this step but there are built-in features to help you specify your annual reach.

First, use the dropdown menu to select one of three options:

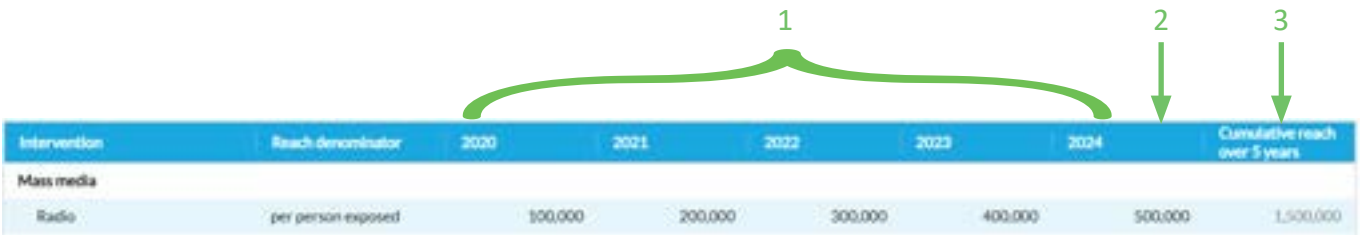
1. **Enter reach manually**—where you enter the number of persons expected to be reached for each of the five years. Only enter numbers for the SBC interventions that you want to include in your budget.
2. **Specify the final year five reach**—where you enter the number of persons you expect to reach in year five and the other values will be determined based on a scale-up pattern you choose in the next step.
3. **Specify cumulative reach over five years**—where you enter the number of persons in total you expect to reach over five years and the other values will be determined based on the scale-up pattern you choose in the next step.

For options #2 and #3, you need to use the dropdown list to select a scale-up shape for how your values will be distributed over five years. The options include:

- **Constant**—assumes the same number reached each year
- **Linear**—assumes a steady increase in persons reached each year
- **S-curve**—assumes a gradual start in the early year with a step increase in years from two to four and a more gradual increase from years four to five. If in doubt, we recommend using the s-curve.

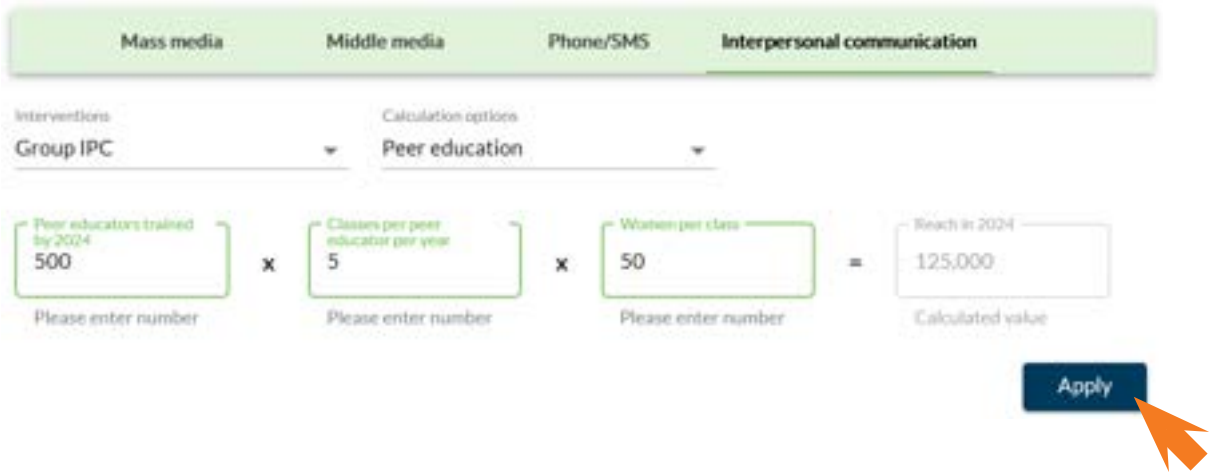
If you need help figuring how to specify the number reached, you can click on the "**Help me set values**" button, which will cause a pop-up feature that walks you through different approaches to set the number of persons reached. After completing the process outlined below and hitting "**Apply**", the values you have created in the feature will be automatically transferred to populate the intervention reach table. This feature is set up by different intervention areas (Mass media, Middle media, Phone/SMS, and Interpersonal communication). To use the feature:

- Select an intervention area, then select the specific intervention from the dropdown list.
- Select the calculation approach you would like to use for your selected intervention from the second dropdown list. The table on the next page shows the available options.

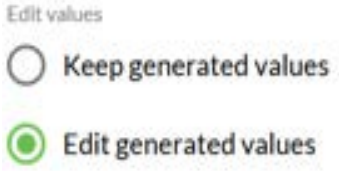


INTERVENTION AREA	SPECIFIC INTERVENTION	CALCULATION APPROACH (SPECIFY NUMBER OF…)
Mass media	By reach	Women reached
	By number of media spots	Media spots aired and average listeners per spot
Middle media	By event	Events and average number of women reached per event
	By community	Communities reached and average number of women reached per community
Phone/SMS	By messages	Total messages sent and average number of messages per women
Interpersonal communication	Community health workers (CHWs)	CHWs trained and average number of women reached by each CHW
	Providers	Providers trained and average number of women reached by each provider
	Peer education	Peer educators trained, average number of classes per year each peer educator holds, and average number of women per class
	Group counselling	Counselors trained, average number of sessions per year each counselor holds, and average number of women per session
	School based	Teachers trained, average number of classes per year per teacher, and average number of girls per class
	Religious leaders	Leaders trained, number of congregants reached per leader, and share of congregants that are women
	Community leaders	Leaders trained, number of events each leader holds, and average number of women per event

- Enter the required values, which will vary depending on the intervention and calculation option selected. Then click "**Apply**". See example below:



Once you have made your dropdown selections and entered the values, you can edit the values by clicking on the "**Edit generated values**" feature.



Click "**Next**" to move to the next step.

5 Sense check

No inputs are required for this page.

This page lets you evaluate whether your inputs in the previous steps are feasible and practical given the budget, either known or anticipated, and existing survey data on technology ownership and use for some SBC interventions. As yourself questions in this step, such as:

- Is the proportion of women of reproductive age (WRA) reached feasible for the intervention?
- For radio and TV, are the proportions of WRA reached feasible given radio/TV ownership and the proportion accessing these technologies in the past week?
- For newspaper/magazine interventions, is the proportion of WRA reached feasible given the proportion accessing newspapers/magazines in the past week?
- For SMS/text messages, is the proportion of WRA reached feasible given mobile phone ownership?
- Are the total costs reasonable given budget and funding expectations?

If the answer to any of these questions is “no”, you can return to Step 4 to make changes. For example, the figure below shows where a user is planning to reach 20% of WRA via a TV program but only 12% own a TV or have watched it in the past week. This user would be advised to go back and reduce the reach to a more feasible level.

Intervention	Reach denominator	Cumulative reach over 5 years	Check proportion of WRA reached in 2026	Check percent of women owning radio, TV, or mobile phone *	Check percent of women accessing media in past week *	Check total costs
Mass media						
Radio	per person exposed	0	0%	40.40%	30.00%	$0
TV	per person exposed	1,261,399	20%	11.70%	11.50%	$369,050

6 Results

No inputs are required for this page.

This section lets you examine the estimated impact, costs, and cost-effectiveness results associated with your inputs. Impact results and cost-effectiveness results (including total cost) are presented on separate pages. You can switch between the pages by clicking on the tabs.

For impact, the tool shows the following results related to the impact of scaling-up the SBC interventions you've specified in the previous pages:

- Percentage point increase in mCPR,
- Number of additional FP users at the end of five years,
- Number of cumulative unintended pregnancies over the course of five years, and
- Number of cumulative maternal disability-adjusted life years (DALYs) averted over five years.

The figures show the relative contribution of each SBC intervention to the mCPR increase and the relative contribution of different intermediate outcomes to the projected increase in mCPR.

When clicking on the cost-effectiveness results tab, you can see SBC-only, service delivery, and overall total costs, followed by various incremental cost-effectiveness ratios (ICER). The cost per maternal DALY averted is then displayed below and classified as either "Cost-effective" or "Highly cost-effective" using the country's per capita gross domestic product (GDP). The example below shows the cost per DALY averted ($306) from the specified intervention and anticipated reach is below one times the country's GDP per capita, thus indicating it is highly cost-effective. In some cases, you may wish to bench-mark cost-effectiveness to a regional GDP per capita rather than the national GDP per capita. This change can be made using the "Select benchmark" dropdown.

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