NEEDS ESTIMATION AND COSTING TOOL FOR IMPLEMENTING HIV PRE-EXPOSURE PROPHYLAXIS (PrEP)

USER GUIDE

PAHO
Pan American Health Organization
World Health Organization
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WASHINGTON, D.C., 2022

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CONTENTS

1. INTRODUCTION

The World Health Organization (WHO) recommends HIV pre-exposure prophylaxis (PrEP) for people at substantial risk of contracting HIV as part of a combination prevention strategy. A key challenge when planning the implementation and funding of a PrEP program is determining the need for PrEP in a particular country, region, or location, as well as the associated cost of meeting this need.

To support PrEP implementation, the Pan American Health Organization (PAHO) has developed an Excel spreadsheet for **needs estimation and costing**. This tool makes it possible to estimate the total need for PrEP in a given geographical area or service and the cost of providing it in subsequent years to key population groups. The tool includes by default: i) gay men and other men who have sex with men (MSM); (ii) female sex workers (FSW); and (iii) transgender women (TGW). However, countries may decide to include other relevant populations in the analysis (e.g., indigenous populations or people in prisons and other closed settings).

The accuracy of the estimates provided by this tool will depend on the quality of the data entered. If some of the data required by the tool for the geographical area to be analyzed is unavailable, the information can be completed using, for example, proxy values from other geographical areas or available studies.

This guide describes the necessary steps and considerations that must be taken into account when using this tool. They include:

1. Calculation of the number of people who would benefit from PrEP, in each relevant population.
2. Calculation of the budget impact of providing PrEP to those people.
3. Performance of a deterministic sensitivity analysis (DSA) of the budget impact.

In addition, **Annex 1** provides a model report to show the results of the exercise to stakeholders involved in PrEP implementation. It is important to note that this tool does not address the issues of affordability, cost effectiveness, capacity for service delivery, human rights challenges, or the political context. All these aspects are also essential when considering whether to provide PrEP as part of combination prevention.

2. GENERAL CONSIDERATIONS FOR USING THIS TOOL

Before entering the necessary information, it is important to consider the following:

1. The tool is an Excel spreadsheet containing seven tabs (Box 1). The information is entered from left to right, beginning with the Population tab (which generally does not require any changes) and ending with the Budget Impact tab or DSA Cost tab, depending on whether information on uncertainty intervals has been entered.

Box 1: Tabs of the PrEP Needs Estimation Tool (left to right)

Tab 1	Population
Tab 2	Parameters
Tab 3	Population estimate
Tab 4	Costs
Tab 5	Budget impact
Tab 6	DSA Population
Tab 7	DSA Cost

2. The "Parameters," "Population Estimate," and "Costs" tabs have editable and uneditable cells. The gray cells are editable—that is, information must be entered to complete them. The information may be numerical or textual. The light blue cells will automatically generate values based on the parameters entered.

3. The "Budget Impact," " DSA Population," and " DSA Cost" tabs have no editable cells, except for a button in the " DSA Population" spreadsheet that you click on when performing the sensitivity analysis.

4. Column G of the "Parameters" tab, and column K of the "Costs" tab are called "Reference." Information on the data sources can be entered in these columns. It is recommended that you enter this information when performing the analysis, because then you can know the source of the data used when you wish to review the analysis or when it is repeated for another implementation period.

5. This tool allows you to project the eligible population and budgetary implications of a PrEP program in any geographical area of interest, which may be a country, region, or location for which data on the population and other parameters are available. Therefore, the term **region** can represent any country, region, or location. Population data for analysis at the national level are already entered by default in Tab 1 (which contains population estimates for every country in Latin America and the Caribbean). However, for a subnational analysis (by region or municipality), you must enter the population projections of the study area manually in Tab 1 and then introduce the information requested in Tabs 2 and 3 for each region to be studied (beginning with row 32 of the "Parameters" tab). In the "Population estimate" tab, you can display the regional analysis menu by clicking on the "Other regions for analysis" in row 35.

6. Most of the parameters included in Tabs 2 and 4 of the tool allow you to enter a range of values with a 95% confidence interval that reflect uncertainty in the value of the parameter around a point estimate. The provision of these ranges is not a requirement for completing the analysis. However, ranges are necessary for the sensitivity analyses facilitated in Tabs 6–7, in order to know how total costs vary with changes in the value of a parameter (sensitivity analysis).

3. STEP-BY-STEP DESCRIPTION OF THE TOOL

This section provides specific information about the content of each of the tabs and the information required to complete them.

Tab 1: Population

This tab contains population projections for PAHO Member States in Latin American and the Caribbean, disaggregated by sex and age group from 0 to 100 years from 2015 to 2040. If necessary, you can add cells for subnational areas (region, province, or municipality). The information on subnational populations can be obtained from the available data in the country. National population data, both historical and projected, are available online. The World Bank, United Nations, and the U.S. Census Bureau are the main sources of free demographic data. Subnational data are increasingly available. Websites with current population data include **www.Sustainableworld.com** and **https://population.un.org/wpp/**.

Box 2: Countries and territories of Latin America and the Caribbean included in the Population tab

Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominican Republic, Ecuador, El Salvador, French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, and Venezuela.

Tab 2: Parameters

This tab provides the information necessary for determining the number of people who meet the criteria for needing PrEP services in the country or region analyzed. The information to collect includes:

- **Initial year of the analysis and time frame (Cells G5-I5)**

Enter the year in which the country is planning to begin providing PrEP (**cell C3**) and the time frame for the analysis (**cell C4**), which can be from 1 to 5 years. Only years for which projected data are available can be entered in Tab 1 "Population" (i.e., up to 2040).

- **Country or regions of the analysis (Cells C6:C15)**

In these cells, enter a text parameter corresponding to the name of the country or geographical area in which the analysis is to be performed. If any country or territory listed in **Box 2** is to be analyzed, simply enter the name of that country or territory as it appears in the "Population" tab. If a region or municipality in a country is to be analyzed, enter the population data in these tabs manually, using the same format and breakdown as for the country data. The tool allows you to simultaneously analyze 10 regions or geographical areas. In an analysis that considers more than one region, the relevant population groups do not have to be the same for all regions.

- **Point estimate of population parameters to estimate the need for PrEP (Cells C22:C160)**

The purpose of this step is to infer the proportion of the population free from HIV but at substantial risk of getting it. Use these cells to enter the point values of the different parameters for each of the relevant populations in the analysis. For example, for MSM at the national level, enter the values in cells **C22:C25**; for female sex workers, in cells **C26:C27**; and for trans women, in cells **C28:C31**. The values in these cells correspond to proportions expressed as values from 0 to 1 (for example, a percentage of 65% must be entered as 0.65).

Table 1 contains the operational definitions for each of the parameters to include in this section. Cells for population groups in which PrEP will not be provided should be left blank. In principle, the parameters entered in this section are considered constant over time. However, Tab 3 "Population estimate" offers the option of modifying these parameters over time.

To analyze more regions, you can use additional cells (starting at row 32), entering the same information indicated for each region.

Table 1. Operational definitions of the population parameters necessary for estimating PrEP needs

Parameter	Definition	Data source
Proportion of people in a key population group (MSM, trans women, or female sex workers)	Proportion of the total population in a key population group. For MSM and trans women, the total population of biological men is used as the denominator, and for female sex workers, the total population of biological women.	The most recent studies of population size estimates. If there are none, you can use the proportions available at the regional level in the UNAIDS Key Populations Atlas for each key population.[1]
Proportion of sexually active people in key populations (in the past six months)	People from key population who reported having sex within the past six months.	Based on more recent biobehavioral studies. If unavailable, data from surveys of neighboring countries can be used.
Proportion of people from key populations at substantial risk	The definition of substantial risk of HIV infection may vary in the different national guidelines. In general, we consider at substantial risk those people who in the past six months: a) have had vaginal or anal sex without a condom with more than one partner; b) have had an STI; c) have requested PEP; d) have shared needles or syringes; or e) have an HIV+ partner with non-undetectable or unknown viral load or with one of the above risk factors.	Biobehavioral surveys often contain information on risk behaviors. Based on survey information, to determine this parameter you can simplify these criteria, using only one of them or a proxy such as questions about inconsistent condom use or contracting an STI in a 6 to 12-month period prior to the survey. In any case, the report of the tool (see **annex** 1) must clearly indicate the criteria used to define the substantial risk.
Proportion of key population (at substantial risk) free from HIV	The proportion of all people from a key population who are at substantial risk and remain HIV-negative.	Ideally, this value will be obtained from Spectrum estimates or biobehavioral surveys of HIV prevalence, subtracting from 1 the proportion of people with HIV estimated in each key population group.

MSM: gay men and other men who have sex with men; **STI:** sexually transmitted infection; **PEP:** post-exposure prophylaxis to HIV;

Sources:

1. The Joint United Nations Programme on HIV/AIDS (UNAIDS). The Key Populations Atlas. UNAIDS. Available at: https://kpatlas.unaids.org/dashboard

2. World Health Organization. (2017) . WHO implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection: module 1: clinical. World Health Organization. https://apps.who.int/iris/handle/10665/255889. License: CC BY-NC-SA 3.0 IGO

- **Confidence intervals of population parameters for estimating the need for PrEP (Cells E22:E160 and F22:F160)**

The tool allows you to include a range of values that reflect uncertainty in each population parameter. This is presented as a 95% confidence or uncertainty interval around the point estimate. The provision of these ranges is not a requirement for the tool to work. However, these ranges are necessary if you wish to do the deterministic sensitivity analysis (DSA) indicating how total costs vary with the value of a parameter. If the value of the ranges is available and you wish to do the DSA, these values must be included in the "Lower limit" and "Upper limit" cells.

Tab 3: Population estimate

Based on the demographic data for the general population (found in Tab 1) and the data entered in the Parameters tab (Tab 2), this tab calculates number of people in need of PrEP (row 32). If you are also conducting the exercise for other regions of the country, select "Other regions for analysis" to view the results on the number of people in need of PrEP in the different regions.

The tool then presents two parameters that adjust the number of people who will be offered PrEP: "*restricted offer*" and "*expected acceptability of PrEP in the services*" (rows 181:197).

AIt is also understood that the parameters defining eligibility for PrEP may vary over the years. For example, the percentage of people who are HIV-negative could fall with a rise in new infections, or the percentage of the population at substantial risk of infection could decline as a result of information campaigns. Although the variation in these parameters is not expected to be very wide, the tool makes planning possible by introducing the variations in them. To do so, deselecting the "Constant parameters over time" option in **row 24** will allow you to enter the value of these parameters in successive years and thus improve the accuracy of the planning exercise. For an initial analysis, it is recommended that you keep these parameters constant over time, as it will simplify the process.

Need vs. demand for PrEP. PrEP indicated for all people in key population groups at substantial risk of HIV (total need). For planning exercises, it must be considered that only part of this population will accept PrEP as an option for HIV prevention (**demand**). Finally, programs must define what PrEP coverage they can achieve with the available resources (**covered need**). This tool conducts the costing exercise based on the PrEP needs that the country intends to cover.

The specific instructions for completing Tab 3 are provided below.

- **Size of the base population of men and women by PrEP target age group (Cells D7:AF7)**

Enter the target age ranges in different populations: for MSM (**cells D7:F7**), female sex workers (**N7:P7**), and trans women (**X7:Z7**). These numbers must be entered in multiples of 5. The age range selected must be the one that includes the majority of people in need of PrEP in each key population group.

Target age ranges: The age ranges for each population group should be defined for planning purposes and not to establish a guideline for who should receive the service. For example, a country might plan to offer PrEP to female sex workers aged 18-35, the range in which the vast majority of this population is found. This would not mean, however, that a 45-year-old sex worker would be barred from receiving PrEP.

• Total number of people per population group in need of PrEP (Row 32)

Based on the data entered in the Parameters tab and the size of the base populations, the tool will provide information on the number of people in need of PrEP for each key population group from the beginning to the end of the implementation period (1 to 5 years)—i.e., the number of people in each group estimated to be HIV-negative and at substantial risk for HIV.

At this point in the analysis, the country will know the total number of people who need access to PrEP. However, it should be borne in mind when implementation begins that not all those in need of PrEP will begin receiving the service immediately. For planning purposes, this tool considers two key factors:

1. The country may not have the ability to offer PrEP to the entire population in need and could consider scaled implementation, offering the service to a limited number of people and expanding as the years go by. This is called **restricted offer**.
2. Although people visit the health service with an interest in PrEP, not everyone is expected to accept this service for different reasons, such as the need to take a daily pill, fear of side effects, or other clinical constraints such as poor kidney function. This is called **acceptability**.

The tool allows you to calculate these two situations:

• PrEP restricted offer (Rows 181:187)

In cell H182, you can choose the population on which to impose restricted offer. By selecting the "By category" option, you can specifically impose restricted offer for each year on each of the three populations (**cells H185:L87**). If, on the other hand, selecting the "All" option will impose restricted offer in the same proportion on all three populations. The range of values for defining restricted offer is from 0% (in which all people in need of PrEP will be offered this service) to 100% (in which no person in the population in question will be offered PrEP in a given year). For example, a country that decided to begin offering PrEP in Year 1 only to MSM and was planning to expand the service to trans women in Year 2 would impose a 100% restricted offer on the trans population the first year that may be reduced over the following years. This parameter enables the health services to scale implementation in a feasible way. If, at this point in the analysis, you wish to obtain an intermediate estimate of the number of people who will receive PrEP before you enter the acceptability parameters, you can select the "After applying restricted offer" option (**row 188**).

Defining restricted offer: The scale of restriction should be determined by a reasoned analysis of the country's ability to offer PrEP. This analysis should consider factors such as: i) number of health workers trained to provide the service; ii) number of centres available; iii) hours of operation; and iv) proportion of people from each population who visit the services of the organization conducting the exercise. Concerning the latter, it must be borne in mind when planning that some people who need PrEP will receive it through private clinics or other facilities and will therefore not be counted in the costing exercise.

• Acceptability of PrEP (Rows 223:260)

Acceptability of PrEP: This is the proportion people in each key population group that need PrEP and are willing to receive this service.. In many cases, low acceptability of PrEP may be due to a lack of knowledge among the population. It is therefore anticipated that as implementation progresses, acceptability of the service will increase. This should be considered when planning.

The proportion of people in each key population group in need of PrEP who are expected to accept PrEP once it is offered in the services.

To consider acceptability, use cell **H224** to select the population. If you select the "By category" option, acceptability of PrEP will be considered different between the population groups and will be entered in **cells H227:L230**. If, on the other hand, you select the "All" option, the PrEP acceptability will be considered the same in the three population groups. If acceptability data are unavailable, information from biobehavioral surveys or a relevant study (preferably conducted in the country) can be used prior to implementation. Biobehavioral surveys may ask the question about the acceptability of PrEP in different contexts (for example, whether it is offered free of charge). In this case, the value that best corresponds to how the service is going to be offered should be used.

- **Total number of people in each key population group who will receive PrEP in the years covered by the implementation plan (Rows 200:228)**

The tool automatically calculates this value by subtracting restricted offer and acceptability from the number of people in need of PrEP (row 32). These values are displayed in row 244 for each population group. Row 260 shows the summary for the three populations. These values will serve as the basis for determining the cost of PrEP implementation.

Tab 4: Costs.

To estimate the costs associated with implementing PrEP, all factors related to the supply of this service have to be considered. These factors include the procurement of medicines (e.g., tenofovir and emtricitabine), follow-up medical consultations, periodic testing for HIV and other sexually-transmitted infections (STIs), and aspects of sexual health. It is necessary to provide the unit cost and frequency with which each service will be offered under the country's national guidelines. Table 2 summarizes WHO recommendations on the frequency of these services for people receiving PrEP.

PrEP implementation scenarios: Providing PrEP properly entails a number of essential costs (for example, the procurement of medicines). There are other services associated with PrEP that, while highly recommended, are not essential to begin implementation (for example, molecular screening for gonorrhoea). When performing the cost analysis, a country can generate two or more costing scenarios ranging from a basic level (essential services) to a level with more complete clinical follow-up. Comparing alternative scenarios can help decision-makers propose medium-term improvements in the PrEP program.

Table 2. Services associated with the provision of PrEP and frequencies suggested by WHO

Services	Frequency per year
Office visits	2
Counseling (behaviors)	2
Adherence (adherence/side effects)	2
Tests	
HIV	4
Creatinine	2
HBsAg test	1*
Hepatitis B vaccination	Not applicable*
HCV antibody	1
STI laboratory test: syphilis	4
STI laboratory test: chlamydia	1
STI laboratory test: gonorrhea	1
Pregnancy (only for biological women)	4

STI: sexually transmitted infection; **WHO:** World Health Organization; **HCV:** hepatitis C virus; **HIV:** Human Immunodeficiency Virus

*Regarding the hepatitis B vaccine, it is recommended to ascertain whether the person about to start PrEP is vaccinated; if not, they will be screened for hepatitis B and, if the result is negative, they should receive the complete vaccination series. This will avoid the need for periodic screening.

Source: World Health Organization. (2017). WHO implementation tool for pre-exposure prophylaxis (PrEP) of HIV infection: module 1: clinical. World Health Organization. https://apps.who.int/iris/handle/10665/255889. License: CC BY-NC-SA 3.0 IGO

The specific instructions for completing Tab 4 are provided below.

- **Annual cost of PrEP drugs for one person (Cells G5:I5)**

Enter the annual cost of PrEP drugs for one person in the "unit cost" cell (**cell G5**). This value should be the amount the country pays for each bottle of medicine, as well as the associated shipping costs. The value can also be entered in the "Lower limit" and "Upper limit" cells if there is uncertainty about the cost of the drug (most likely due to uncertainty about shipping and customs clearance costs).

PrEP on demand: WHO recommends PrEP on demand for MSM at substantial risk of HIV who have more planned and spaced patterns of risky sex[1]. PrEP on demand consists of taking two pills 2–24 hours prior to risk exposure, followed by two successive doses 24 and 48 hours after risk exposure. People who receive PrEP on demand need the same clinical follow-up as people who take PrEP on a daily basis. Given that it can be difficult to determine the patterns of PrEP use in people who take it on demand, and that this modality is only valid for MSM, it has not been considered for planning purposes in this tool. However, countries should also offer this dosing option to PrEP users

- **Established frequency of services associated with the provision of PrEP (Cells F11:F31)**

Using national guidelines as a reference or, in their absence, the information shown in **Table 2**, the frequencies for each of the services associated with the provision of PrEP mainly consultations and tests) must be determined. Enter this information (frequency of each service per year) in cells **F11:F31**. If you do not wish to consider any specific component, type frequency "0" (ZERO) or leave the respective cell blank.

Hepatitis B testing and vaccination: It is recommended that people not vaccinated against hepatitis B receive a screening test. If the result is negative, they should receive the vaccine, so that they do not need to be screened in the future. To estimate the costs associated with hepatitis B services, consider that only a fraction of the users will use these services in subsequent years. To do this in the tool, deselect the cells C19 "constant parameter over time" for screening and C24 "constant parameter over time" for the vaccine, and indicate in rows 20 and 25 the expected coverage of these services in the following years.

- **Unit cost of services associated with the provision of PrEP (Cells G11:I31)**

Complete the "unit cost" cells (**G11:G31**). This information corresponds to the expected cost of each of the services. You can complete them with the information on cost ranges, considering a "Lower limit" (**H11:H31**) and "Upper limit" (**I11:I31**).

Costs associated with the provision of PrEP: When conducting a costing exercise for the provision or expansion of PrEP, all services added to existing services in the country must be considered "costs". For example, this would include greater frequency of HIV and STI testing in the target population, or drug procurement. However, factors such as STI treatment (with a syndromic approach) should be left out of this consideration of additional costs since it is assumed that people with STI symptoms would still visit the services regardless of whether they are on PrEP.

[1] What's the 2+1+1? Event-driven oral pre-exposure prophylaxis to prevent HIV for men who have sex with men: Update to WHO's recommendation on oral PrEP. Available from: https://www.who.int/publications/i/item/what-s-the-2-1-1-event-driven-oral-pre-exposure-prophylaxis-to-prevent-hiv-for-men-who-have-sex-with-men

- **Population that will receive services associated with the provision of PrEP (Cells E11:E31)**

These cells include a drop-down menu that allows you to define the populations that would receive each of the services. In general, all services included in the tool would be for all MSM, female sex workers, and transgender women; however, pregnancy testing services would be offered only to female sex workers. There may be other services associated with the provision of PrEP (see next section) that would be offered only to a specific population (e.g., hormone services to trans women receiving PrEP).

- **Other services associated with the provision of PrEP (Rows 33:42)**

In addition to the services included by default in the tool, other services whose cost would be associated with the provision of PrEP could be included. If you wish to add additional services, you can enter them in the "other" section. For this, enter the following:

- information on the service to cost (**cells C33:C42**);
- type of service, i.e., "Services" or "Tests" (**cells D33:D42**);
- target population: MSM, FSW, TGW (**cells E33:E42**);
- frequency (**cells F33:F42**);
- unit cost (**cells G33:G42**);
- and, if desired, lower limits (**cells G33:G42**) and upper limits (**cells H33:H42**) of the costs.

The information entered in this tab generates two output tables: one on the individual cost of PrEP per year for each of the populations (**cells E47:J47**) and the other showing the total budget that would be invested in each category of service indicated in column D (**cells E56:J59**).

Tab 5: Budget impact

This tab (which does not require information to be entered) shows the budget impact of providing PrEP to each of the populations and also the total amount. The impact is calculated by multiplying the number of people in each population group who would receive PrEP (estimated in the "Population estimate" tab) by the total cost of PrEP per person per year (estimated in the "Costs" tab). The budget impact results are shown as total costs for each year and area of provision (either nationally or by region). The budget impact is disaggregated by:

- Total cost per key population group and the total for all population groups (**rows 4:33**)
- Cost of drugs by key population group and the total for all population groups (**rows 37:69**)
- Cost of services per key population group and the total for all population groups (**rows 72:102**)
- Cost of tests per key population group and the total for all population groups (**rows 106:136**)
- Cost of other services (**i=obtained from those added in Tab 4**) per key population group and the total for all population groups (**rows 140:170**)

Tabs 6 and 7. Deterministic Sensitivity Analysis (DSA) of population and costs

As previously indicated, most of the parameters included in Tabs 2 and 4 allow you to enter a range of values with a 95% confidence interval, reflecting uncertainty about the value of the parameter around a point estimate. Providing these ranges is not a requirement for performing the analysis; however, ranges are necessary if you wish to know how the total cost varies with the value of a parameter.

To perform a deterministic sensitivity analysis (DSA), you must enter ranges in the "Lower limit" and "Upper limit" cells of at least one parameter of Tabs 2 and 4. Click on the button to conduct a DSA on the DSA population spreadsheet. The analysis will take place and update all the applicable graphs shown in the DSA population and DSA cost spreadsheets.

DSA population graphs show how the parameters that define the target population groups influence the total cost. Since population parameters can vary by region, a graph is displayed for each region.

The DSA cost graph shows how the cost range of each individual PrEP component influences the total cost.

ANNEX 1.
Model results report

The report generated by the tool should consist of a maximum of 10 pages summarizing the most important points of the analysis and be distributed as follows:

1. Introduction (suggested maximum: 200 words)

Explain why the estimation exercise is being conducted and briefly summarize the country context in terms of PrEP implementation

2. General methodology (suggested maximum: 1000 words)

Briefly explain the tool used and the main sources of the data obtained, i.e., data on population parameters and estimated cost of medicines and services. Summarize the data entered in the tool and explain the criteria used in defining the parameters:

- **Country and/or region of analysis:** country and region(s) where PrEP will be implemented.
- **Initial year of provision:** when implementation will begin.
- **Time frame (up to 5 years):** number of years in which the costing exercise is conducted
- **Parameters for determining the number of people who need and will receive PrEP:** Explain the parameters used to determine the number of people who need and will receive PrEP, as well as the sources of the information obtained. If confidence intervals are used in Tabs 2 and 4, explain how they were determined.
  - > Survey from which the size values of each key population group have been obtained.
  - > Source of information from which the percentage of the population free of HIV was obtained.
  - > Established criteria to define the sexually active population, the population at substantial risk, and the source of information from which this information was obtained.

3. People in need of PrEP

Show the results for the total number of people who need PrEP. You can use a table such as the following:

Table A. Estimated number of MSM, female sex workers, and trans women who will need PrEP in the period 2021–2025.

Population	2021	2022	2023	2024	2025
MSM:					
FSW					
TGW					
TOTAL					

4. Expected cost of medicines, tests, and services

Determine the costs associated with the PrEP program in three categories: medicines, clinical visits, and laboratory tests. Show these costs in the form of the cost of providing PrEP per person in each population group per year. For example, you might say, "The estimated cost of providing PrEP to an MSM or trans woman for one year is $160, and to a female sex worker, $165." The information can be summarized using the tables below as models.

Table B. Cost of laboratory tests

Test Kits	Unit cost	Unit cost (plus x% shipping costs)	Number of tests per person/year	Total cost person/year
TEST A				
TEST B				
....				
TEST Z				

Table C. Breakdown of PrEP implementation costs by cost category (%)

Test Kits	MSM	Female sex workers	Trans women
Medication			
Clinic visits			
Laboratory tests			
Other services			

5. Provision and expansion of PrEP

Considering the values determined in relation to the restricted offer and acceptability of PrEP during the implementation period, indicate the number of people who will be in PrEP throughout the period.

Table D. Projected increase in PrEP coverage in each population - % coverage (number of people)

Year/population	2021	2022	2023	2024	2025
MSM	10% (66)	30% (203)	50% (345)	70% (493)	90% (647)
FSW	10% (37)	20% (75)	30% (115)	40% (157)	50% (200)
TGW	10% (16)	70% (48)	50% (82)	70% (117)	90% (154)

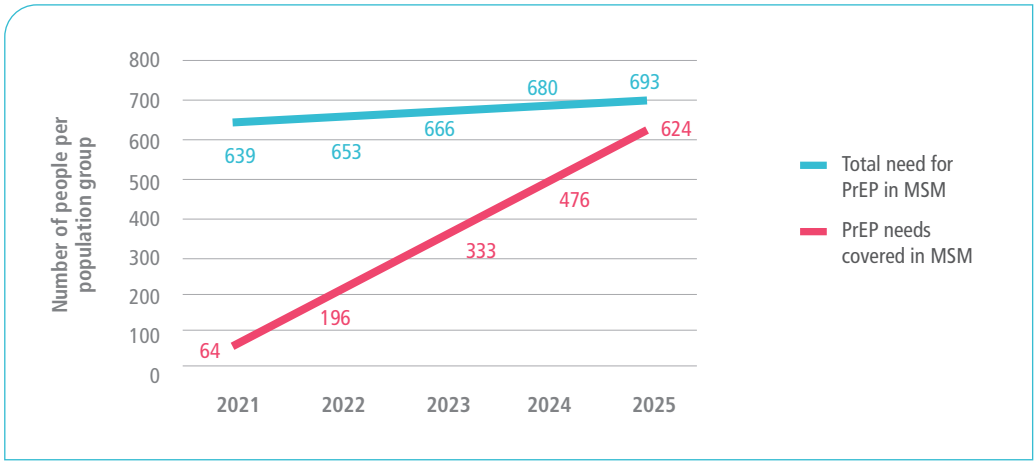
6. Total cost of PrEP during the implementation period

Indicate the estimated costs of implementing PrEP in each of year of implementation.

Table E. Annual cost of PrEP 2021–2025

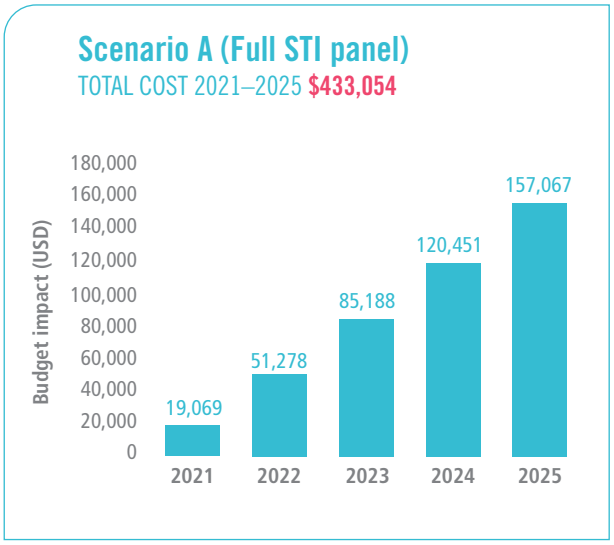
Year/Pop.	2021	2022	2023	2024	2025	Total
MSM						
FSW						
TGW						
Total						

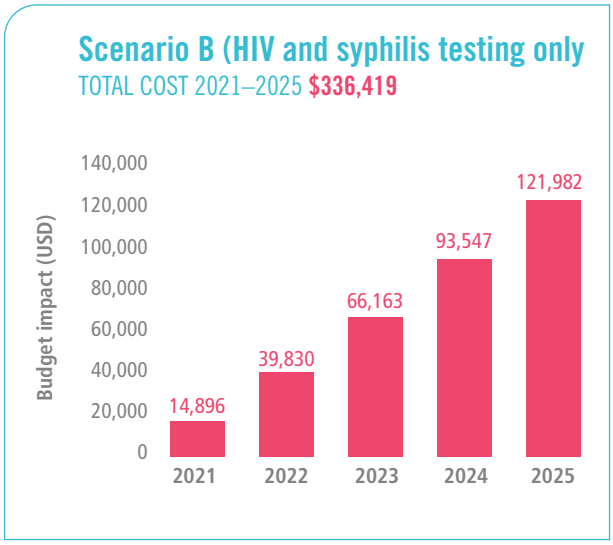
Figure X. Increase in planned PrEP coverage versus increased need for PrEP in the country's MSM population



7. Implementation scenarios

If different scenarios are proposed (as explained in the section on the Cost tab), they can be compared in a figure, as seen below.





The Needs Estimation and Costing Tool for Implementing HIV Pre-exposure Prophylaxis (PrEP) is an Excel instrument developed by the Pan American Health Organization, to estimate the total need for PrEP in a geographical area or a specific service, and also to project program costs according to country needs and capacity. In particular, the tool calculates: 1) the number of people who would benefit from PrEP in each relevant population; 2) the total number of people that the country or entity has the capacity to cover; and 3) the budgetary impact of offering PrEP to each population.

The instructions provided describe the steps to follow and the considerations to be aware of when using the tool. In addition, a report template is included to present the results of the exercise to stakeholders interested in introducing PrEP.

With the tool, PrEP needs and costs can be estimated in an independent and replicable manner. The use of these instructions is expected to improve the ability to plan this essential service, along with the other interventions in the combination prevention framework aimed at reducing new HIV infections.

PAHO
Pan American Health Organization
World Health Organization
Americas