

Tool Set 3



TOOL SET 3: COSTING IMPLEMENTATION OF THE REVISED PMTCT GUIDELINES

Tool Set 3 contains a costing worksheet that can be filled out for a country, program, district, or site and submitted for entry into a model that can be used to estimate a range of costs, including drugs and programming costs, associated with implementation of the revised PMTCT guidelines. Please contact Elena Ghanotakis at eghanotakis@pedaids.org if you are interested in performing a costing analysis for your country, program, district, or site.

SECTION CONTENTS

- 3.1 Costing Worksheet for Implementation of the Revised PMTCT Guidelines

3.1 COSTING IMPLEMENTATION OF THE REVISED PMTCT GUIDELINES

PURPOSE/ POTENTIAL USES FOR THIS TOOL

The purpose of this tool is to collect epidemiological, coverage, cost, and other information relevant to implementation of the revised PMTCT guidelines for a country, program, district, or site that can be entered into a costing model to estimate the total costs associated with implementation of the revised PMTCT guidelines.

Based on the information collected through the worksheet, the information entered into and then derived from the costing model can provide an estimate of drug and programming costs associated with implementation of the revised PMTCT guidelines. The costing model can also provide an estimated cost comparison for different maternal and infant ARV prophylaxis regimens, an estimated cost comparison for different coverage levels within a country, program, district, or site, and can include or exclude a range of programming costs.

INSTRUCTIONS

1. Please contact Elena Ghanotakis at eghanotakis@pedaids.org if you are interested in performing a costing analysis for your country, program, district, or site.
2. Fill in the information requested in the table in the specified units. Please contact Elena Ghanotakis at eghanotakis@pedaids.org for assistance or if you have any questions about the nature of the data requested in each section, which includes the following categories:

Section 1	HIV Epidemiology, ANC Coverage, and Demographics
Section 2	Timing of Women's Entry Into ANC and Timing Between HIV Diagnosis and ART of ARV Prophylaxis
Section 3	Maternal Intra and Post Partum Uptake Data/ Duration of ART Inclusion in PMTCT Program
Section 4	Information about Infant Population and Infant Feeding Practices
Section 5	Maternal and Infant Prophylaxis
Section 6*	Commodities for Implementation of the Revised PMTCT Guidelines
Section 7*	Equipment for Implementation of the Revised PMTCT Guidelines
Section 8*	Supplies for Implementation of the Revised PMTCT Guidelines
Section 9*	Other Direct Costs for Implementation of the Revised PMTCT Guidelines
Section 10*	Personnel Costs for Implementation of the Revised PMTCT Guidelines
Section 11*	Training Costs for Implementation of the Revised PMTCT Guidelines

* Note that Sections 6-11 contain some suggested items and considerations, but can be altered or deleted as appropriate to context specific needs.

- Please note the data requested in the line items highlighted in blue (is not mandatory for this analysis. If this data is available, it can be incorporated into the costing analysis.
 - Please note that for the data requested in the line items highlighted in purple, there is a specified default value. Please make a note if the content specific information differs from the default value.
3. Upon completion of this worksheet, please send it to Elena Ghanotakis at eghanotakis@pedaids.org to be entered into the costing model.

3.1 COSTING WORKSHEET FOR IMPLEMENTATION OF THE REVISED PMTCT GUIDELINES

Section 1: HIV Epidemiology, ANC Coverage, and Demographics		
Component	Description of Information Requested and Information Derived Automatically	Value
1.1	Enter the number of births per year Notes:	
1.2	Enter the percentage of pregnant women who access ANC at least once Notes:	%
1.4	Percentage of pregnant women who receive HIV testing in ANC and Labor and Delivery Notes:	%
1.5	Percentage of pregnant women who test for HIV who receive HIV testing results <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	%

1.6	Percentage of pregnant women living with HIV Notes:	%
1.7	Percentage of pregnant women living with HIV who receive CD4 testing <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	%
1.8	Percentage of HIV-positive pregnant women eligible for ART Notes:	%
1.10	Percentage of HIV-positive pregnant women not eligible for ART who will receive Option A <i>(Note: in some countries, only one option is implemented at all sites in the country, whereas in other countries, different sites are implementing different options. In cases where a combination of options will be implemented, estimate the percentage of women from all sites included in the analysis that will receive Option A. If no women will receive Option A, enter "0.")</i> Notes:	%
1.11	Percentage of HIV-positive pregnant women not eligible for ART who will receive Option B <i>(Note: in some countries, only one option is implemented at all sites in the country, whereas in other countries, different sites are implementing different options. In cases where a combination of options will be implemented, estimate the percentage of women from all sites included in the analysis that will receive Option B. If no women will receive Option B, enter "0.")</i> <u>Please note if sites are implementing "Option B-plus or another ARV prophylaxis regimen)</u>	%

	Notes:	
1.12	Percentage of HIV-positive pregnant women eligible for ART who receive ART <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	%
1.14	Infant mortality rate <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	%/year
1.15	Timing in weeks when early infant diagnosis usually occurs <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	Weeks
1.16	Optional: Average vertical transmission rate at 6-8 weeks (this may or may not be available in some contexts) <i>(Note: these data are not mandatory for this analysis. If these data are available, they can be incorporated into the analysis)</i> Notes:	%

Section 2: Timing of Women's Entry Into ANC and Timing Between HIV Diagnosis and ART or ARV Prophylaxis

Component	Description of Information Requested and Information Derived Automatically	Value
2.1a	<p>Earliest timing in weeks (<i>Timing 1</i>) when pregnant women are diagnosed with HIV at ANC (Note that data (usually from health surveys (DHS)) describing what percentage of pregnant women access ANC at different points during the gestation period may or may not be available. If not available, try to estimate what percentage of women are tested for HIV in ANC at different gestation periods)</p> <p>Notes:</p>	Weeks
2.1c*	<p>Percentage of total population of pregnant women living with HIV diagnosed with HIV in ANC at Timing 1 (weeks specified in 2.1a)</p> <p>Notes:</p>	%
2.2a	<p>Second earliest timing in weeks (<i>Timing 2</i>) when pregnant women are diagnosed with HIV at ANC (Note that data [usually from health surveys (DHS)] describing what percentage of pregnant women access ANC at different points during the gestation period may or may not be available. If not available, try to estimate what percentage of women are tested for HIV in ANC at different gestation periods.)</p> <p>Notes:</p>	Weeks

2.2c*	Percentage of total population of pregnant women living with HIV diagnosed with HIV in ANC at Timing 2 (weeks specified in 2.2a) Notes:	%
2.3a	Third timing in weeks (<i>Timing 3</i>) when pregnant women are diagnosed with HIV at ANC (Note that data [usually from health surveys (DHS)] describing what percentage of pregnant women access ANC at different points during the gestation period may or may not be available. If not available, try to estimate what percentage of women are tested for HIV in ANC at different gestation periods.) Notes:	Weeks
2.3c*	Percentage of total population of pregnant women living with HIV diagnosed with HIV in ANC at Timing 3 (weeks specified in 2.3a) Notes:	%
2.4a*	Percentage of all pregnant women diagnosed with HIV that are diagnosed at Labor Notes:	%
2.5a	Average amount of time in weeks that it takes between diagnosis and the start of ART (waiting period for ART) (<i>Note that there is variability between countries, districts and sites on the protocol for the timing between HIV diagnosis, determination of ART eligibility and initiation of ART or ARV prophylaxis. If there is variability within the context for which this tool is being used, use the best estimate</i>) Notes:	Weeks

2.5b	<p>Average amount of time in weeks that it takes between diagnosis and the start of Option A (waiting period for Option A)</p> <p><i>(Note that there is variability between countries, districts and sites on the protocol for the timing between HIV diagnosis, determination of ART eligibility and initiation of ART or ARV prophylaxis. If there is variability within the context for which this tool is being used, use the best estimate)</i></p> <p>Notes:</p>	Weeks
2.5c	<p>Average amount of time in weeks that it takes between diagnosis and the start of Option B (waiting period for Option B)</p> <p><i>(Note that there is variability between countries, districts and sites on the protocol for the timing between HIV diagnosis, determination of ART eligibility and initiation of ART or ARV prophylaxis. If there is variability within the context for which this tool is being used, use the best estimate)</i></p> <p>Notes:</p>	Weeks
2.6	<p>Are women initiated on ARV prophylaxis or ART in the waiting period (2.5) between a positive HIV test and confirmation of CD4 test results?</p> <ul style="list-style-type: none"> • None • ARV Prophylaxis • ART • Either ARV Prophylaxis or ART <p>(This information should correspond with the information entered in 2.5a, 2.5b, and 2.5c)</p> <p>Notes:</p>	

***Note that the percentages in 2.1c, 2.2c, 2.3c and 2.4c should add up to 100%**

Section 3: Maternal Intra and Post Partum Uptake Data/ Duration of ART Inclusion in PMTCT Program		
Component	Description of Information Requested and Information Derived Automatically	Value
3.1a	<p>Percentage of HIV-positive pregnant women that receive intra-partum prophylaxis</p> <p><i>(Note that the default value in this analysis is 100%. If not 100%, please make a note)</i></p> <p>Notes:</p>	%
3.2a	<p>Percentage of HIV-positive pregnant women that will receive post-partum prophylaxis</p> <p><i>(Note that the default value in this analysis is 100%. If not 100%, please make a note)</i></p> <p>Notes:</p>	%
3.3	<p>Duration in weeks of post-partum ART covered under the PMTCT program for women eligible for ART</p> <p>Note that depending on the country, ART may or may not be included under the budget for the PMTCT program or it may be covered for a specific certain duration.</p> <p>Notes:</p>	Weeks

Section 4: Information on Infant Population and Infant Feeding Practices		
Component	Description of Information Requested and Information Derived Automatically	Value
4.1	<p>Average duration of breastfeeding (in months)</p> <p>Notes:</p>	Months
4.2	<p>Percentage of infants who are breastfed (Note that this data might not be readily available in some countries. Use best estimate)</p> <p>Notes:</p>	%

Section 5: Maternal and Infant Prophylaxis

Component	Description of Information Requested and Information Derived Automatically	Value
5.1	<p>Select the choice of a Maternal ART Regimen used in country. The weekly cost of the Maternal ART Regimen selected will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part A).</p> <p>Maternal ART Regimen Choices:</p> <ol style="list-style-type: none"> 1. AZT (300mg) twice daily + 3TC (150 mg) twice daily + NVP (200mg) once daily 2. AZT (330mg) twice daily +3TC (150mg) twice daily +EFV (600 mg) once daily 3. TDF (300 mg) once daily + 3TC (300 mg) once daily + EFV (600 mg) once daily 4. TDF (300 mg) once daily + FTC (200 mg) once daily + EFV (600 mg) once daily 5. TDF (300 mg) once daily + 3TC (150 mg) twice daily +NVP (200 mg) twice daily 6. TDF (300 mg) once daily + FTC (200 mg) once daily + NVP (200 mg) twice daily <p>Notes:</p>	Maternal ART Regimen Choice
5.3	<p>Select the choice of a Maternal Option B Regimen used in country. The weekly cost of the Maternal Option B Regimen selected will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part C).</p> <p>Maternal Option B Choices:</p> <ol style="list-style-type: none"> 1. AZT (300mg) twice daily + 3TC (150mg) twice daily + LPV/r 400/100 (mg) twice daily 2. AZT (300mg) twice daily + 3TC (150mg) twice daily + ABC (300 mg) twice daily 3. AZT (300mg) twice daily + 3TC (150 mg) twice daily + EFV (600 mg) once daily 4. TDF (300 mg) once daily + 3TC (150 mg) twice daily + EFV (600 mg) once daily 5. TDF (300 mg) once daily + FTC (200 mg) once daily + EFV (600 mg) once daily <p>Notes:</p>	Maternal Option B Choice

5.4a	<p>Percentage of infants with birth weight between 2000- 2499 g (Note that this data might not be readily available in some countries. Use best estimate)</p> <p>Notes:</p>	
5.5	<p>Select the choice of Infant Prophylaxis Option A for non-breastfeeding infants regimen used in country. The 6 week cost of the infant prophylaxis Option A regimen will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part E).</p> <p>Infant prophylaxis Option A for Non-Breastfeeding Infants Choices:</p> <ol style="list-style-type: none"> 1. Birth to 6 weeks: NVP (10 mg)once daily if birth weight 2000-2499 g) 2. Birth to 6 weeks: AZT (10 mg) twice daily if birth weight 2000-2499 g) <p>Notes:</p>	<p>Infant Prophylaxis Option A Choice</p>
5.6	<p>Select the choice of Infant Prophylaxis for Maternal ART or Option B all exposed infants. The 6 week cost of the infant prophylaxis regimen for Maternal ART or Option B will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part F).</p> <p>Infant prophylaxis Maternal ART or Option B All Exposed Infants Choices:</p> <ol style="list-style-type: none"> 1. Birth to 6 weeks: NVP (10 mg)once daily if birth weight 2000-2499 g) 2. Birth to 6 weeks: AZT (10 mg) twice daily if birth weight 2000-2499 g) <p>Notes:</p>	<p>Infant Prophylaxis Maternal ART/ Option A Choice</p>
5.8a	<p>Percentage of infants with a birth weight >2499 g (Note that this data might not be readily available in some countries. Use best estimate)</p> <p>Notes:</p>	%

5.9	<p>Select the choice of Infant Prophylaxis for Option A Non-Breastfeeding Infants. The 6 week cost of the infant prophylaxis regimen for Option A non breastfeeding infants will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part E).</p> <p>Infant Prophylaxis Option A Non-Breastfeeding:</p> <ol style="list-style-type: none"> 1. Birth to 6 weeks: NVP (15 mg) once daily if birth weight > 2499 g) 2. Birth to 6 weeks: AZT (15 mg) twice daily if birth weight > 2499 g) <p>Notes:</p>	<p>Infant Prophylaxis Option A Non Breast-feeding Choice</p>
5.10	<p>Select the choice of Infant Prophylaxis for Maternal ART or Option B all exposed infants. The 6 week cost of the infant prophylaxis regimen for Maternal ART or Option B will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part F). The 6 week cost of the infant prophylaxis regimen of Infant Prophylaxis for Maternal ART or Option B all exposed infants will come up automatically based on cost data entered in Tab 3: Drug Dosing & Costs (Part E).</p> <p>Infant Prophylaxis for Maternal ART or Option B all exposed infants Choices:</p> <ol style="list-style-type: none"> 1. Birth to 6 weeks: NVP (15 mg) once daily if birth weight > 2499 g) 2. Birth to 6 weeks: AZT (15 mg) twice daily if birth weight > 2499 g) <p>Notes:</p>	<p>Infant Prophylaxis Maternal ART/ Option A Choice</p>

Section 6: Commodities for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify necessary commodities (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted. Some suggestions are included, which can be modified or replaced as necessary in accordance with context specific scale up needs.

	Description of Commodity	Cost/Unit	Quantity
6.1	Cost/unit and quantity for HIV rapid tests <i>Considerations:</i> <ul style="list-style-type: none"> • <i>Number of annual pregnancies</i> • <i>Include cost of HIV rapid tests for male partner testing in PMTCT budget?</i> 		
6.2	Cost/unit and quantity for CD4 testing <i>Considerations:</i> <ul style="list-style-type: none"> • <i>Estimated number of pregnant women living with HIV</i> 		
6.3	Cost/unit and Quantity of CD4 Reagents <i>Considerations:</i> <ul style="list-style-type: none"> • <i>Number of CD4 machines that need reagents and the volume these machines serve based on the estimated number of pregnant women living with HIV</i> 		
6.4	Cost/unit and quantity for Hemoglobin test <i>Considerations:</i>		

	<ul style="list-style-type: none"> <i>Estimated number of pregnant women living with HIV</i> 		
6.5			
6.6			
6.7			
6.8			
6.9			
6.10			

Section 7: Equipment for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify necessary equipment (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted. Some suggestions are included, which can be modified or replaced as necessary in accordance with context specific scale up needs.

	Description of Equipment	Cost/Unit	Quantity
7.1	Cost/unit and quantity for CD4 machines <i>Considerations:</i> <ul style="list-style-type: none">• <i>Current status of CD4 infrastructure...do more machines need to be added for adequate coverage?</i>		
7.2	Cost/unit and quantity for CD4 point-of-care machines <i>Considerations:</i> <ul style="list-style-type: none">• <i>Would these devices be a better option in light of challenging travel conditions</i>		
7.3	Cost/unit and quantity of hemoglobin meter <i>Considerations:</i> <ul style="list-style-type: none">• <i>Current health infrastructure</i>		
7.4	Cost/unit and quantity for vehicles <i>Considerations:</i> <ul style="list-style-type: none">• <i>Health Infrastructure</i>		
7.5			
7.6			
7.7			

7.8			
7.9			
7.10			

Section 8: Supplies for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify necessary supplies (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted. Some suggestions are included. Some suggestions are included, which can be modified or replaced as necessary in accordance with context specific scale up needs.

	Description of Supplies	Cost/Unit	Quantity
8.1	Cost/unit and quantity for stabilizer tubes <i>Considerations:</i> <ul style="list-style-type: none"> • <i>Number of pregnant women living with HIV</i> 		
8.2	Cost/unit and quantity for infant feeding commodities <i>Considerations:</i> <ul style="list-style-type: none"> • <i>Supplies for heat treating breast milk</i> • <i>IEC materials</i> • <i>Replacement feeding</i> 		
8.3	Infant Dry Blood Spot (DBS) collection materials for PCR testing <i>Considerations:</i>		
8.4			
8.5			

8.6			
8.7			
8.8			
8.9			
8.10			

Section 9: Other Direct Costs for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify other direct costs (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted. Some suggestions are included. Some suggestions are included, which can be modified or replaced as necessary in accordance with context specific scale up needs.

	Description of Other Direct Costs	Cost/Unit	Quantity
9.1	Cost/unit and quantity for vehicle fuel <i>Considerations:</i> <ul style="list-style-type: none"> Based on number of vehicles and travel estimates 		
9.2	Cost/unit and quantity for vehicle insurance <i>Considerations:</i> <ul style="list-style-type: none"> Based on the number of vehicles 		
9.3	Cost/unit and quantity for vehicle maintenance <i>Considerations:</i> <ul style="list-style-type: none"> Based on the number of vehicles 		
9.4	Cost/unit and quantity for IEC Materials <i>Considerations:</i> <ul style="list-style-type: none"> IEC needs for provider and client sensitization on the revised PMTCT and infant feeding guidelines 		

9.5	Cost/unit and quantity for Community Sensitization Activities <i>Considerations:</i> <ul style="list-style-type: none">• Stipends for community health workers		
9.6	Cost/unit and quantity for Printing of Revised National Guidelines <i>Considerations:</i>		
9.7	Cost/unit and quantity for Printing of Revised Registries <i>Considerations:</i>		
9.8	Cost/unit and quantity for Revised Job Aides <i>Considerations:</i> <ul style="list-style-type: none">• Number of providers at PMTCT sites		
9.9	Cost/unit and quantity for Renovation of Clinics <i>Considerations:</i> <ul style="list-style-type: none">• Existing infrastructure at clinics and capacity to handle increased volume of clients with implementation of revised guidelines		
9.10			
9.11			
9.12			
9.13			

9.14			
9.15			

Section 10: Personnel Costs for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify other personnel costs (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted.

Considerations:

- What additional staff are needed in the context of implementing the revised guidelines?
- Evaluate status of current staffing and gaps:
 - Public health officers, Nurses, Midwives, Dispensers, Laboratory Technicians, Health Information Assistants, Counselors

	Description of Personnel	Cost/Unit	Quantity
10.1			
10.2			
10.3			
10.4			
10.5			
10.6			
10.7			
10.8			

10.9			
10.10			

Section 11: Training Costs for Implementation of the Revised PMTCT Guidelines

Note:

In this section specify other training costs (cost per unit and quantity) to implement the revised PMTCT guidelines in the context for which this costing analysis is being conducted.

Considerations:

- Potential trainings: PMTCT counseling, testing, family planning methods for people living with HIV, ARV prophylaxis dispensation based on revised guidelines, infant and young child feeding in the context of HIV based on the revised WHO guidelines, CD4 testing and EID for laboratory staff on revised WHO guidelines, training for management/ pharmacy staff on logistics and supply chain management
- Considerations for deciding which trainings to hold: total staff assigned to this area, current staff expertise, gaps, possibility for integration with other ongoing trainings/ refresher courses
- Considerations for costs associated with trainings: number of days, costs of venue, payment for trainers, travel, materials, certificates, per diem

	Description of Training	Cost/Unit	Quantity
11.1			
11.2			
11.3			
11.4			
11.5			

11.6			
11.7			
11.8			
11.9			
11.10			