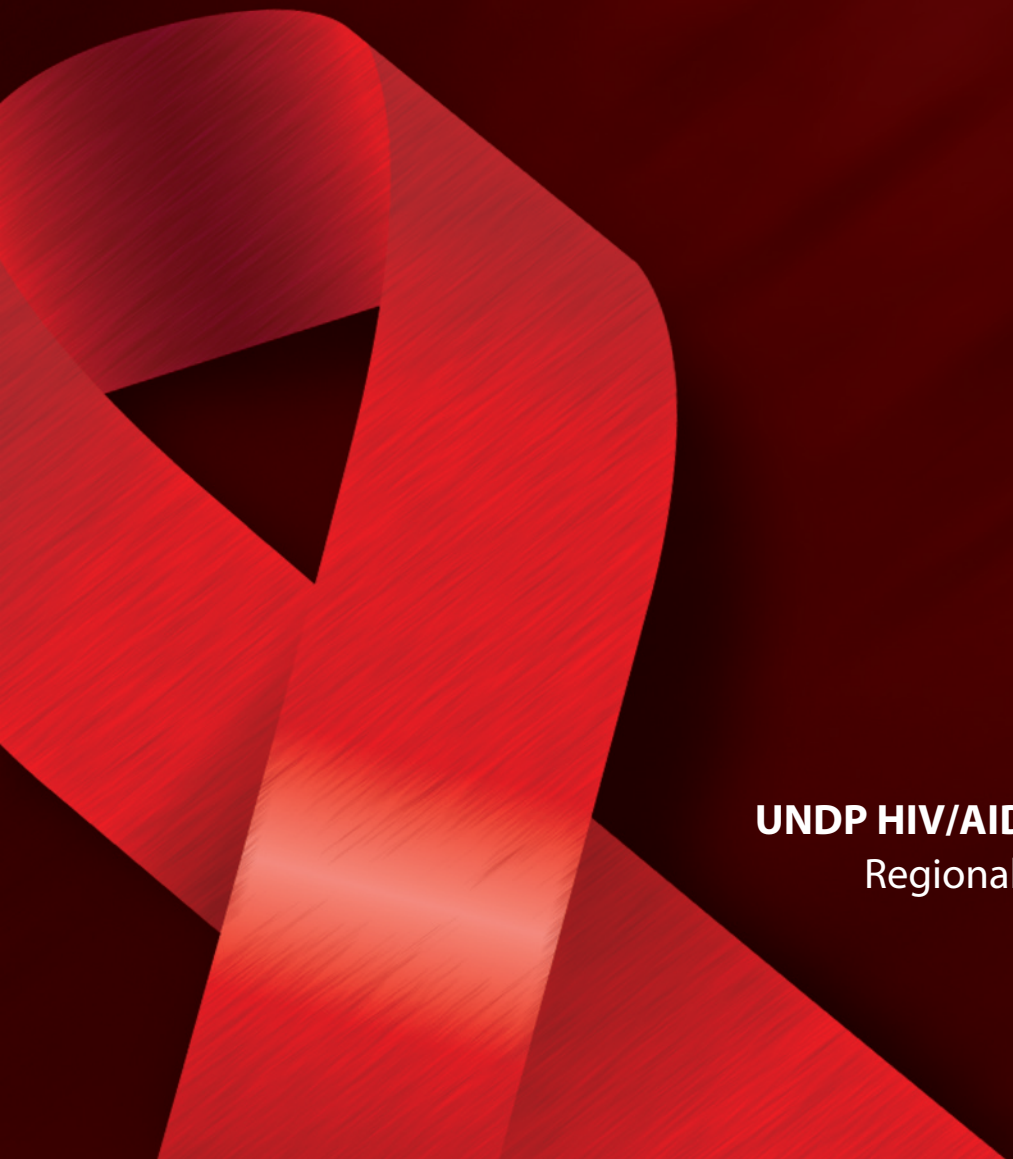
User Manual

# MDG-Consistent HIV/AIDS Costing Model for Asia and the Pacific



**UNDP HIV/AIDS Practice Team**
Regional Centre Colombo

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**Costing the Response - What is In Scope?** 01
**HIV Modelling and Costing Tools** 01
**Using the MDG-Consistent HIV/AIDS Costing Model for Asia and the Pacific (MDG Model)** 03

**1. Overview of the MDG Model** 05
1-1. Worksheet 05
1-2. Structure 05
1-3. Colour Scheme 06
1-4. US Dollar - Local currency conversion 06
1-5. Useful buttons 07
**2. Getting started** 07
**3. Working on the "TOP" Worksheet** 09
**4. Working on the "Enabling Environment," "Prevention," ARV Treatment," "Care & Support" and "Health Systems" Worksheets** 10
4-1 Including/excluding interventions in the total cost calculation 10
4-2. Entering data 11
4-2-1. Opening the data entry section 11
4-2-2. Closing the data entry section 12
4-2-3. Setting the target 12
4-3. Data entry 13
4-3-1. Unit costs 14
4-3-2. Entering costs that cannot be included anywhere or that are shared by multiple interventions 15
**5. Reviewing the results** 16
(a) Total cost of a particular intervention 16
(b) A total cost for a particular field of response 16
(c) Aggregate total costs 16
**6. Areas that need special attention** 18
6-1. The Health Systems Worksheet 18
6-2. Condom provisions in the Prevention Worksheet 19
6-3. Unlocking the Worksheet 19
6-4. Saving the work 19
6-5. Customising the MDG Model 19
**7. Hands-on Exercise - The best way to get accustomed to the model** 22
EXERCISE 1: Basic Moves 22
EXERCISE 2: Enter General Data 23
EXERCISE 3: Enter Intervention Data 23

**Annex 1. List of interventions included in the MDG HIV/AIDS Costing Model** 30
**Annex 2 - Data needs for the MDG Model** 32
**Annex 3: Reference unit costs** 34

# Estimating Resource Needs Using Tools

## Costing the Response - What is In Scope?

The aim of costing the response is to determine the *total cost*. This means all interventions and services have a cost, even if they are provided free or even if it is envisage that individuals will bear that cost as an out-of-pocket expense. Both capital and recurrent costs need to be included in total cost estimation (UN Millennium Project 2005b). The *total cost* needs to be considered when determining and calculating country specific *unit costs*. Once the response is costed, financing options can then be discussed.

The focus is on costing all cash flow components, which then corresponds to projecting the cash flow required to fund the MDGs. However opportunity costs associated with communities investing their time in an intervention is not included (UN Millennium Project 2005b).

It is important to understand that total cost estimation is distinct from estimating the cost-effectiveness of interventions or projecting the impact of interventions on the future course of the epidemic such as modelling.

## HIV Modelling and Costing Tools

There are a number of tools available for measuring the impact of and costing the response to HIV/AIDS. These tools have different purposes as mapped out below.

| MODEL TYPE | MODEL NAME | MODEL PURPOSE | SOURCE |
|---|---|---|---|
| **Epidemiological modelling** | Asia Epidemic Model (AEM) | Allows examination of the impacts of different prevention program choices on the course of the epidemic. | http://www.eastwestcenter.org |
| | Estimation and Projection Package (EPP) | EPP is used to estimate and project adult HIV prevalence from surveillance data in countries with generalised epidemics. | http://www.constellafutures.com |
| **Funding and goals** | GOALS | It is intended to assist planners in understanding the effects of funding levels and allocation patterns on program impact. | http://www.constellafutures.com |

| MODEL TYPE | MODEL NAME | MODEL PURPOSE | SOURCE |
|---|---|---|---|
| **Costing** | INPUT | INPUT accompanies the *Costing Guidelines for HIV/AIDS Intervention Strategies* (UNAIDS and ADB 2004). INPUT calculates the unit costs for common HIV/AIDS interventions using local cost information. | Jointly developed by UNAIDS and ADB |
| | Resource Needs Model (RNM) | The RNM model costs a suite of interventions split into prevention, treatment and care and orphan support. | http://www.constellafutures.com |
| | Cape Town ARV treatment model | The Cape Town model is a detailed treatment model designed to assist planners in estimating costs associated with antiretroviral treatment. | Included as a module in the *Health Care Costing Model* from the UN Millennium Project. |
| | ASAP HIV/AIDS Strategy Costing Model (ASAP) | The ASAP model, partially based on RNM, creates linkages among costing, national chart of accounts, and national strategic priorities. | Developed by ASAP (AIDS Strategy & Action Plan) http://www.worldbank.org/asap |
| | The MDG-consistent HIV/AIDS Costing model (MDG Model) for Asia and the Pacific | The MDG Model is built upon RNM and the Cape Town model. It is consistent with the MDG time frame and incorporates HIV-specific MDG targets and interventions for Asia and the Pacific. | Developed by UNDP Regional Centre in Colombo in partnership with UNAIDS Regional Support Team for Asia and the Pacific and UNDP MDG Support Team. |

Some of these tools have objectives broader than costing interventions and may be employed by countries to provide epidemiological inputs to costing exercises, to help prioritise interventions, and to monitor the impact of interventions on country goals and targets.

# Using the MDG-Consistent HIV/AIDS Costing Model for Asia and the Pacific (MDG Model)

This section focuses on estimating the total cost of HIV/AIDS responses using the MDG-consistent HIV/AIDS Costing Model or the MDG Model.

The MDG Model is principally built upon the widely-used Resource Needs Model developed by the Futures Group and partially upon the Cape Town ARV Costing Model developed by the University of Cape Town. It has been developed by UNDP Regional Centre in Colombo in partnership with UNAIDS Regional Support Team for Asia and the Pacific and UNDP MDG Support Team (the former UN Millennium Project).

The MDG Model was primarily developed to assist the governments in Asia and the Pacific carrying out MDG needs assessment exercises, based upon recommendations from experts from the region that the existing tools had not addressed some of the key issues that are critical to Asia and the Pacific region and some tools had been highly complex and unfriendly to users. The MDG Model is making constant adjustments and improvements based upon feedback from users in the region.

While inheriting strengths of the above widely-accepted models, the MDG still offers useful functions, unique features, and high utility.

The key features of the *MDG Model* are as follows:

## 1. Flexible, MDG-consistent timeline

- Users can plan up to or beyond 2015, the MDG target year
- Users can define start and end years (up to a range of 10 years), which makes the single model useful for multiple planning horizons (short-, mid- and long-terms)

## 2. UNAIDS targets for the 2010 universal access goal incorporated

- All UNAIDS non-negotiable and other key targets for Asia & Pacific for the 2010 universal access have been incorporated, making the tool consistent with both the 2010 (universal access) and 2015 (MDG 6) goals:. *In 2007, the universal access became one of the HIV MDG targets (6B) for Asia and the Pacific, on which countries are required to report.*

## 3. Target, result-based costing

- All the interventions in the MDG Model have their own target(s), defined by each country and prominently listed at the top of respective data entry section. The target enables result-based costing and provides a good system of accountability and monitoring the progress towards the target.

## 4. Expanded Scope

- New interventions, which have been shown as important for an effective HIV/AIDS response in Asia and the Pacific, have been added under the heading "Enabling Environment." Particularly this section addresses human rights, gender and governance dimensions of HIV responses.
- Flexible interventions have been included, allowing users to define and add country-specific interventions (e.g., Other Programs to Support PLWHAs)

- Human resources have been expanded to include more than only physicians; in fact, users can define multiple cadres of human resources as necessary, including managerial and administrative staff
- Facility capital and recurrent costs have been added

## 5. More detail and disaggregation

- Major cost components of interventions are clearly defined (e.g., costs of home-based Care include salaries/incentives to providers, salaries of supervisors, transportation equipment or reimbursements to each cadre, etc.)
- STIs and OIs are disaggregated and costed by individual infection, as defined by users
- Where applicable capital and recurrent costs are differentiated

## 6. Increased transparency and simplicity

- All data and calculations for each major HIV/AIDS category (e.g., prevention, treatment, etc.) occur on a single worksheet that runs top-to-bottom
- No hidden assumptions
- The Model calculates total capital costs, which are extremely important in expenditure analysis and resource mobilization.

## 7. User-friendly interface with high utility

- Color coding helps users easily differentiate between input and output cells
- Unit cost inputs have been reorganized for conceptual ease (e.g., cost per outreach worker visit is disaggregated into its constituent inputs that may be more readily understood by users)
- User provides population data directly so that that model can be used at sub- or supra-national levels as necessary
- Users can change unit costs and coverage scale-up paths each year
- It can explicitly include health infrastructure, and human resource costs.
- Users can restore the original formula and conditions with a push of a button "RESET."
- Users can refer to proxy data and reference information to assist data entry.
- Projected inflation can be easily accommodated

## 8. Synchronised with an MDG-consistent HIV/AIDS needs assessment user guide

- The MDG Model can be used in tandem with the MDG-consistent HIV/AIDS needs assessment user guide. As needs assessment and prioritization have vital implications on the total cost of intervention, synchronization between the needs assessment user guide and the MDG Model provides a principled approach to the needs assessment and costing exercises.

# 1. Overview of the MDG Model:

The *MDG model* is an Excel-based tool, with imbedded formulas. The tool calculates costs per intervention, sub totals costs at the level of the following five categories or "Response Fields": Enabling Environment, Prevention, ARV Treatment, Care and Support, and Health Systems. It also calculates an annual grand total for the HIV/AIDS response. It has a dynamic 10-year time period that users can specify start and end years for.

The following section describes the basic features and functions of the MDG Model.

## 1-1. Worksheet

The MDG model has 7 active worksheets (working areas) as shown below: (1) TOP, (2) Enabling Environment, (3) Prevention, (4) ARV Treatment, (5) Care & Support, (6) Health Systems, and (7) Cost Summary. Each tab has a different colour for easy identification:


The worksheets with gray tabs such as "TP" and "EE" as shown above are not for use (and should not be altered or deleted. See 6-4 for more details).

## 1-2. Structure

Each worksheet for specific intervention area (Enabling Environment, Prevention, ARV Treatment, Care & Support and Health Systems) is consisted of 4 sections.