

## ART Costing Models Crosswalk Analysis

CRITERIA/ MODEL	AIDS STRATEGY AND ACTION PLAN (ASAP) HIV/AIDS COSTING TOOL	GOALS MODEL	HIV/AIDS PROGRAM SUSTAINABILITY ANALYSIS TOOL (HAPSAT)	MARGINAL BUDGETING FOR BOTTLENECKS TOOLKITS (MBB)	PEDS TARGET SETTING TOOL 2010 (Peds 2010)	PEPFAR ART COSTING MODEL (PACM)	RESOURCE NEEDS MODEL HIV/AIDS (RNM)	SIMCLIN	SPECTRUM COSTING MODEL
Organization(s) responsible for creating model software	UNAIDS/World Bank	Futures Institute/Futures Group	Abt Associates, Health Systems 20/20 Project	UNICEF/World Bank	Clinton Health Access Initiative	Centers for Disease Control and Prevention and Macro International	Futures Institute/Futures Group	Clinton Foundation	Futures Institute/Futures Group
Main purpose of model	Costing operational plans	Evaluating and planning of resource allocation	Evaluating sustainability by determining resource gap	Identifying implementation constraints of the health system	Calculating monthly pediatric ART enrollment estimates and ARV quantifications	Costing implementation of ART programs by PEPFAR partners	Costing strategic plans	Estimating resource utilization. Simulation model of an HIV care and treatment clinic.	Estimating the need for ARVs and costs for HIV care and other kinds of treatment including for OIs
Definition of costing principles	Financial, bottom-up, capital, and recurrent	Financial, bottom-up, recurrent	Financial, bottom-up, recurrent	Economic, bottom-up	No direct costing element to the model, although ARV unit costs can be input to calculate ARV procurement costs.	Economic, top-down, capital, and recurrent	Financial, bottom-up, recurrent	Economic, bottom-up, recurrent	Bottom-up
Program areas included	Prevention, treatment, and care (including provider-initiated testing, prophylaxis for OIs, ART nutritional support, laboratory monitoring, dental programs for PLWH, psychological treatment and support, palliative care, home-based care, alternative and informal providers, outpatient care, treatment of opportunistic infections, inpatient care, patient transport and emergency rescue), OVC, AIDS program development, human resources, mitigation, community development and research	Prevention (mass media, community mobilization, youth-focused interventions, interventions focused on sex workers and their clients, workplace programs, harm reduction for IDUs, interventions for MSM, condom provision, improving STI management, VCT, PMTCT, blood safety, PEP, safe injection, universal precautions). ART (laboratory tests for monitoring ART and treatment of OIs while on ART, care and prophylaxis in the absence of ART, diagnostic HIV testing, home-based care, palliative care, TB treatment, nutritional support, ART provider training)	Treatment, care, prevention, mitigation, ART, VCT, pre-ART monitoring, OI prevention and treatment, home-based care, palliative care, testing and directly observed treatment short-course for TB-HIV coinfection, PMTCT, behavior change prevention/abstinence, be faithful, use condoms, MARP outreach, youth-friendly services, mass media, OVC, economic and social support programs for PLWH, health systems, and shared costs	Demography, epidemiology, health services, intervention coverage, and costs are included. Includes all health-related Millennium Development Goals, but in HIV prevention and care: PMTCT (testing and counseling, ART, and infant feeding counseling); condom use; and cotrimoxazole prophylaxis for mothers living with HIV	Pediatric ART	ART, pre-ART, first line, second line, adult/pediatric, newly initiated/established, administrative/management, overheads, and investments are included	Prevention (mass media, community mobilization, youth-focused interventions, interventions focused on sex workers and their clients, workplace programs, harm reduction for IDUs, interventions for MSM, condom provision, improving STI management, VCT, PMTCT, blood safety, PEP, safe injection, universal precautions); ART (including laboratory tests for monitoring ART and treatment of OIs while on ART, care and prophylaxis in the absence of ART, diagnostic HIV testing, home-based care, palliative care, TB treatment, nutritional support, and ART provider training); OVC	ART (first line and second line), TB, pregnancy, toxicity, laboratory test, and human resources	OI treatment and service delivery costs, first and second line ARV treatment and service delivery costs, nutrition, TB prophylaxis, cotrimoxazole, and laboratory tests

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Days of training required	1 (7 days of further support offered)	3-4	1	5	less than 1 day	7	2	6-7	2 (if epidemiologist)
Time frame to complete ART costing process	2 weeks for a small to mid-sized country	1 month (3 months for whole model)	4-6 weeks	3-6 months	less than 1 day	8 months	1 (3 months for whole model)	6-7 days	2 days (if epidemiologist)
Relationship with other models	Fed by Spectrum and RNM	Fed by Spectrum and RNM	Fed by Spectrum	Fed by Spectrum	Stand-alone model	Fed by Spectrum	Can be used in conjunction with ASAP for Global Fund applications	Works with other Excel models and calculators	Spectrum is used as an input for Goals Model RNM, HAPSAT, MBB, and ASAP
Countries Implemented	Swaziland, Guyana, Kosovo, Malawi, Kenya, Ethiopia, Gambia, and Côte d'Ivoire	South Africa, Kenya, Ethiopia, Uganda, Lesotho, Ghana, Ethiopia, Namibia, Zambia, Mozambique, Rwanda, Malawi, Mali, Honduras, Mexico, China, Cambodia, and Ukraine	Zambia, Ethiopia, Côte d'Ivoire, Nigeria, Haiti, Kenya, S. Sudan, Guyana, and Democratic Republic of Congo	Angola, Benin, Burundi, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Guinea Bissau, India, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone, Swaziland, Uganda, and Zambia	19 countries	Mozambique, Tanzania, Vietnam, and Ethiopia	56 countries between 2009-2010 including Ethiopia, Kenya, Uganda, Tanzania, Rwanda, Zambia, Mozambique, South Africa, Namibia, Ghana, Burkina Faso, Honduras, Thailand, Vietnam, Indonesia, and China	Rwanda, Ethiopia, Tanzania, Liberia, Bahamas, Jamaica, South Africa, Swaziland, China, and India	135 countries
Skills needed to understand the findings	No specialized skills. Different levels of detail are available for output reports, but they are generally straightforward.	Knowledge of HIV programs, statistics, unit costs, and epidemiology.	Knowledge of HIV programs, basic economics, and costing approaches. Ability to read tables and graphs. Competency using Excel.	Knowledge of economics, epidemiology, and statistics. Competency using Excel. Not intended to be self-explanatory or used without expert guidance.	Competency using Excel.	Knowledge of ART. Competency using Excel.	Expertise in demography, economics, and epidemiology. Requires a multidisciplinary team.	Knowledge of ART and epidemiology. Competency using SAS.	Knowledge of ART and epidemiology.
Software package used	Excel	Available as both Excel and Spectrum formats	Excel	Excel, Lotus	Excel	Excel	Excel	ACCESS, SAS. Outputs can be exported to Word or Excel; Word documents can be formatted for PowerPoint.	Windows-based, non-Excel custom software

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<b>Example of an impact on a policy decision</b>	In Swaziland, ASAP was used to pare down the original HIV action plan to focus on priorities and to prepare a realistic budget that reflected those priorities.	In Uganda and Lesotho, Goals Model assisted the government in the costing of their national strategic plans.	In Kenya, following the HAPSAT process the government began to focus more on sustainability by looking for alternative sources of HIV funding, and on quality by looking at loss-to-follow-up and adherence challenges.	In Mauritania, MBB analysis helped to support a 40% increase in Mauritania's health budget. In Mali, MBB analysis helped justify increased investments for prevention of maternal and child mortality.	In 19 countries, Peds 2010 has been used to forecast and quantify the pediatric ARV requirements for national HIV treatment programs. Some countries have revised the ARVs included in their national HIV treatment guidelines based on cost analysis from the tool.	In Mozambique, PACM led to a rationalization of the national HIV budget. PACM demonstrated a need to move additional funds into HIV treatment from prevention.	RNM has influenced policy in numerous countries, including Kenya and Honduras, by costing their national HIV strategic plans. UNAIDS uses RNM for their Global Resource Needs Estimates, which provide UNAIDS with information on the global financial gap between available and needed resources for ART.	In Rwanda, SIMCLIN helped to articulate the need for more "prescribing nurses" and specially trained counselors to support the national HIV program, which led to refocusing of health worker time through task shifting.	Spectrum is the foundation of epidemiological projections in 135 countries. It provides HIV data in a consistent way to estimate the need for ART.
<b>URL for downloading model and/or model website</b>	<a href="http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHIVAIDS/0,,contentMDK:20269732-menuPK:5199822-pagePK:210058-piPK:210062-theSitePK:376471,00.html">http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHIVAIDS/0,,contentMDK:20269732-menuPK:5199822-pagePK:210058-piPK:210062-theSitePK:376471,00.html</a>	<a href="http://www.futuresinstitute.org/pages/Goals.aspx">http://www.futuresinstitute.org/pages/Goals.aspx</a> or <a href="http://www.futuresinstitute.org/pages/spectrum.aspx">http://www.futuresinstitute.org/pages/spectrum.aspx</a>	Model not yet publicly available for downloading, but available upon request. For more information visit <a href="http://www.HS2020.org">www.HS2020.org</a> .	Model available on request.	Model available on request but not designed to be used without expert guidance.	Model not yet publicly available for downloading, but available on request.	<a href="http://www.futuresinstitute.org/pages/ResourceNeeds.aspx">http://www.futuresinstitute.org/pages/ResourceNeeds.aspx</a>	Model is not currently available for downloading.	<a href="http://www.futuresinstitute.org/pages/spectrum.aspx">http://www.futuresinstitute.org/pages/spectrum.aspx</a>
<b>URL for downloading user manual</b>	Same as above	Same as above. Manual available in English, French, and Spanish.	Manual not yet publicly available for downloading, but available on request. For more information visit <a href="http://www.HS2020.org">www.HS2020.org</a> .	Manual available on request in English with access to Help Desk support.	Manual available on request but not designed to be used without expert guidance.	Manual not yet publicly available for downloading, but available on request.	<a href="http://www.futuresinstitute.org/pages/ResourceNeeds.aspx">http://www.futuresinstitute.org/pages/ResourceNeeds.aspx</a>	Manual is not currently available for downloading.	<a href="http://www.healthpolicyinitiative.com/index.cfm?id=software&amp;get=Spectrum">http://www.healthpolicyinitiative.com/index.cfm?id=software&amp;get=Spectrum</a>
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