AIDS Strategy and Action Plan (ASAP)

A Service of UNAIDS

USER MANUAL

ASAP HIV/AIDS Costing Model

V1.2 – October, 2008

www.worldbank.org/asap

What's new in v1.2?

- **Improved consistency and functionality, reflecting use of the model to date**
- **Inflation capability added (at user discretion)**
- **Financing gap analysis added (including both recording of financing sources and reporting on the funding gap)**
- **Report added on unit costs by beneficiary group (variable costs only) to facilitate cost comparisons**
- **Template added for monitoring and evaluation costing**
- **Templates added for training activities**
- **New function introduced to make it easier to add accounts**
- **Development of data input sheets for Basic Data and Targets and Coverage**

ASAP HIV/AIDS Costing Model
User Manual v1.2

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User Manual
ASAP HIV/AIDS Costing Model

A. Introduction

Based on experience in Swaziland and Guyana, the ASAP HIV/AIDS Costing Model incorporates key features of existing costing models (including the concept of target groups and coverage levels from RMN and the functional classification from NASA) into an approach specifically designed for costing HIV/AIDS strategies. It follows a logical menu-driven sequence of steps to walk the user through various set-up, mapping and costing processes, with the end result being a fully costed strategic plan. The level of detail to be included in the costing is entirely up to the user. For example, the costing can be limited to the major drugs, laboratory supplies and other key cost items, or it can be comprehensive, encompassing all known types of costs.

The model also allows the user easily to examine the impact of different coverage levels, unit cost reductions and various combinations of strategic plan activities to determine how best to live within overall funding constraints. If there is sufficient detail in the human resources section of the chart of accounts, the cost and human resource implications of various levels of task shifting can also be analyzed. Because of the mapping of expenditure types to the government accounting framework, the model can then be used as a budgeting and financial monitoring tool, which would allow users to examine price, quantity or pattern of practice variances. This monitoring and analysis can serve as an input for costing future strategies, or adjusting the cost projections in the middle years of a strategy. In this way, the complete cycle of planning, budgeting, operations and evaluation is supported.

The model is an Excel spreadsheet which is largely menu driven. The user simply has to click on the box to go to the appropriate part of the spreadsheet. All data are dynamically linked, so information only needs to be entered once and will be used throughout the spreadsheet.

B. Basic Functionality

Figure 1 shows the flow of the model through the various functions contained in it. In summary the following functions are included:

- *Entering Basic Data* – this includes country and currency data, scaling options (for reports) and the initial year for the projection. It also includes space to enter demographic information and data on the various "at risk" populations with respect to HIV/AIDS, as well as data on health resources (both human and physical). As noted above, this data will be fed as needed to other parts of the spreadsheet.
- *Entering Targets and Coverage Levels* – this is where the objectives from the strategic plan are quantified into specific targets and coverage levels for various groups and subgroups and various interventions. This section takes the necessary data from the "Basic Data" sheet, and also feeds the targets and coverage levels into the subsequent calculations.

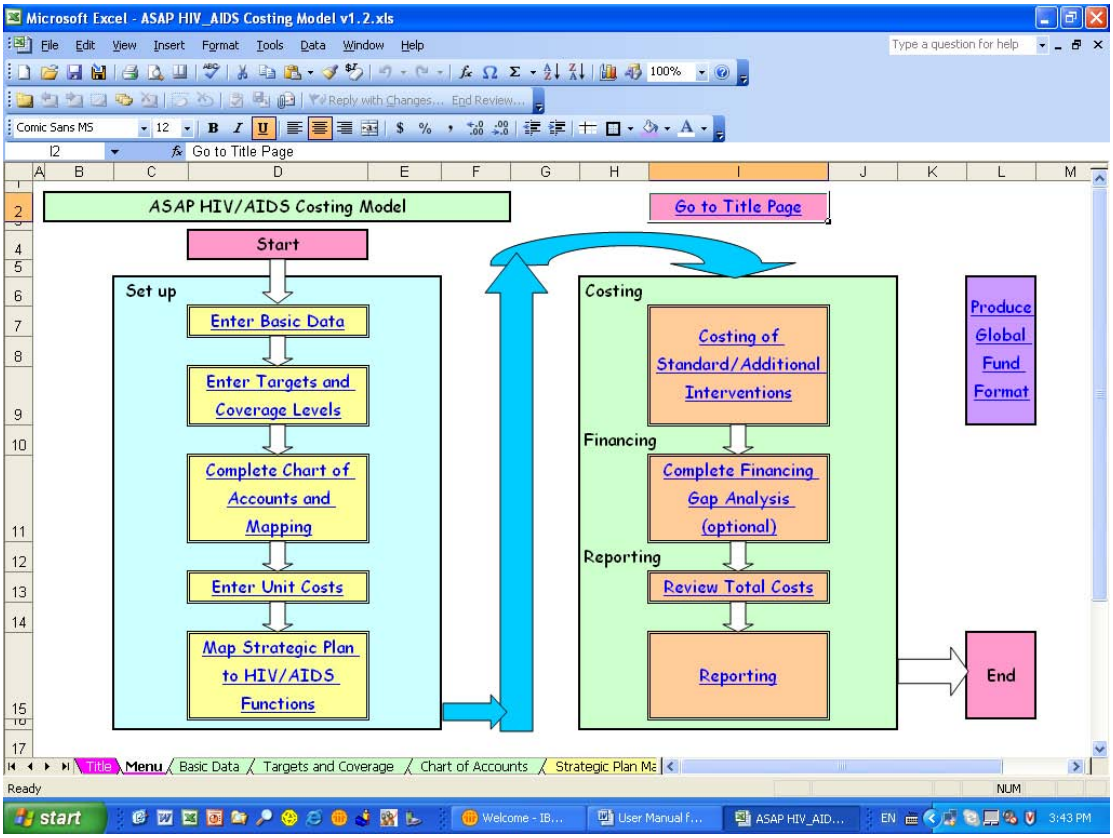


Figure 1 – Main Menu

- *Complete Chart of Accounts and Mapping* – in order to maintain consistency through the calculations in the model, a single chart of accounts and standard unit costs are used. The model assists the process by including a fairly comprehensive set of accounts, which can be added to or modified as needed. Also, in order to allow the presentation of the model results in a format familiar to government decision-makers, this section also allows the individual accounts to be mapped to the government chart of accounts.
- *Enter Unit Costs* – this is where the standard unit costs are added for each expenditure account, which will be used throughout the model. This ensures consistency in the costing and allows physical quantities to be calculated later in the process, to assist in procurement planning.
- *Map Strategic Plan to HIV/AIDS Functions* – in this part of the model, the various strategies and activities are mapped to standard HIV/AIDS functions using the classification system from the National AIDS Spending Assessment (NASA) tool. This mapping allows the relatively free-form strategy to be explicitly linked to a number of related interventions.
- *Complete Costing for Standard/Additional Interventions* – to the extent that targets and coverage levels, as well as standard unit costs, have been entered already, the costs of the standard, pre-programmed interventions should already be calculated. This part of the model would then be reviewed to ensure that all of the appropriate costs are included and that the figures make sense. Special interventions are more "free-form", with the user being able to select the relevant target populations or quantities, as well as the appropriate cost categories.

- *Complete Financing Gap Analysis (optional)* – this part of the model allows the user to enter expected sources of funds by financier, broken down by functional group/function (to the extent known). This can then be compared to the funding requirements implied by the costing to determine the funding gap. To the extent that funds are allocated by financiers to specific groups or functions, the funding gap can be reviewed at a lower level of detail as well.
- *Review Total Costs* – this section provides summaries of total costs across several dimensions: (a) by priority/activity, (b) by function (according to the NASA classification); and (c) by broad cost category. This allows the user to determine if the overall costs, as well as the distribution of costs within the total, look reasonable.
- *Reporting* – the final section of the model provides detailed breakdowns of costs by activity grouping, individual function and cost element. There are also reports which detail the costs by government expenditure classification, and show the physical quantities of various types of inputs implied by the costing. This can be useful both for procurement planning and in physical or human resource capacity analysis.

There is also a separate module for reorganizing costs and activities in the Global Fund framework, which will be discussed below. To work through these steps, various types of staff from the MOH, HIV/AIDS, and/or other stakeholders would need to be involved in the process. As noted in more detail in the text below, some of these steps can be done in parallel. The following table highlights the expected types of staff who should be involved in each step of the model.

Step	Type of Staff
Entering Basic Data	M&E, Program
Targets and Coverage Levels	M&E, Program, Management
Chart of Accounts/Mapping	Financial
Map Strategic Plan to Functions	Program
Costing Standard Interventions	Financial, Program, Management
Costing Special Interventions	
Funding Gap Analysis	Management, Financial
Review Total Costs	Management
Reporting	Financial, Program

The next sections of the user's manual describe how to enter the system and then go through each of the steps in turn, highlighting the information needs as well as the key features of the model.

C. Starting the System

The system is configured as a normal Excel file although because of its initial size will likely be distributed in a ".zip" file. By double-clicking on this file, the contents of the zip file will be shown. To start the system, the user should then double-click on the Excel file in the list. A dialogue box similar to the one shown to the right should pop up. The user should click on "Enable Macros" (circled in red).

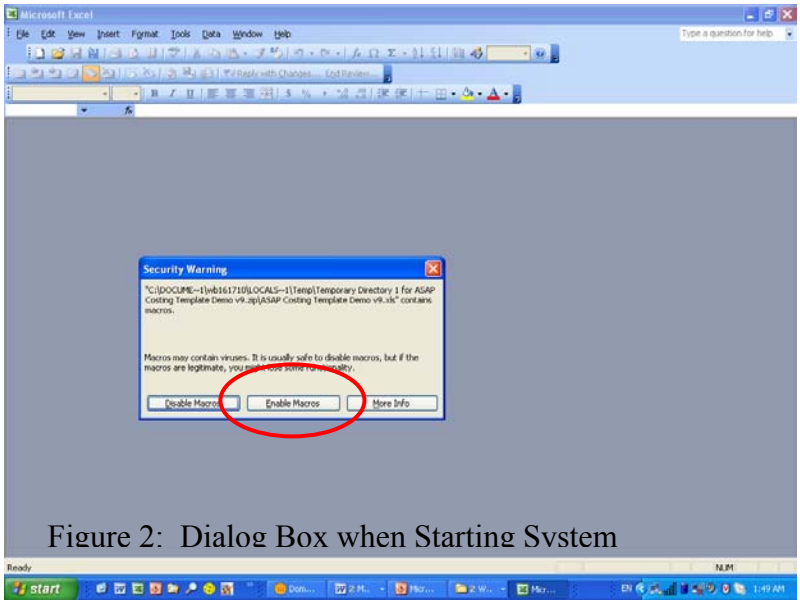


Figure 2: Dialog Box when Starting System

The title page should now be displayed (see Figure 3) and once the button "Press here to go to main menu", the main menu will appear (see Figure 1), and the system is now ready for use.

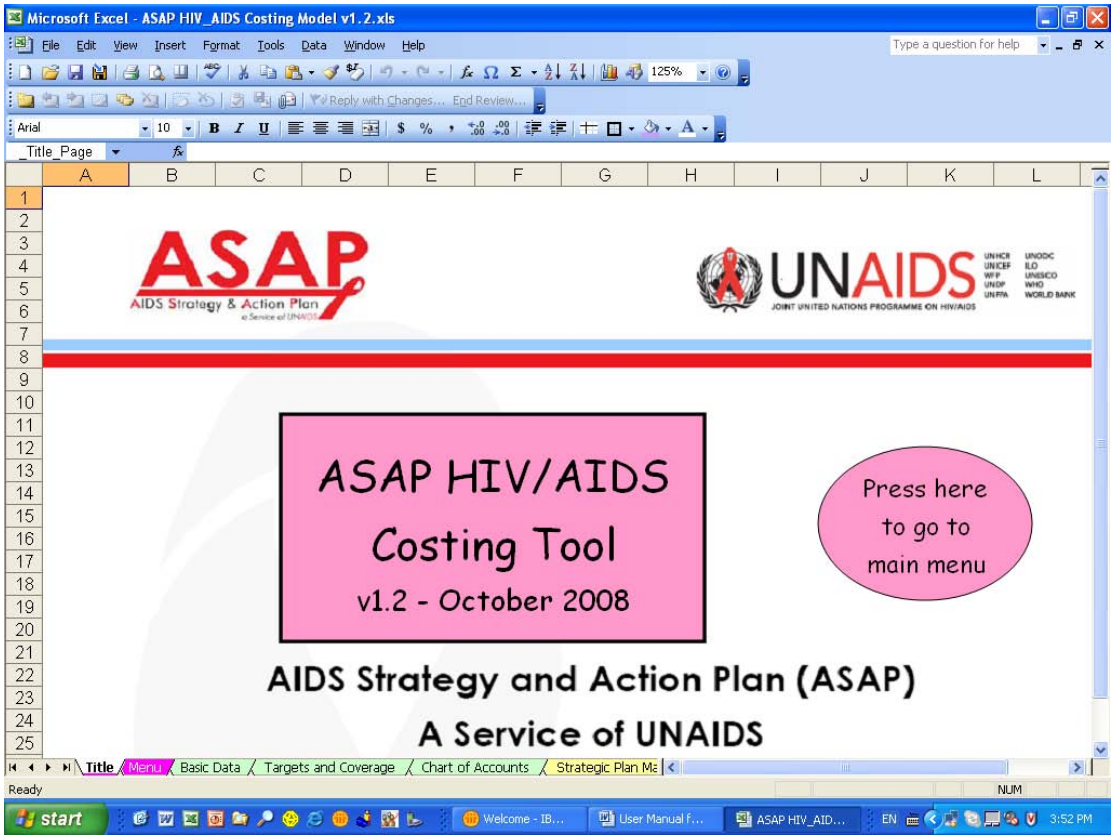


Figure 3 – Title Page

D. Entering Basic Data

As noted above, the first step is entering the basic data. This can largely be drawn from RNM or similar sources. Three years of data are entered and this is used to project through the following 4 years [it is planned to extend this to 5 years in the next version of the model]. The user can also directly enter annual figures where the calculated projections do not appear to be reasonable.

To go to this section, the user should position the cursor over the "Enter Basic Data" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model. When the user is finished entering data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

All of the instructions, as well as the data that needs to be entered by the user are shaded green for easy reference. Data calculated by the system is shaded in purple, and data that is pulled forward from other sheets is shaded in pale yellow.

The system makes extensive use of drop down menus, such as the one for scale below, which reduces errors and speeds up the use of the model.

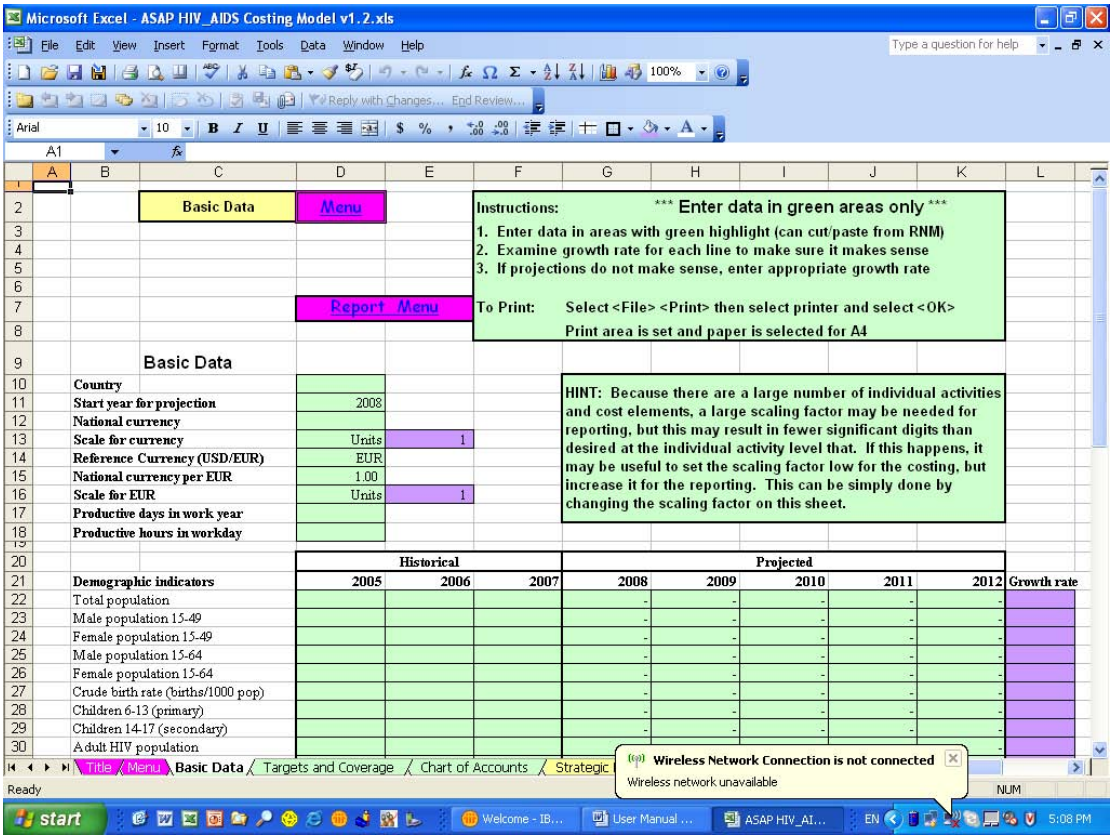


Figure 4 – Basic Data Section

As shown in Figure 3, the top part of this section includes basic identification data, as follows:

- **Country** – the country for which this costing is being done; this name will be used in all reports
- **Start year** – the last year of actual data, after which estimates will be calculated
- **National currency** – the abbreviation of the national currency, which will be used in subsequent sections, as well as reports
- **Scale for currency** – the scaling factor for national currency (units, thousands or millions)
- **Reference currency (USD/EUR)** – the currency to be used as a reference currency
- **National currency per reference currency** – the number of units of national currency per unit of reference currency
- **Scale for reference currency** – the scaling factor for reference currency (units, thousands or millions)
- **Productive days in work year** – the number of days in a year that the average person is expected to work (net of weekends, holidays, vacation, sick time, etc.)
- **Productive hours in a work day** – the number of days in a year that the average person is expected to work (net of weekends, holidays, vacation, sick time, etc.)

HINT: Because there are a large number of individual activities and cost elements, a large scaling factor may be needed for reporting, but this may result in fewer significant digits than desired at the individual activity level that. If this happens, it may be useful to set the scaling factor low for the costing, but increase it for the reporting. This can be simply done by changing the scaling factor on this sheet.

The remaining parts of this section includes basic demographic data (total population and various age/gender groupings), details on the demographics of the HIV epidemic, and some general capacity indicators regarding the health system (facilities and personnel). The parts entitled "Demographic Indicators" and "Epidemiological Indicators" can be copied directly from an RNM, if available, while the remaining data is additional to that model, and is needed because of the expanded scope of the interventions included in this costing model.

In order to collect this data, it may be useful to simply print the page as a reference when looking at potential data sources. Alternatively, Annex B.1 includes a data input sheet which can be printed and used to collect the Basic Data. Once collected, the sheet can be used to enter the data into the model. When the user is finished entering data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

The areas that are shaded purple are calculated by the model based on a simple linear extrapolation of the three years of data entered in the green section, using the average growth rate over those three years. However, if the user has more precise estimates of future trends, these can be manually entered for the years that they are available. If

manual entry is used, it may be useful to document this so that there is some record that the calculated values have been over-written. Once all of the data is entered to the satisfaction of the user, there may be some value in printing and discussing the data with a broader audience, to ensure that there is consensus on the basic information.

To ensure consistency throughout the model, all changes in the basic data should be made in this section, rather than, for example, in the targets and coverage section or the section where the specific interventions are costed. Otherwise, a situation may arise where the same variable has different values in different parts of the model, which could lead to confusion and errors.

E. Entering Targets and Coverage Levels

The Targets and Coverage section allows the user to set specific targets in 21 separate areas, including both prevention and treatment activities. To go to this section, the user should position the cursor over the "Enter Targets and Coverage Levels" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model. When the user is finished entering data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

This section of the model is also menu driven (see Figure 5). The user can either use the menu by clicking on the appropriate hyperlink, or it is also possible to just scroll down through the various areas. As in the previous part of the model, all of the instructions, as well as the data that needs to be entered by the user are shaded green for easy reference. Data calculated by the system is shaded in purple, and data that is pulled forward from other sheets is shaded in pale yellow.

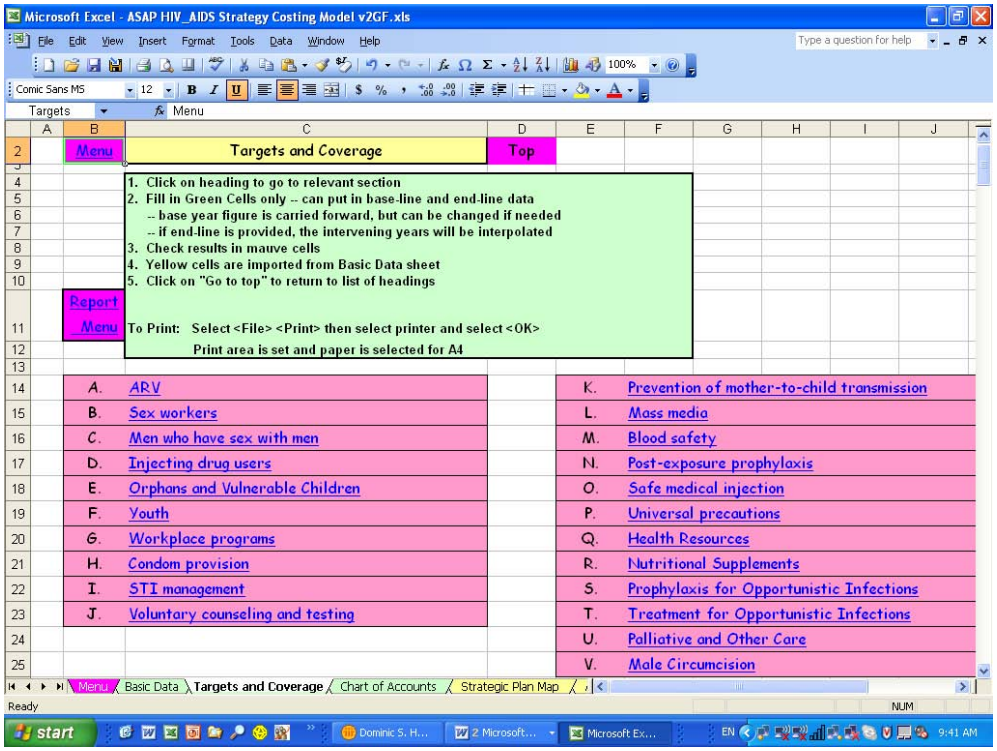
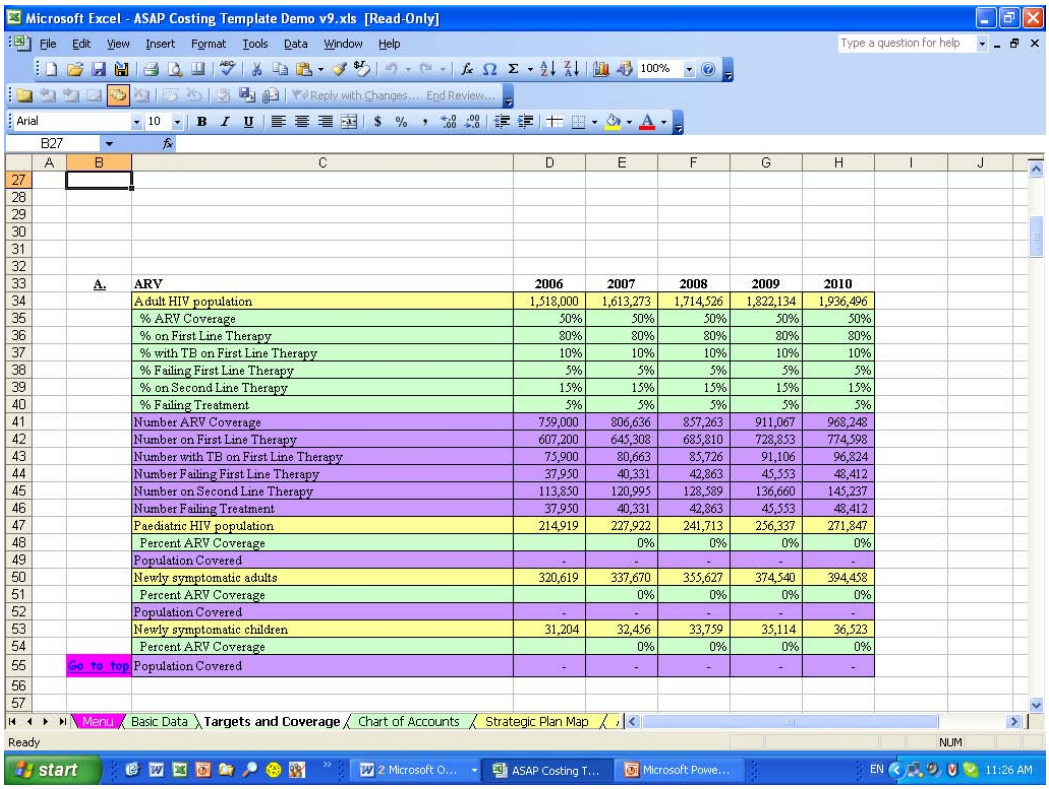


Figure 5 – Targets and Coverage Menu

Using ARV as an example (Figure 6), one can see that the relevant populations (adult HIV, pediatric HIV, newly symptomatic adults, newly symptomatic children) are pulled forward from the Basic Data section, so the user only needs to input the relevant coverage levels, in this case for ARV treatment. To aid in the data entry, the percent coverage entered in the first year is automatically carried forward to subsequent years. Of course, the user can always over-ride this by entering specific coverage levels for each year.



	A.	ARV	2006	2007	2008	2009	2010
34		Adult HIV population	1,518,000	1,613,273	1,714,526	1,822,134	1,936,496
35		% ARV Coverage	50%	50%	50%	50%	50%
36		% on First Line Therapy	80%	80%	80%	80%	80%
37		% with TB on First Line Therapy	10%	10%	10%	10%	10%
38		% Failing First Line Therapy	5%	5%	5%	5%	5%
39		% on Second Line Therapy	15%	15%	15%	15%	15%
40		% Failing Treatment	5%	5%	5%	5%	5%
41		Number ARV Coverage	759,000	806,636	857,263	911,067	968,248
42		Number on First Line Therapy	607,200	645,308	685,810	728,853	774,598
43		Number with TB on First Line Therapy	75,900	80,663	85,726	91,106	96,824
44		Number Failing First Line Therapy	37,950	40,331	42,863	45,553	48,412
45		Number on Second Line Therapy	113,850	120,995	128,589	136,660	145,237
46		Number Failing Treatment	37,950	40,331	42,863	45,553	48,412
47		Paediatric HIV population	214,919	227,922	241,713	256,337	271,847
48		Percent ARV Coverage		0%	0%	0%	0%
49		Population Covered	-	-	-	-	-
50		Newly symptomatic adults	320,619	337,670	355,627	374,540	394,458
51		Percent ARV Coverage		0%	0%	0%	0%
52		Population Covered	-	-	-	-	-
53		Newly symptomatic children	31,204	32,456	33,759	35,114	36,523
54		Percent ARV Coverage		0%	0%	0%	0%
55	Go to top	Population Covered	-	-	-	-	-

Figure 6 – ARV Target Coverage Section

The information entered in this section will automatically be carried forward to the following sections, so that it doesn't need to be entered again. To ensure consistency, all changes in coverage levels should be reflected in this section, rather than, for example, in the section where the interventions are costed.

Once a particular section has been completed, the user can return to the menu for this section by clicking on the box entitled "Go to top". A different menu choice can then be selected and the process can be repeated.

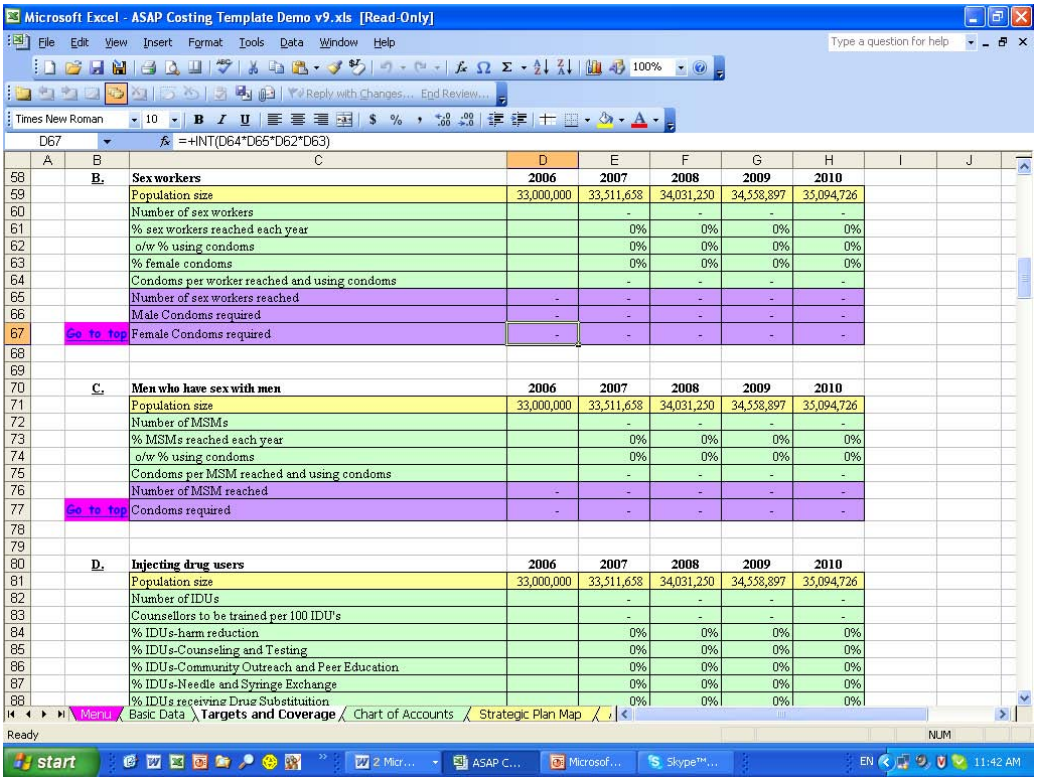


Figure 7 – Variation on Entry of Coverage Information

Figure 7 shows a slightly different type of data entry requirement. Three of the 21 sections are shown in this screen shot (while discrete on the menu, they follow sequentially on the actual spreadsheet). Here, there is a need to enter both the actual numbers (sex workers, MSMs, IDUs) – since these are not already captured in the Basic Data section – as well as the coverage levels for various interventions. Further, the estimated number of condoms per sex worker should also be entered, since this could vary from country to country. Similar types of requirements are found in different parts of this section.

Again there may be some value in printing out the blank section prior to collecting the data, and then once the data has been entered and the target values have been calculated, sharing the completed section with stakeholders to ensure that the numbers, targets, and coverage levels are consistent with both the best available information and the actual strategic plan. By doing this ground-work up front, the amount of work to be done during the actual costing process can be reduced. Further, such a process should ensure greater buy-in from various stakeholders and allow the costing team to concentrate on issues of unit costs and numbers of various types of inputs required for each target beneficiary.

As in the previous section, to assist in this process Annex B.2 includes data input sheets, which can be printed and circulated to the various program heads to obtain the appropriate information to be included in this part of the model.

When the user is finished entering data, it is possible to move back to the main menu by clicking on the box entitled “Go to top”, and then by positioning the cursor over the “Menu” box and left-clicking the mouse.

F. Complete Chart of Accounts and Mapping

The chart of accounts and the standard unit costs use the same sheet but focus on different parts of the sheet. Instructions are included in the green boxes at the top.

To go to this section, the user should position the cursor over the "Complete Chart of Accounts and Mapping" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model.

It is strongly recommended that financial staff of the HIV/AIDS agency and/or Ministry of Health become involved in this part of the process, which could take place in parallel with the data collection activities of the previous two sections.

There are two key activities that take place in this section (Figure 8). First, the chart of accounts is entered, according to the needs of the particular country. The sheet is pre-filled with more than 200 different account categories ("accounts"), grouped into eight major classifications ("groups"), as follows: Staffing, Medical supplies and drugs, Non-medical Supplies, Operating Costs, Equipment and vehicles, Buildings, Grants/ Financing, and Health care services. Within these groupings it is possible to add and delete accounts, according to the requirements of the particular country.

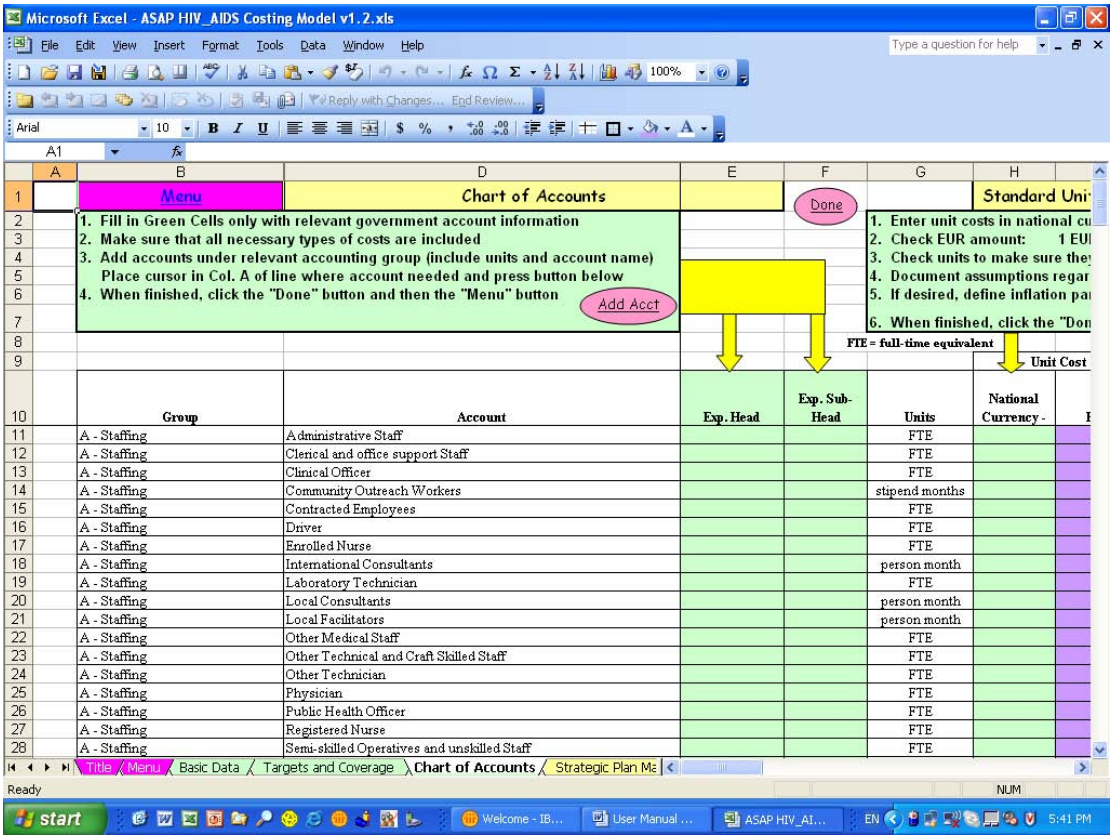


Figure 8 – Chart of Accounts and Mapping

To add an account, it is necessary to position the cursor somewhere within the appropriate account group and click on the button "Add Acct". The new account name and "units" should then be replaced with new, unique information for the new account.

The units define how the quantities of a particular account item will be measured. For example, condoms would be measure in units of "each", while staff might be measured in "staff months" or "staff years", (also known as "Full-time Equivalents" – FTEs) and consultants in "person months". This is an important link between the unit costs and the number of units. For example, if the unit cost for staff is per staff year, it is important that the quantities entered in subsequent parts of the model are also expressed in staff years. The "units" variable provides a reminder of this necessary linkage during the costing process, and it is shown next to the account name on each line on the activity costing part of the model.

It is also important when adding accounts that all of the data be kept above the red line that reads "Insert Rows only above this line". To accommodate different numbers of accounts, this part of the model is quite dynamic, but all of the data must be entered between rows 11 and this line to be captured in other parts of the model.

To delete an account the appropriate row of the spreadsheet is highlighted and the commands <edit> <delete> are invoked from the main Excel menu line. However, there is no particular problem if superfluous accounts are left in this part of the model, so it is not critical to delete all non-used accounts.

The second activity within this section is the mapping of the final chart of accounts into the government chart of accounts framework. For each account, the expenditure head and sub-head are entered into the appropriate space beside the account. While the government accounting framework may extend one or more levels below this, it is expected that the two levels should provide a sufficient level of detail to allow an informed analysis of the impact of the costed strategy on different expenditure areas within the budget. The "head" and "sub-head" data is essentially free-form, so it can accommodate numbers, letter/names, or combinations thereof. When filling out this information, it is possible to copy "head" and "sub-head" information as required to reduce the data entry workload. Although there are expected benefits from using this feature, such as presenting the strategic plan costs in a format familiar to the Ministry of Finance, the model will function without having this data filled in.

Once all of the accounts and the mapping to the government chart of accounts have been completed, it is important to click on the mauve button labeled "Done" (in position F1). This initiates a macro that sorts the revised data to make it useable for other parts of the model. This macro takes the user to another worksheet in the model, so the user must get back to the main menu by positioning the cursor over the "Menu" box on that sheet and then left-clicking the mouse to invoke the hyperlink.

G. Enter Unit Costs

The standard unit costs and the chart of accounts use the same sheet but focus on different parts of the sheet. Instructions are included in the green boxes at the top.

To go to this section, position the cursor over the "Enter Unit Costs" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model.

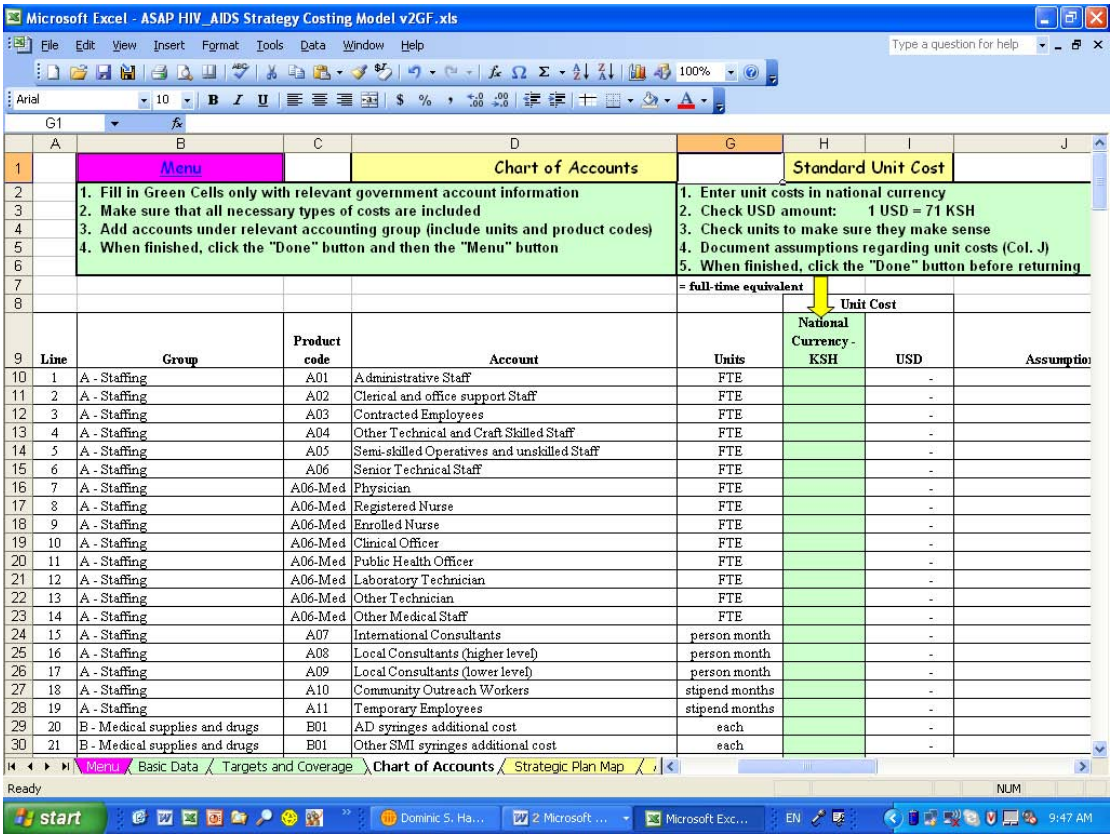


Figure 9 – Enter Unit Costs

As in the development of the chart of accounts, it is strongly recommended that financial staff of the HIV/AIDS agency and/or Ministry of Health be involved in this part of the process, which could take place in parallel with the data collection activities of the "Basic Data" and "Targets and Coverage Levels" sections.

Unit costs are entered in local currency units using the exchange rate highlighted at the top of the page. This is pulled forward from the "Basic Data" sheet. The costs are converted to USD as they are entered. As noted above, it is important that the unit costs represent the same units as specified in Column "G". As much as possible, the costs that are entered should represent actual unit costs for those types of activities in the country for which the costing is being done. By disaggregating the individual types of costs within a particular activity, it is expected that there will be a greater availability of the more "granular" unit costs, and less need to rely on aggregates or benchmark costs from other countries. There is also space for documenting the assumptions made in developing the unit costs, so that they can be printed and kept for future reference.

It should be noted that while standard unit costs are specified in this section, it is possible to assign alternative unit costs for a particular account during the actual costing at the activity level when the stated unit cost is not considered appropriate. However this should be done as infrequently as possible, since it affects the user's ability to utilize the "physical quantities" reports.

Where there is more than an occasional use of alternative unit costs for a particular account, it is recommended that a separate account with a specific unit cost be created.

In addition to entering the unit costs themselves, it is also very important to document the assumptions and data sources used to determine these unit costs and enter this information in column J of this sheet. For example, the data may come from the MOH procurement system, or recent Global Fund proposal, or other sources. This allows the user to go back later if questions are raised about the unit costs used, and also update the appropriate costs when, for example, additional procurement processes are completed which result in cost changes. It also allows the user to specify, for example, the wage level (classification, step) used in cost calculations, whether employee benefits are included and how much, etc. While this will take a bit more time than simply adding the unit costs, the time will be well spent once the inevitable questions arise about the source and determination of the unit costs. There is also a report in the reporting section to print out these assumptions if needed.

An additional element included in this section is the entry of inflation factors, which is also optional. This part of the model is shown in Figure 10 below.

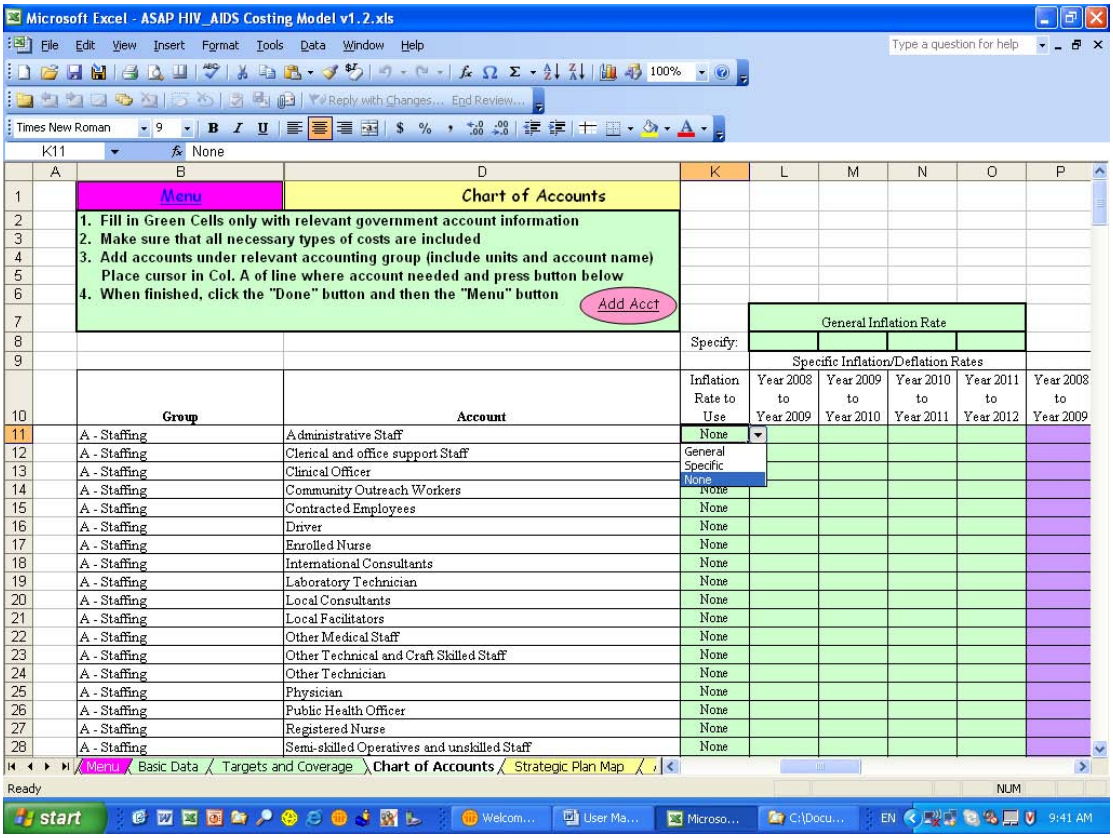


Figure 10 – Specifying Inflation Factors

There are three inflation options available for each account:

- "**None**" – the default value, and results in no inflation being calculated in other parts of the model;
- **"General"** – this would use the general inflation rate which the user would specify in Line 8, Columns L to O of this sheet. Or the user has the option of specifying the initial value and having it carried forward to other years (if constant inflation is expected), or the user can specify individual inflation rates for each year. This rate would be used in each account where the "General" option is selected.

- **"Specific"** – a particular inflation rate would be specified for each account where it is selected, in Columns L to O of the appropriate line. The user has can specify the initial value and having it carried forward to other years (if constant inflation is expected), or individual inflation rates for each year.

Depending on the option chosen from the drop-down box, the appropriate inflation rate and index is reflected and calculated. The final rates and inflation index can be viewed in columns P-S and T-X respectively; adjustments can be made if they do not look appropriate.

As in the development of the chart of accounts, once all of the unit costs and inflation factors have been entered, it is important to click on the mauve button labeled "Done" (in position "F1"). This initiates a macro that sorts the revised data to make it useable for other parts of the model.

H. Map Strategic Plan to HIV/AIDS Functions

The mapping section of the model is where the strategies and related activities are introduced into the system. Once the strategies and activities are copied, each activity is mapped to a standard functional classification. To go to this section, the user should position the cursor over the "Map Strategic Plan to HIV/AIDS Functions" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model, as shown in Figure 11.

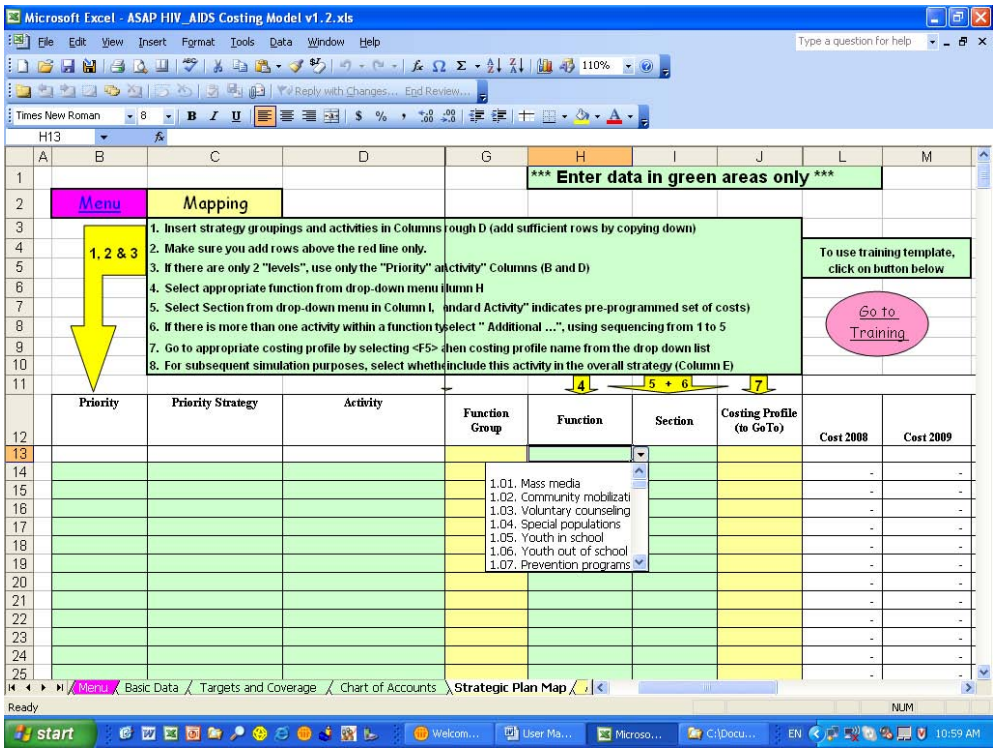


Figure 11 – Mapping of Strategic Plan to Functions Section

As shown in Figure 11, a drop-down menu is used to simplify the process and ensure a valid mapping. More than one activity can be mapped to a particular classification, using up to five additional "sections" per function. Once the mapping is done, the

costing can then commence by following the instructions in the sheet. The costs are automatically brought forward to the appropriate activity.

The user instructions are shown in the green box at the top of the page, with the numbers in the yellow arrows corresponding to the numbered instructions. This part of the user manual provides more detail to supplement the instructions provided in the model worksheet.

The first thing to be done is to insert the details of the strategic plan into the model. Three levels of aggregation are allowed in the model, with "Priority" representing the highest level, "Priority Strategy" the intermediate level, and "Activity" the lowest level. It is the activities which will be costed and then rolled up to the other levels. If the particular HIV/AIDS strategy has only two levels of detail, then only the "Priority" and "Activity" columns should be used.

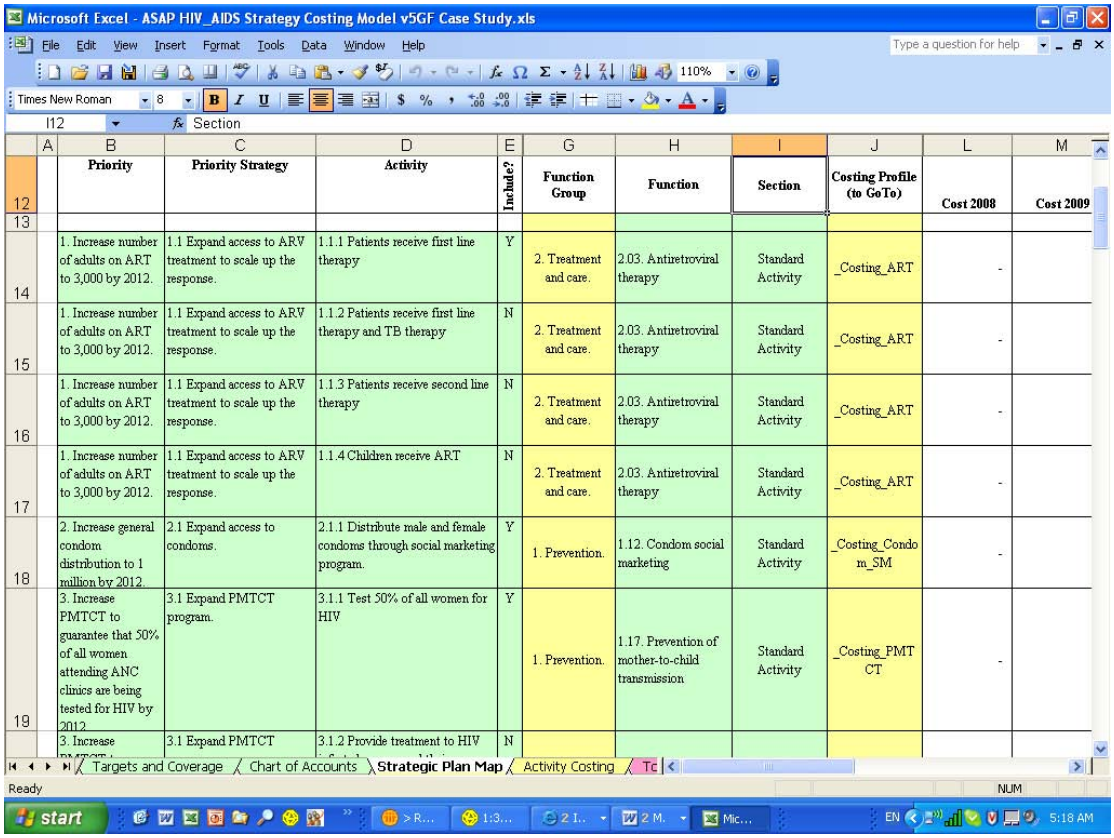
The user should determine the total number of activities in the strategic plan and then create sufficient space for all of these activities to be copied. This can be done by just adding rows to the worksheet [highlight the number of rows to be added and then click on <Insert> <Rows> on the Excel toolbar menu]. Then one of the existing lines is highlighted, and the user copies this down through the resulting white space by clicking on <Edit> <Copy>, and then highlighting the white space and clicking on <Edit> <Paste> on the Excel toolbar menu. The result should be that all of the rows, including those just added, should look the same, with the same shading, etc.

It is important when adding space for activities that all of the data be kept above the red line that reads "Insert Rows only above this line". To accommodate varying numbers of activities (the Swaziland strategic plan had 910, while the Guyana strategy had 192 and Kosovo had 178), this part of the model is quite dynamic, but all of the data must be entered between rows 13 and this line to be captured in other parts of the model.

Once sufficient space is created, the list of activities can then be copied. To ensure an appropriate roll-up, the corresponding "Priority" and "Priority Strategy" labels should be copied as well for each activity. The result is as shown in Figure 12.

This information can be copied directly from a Word document, or assembled in another Excel file and copied into the model. Once the activities in the strategy have been entered into the model, the next step is to set the flags to determine which ones will be included for costing. It may be that, subsequent to the development of the strategy, there has been a separate prioritization exercise to determine the areas of greatest importance. These can be flagged by setting the indicator in Column "E" of this section to either "Y" (yes, include in the costing) or "N" (no, don't include).

This option also allows the user to adjust the activities to be included as the costing is done; if, for example, there are indications that the funding available will not be sufficient to cover all of the desired activities. Simply by changing the flag from "Y" to "N" the effect of removing various activities from the overall plan can be evaluated.



	Priority	Priority Strategy	Activity	Include?	Function Group	Function	Section	Costing Profile (to GoTo)	Cost 2008	Cost 2009
14	1. Increase number of adults on ART to 3,000 by 2012.	1.1 Expand access to ARV treatment to scale up the response.	1.1.1 Patients receive first line therapy	Y	2. Treatment and care.	2.03. Antiretroviral therapy	Standard Activity	_Costing_ART	-	
15	1. Increase number of adults on ART to 3,000 by 2012.	1.1 Expand access to ARV treatment to scale up the response.	1.1.2 Patients receive first line therapy and TB therapy	N	2. Treatment and care.	2.03. Antiretroviral therapy	Standard Activity	_Costing_ART	-	
16	1. Increase number of adults on ART to 3,000 by 2012.	1.1 Expand access to ARV treatment to scale up the response.	1.1.3 Patients receive second line therapy	N	2. Treatment and care.	2.03. Antiretroviral therapy	Standard Activity	_Costing_ART	-	
17	1. Increase number of adults on ART to 3,000 by 2012.	1.1 Expand access to ARV treatment to scale up the response.	1.1.4 Children receive ART	N	2. Treatment and care.	2.03. Antiretroviral therapy	Standard Activity	_Costing_ART	-	
18	2. Increase general condom distribution to 1 million by 2012.	2.1 Expand access to condoms.	2.1.1 Distribute male and female condoms through social marketing program.	Y	1. Prevention.	1.12. Condom social marketing	Standard Activity	_Costing_Condom_SM	-	
19	3. Increase PMTCT to guarantee that 50% of all women attending ANC clinics are being tested for HIV by 2012	3.1 Expand PMTCT program.	3.1.1 Test 50% of all women for HIV	Y	1. Prevention.	1.17. Prevention of mother-to-child transmission	Standard Activity	_Costing_PMTCT	-	
	3. Increase	3.1 Expand PMTCT	3.1.2 Provide treatment to HIV	N						

Figure 12 – Example of Completed Activity Matrix

The next step in this section is to map the activities in the strategy to a standard set of HIV/AIDS related functions using the NASA classification. A full set of these functions is included in Annex A. For each activity in the strategic plan, a corresponding function must be specified in Column "H". To assist in this process, all of the possible functions have been included in a "drop down" list in each cell of this column. When the cursor is placed on the cell, a small white box with a downward pointing arrow shows up next to the bottom right-hand corner. If the user left-clicks on this white box, the drop-down list will appear. The user can then scroll down to the appropriate function and presses <Enter> to select that function.

It may be that an individual activities described in the strategic plan encompasses more than one function. In this case, an extra row should be added and the activity line then copied as many times as needed. The various functions included in this activity can then be selected as described above.

Finally, there is a possibility that multiple activities may be mapped to a single HIV/AIDS function. In this case, there is the possibility to reflect this in the model specification. One of the activities should be designated as the "Standard Activity", which would be what someone would think of if someone mentioned "ARV treatment" or "OVC support". If this is still unclear, the user may want to sneak a peek at the "Activity Costing" worksheet to see what is included in the "standard activity" for a particular function. Thus, one of the related activities should be designated as "standard" in Column "I" (again using a drop-down menu as described above), while the others would be designated as "Additional". Up to five additional activities have been programmed into the manual. The main difference is that the

standard activities have been pre-programmed in terms of costs to be included, while the additional activities are more free-form. In practice, however, it is possible to select specific accounts and quantities which would allow "additional" cost/quantity profiles to closely match the "standard" profile if this was ever desired.

It may also be possible that several activities should logically be mapped to a given "Standard Activity". An example is ARV treatment for adults and for children, which might be shown in the strategy as separate activities, but are included in the same NASA function. In this case, one of the activities should be marked as "Y" in the "Include?" column (E), while subsequent related activities should be marked as "N" to avoid double/multiple counting. All of the actual costs for these functions will be reflected in the total.

Once all of the activities in the strategic plan have been assigned a function and a section, it is then possible to go to the next step of the process. In terms of division of workload, it is probably preferable that this step be done by the program people in the MOH and/or HIV/AIDS secretariat, with some assistance from the finance people as needed. When the user is finished entering all of the data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

I. Review Costing for Standard Interventions

The costing of "standard activities" is largely driven through the targets and coverage data, as well as protocols that are programmed into the system. Within the protocol, there is considerable room for incorporating patterns of practice variations. These activities also draw on the unit cost information that has been entered earlier. For many of the activities, the combination of the targets and coverage data (quantities) and the unit costs are sufficient to actually calculate a cost; in others there is a need for additional data, such as the specific tests to be used or the quantities of a particular input for each person who is to receive the intervention. This step of the process will be to fill in the missing information and check the costing to ensure it is reasonable and consistent.

There are two ways of going to this section of the model. If the user just wants to start at the beginning of the costing modules and work through sequentially, the user should position the cursor over the "Review Costing for Standard Interventions" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the beginning of this section of the model (see Figure 13).

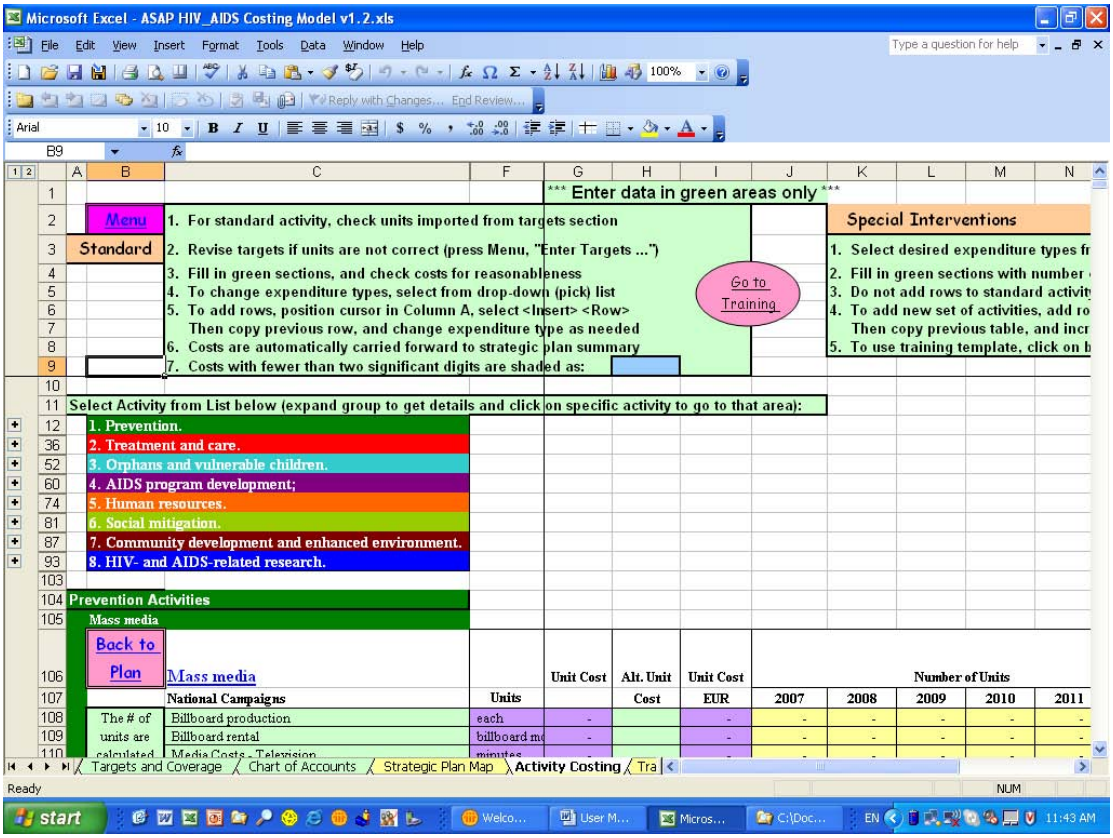


Figure 13 – Beginning "Standard" Intervention Costing from Main Menu

Here, the user will see the various function groups from NASA, which can be expanded by clicking on the "⊞" box next to the relevant group. This will reveal the functions underneath each group (see Figure 14). This figure shows the expanded Treatment and Care Group, where the desired functions can be clicked to go to that part of the model (Nutritional Support in this example).

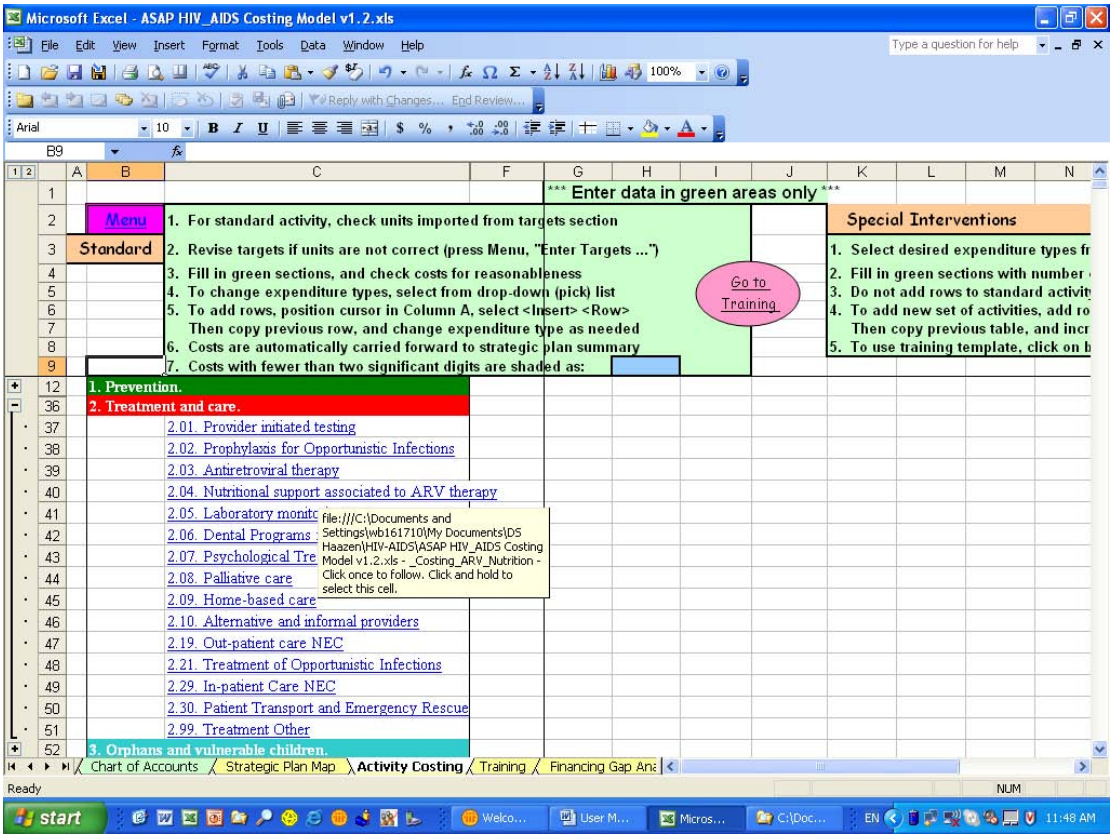


Figure 14 – Using Function Navigation

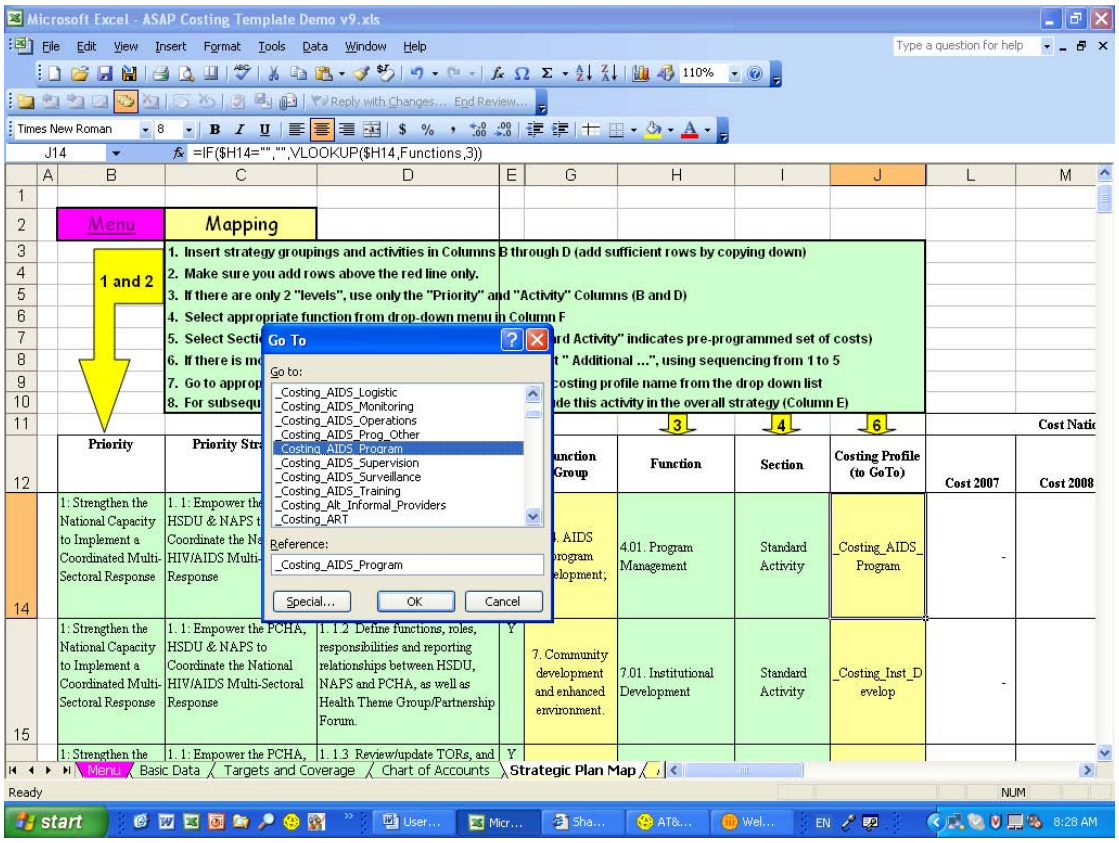


Figure 15 – Accessing Costing from the Mapping Section

The other option is to access the costing from the strategy mapping section, accessing the related costing module for each activity in sequence. To do this, the user should go to the particular activity that they wish to cost, and move the cursor to Column "J" of the appropriate line. Then the user should press <F5>, which will cause a pop-up menu to appear. The user would then scroll down the list until the name is the same as the one in Column "J", and then click on <OK>. Figure 15 provides an example of this. The cursor is positioned at cell "J14" which reads "_Costing_AIDS_Program". When <F5> is pressed the pop-up box appears as shown in white in the figure. Once the user scrolls down to the appropriate spot and clicks <OK>, the hyperlink takes the user directly to the Program Management costing part of the model. When the user is finished, the box "Back to Plan" is clicked, which returns the user to the mapping section of the model.

As noted above, if there are several activities which map into a single "Standard Activity" (e.g., ARV therapy for adults and for children, the user should map all of them to that activity ("2.03 Antiretroviral Therapy", in this example), and then set the "Include?" flag (column E) to "N" for all but the first of those activities. See rows 14-17 in Figure 10. <u>This is critical to ensure that the same costs are not included multiple times in the final costs</u>. Also, it is very important that the user not alter the list at the top of column AA of the "Strategic Plan Map" sheet, since this would affect the overall calculation of the model.

Once in the costing part of the model, the review and finalization of the costing can take place. The user should be sure to address the following areas (with reference to the corresponding labels in Figure 16(a) through 16(c)):

1. *Number of people to receive the intervention*: The first step is to make sure that the number of people to receive the intervention is appropriate. If there appear to be problems in this area, it is important to go back to the "Targets and Coverage" section to revise the coverage levels and obtain the appropriate numbers, rather than changing them in this part of the model.

2/3. *Setting practice pattern variables (as needed):* A number of the standard interventions are pre-programmed with flexible patterns of practice variables as shown in Figure 13(a). For PMTCT, for example, a number of potential tests are available, and the user is able to select the type of test (#2), and the percent of the target population who will receive this intervention (#3). Once these variables are set, the number of units of each type of input is determined by the model automatically.

4. *Check unit costs to determine if these are appropriate for this intervention* – while the standard unit costs may be fine for most interventions, there may be some where a different unit cost may be needed. The revised cost can be entered in the relevant row in Column "H" ("Alt. Unit Cost"). However, as noted in the section entitled "Enter Unit Costs", above, if there are many places where alternative unit costs are needed, it may be preferable to establish a new account with an appropriate unit cost. This would ensure consistency and also ensure that the physical quantities reports provide meaningful data.

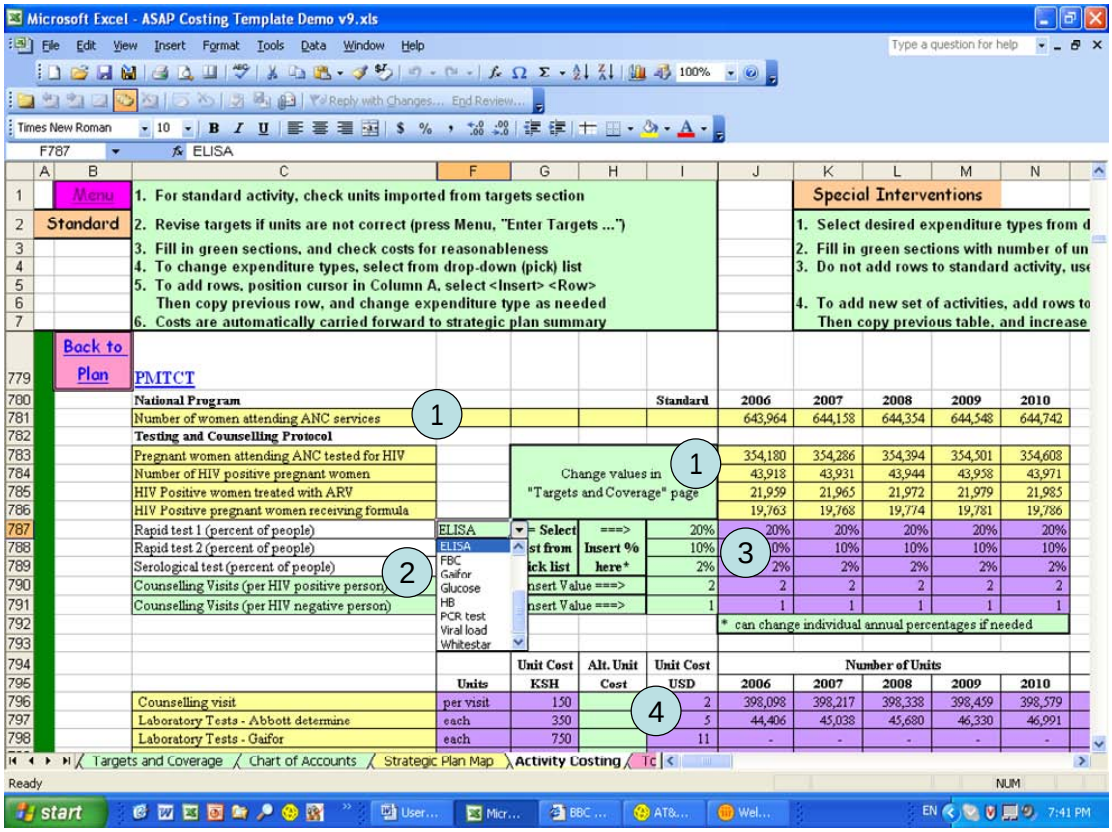


Figure 16(a) – Elements of the Costing Process

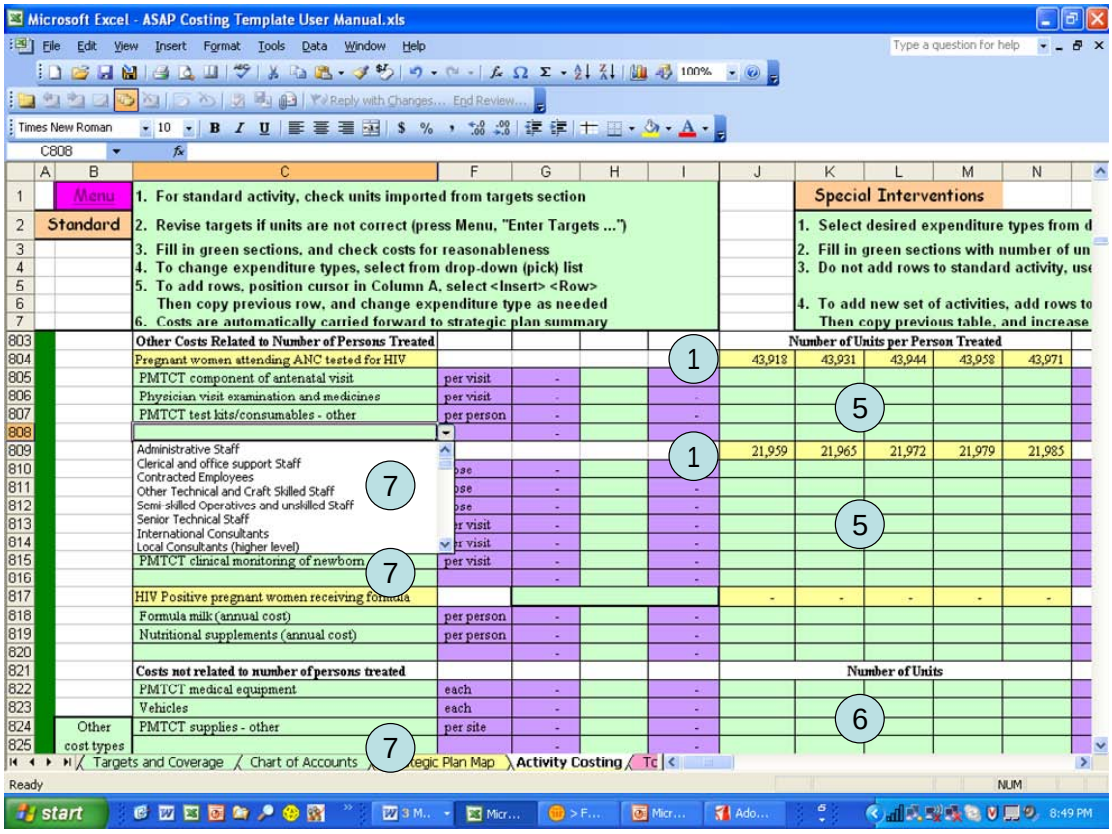


Figure 16(b) – Selection of Accounts and Number of Units

5. *Enter the number of units per person treated* – as shown in Figure 16(b), some of the pre-programmed standard activities require the user to enter the number of units needed for each person to be treated. This allows the impact of subsequent variations in the number of beneficiaries to be done without further changes to the costing part of the model: the change can simply be made to the "Targets and Coverage" section.

6. *Enter the number of units for costs unrelated to the number of persons treated* – in addition, there may be some costs (program/activity overhead, etc.), which will not vary with the number of people treated. The units required for these types of costs should also be entered into the model.

7. *Specify additional expenditure types and add units* – if there are types of expenditure required for the activity beyond what is programmed, it is possible for the user to specify additional expenditure types. By placing the cursor on the blank space (Column "C"), and then left-clicking on the small white box with a downward pointing arrow shows up next to the bottom right-hand corner, a drop-down list will appear. The user can then scroll down to the appropriate account and press <Enter> to select that account. This can be done to add as many additional accounts as necessary.

The user may need to add rows to the model to create sufficient space for all of expenditure types. This can be done by just adding rows to the worksheet [highlight the number of rows to be added and then click on <Insert> <Rows> on the Excel toolbar menu]. Then one of the existing rows is highlighted, and the user copies this down through the resulting white space by clicking on <Edit> <Copy>, and then highlighting the white space and clicking on <Edit> <Paste> on the Excel toolbar menu. The result should be that all of the rows, including those just added, should look the same, with the same shading, etc. The user can then proceed to select the appropriate accounts for each of these rows.

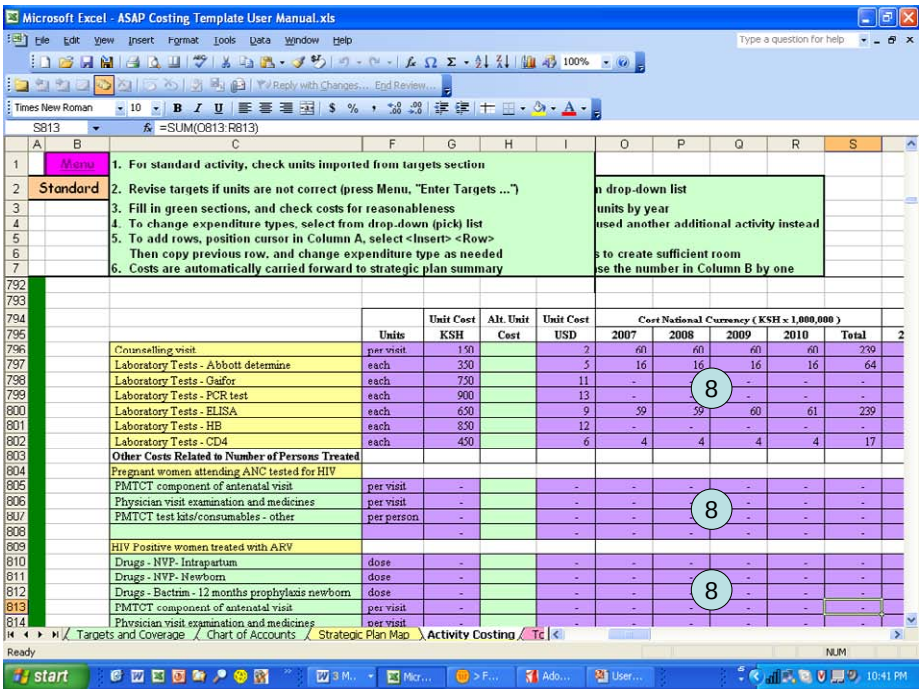


Figure 16(c) – Checking Resulting Cost Calculations

8. *Checking Resulting Cost Calculations* – the final step in the process is to check the results to see if they are reasonable. All costs are expressed both in local currency and USD, using the exchange rates and scaling factors indicated in the "Basic Data" section. If the scaling factor does not produce enough significant digits, it can be changed by simply going back to the "Basic Data" section of the model.

At first, this process may take some time, but as the user team gets more familiar with the operation of the model, it should be possible to move more quickly through the various steps, making adjustments as necessary to reflect local conditions.

Once one activity is finished, the user can then either scroll down to the next section or click on "Back to Plan" to return to the strategic plan mapping section of the model. The next activity of interest can then be selected as indicated in the description of Figure 15.

J. Review Costing for Special Interventions

The "special interventions" are more free-form, and the user can select the types of costs (using drop-down lists) and the number of units to be included. There is ample space for documenting the costing process in each intervention.

The special interventions can be accessed the same way as the standard interventions, either by scrolling down, or by using the hyperlink to go directly to that section of the model. The hyperlink will direct the user to the beginning of that section, which will always be the standard activity, so the user will have to scroll down to the appropriate group of special interventions.

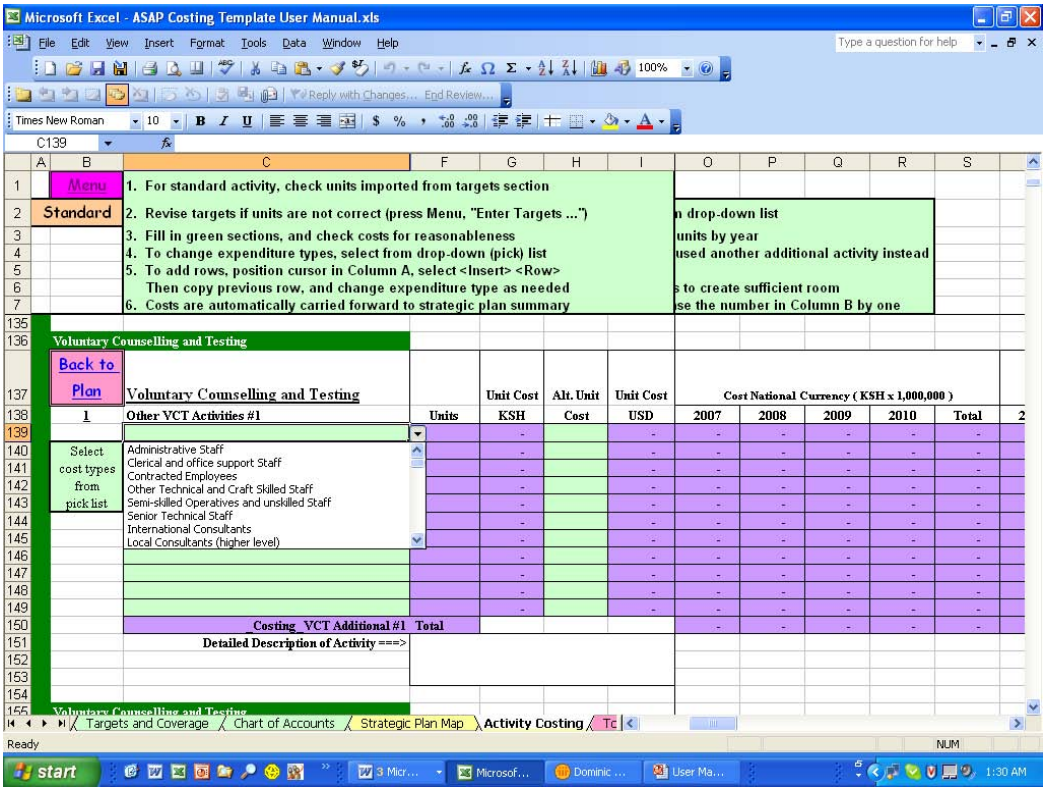


Figure 17(a) – Costing Special Interventions

Some of the special interventions sections are pre-programmed target populations to accommodate additional programs beyond the "standard program" that are directed at particular target groups. Other blocks of additional activity allow the user to select from a number of potential target populations (see Figure 17(b). In either of these cases, the procedure as described in #5 of the previous section should be used. If no target populations are indicated, the procedure described in #6 should be used. In either case, the checking of unit costs (#4 above) should be done, and there may also be a need to select additional expenditure types (#7 above). The checking of the results (#8) should obviously be done regardless.

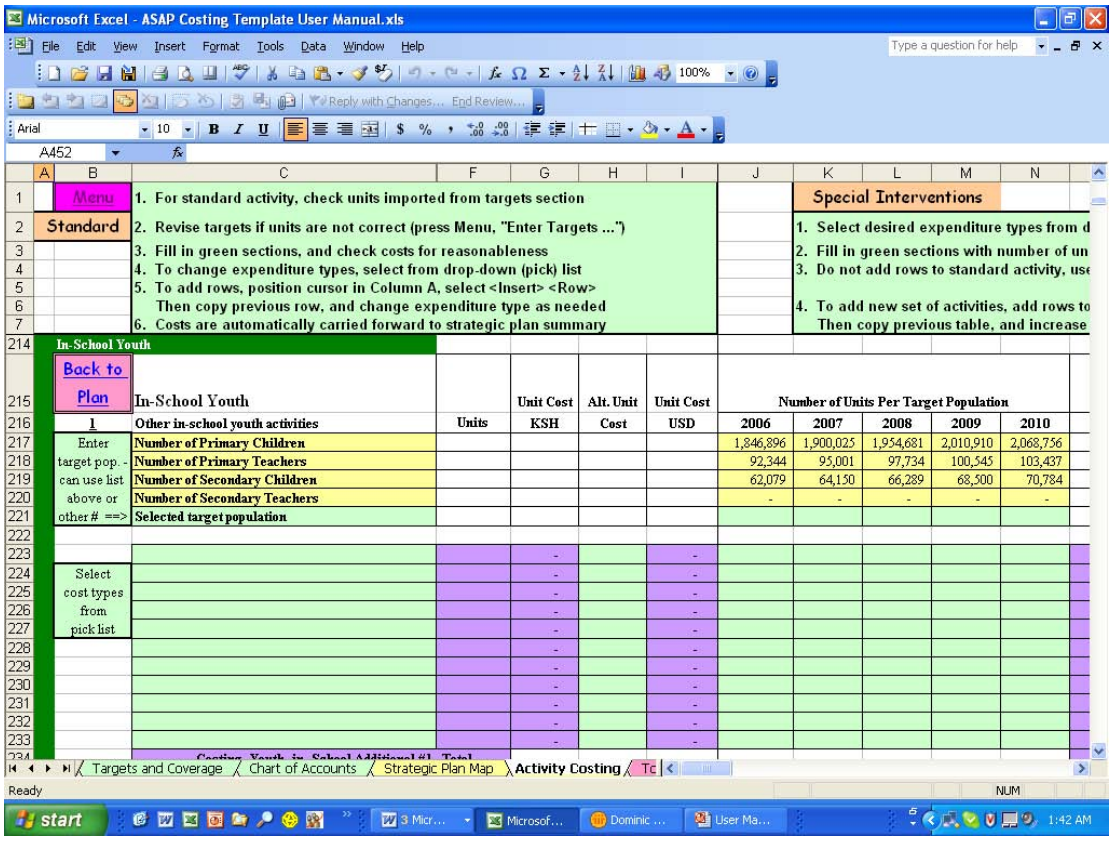


Figure 17(b) – Additional Activity with Selection of Target Population

As indicated in the section entitled "**Map Strategic Plan to HIV/AIDS Functions**", up to five blocks of additional activity can be accommodated. Most functions in the costing section have only one or two blocks of additional activity included, but the user can add to this using the procedure to be described next. First, the user should add a number of rows below the latest block of additional activity equal to: the number of rows in that block plus two (the user needs to be sure to include the header row (shown as row 136 in Figure 14(a) in the calculation of the number of rows – in Figure 14(a), a total of 20 rows). Then the user should highlight the entire block of the previous additional activity and copy it to the blank space, starting 2 rows below the last row of the previous block (i.e., row 156 in Figure 14(a)). The final step is to increase the value of the number below the "Return to Plan" box (e.g., cell "B137" in Figure 14(a)) by one in the same place in the block of cells that has just been copied, in order to differentiate this block from the previous additional activity. As indicated

previously, this process can be repeated as necessary so that a maximum of 5 additional activities are included in the model for that function.

Once one activity is finished, the user can then either scroll down to the next section or click on "Back to Plan" to return to the strategic plan mapping section of the model. The next activity of interest can then be selected as indicated in the description of Figure 15.

K. Special Functionality for Training (optional)

Based on previous use of the model, it was decided to add special (optional) functionality to deal with training. This module uses a common template to collect all of the training related activities, which can then be mapped to a particular umbrella activity in the strategy. The user can decide to use this functionality or not, but if it is used, the "HIV/AIDS Training" function (5.05) must be mapped to one particular activity in the strategy with the "Include?" flag set to "Y", while the flag for all other training activities covered through the training module should be set to "N" to avoid double/multiple counting of the costs.

The module can be initiated from either the "Strategic Plan Map" (see Figure 11) or the "Activity Costing" (see Figure 13) sheets by clicking on the button titled "Go to Training". The former of these is probably easiest, since the first step in the process with be to enter the activity description, which can easily be copied from the Strategic Plan Map and pasted into the relevant training template. The result of clicking on the button is shown in Figure 18.

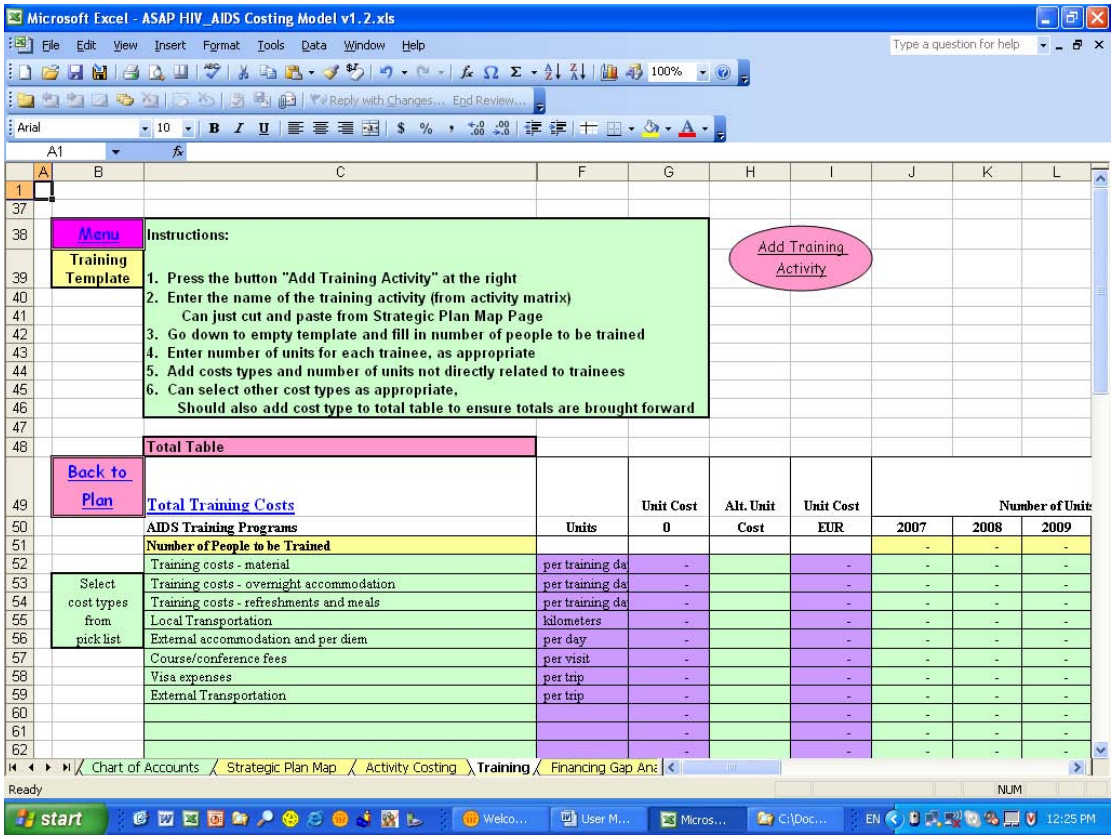


Figure 18 – Initial Screen for Training Module

To add a training activity, the user should click on the button entitled "Add Training Activity", with the result shown in Figure 19. A new blank template is added directly after the Total Table (all previous training templates are pushed down). The user then copies the activity name into the appropriate cell in Column C, and then the other required data is entered.

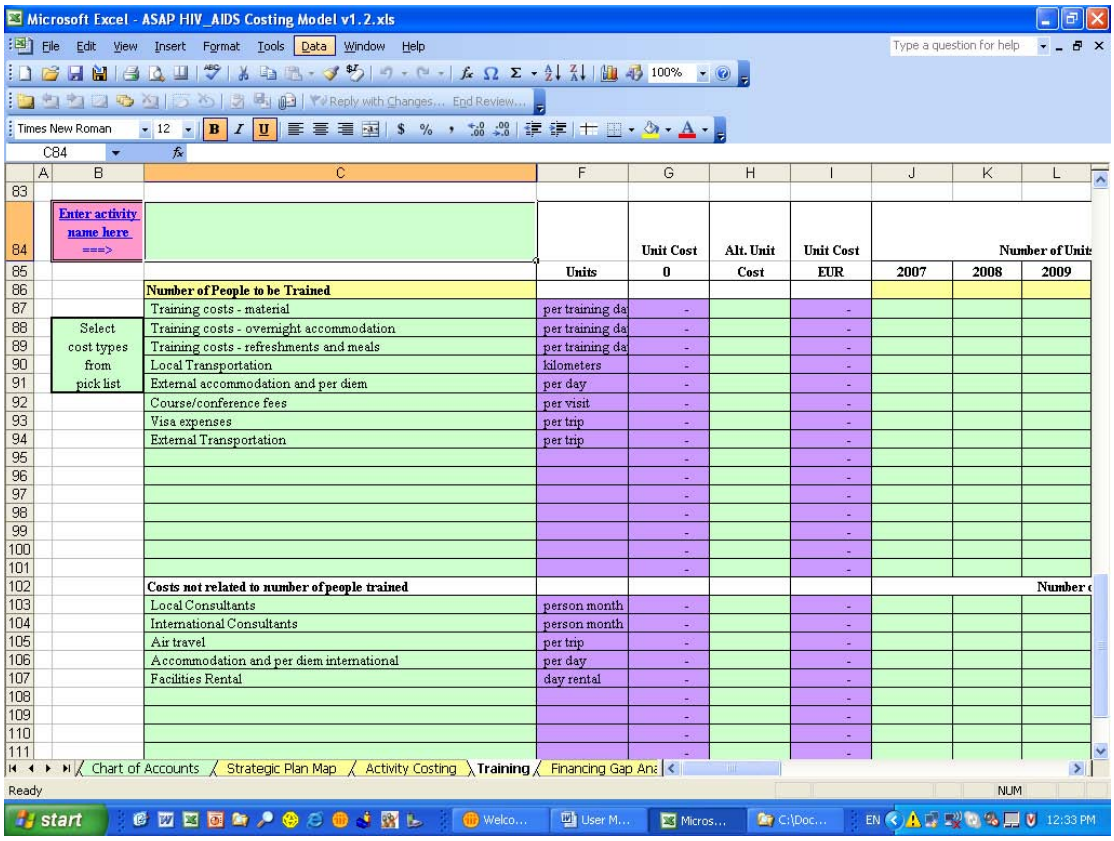


Figure 18 – New Training Template

The number of people to be trained is entered in the yellow line, while the number of units per trainee is entered below the relevant number of trainees. Space is provided to allow the user to add further account types from the pick-list included in the blank cells below the pre-filled ones. The second part of the template includes cost types that are not directly related to the number of trainees, and also allows additional cost types to be specified. Rows can be added to both sections as appropriate, using the same approach as for the activity costing sheet.

Since the "Total Table" at the top of this worksheet (Lines 48-81) is the vehicle for accumulating the costs and volumes into the activity costing sheet, it is critical that any cost types that are added to a particular training template also be added to the "Total Table". It is also important not to repeat costs types in both the top and bottom part of the template, since they will be double-counted.

L. Financing Gap Analysis (optional)

Another enhancement that was brought up during the preparation of the model – and further inspired by the recent update of the UNDP Framework model – is the inclusion of the capability to do financing gap analysis. In this model, this process follows two separate steps: (i) entering known information on the financing plans of the Government, the Global Fund and other HIV/AIDS financiers, and (ii) comparing the financing information to the requirements generated by the model to determine the financing gap.

The first part of the process is accessed by clicking on the "Complete Financing Gap Analysis (optional)" box on the main menu. This will take the user to the screen shown in Figure 19. The module is prefilled with the Global Fund and Government as financiers. For each financier, the name of the financier (if not pre-filled), and the currency code of the funds to be provided by that financier should be entered in the green list of financiers, starting in cell C61. Then the exchange rate relative to the "Reference Currency" specified in the Basic Data section, and the scaling factor to be used in reporting the currency from that financier should be entered. The scale for the reference currency will be taken from the Basic Data section of the model, since the reporting phase of the expenditure gap analysis will compare the available funding to the financing requirements as determined by the costing model, which will be expressed using this scaling factor.

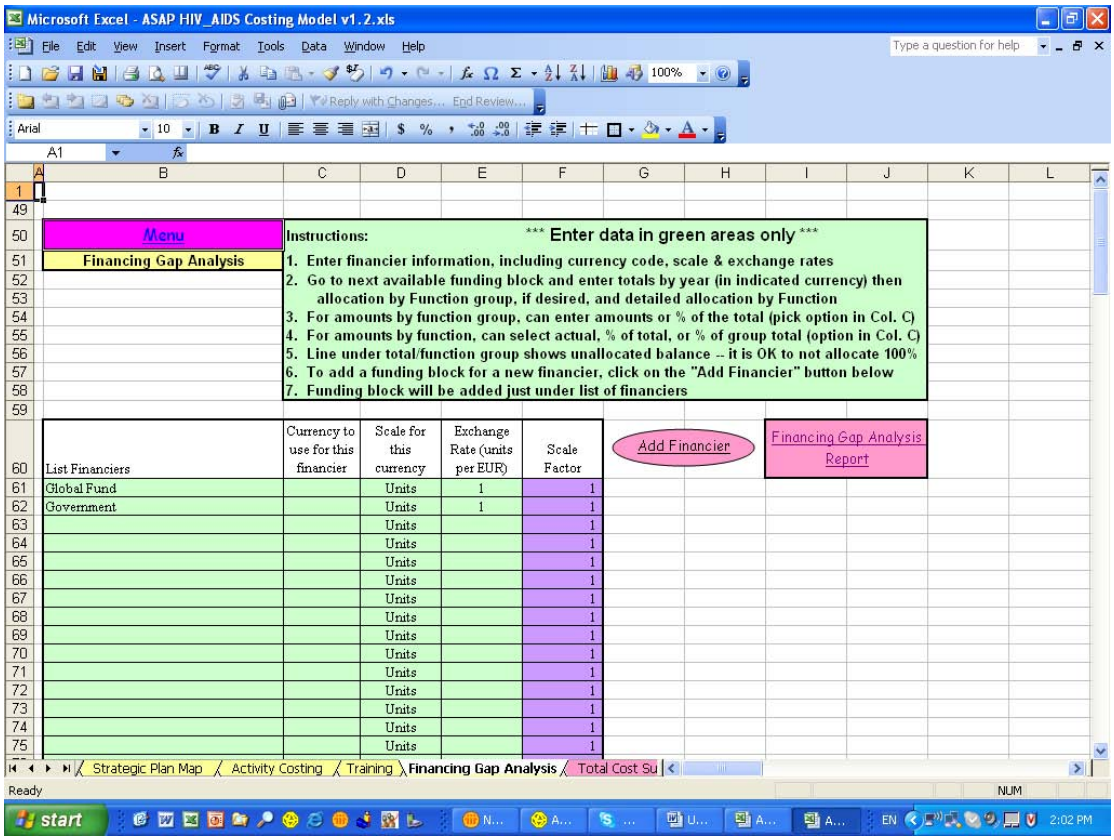


Figure 19 – Initial Screen for Financing Gap Analysis

For financiers other than the Government and the Global Fund, a blank template for that financier can be added by clicking on the "Add Financier" button. The result is shown in Figure 20..

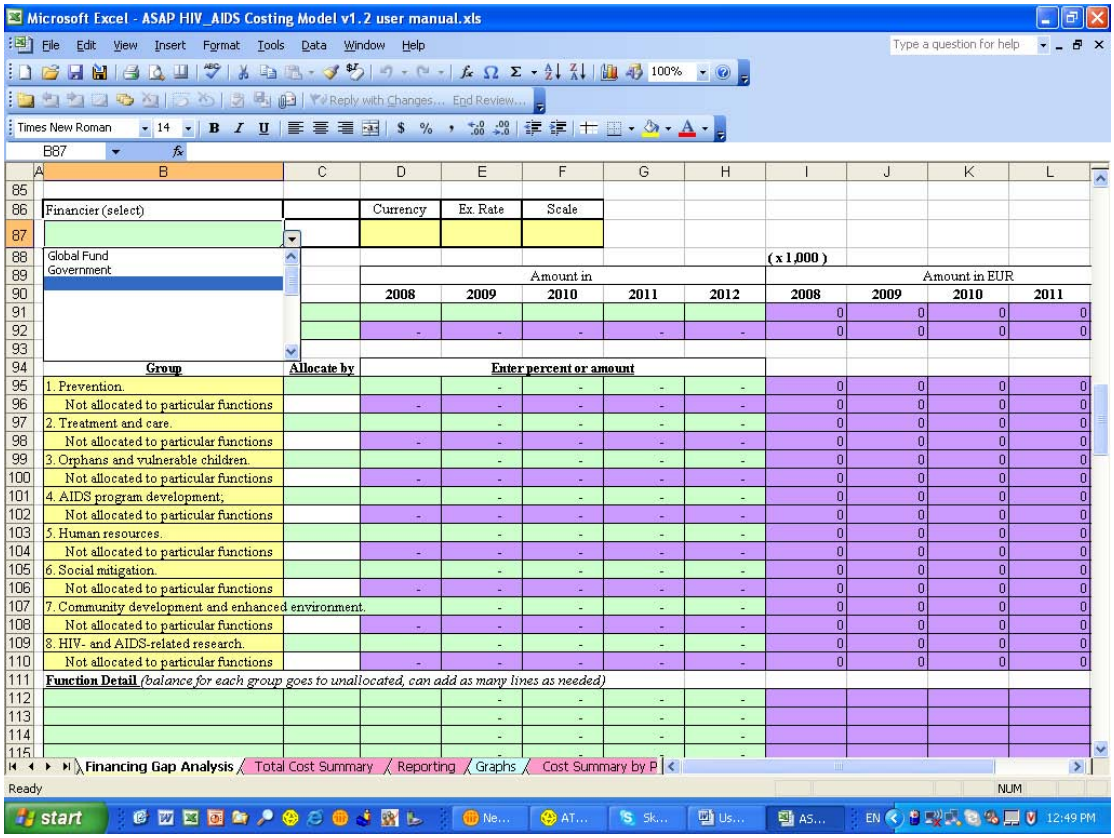


Figure 20 – Blank Template from Adding a Financier

Because the user can change the number of rows while adding the financing information, the blank template for a new financier is always added directly after the list of financiers, and before the existing financier templates. The other templates are pushed further down the worksheet. The "Add Financier" button takes the user directly to cell ""C87", where the drop-down list can be used to select the financier for this template. The currency, exchange rate and scaling factor are pulled down from the table above.

The user then enters the total financing available from that financier over the five year (or less) period covered by the strategy. If desired, the amount for each year can be further allocated by function group or by NASA function, to the extent that the distribution is known. This information is useful in helping to identify the key gap areas in the current plan. The line under the total line is indicates the total amount of financing that is not allocated to functions or function groups.

For the function groups, the user can specify one of two types of allocations by using the drop-down list in column C: (a) allocation as a percent of the total cost for that year; or (b) allocation as an absolute value in the currency indicated. As in other parts of the model, the value entered in Year 1 is carried forward to subsequent years as a default, although the user can enter their own values for any year. The amount specified is calculated in the reference currency and the amount unallocated to specific functions is also shown in the line below each function group.

The next section allows the user to provide further detail, by specifying the amounts to be allocated to particular functions. Here the appropriate NASA function is selected from the drop-down list referenced in column B, and an allocation method is

specified in column C. In addition to (a) allocation as a percent of the total cost for that year; or (b) allocation as an absolute value in the currency indicated, this section also allows (c) an allocation as a percent of the total cost for the relevant function group. In order to use this last method, it is important to ensure that some level of funding is allocated for that group. For example, funding should be allocated to "1. Prevention", if there is a desire to allocate VCT (function 1.03) financing as a percent of the group. If additional lines are needed (this section only), they can be generated by highlighting the number of rows to be added and then clicking on <Insert> <Rows> on the Excel toolbar menu. Then one of the existing rows is highlighted, and the user copies this down through the resulting white space by clicking on <Edit> <Copy>, and then highlighting the white space and clicking on <Edit> <Paste> on the Excel toolbar menu. This is the same process as for Activity Costing.

Once all of the financing data is entered, the financing gap can then be analyzed. This can be done by clicking on the box entitle "Financing Gap Analysis Report" located at row 60 of the sheet. This will take the user to the report. The report can also be accessed from the report menu. Once the box is clicked, the report shown in Figure 21 will appear.

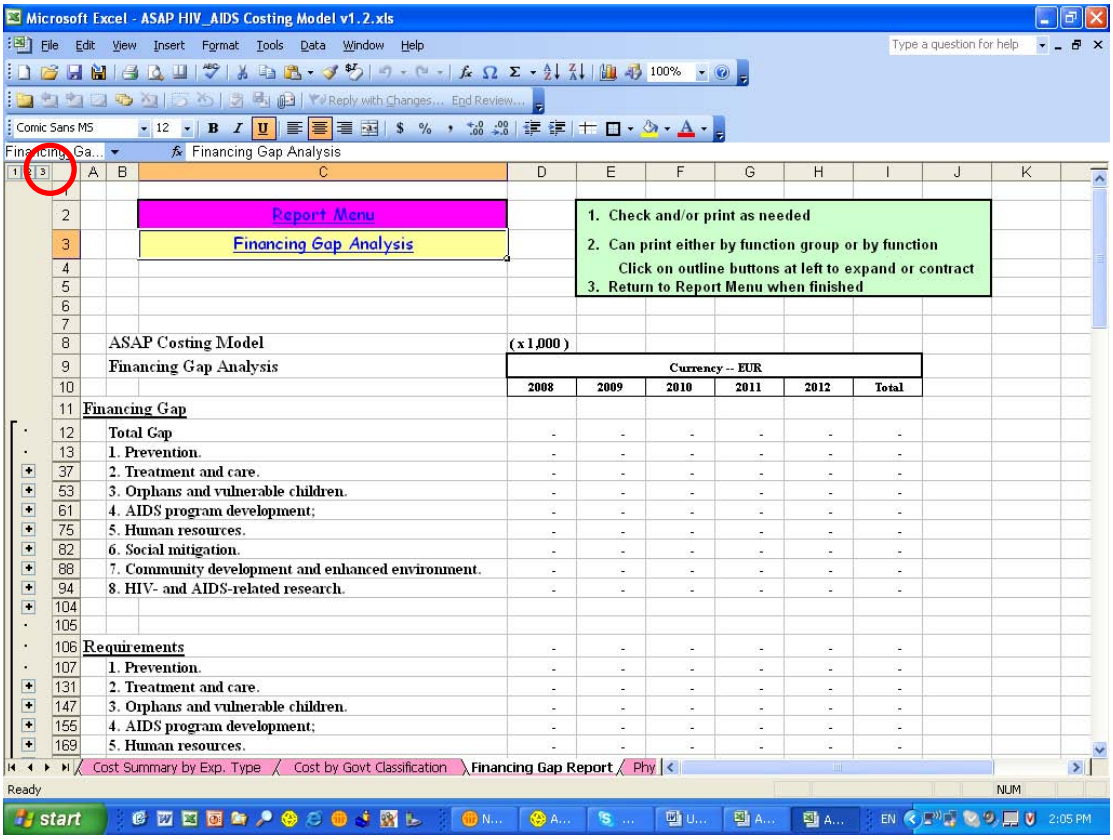


Figure 21 – Financing Gap Analysis Report

The report shows the financing gap first, then the requirements (based on the costing that has been done), the total financing and then the details by financier. The default level of detail is the function group, although this can be expanded by clicking on the "⊞" box next to the relevant group (this would need to be done for each group where further detail is desired), or by clicking on the little number "3" at the top left hand of the worksheet (see red circle above). To compress again, click on number "2".

The desired parts of the report can then be highlighted and printed for further review.

M. Review Total Costs

The cost summary sheet provides an overview of costs by the priority areas of the national strategy (this will be populated after the strategy has been entered), by function, and by expenditure type. All costs are presented in local currency units and United States Dollars, using the scaling factors specified in the Basic Data sheet. The system is currently set up to provide a four year projection, starting from the year after the base year specified in the Basic Data sheet.

To go to this section, the user should position the cursor over the "Review Total Costs" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model. When the user has printed or reviewed the data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

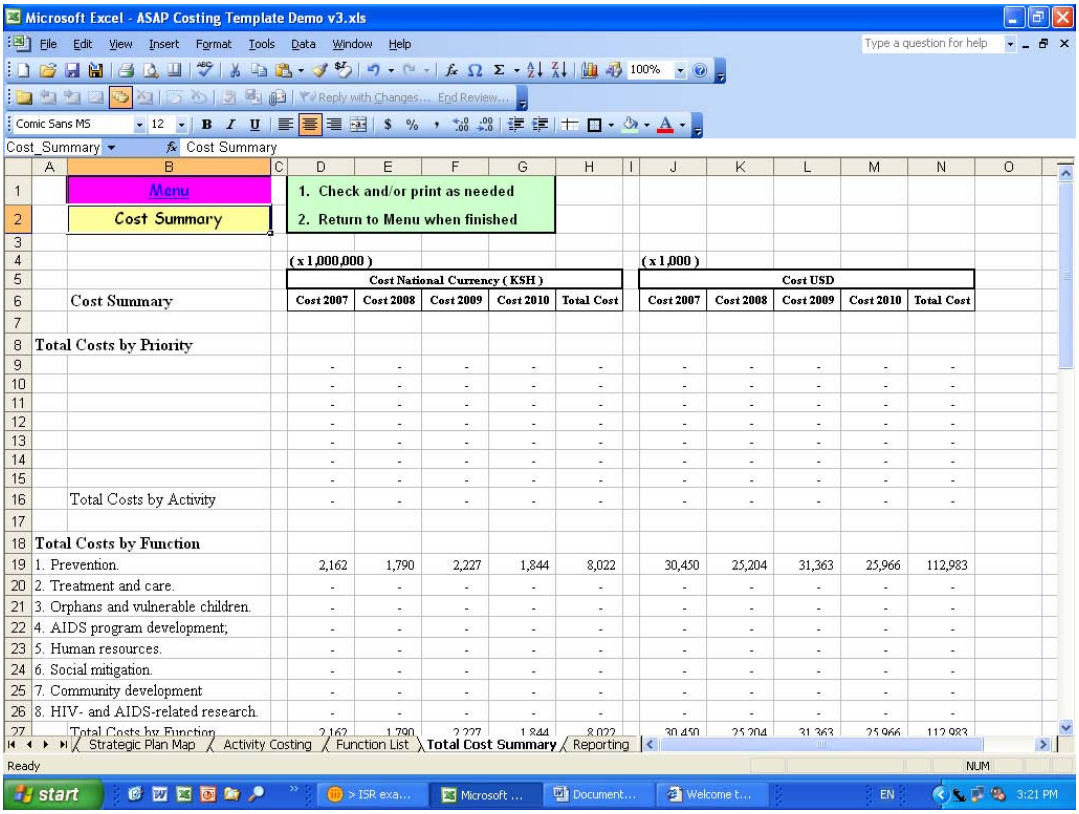


Figure 22 – Summary Report

N. Reporting

There is also a reporting menu, which provides more detailed costing by priority, activity, function, expenditure type (from the chart of accounts) and government expenditure classification. There is also a report that details the physical quantities of each type of input used in the model, and reports highlighting the main assumptions included in the model, including the basic data/epidemiology, the targets and coverage levels and the unit costs used in the model. Graphs are also provided showing priority, function, expenditure type information.

To go to this section, the user should position the cursor over the "Reporting" box on the main menu and left-click the mouse. A hyperlink will take the user directly to the appropriate part of the model. From this sheet, the user can left-click on the appropriate box, depending on which type of report they want. When the user has printed or reviewed the data, it is possible to move back to the main menu by positioning the cursor over the "Menu" box and left-clicking the mouse.

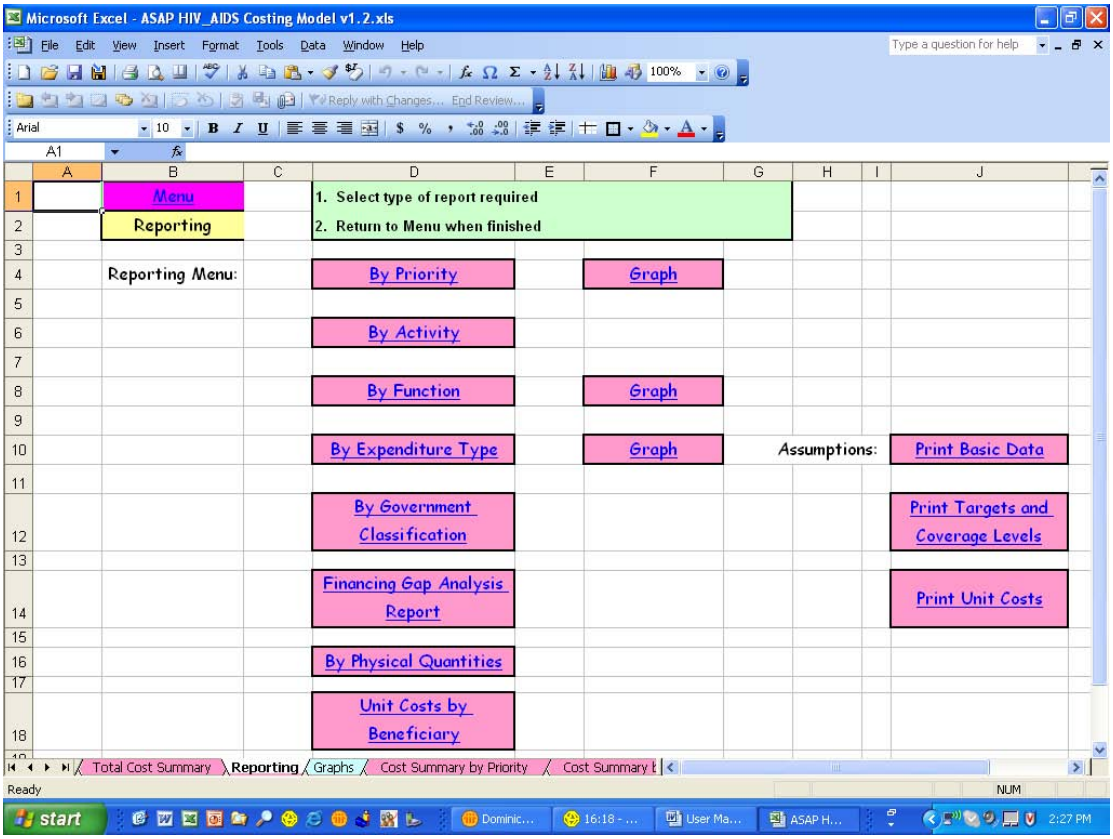
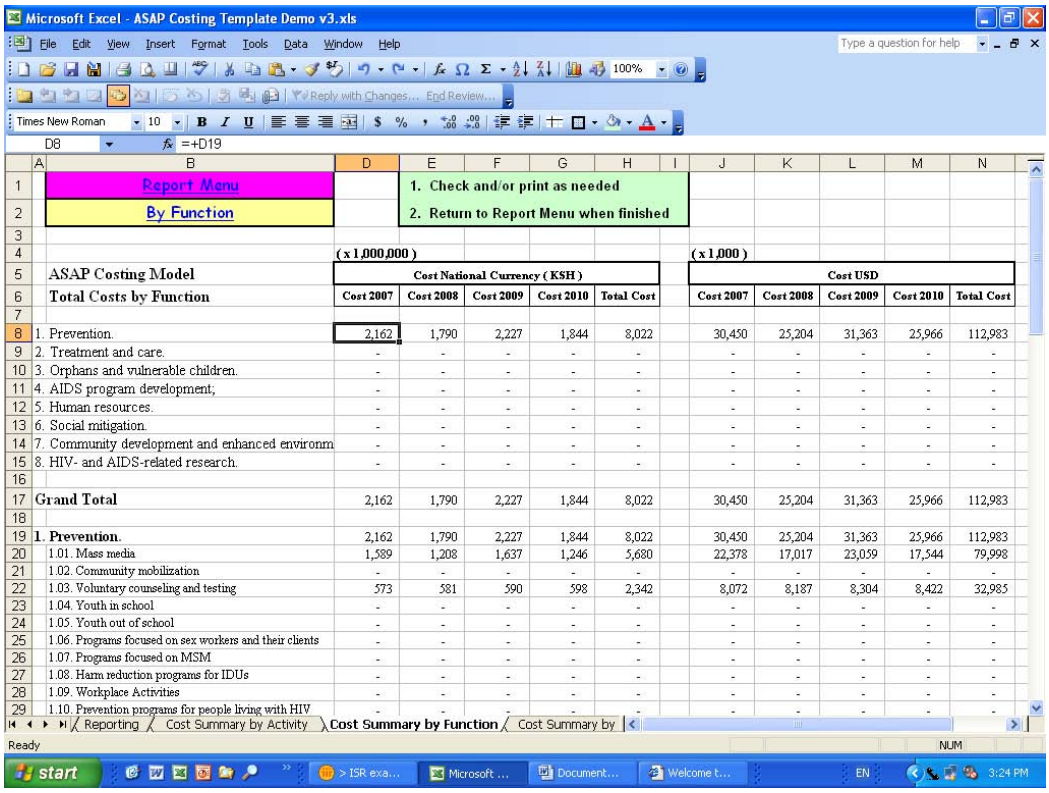


Figure 23 – Reporting Main Menu

Examples of the function (Figure 24) and expenditure type (Figure 25) reports are presented below. The reports by activity and government classification would be generated once the corresponding information has been entered into the system.

Figure 26 presents an example of the physical quantities report, which presents the number of units of each type of input. Because the various accounts are used throughout the model, this report is calculated by dividing the total cost by account type by the corresponding unit cost. Accordingly, the numbers will make sense only to the extent that "alternative unit costs" have not been extensively used.

To warn the user to check carefully about the use of alternative unit costs, the report indicates whether they are used at all in the model for that particular account (see red oval in Figure 26).



Microsoft Excel - ASAP Costing Template Demo v3.xls

Report Menu

By Function

1. Check and/or print as needed
2. Return to Report Menu when finished

ASAP Costing Model	(x 1,000,000) Cost National Currency (KSH)					(x 1,000) Cost USD				
Total Costs by Function	Cost 2007	Cost 2008	Cost 2009	Cost 2010	Total Cost	Cost 2007	Cost 2008	Cost 2009	Cost 2010	Total Cost
1. Prevention.	2,162	1,790	2,227	1,844	8,022	30,450	25,204	31,363	25,966	112,983
2. Treatment and care.	-	-	-	-	-	-	-	-	-	-
3. Orphans and vulnerable children.	-	-	-	-	-	-	-	-	-	-
4. AIDS program development;	-	-	-	-	-	-	-	-	-	-
5. Human resources.	-	-	-	-	-	-	-	-	-	-
6. Social mitigation.	-	-	-	-	-	-	-	-	-	-
7. Community development and enhanced environm	-	-	-	-	-	-	-	-	-	-
8. HIV- and AIDS-related research.	-	-	-	-	-	-	-	-	-	-
Grand Total	2,162	1,790	2,227	1,844	8,022	30,450	25,204	31,363	25,966	112,983
1. Prevention.	2,162	1,790	2,227	1,844	8,022	30,450	25,204	31,363	25,966	112,983
1.01. Mass media	1,589	1,208	1,637	1,246	5,680	22,378	17,017	23,059	17,544	79,998
1.02. Community mobilization	-	-	-	-	-	-	-	-	-	-
1.03. Voluntary counseling and testing	573	581	590	598	2,342	8,072	8,187	8,304	8,422	32,985
1.04. Youth in school	-	-	-	-	-	-	-	-	-	-
1.05. Youth out of school	-	-	-	-	-	-	-	-	-	-
1.06. Programs focused on sex workers and their clients	-	-	-	-	-	-	-	-	-	-
1.07. Programs focused on MSM	-	-	-	-	-	-	-	-	-	-
1.08. Harm reduction programs for IDUs	-	-	-	-	-	-	-	-	-	-
1.09. Workplace Activities	-	-	-	-	-	-	-	-	-	-
1.10. Prevention programs for people living with HIV	-	-	-	-	-	-	-	-	-	-

Reporting / Cost Summary by Activity / Cost Summary by Function / Cost Summary by

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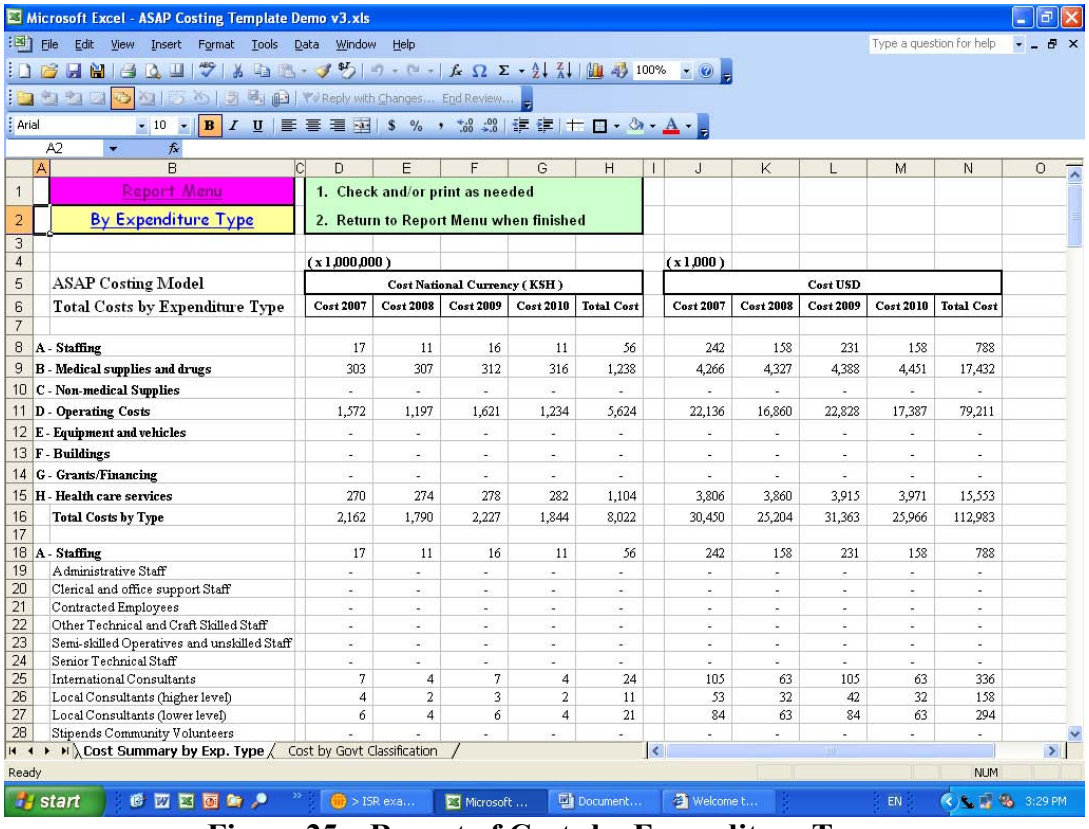
Figure 24 – Report of Costs by Function



Microsoft Excel - ASAP Costing Template Demo v3.xls

Report Menu

By Expenditure Type

1. Check and/or print as needed
2. Return to Report Menu when finished

ASAP Costing Model	(x 1,000,000) Cost National Currency (KSH)					(x 1,000) Cost USD				
Total Costs by Expenditure Type	Cost 2007	Cost 2008	Cost 2009	Cost 2010	Total Cost	Cost 2007	Cost 2008	Cost 2009	Cost 2010	Total Cost
A - Staffing	17	11	16	11	56	242	158	231	158	788
B - Medical supplies and drugs	303	307	312	316	1,238	4,266	4,327	4,388	4,451	17,432
C - Non-medical Supplies	-	-	-	-	-	-	-	-	-	-
D - Operating Costs	1,572	1,197	1,621	1,234	5,624	22,136	16,860	22,828	17,387	79,211
E - Equipment and vehicles	-	-	-	-	-	-	-	-	-	-
F - Buildings	-	-	-	-	-	-	-	-	-	-
G - Grants/Financing	-	-	-	-	-	-	-	-	-	-
H - Health care services	270	274	278	282	1,104	3,806	3,860	3,915	3,971	15,553
Total Costs by Type	2,162	1,790	2,227	1,844	8,022	30,450	25,204	31,363	25,966	112,983
A - Staffing	17	11	16	11	56	242	158	231	158	788
Administrative Staff	-	-	-	-	-	-	-	-	-	-
Clerical and office support Staff	-	-	-	-	-	-	-	-	-	-
Contracted Employees	-	-	-	-	-	-	-	-	-	-
Other Technical and Craft Skilled Staff	-	-	-	-	-	-	-	-	-	-
Semi-skilled Operatives and unskilled Staff	-	-	-	-	-	-	-	-	-	-
Senior Technical Staff	-	-	-	-	-	-	-	-	-	-
International Consultants	7	4	7	4	24	105	63	105	63	336
Local Consultants (higher level)	4	2	3	2	11	53	32	42	32	158
Local Consultants (lower level)	6	4	6	4	21	84	63	84	63	294
Stipends Community Volunteers	-	-	-	-	-	-	-	-	-	-

Cost Summary by Exp. Type / Cost by Govt Classification

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Figure 25 – Report of Costs by Expenditure Type

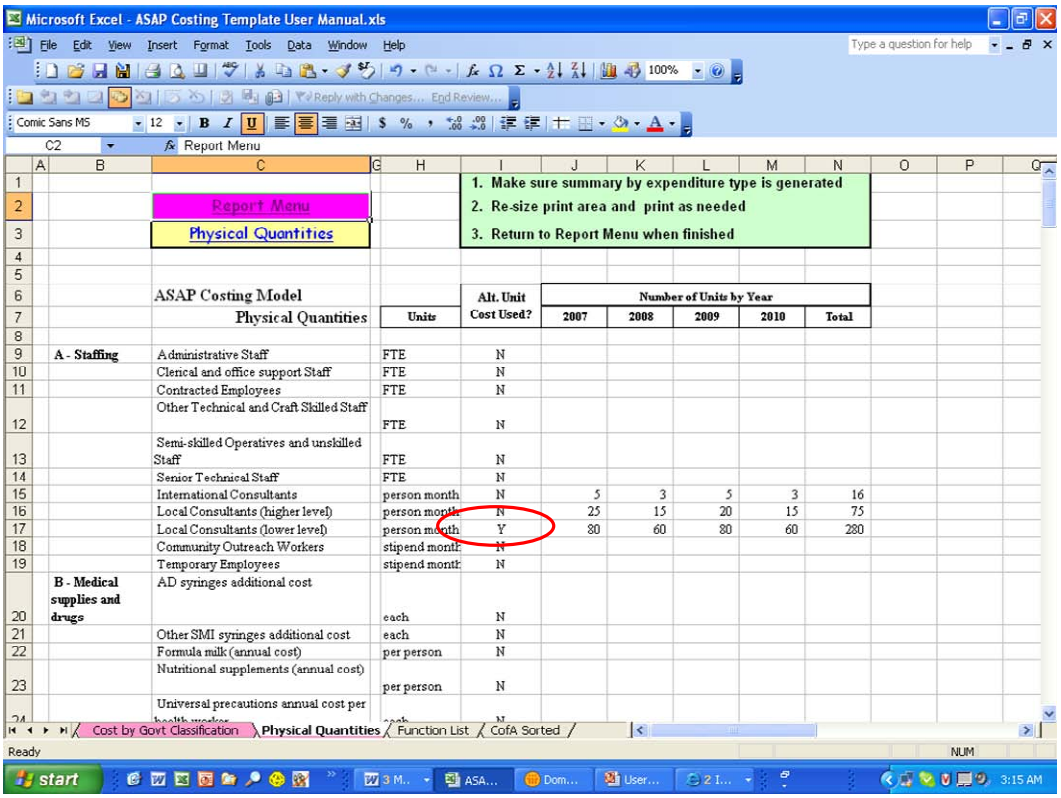

Figure 26 – Example of Physical Quantities Report

Figure 27 shows a new report which calculates unit costs by various types of beneficiaries, which can allow comparisons with other countries which have used a similar costing methodology.

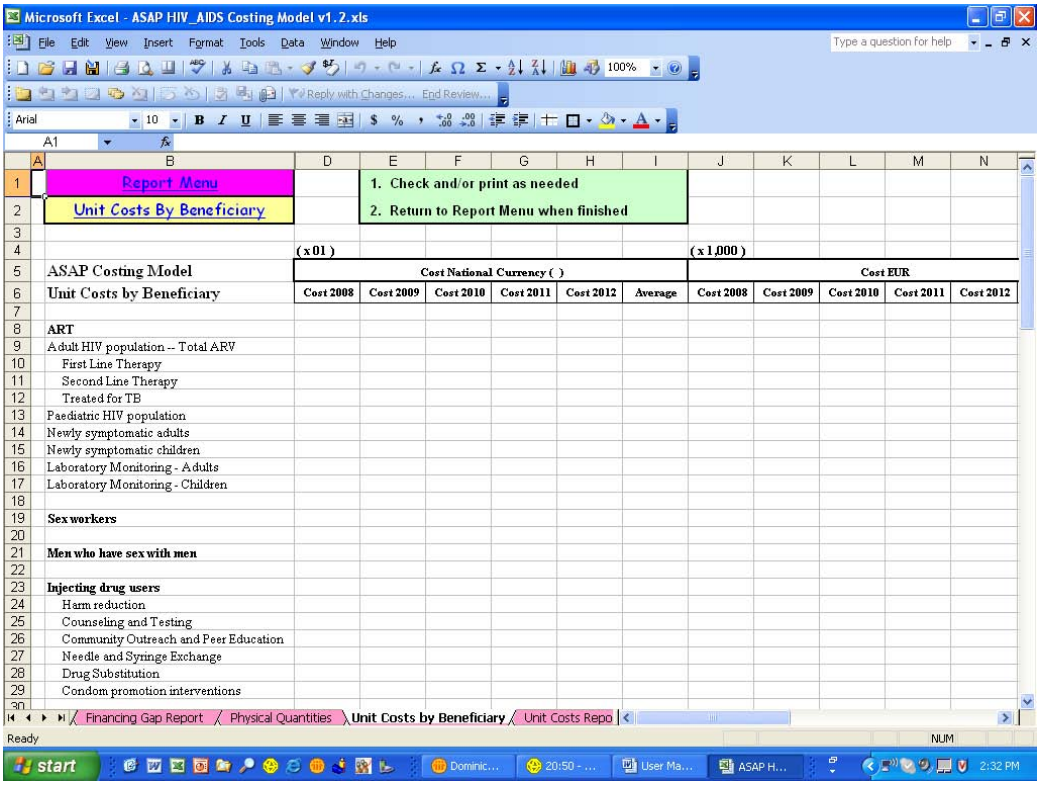

Figure 27 – Unit Costs by Beneficiary

Figure 28 provides and example of the graphs that are produced, with the figure showing the costs by year and function.

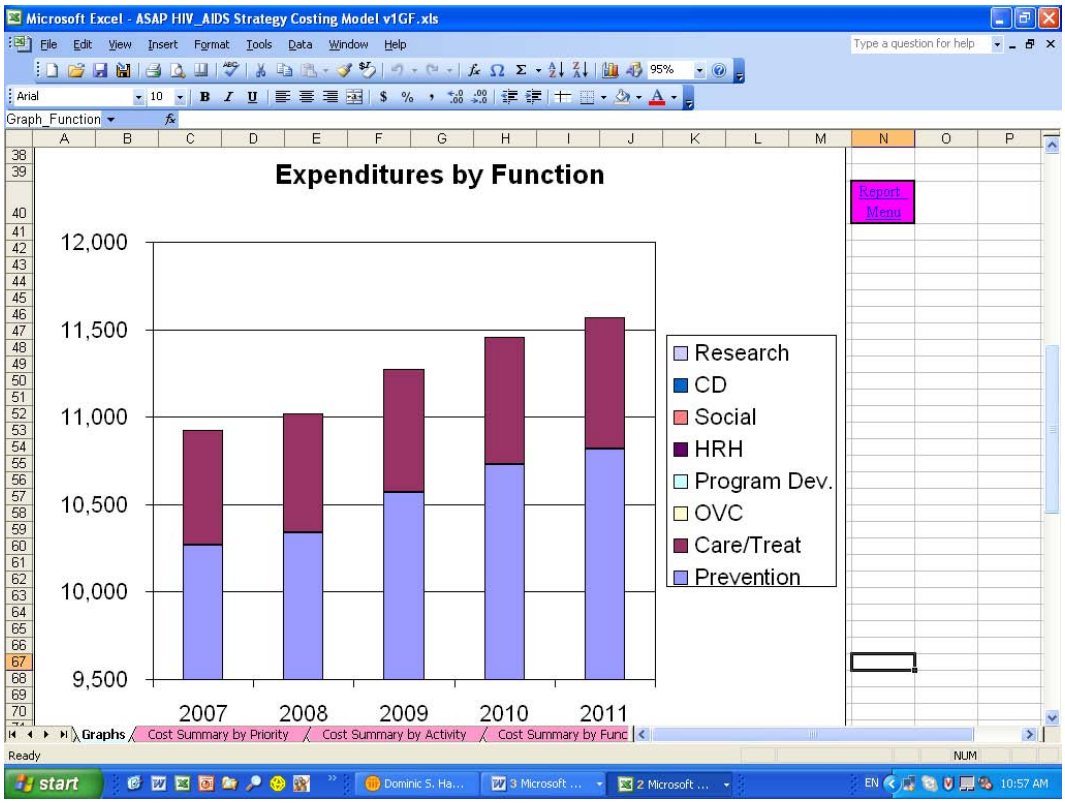

Figure 28 – Example of Expenditure by Function Graph

Once the relevant reports or graphs have been reviewed and/or printed, the user can left-click on the box entitled "Report Menu" to return to access another report.

O. Global Fund Module

The last function of the model to be reviewed is the module for converting the results to a format suitable for Global Fund proposals, using the Round 8 templates. This part of the model begins by left-clicking on the box entitled "Produce Global Fund Formats", which is located at the far right of the main menu (see Figure 1).

This takes the user to the first of two sheets that comprise the Global Fund Module, as shown in Figure 21. The first section of this sheet directs the user to perform or confirm the mapping of function in the model (per the NASA classification) to the Service Delivery Areas (SDA's) used by the Global Fund. This starts on line 6 of this sheet. The mapping has been pre-filled to make this process easier, although it is possible for the user to modify this as well. Drop-down menus have been included with all of the valid SDA's, based on the Round 8 forms.

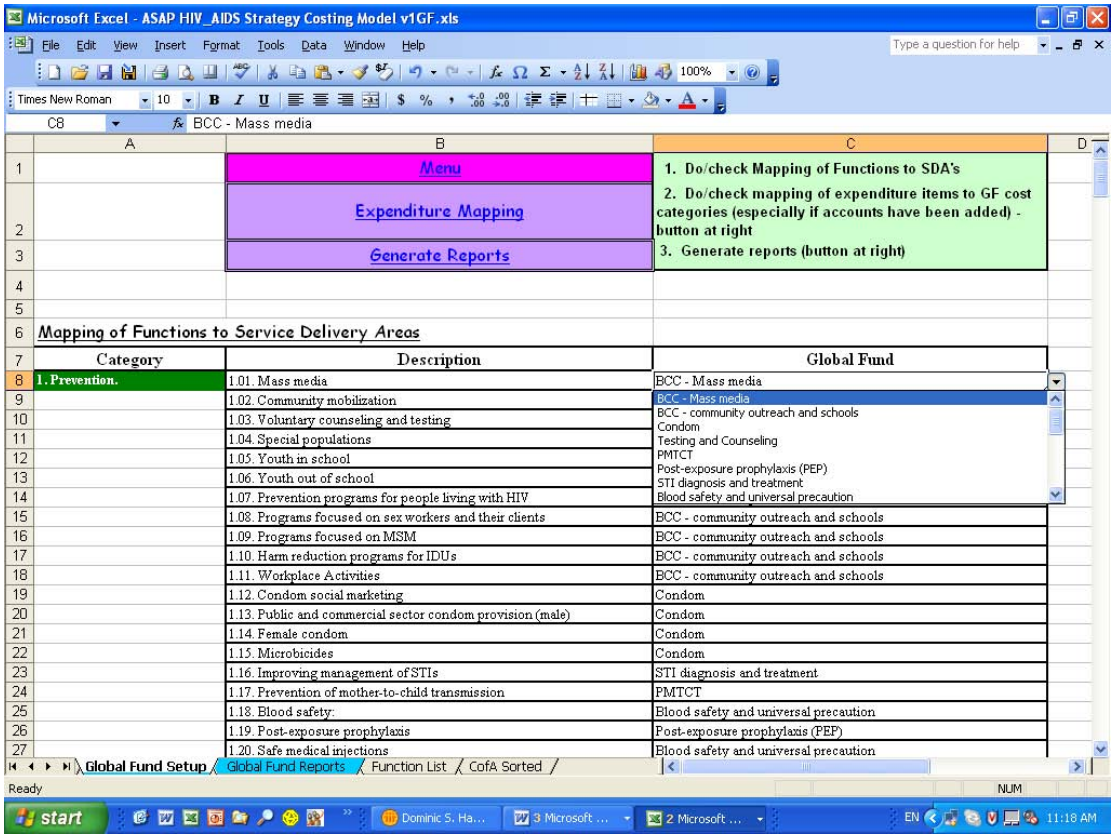

Figure 29 – Set-up Screen for Global Fund Module

The next step is the mapping of expenditure areas to the Global Fund Cost Categories. To get to this section of the sheet, the "Expenditure Mapping" box is clicked. Again, initial suggestions have been made, but these need to be checked carefully, especially if the user has added expenditure types as part of their costing process. To get back to the top, the red "Top" box should be left-clicked.

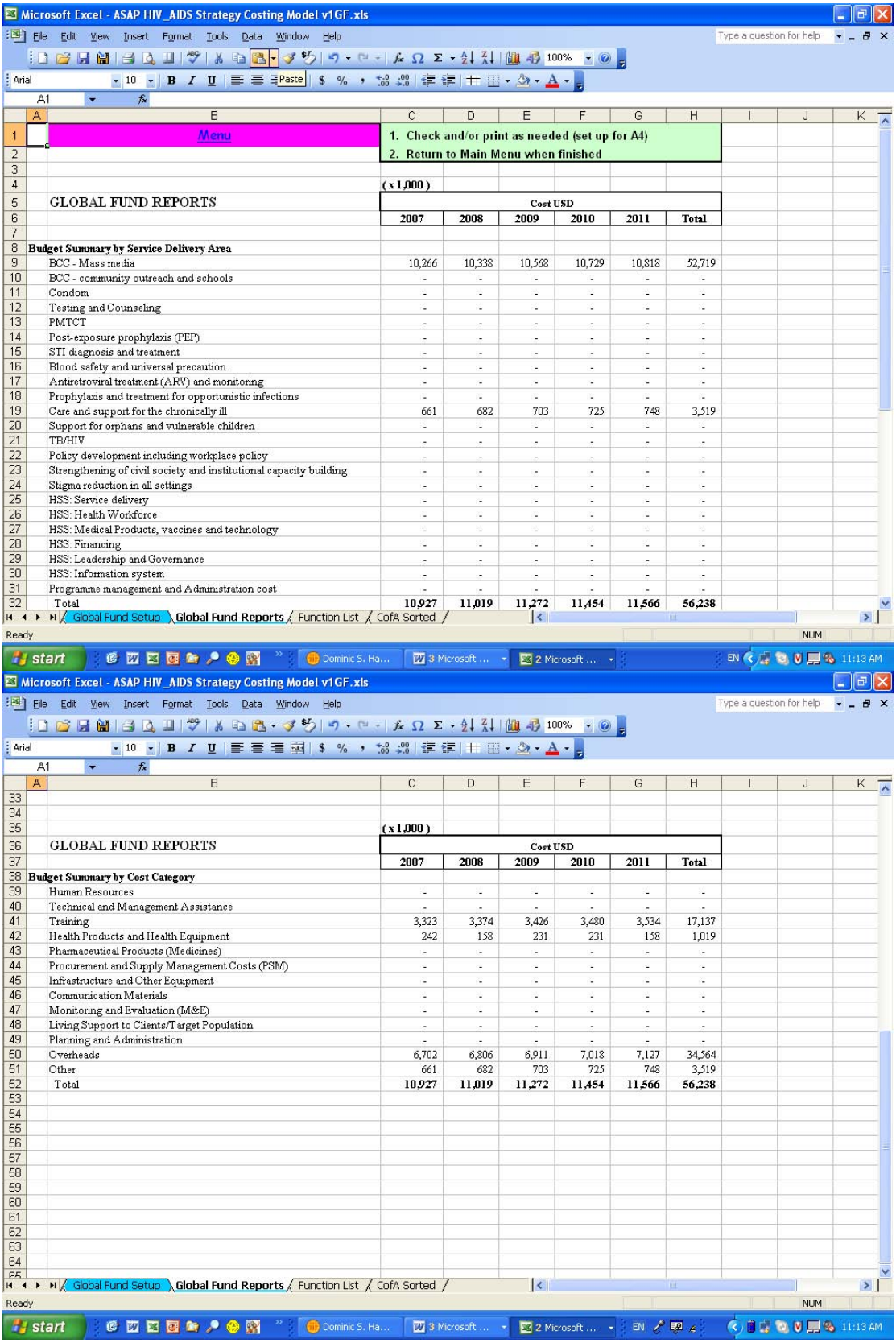

Figure 30 – Reports Screen for Global Fund Module

Annex A – HIV/AIDS Function List

(based on 2008 version of NASA Classification)

1. Prevention.	1.01. Mass media
	1.02. Community mobilization
	1.03. Voluntary counseling and testing
	1.04. Special populations
	1.05. Youth in school
	1.06. Youth out of school
	1.07. Prevention programs for people living with HIV
	1.08. Programs focused on sex workers and their clients
	1.09. Programs focused on MSM
	1.10. Harm reduction programs for IDUs
	1.11. Workplace Activities
	1.12. Condom social marketing
	1.13. Public and commercial sector condom provision (male)
	1.14. Female condom
	1.15. Microbicides
	1.16. Improving management of STIs
	1.17. Prevention of mother-to-child transmission
	1.18. Blood safety:
	1.19. Post-exposure prophylaxis
	1.20. Safe medical injections
	1.21. Male circumcision
	1.22. Universal precautions
	1.99. Prevention Other
2. Treatment and care.	2.01. Provider initiated testing
	2.02. Prophylaxis for Opportunistic Infections
	2.03. Antiretroviral therapy
	2.04. Nutritional support associated to ARV therapy
	2.05. Laboratory monitoring
	2.06. Dental Programs for PLWHA
	2.07. Psychological Treatment and Support
	2.08. Palliative care
	2.09. Home-based care
	2.10. Alternative and informal providers
	2.19. Out-patient care NEC
	2.21. Treatment of Opportunistic Infections
	2.29. In-patient Care NEC
	2.30. Patient Transport and Emergency Rescue
	2.99. Treatment Other
3. Orphans and vulnerable children.	3.01. Education (OVC)
	3.02. Basic Health Care (OVC)
	3.03. Family/home support (OVC)

	3.04. Community support (OVC)
	3.05. Organization costs (OVC)
	3.06. Institutional Care (OVC)
	3.99. Other (OVC)
4. AIDS program development;	4.01. Program Management
	4.02. Financial Management
	4.03. Monitoring and Evaluation
	4.04. Operations Research
	4.05. Surveillance (sero-sentinel, behavior surveillance)
	4.06. HIV drug resistance surveillance
	4.07. Drug supply systems
	4.08. Information Technology
	4.09. Supervision of programs and program support for patient tracking
	4.10. Upgrading laboratory infrastructure
	4.11. Construction of new health centers
	4.12. Other renovations/upgrading
	4.99. AIDS Program Other
5. Human resources.	5.01. Monetary incentives for doctors
	5.02. Monetary incentives for nurses
	5.03. Monetary incentives for other staff
	5.04. Formative Education - HIV Workforce
	5.05. Training
	5.99. HR Other
6. Social mitigation.	6.01. Monetary Benefits
	6.02. In kind benefits
	6.03. Social services
	6.04. Income generation
	6.99. Social Other
7. Community development and enhanced environment.	7.01. Advocacy and communications
	7.02. Human Rights
	7.03. Institutional Development
	7.04. Programs focused on Women
	7.99. Community Other
8. HIV- and AIDS-related research.	8.01. Biomedical research
	8.02. Clinical research
	8.03. Epidemiological research
	8.04. Social science research,
	8.05. Behavioural research
	8.06. Research in Economics
	8.07. Vaccine related research
	8.99. Research Other

Annex B.1 – Data Input Sheets – Basic Data

Basic Data

Country		**Reference Currency (circle one)**	**USD** **EUR**
Start year for projection		**National currency per Ref. Curr.**	
National currency		**Productive days in work year**	
		Productive hours in workday	

****** Note: For any indicators, if straight-line projections from the 3 years of historical data is desired, projected columns can be left blank ******

	Historical			Projected				
Demographic indicators	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**
Total population								
Male population 15-49								
Female population 15-49								
Male population 15-64								
Female population 15-64								
Crude birth rate (births/1000 pop)								
Children 6-13 (primary)								
Children 14-17 (secondary)								
Adult HIV population								
Paediatric HIV population								
Newly symptomatic adults								
Newly symptomatic children								
Adult HIV Deaths								
Paediatric HIV deaths								
Number of OVC 0-4								
Number of OVC 5-9								
Number of OVC 15-17								

Epidemiological indicators	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**20__**
Adult HIV prevalence (%)								
Pregnant women HIV prevalence (%)								
Other data - Not in RNM								
Male Children 6-13 (primary)								
Male Children 14-17 (secondary)								
Health Resources Indicators								
Physicians (number)								
Nurses (number)								
Other health workers (number)								
Hospitals (number)								
Health Centers (number)								
Laboratories (number)								

Annex B.2 – Data Input Sheets – Targets and Coverage

Sheet 1 -- PLWHA

A.	ARV and PLWHA Prevention	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% of infected adults targeted for PLWHA Prevention							
	% of infected persons requiring ARV							
	% of Adult HIV population on First Line Therapy							
	% of those on First Line Therapy failing therapy							
	% of Adult HIV population on Second Line Therapy							
	% of those on Second Line Therapy failing therapy							
	% of adult HIV population to be treated for TB							
	% ARV Coverage for Paediatric Population							
	% of infected children targeted for PLWHA Prevention							
	% ARV Coverage for Newly Symptomatic Adults							
	% ARV Coverage for Newly Symptomatic Children							

T.	Nutritional Supplements	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% of Adults malnourished -- Adult HIV population							
	% of these Covered with Nutritional Supplements							
	% of children malnourished -- Paediatric HIV population							
	% of these Covered with Nutritional Supplements							
	% of Adults malnourished -- Newly symptomatic adults							
	% of these Covered with Nutritional Supplements							
	% of children malnourished -- Newly symptomatic children							
	% of these Covered with Nutritional Supplements							

U.	Prophylaxis for Opportunistic Infection	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% OI Prophylaxis Coverage -- Adult HIV population							
	% OI Prophylaxis Coverage -- Paediatric HIV population							
	% OI Prophylaxis Coverage -- Newly symptomatic adults							
	% OI Prophylaxis Coverage -- Newly symptomatic children							

V.	Opportunistic Infection Treatment	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% with OI -- Adult HIV population							
	% with OI -- Paediatric HIV population							
	% with OI -- Newly symptomatic adults							
	% with OI -- Newly symptomatic children							

W.	Palliative Care and Other Care	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% of Adult HIV Deaths receiving Palliative Care							
	% of Paediatric HIV Deaths receiving Palliative Care							
	% coverage with home care -- Adult HIV population							
	% coverage with dental care -- Adult HIV population							
	% coverage with psychological support -- Adult HIV population							
	% coverage with home care -- Paediatric HIV population							
	% coverage with dental care -- Paediatric HIV population							
	% coverage with psychological support -- Paediatric HIV population							

Sheet 2 -- Orphans and Vulnerable Children

E.	Orphans and Vulnerable Children	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% reached by education interventions per year							
	% reached by basic health care interventions per year							
	% reached by family/home support interventions per year							
	% reached by community interventions per year							
	% reached by institutional care per year							

Sheet 3 -- Counseling and Testing

J.	**Voluntary counseling and testing**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	% of adult population needing VCT annually							
	% of VCT need which is to be provided (coverage)							
K.	**Prevention of mother-to-child transmission**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	% of women who had some antenatal care							
	% of pregnant women attending ANC to be tested for HIV							
	% of tested women who are HIV-positive							
	% HIV positive pregnant women treated with ARV							
	% HIV positive pregnant women that receive infant formula							
N.	**Provider Initiated Testing**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	% of population involved in provider initiated testing							

Sheet 4 -- Health Systems Interventions

I.	**STI management**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	Number of new cases of treatable STIs - male (incidence)							
	Number of new cases of treatable STIs - female (incidence)							
	% of STIs that are symptomatic - males							
	% of STIs that are symptomatic - females							
	% males with STI receiving treatment							
	% females with STI receiving treatment							
O.	**Blood safety**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	Blood units required per 1,000 people							
	% of units of blood for transfusion tested							
P.	**Post-exposure prophylaxis**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	PEP kits required per million population							
	% PEP kits to be provided							
Q.	**Safe medical injection**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	Immunization coverage							
	Number of adult injections per person per year							
	% of injections that are unsafe							
	% unsafe injections replaced with AD syringes							
	% reduction in number of other injections							

R.	Universal precautions	Baseline 20__	20__	20__	20__	20__	20__	End-line
	Hospital beds per 1000 population							
	Physicians, nurses and technicians per hospital bed							
	% of health workers covered							

S.	Health Resources	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% Physician participation in monetary incentives							
	% Nurse participation in monetary incentives							
	% Other health worker participation in monetary incentives							
	Health Centers to be constructed							
	Health Centers to be renovated							
	Laboratories to be constructed							
	Laboratories to be renovated							
	Other health facilities to be constructed/renovated							

X.	Male Circumcision	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% of males % to obtain circumcision							

Sheet 5 -- Most at-risk Populations

B.	Sex workers	Baseline 20__	20__	20__	20__	20__	20__	End-line
	Number of sex workers							
	% sex workers reached each year							
	% of sex workers reached that use male condoms							
	% of sex workers reached that use female condoms							
	# of male condoms distributed per year per sex worker reached							
	# of female condoms distributed per year per sex worker reached							

C.	Men who have sex with men	Baseline 20__	20__	20__	20__	20__	20__	End-line
	Number of MSMs							
	% MSMs reached each year							
	o/w % MSM reached who are using condoms							
	Condoms per MSM reached and using condoms							

D.	Injecting drug users	Baseline 20__	20__	20__	20__	20__	20__	End-line
	Number of IDUs							
	Counselors to be trained per 100 IDU's							
	% IDUs receiving harm reduction							
	% IDUs receiving Counseling and Testing							
	% IDUs receiving Community Outreach and Peer Education							
	% IDUs receiving Needle and Syringe Exchange							
	% IDUs receiving Drug Substitution							
	% IDU's receiving condom promotion interventions							

M. Special Populations	Baseline 20__	20__	20__	20__	20__	20__	End-line
% of total population in Special Populations							
% of Special Populations to be reached							

Sheet 6 -- General Prevention Programs

F.	Youth	Baseline 20__	20__	20__	20__	20__	20__	End-line
	Male Primary school participation rate (%)							
	Female Primary school participation rate (%)							
	Primary pupil-teacher ratio							
	Male Secondary school participation rate (%)							
	Female Secondary school participation rate (%)							
	Secondary pupil-teacher ratio							
	How many years between teacher (re)-training programs?							
	% primary students with teachers trained in AIDS							
	% secondary students with teachers trained in AIDS							
	% out-of-school youth reached							

G.	Workplace programs	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% of population employed - male							
	% of population employed - female							
	% workforce receiving peer education							
	Number of peer educators to be trained per 100 target workers							
	% workforce receiving STI treatment							
	% workforce receiving condoms							
	Condoms per workforce member reached							

H,	Condom provision (do not include MSM, CSW , Workplace)	Baseline 20__	20__	20__	20__	20__	20__	End-line
	% 15-49 sexually active							
	% Sexually active Males 15-49 in regular partnerships (both exclusive and non-exclusive)							

	% of these Males who also have casual partners							
	Average annual sex acts for males with regular partners ((both exclusive and non-exclusive)							
	% of total sex acts not with their regular partners (neither exclusive nor non-exclusive)							
	Average annual number of sex acts with casual partners for males not in regular partnerships							
	% of casual sex acts covered with condoms							
	% of those with casual partners using condoms in marital sex							
	% Condom wastage during storage and distribution							
	% of total condoms that are male condoms							
	Condom distribution - male condoms:							
	% through special national program							
	% of total through public/commercial provision							
	Condom distribution - female condoms:							
	% through special national program							
	% of total through public/commercial provision							
L.	**Mass media**	**Baseline 20__**	**20__**	**20__**	**20__**	**20__**	**20__**	**End-line**
	Average number of campaigns per year							
	Average length of campaign (months)							
	Coverage per million population per campaign:							
	- number of billboards to be produced							
	- number of TV minutes							
	- number of radio minutes							
	- number of newspaper column inches							
	- number of promotional material items							
	- number of posters							
	- number of leaflets							