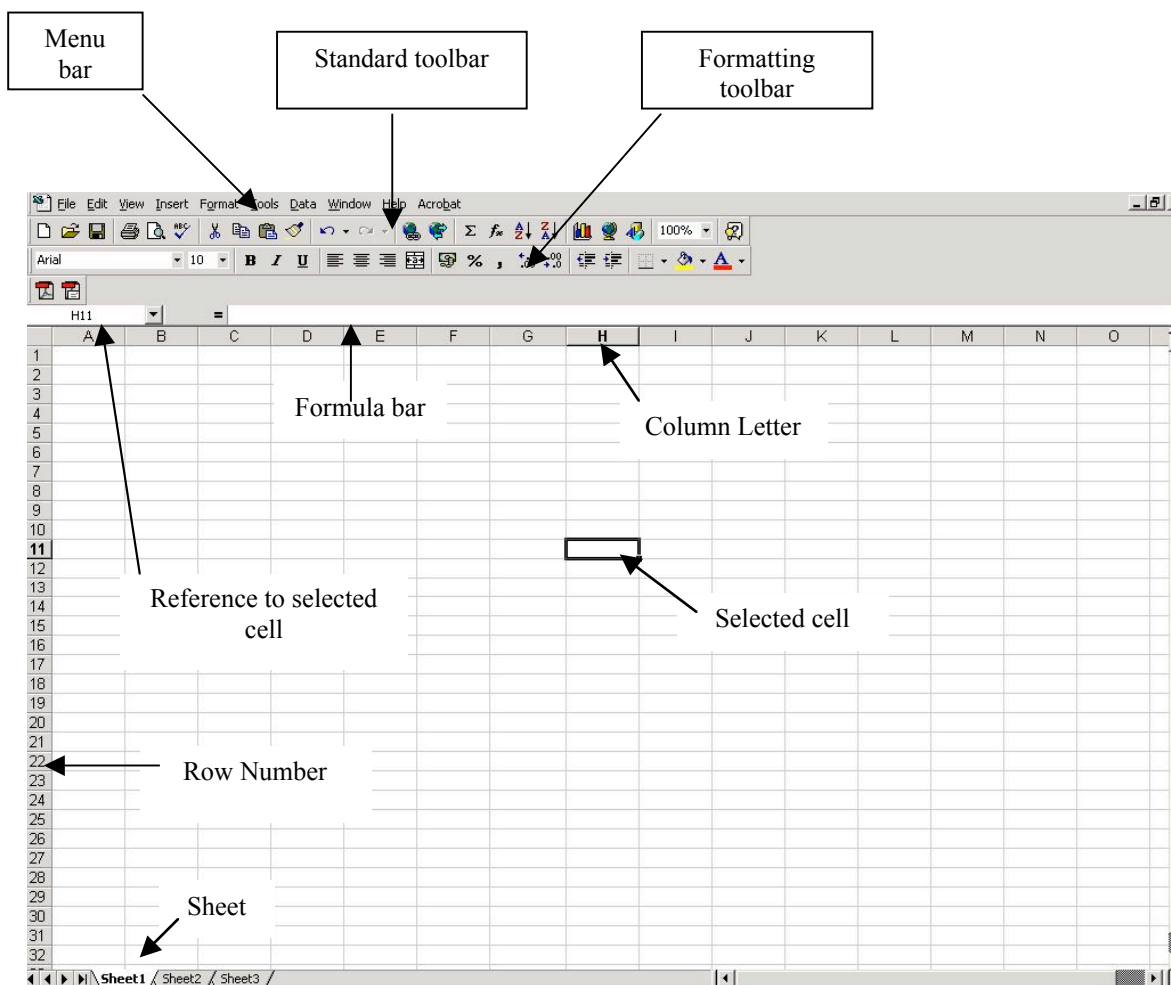


# Basic Microsoft Excel Skills

**Note :** This tutorial is based upon Microsoft Excel 2000. If you are using MExcel 1997 or 2002, there may be some operations which look slightly different (e.g. graphs), but the same principles apply.

**Introduction:** This is a module that contains a basic explanation of Microsoft Excel. It should take you 1-2 hours to read it and practice, and this can be done alone or in a group. You will need to obtain a file called «Basic Excel Spreadsheet 2000.xls » and save it on your computer before starting. We will use this file for demonstrations during the module. The file is similar, but not identical to that which will be used in creating Financial Sustainability Plans. You should not use this sample file when you do the actual plan.



## A. BASIC OPERATIONS

Start the MS Excel Program on your computer. It should look like the picture above which shows the basic features of an Excel screen. Take a look at the names of different features. You may want to refer back to this as we progress.

We will now concentrate on some basic Excel operations, starting with OPEN, CLOSE, CREATE A NEW FILE and UNDO, then we will go back to working with our document « Basic Excel Spreadsheet 2000.xls » when we start with the SAVE function.

## OPEN (Ctrl o):

When you are in Excel, there are 3 ways to open a file go to the menu FILE, OPEN and then select the file you want to open. You can also hold down the “Ctrl” key and press the “o” key at the same time (this shortcut is shown in the title for each of the commands below). Lastly you may click on the following OPEN button on your toolbar :



## CLOSE (Ctrl c):

To close your file go to the menu FILE, CLOSE.

## CREATE A NEW FILE (Ctrl n):

If you want to create a new file under Excel, go to menu FILE, NEW. You may also use the following button on your toolbar :



## UNDO (Ctrl z):

After performing an operation in a spreadsheet, you always have the choice to undo what you just did, in case you made a mistake. To undo go to your Standard toolbar and press the arrow :



## SAVE (Ctrl s) and SAVE AS :

It is important to always remember to SAVE your work regularly, perhaps every 10 minutes. You can do this by going to the menu FILE, SAVE, or clicking on the disquette of your toolbar :

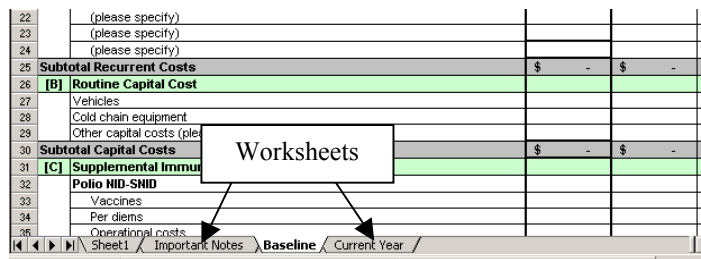


Now open the « Basic Excel Spreadsheet 2000.xls » document. Once you have it open go to menu FILE, select SAVE AS, then give the document a name (for example ‘Basic Excel functions’) and choose a file location, then press OK. This creates a new file with the same starting data. This allows you to protect your original file, while working on the data.

## WORKSHEETS :

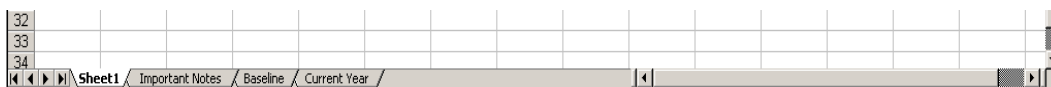
An Excel file (or workbook) is made up of one or more worksheets. To open the different worksheets just click on the bottom of your screen. In our file there are 2 different worksheets (Baseline; Current Year).

Each worksheet is part of the same file, so when you SAVE the document it saves all worksheets.



To add another worksheet, go to INSERT-WORKSHEET. Then rename ‘Sheet 1’ to ‘test’, by double clicking where it says ‘Sheet 1’ and typing in the new name.

Now you can return to the worksheet we will be using which is ‘Baseline’.



### SELECT A CELL :

Each worksheet is made of thousands of cells, for example B20, D41, J19... are cells. Click on a cell with your mouse. For example you can select cell C9, and you can enter any information (eg : 26).

Cost Category	TOTAL
<b>Required Information</b>	
<b>Routine Recurrent Cost</b>	<b>US\$</b>
Vaccines (routine vaccines only)	\$ 26.00
-Traditional 6 antigens	
-New and underused vaccines	
Injection supplies	
Personnel	
-Salaries of full-time NIP health workers (central, provincial and district levels)	
-Per-diem (other incentives) for outreach vaccinators/mobile teams	
Transportation	

### VALIDATE THE CELL :

Press the RETURN or ENTER button on your keyboard and the information will be entered.

### ERASE THE FIGURES/TEXT IN A CELL :

If you make an error, go to cell C9 and press the DELETE key. You can then enter a new number.

### MODIFY THE FIGURES/TEXT IN A CELL (F2):

To modify the number in your cell (eg : cell C9). Double click on the cell, and the cursor will then allow you to make changes.

### SELECT MULTIPLE CELLS :

- Click on the cell C9, keep your finger on the mouse button, then pull your mouse downwards (or sideways), once the selected zone is blackened let go the button.
- To select multiple random cells on the worksheet, hold down the CONTROL button of your keyboard, and click on the desired cells. To unselect just click anywhere on the worksheet.
- Select a Column : Click on the light blue letter across the top OR press « Ctrl Space »
- Select a Row (line): Click on the left side number OR press « Shift Space »

### ENLARGE/ REDUCE A COLUMN :

Columns are vertical lines of cells, eg : A,B,C,D....

- Select the column by pressing on its letter (eg : C)

Go to FORMAT, COLUMN, WIDTH and then type the new size in cms.

OR point your mouse cursor between the 2 columns (between C&D) when the cursor changes shape keep the mouse clicked then pull towards the right or left for the desired width.

OR double-click between the 2 columns. The width will then change automatically, adjusting itself to the width of the text or number in the cell.

### ENLARGE/ REDUCE A ROW :

Rows are horizontal lines of cells, eg : 1,2,3,4,5,6...

- Select the row by clicking on its number (eg : 9)

Go to FORMAT, ROW, HEIGHT, and type in the new size in cms.

OR click between the 2 rows (eg : between 9 & 10), keep the mouse clicked then pull towards the bottom. You will notice the row getting larger.

### INSERT A COLUMN OR ROW :

- Select a column, for example by clicking on the top of column C

Go to INSERT, COLUMN and a new column will appear. Note that Excel automatically makes it match the column to the left (which is very wide). Your original column C, and all the data in it, is automatically moved right and becomes column D. Click UNDO to remove the change.

- Select a row, for example by clicking on the number 9

Go to INSERT, ROW and a new row will appear moving what was row 9 down to be row 10. Note that Excel automatically makes it match the row above.

### DELETE A COLUMN/ROW :



If you have added a column or a row by mistake, select the row/column by clicking on its letter or number, then go to EDIT, DELETE, and the column/row will disappear. Now you can select the empty row you've just added and delete it.

### DUPLICATE A CELL :

- Select the cell you want to duplicate (eg : C9), then go to EDIT, COPY click on the new cell(s) (eg : C24) then go to EDIT, PASTE. You can also use the COPY and PASTE buttons on your toolbar.

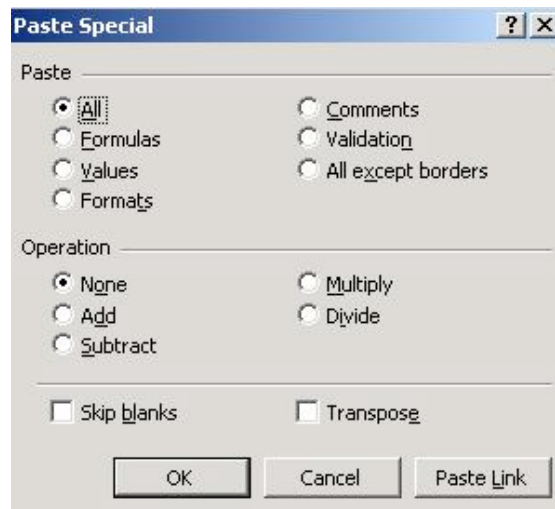


-For continuous cells, click on the right lower corner of the cell and drag in any direction.

-In order to move the contents of one cell to another cell (without duplicating), select the content you want to move by clicking on the cell, then go to EDIT, CUT, click on the new cell then go to EDIT, PASTE. You can also use the CUT  and PASTE  buttons on your toolbar. Try this on your own.

### PASTE SPECIAL :

In Excel, you have the option of pasting particular aspects of a cell selection while discarding others. You can ask Excel to paste only text entries and values in a cell and not the formatting or the formula. In order to do this you must use the Paste Special function. First you need to select the cell to be copied, click on COPY, go to the cell where you want the value/text to appear then select EDIT, PASTE SPECIAL. The following table will appear :



You can now select what part of the cell you want to Paste (eg : a Formula, a Value, Formatting....). When you have made your selection, click the OK button.

If you click on PASTE LINK, Excel will make the cell you selected to paste into a « mirror » of the original cell. So if the original cell gets changed, the cell you've pasted into gets automatically changed too.

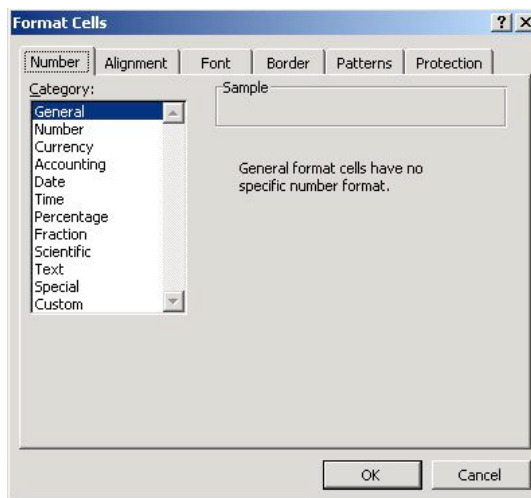
It is also possible to paste multiple cells from one place to another place.

## B. FORMATTING :

Excel can interpret what is in a cell in a number of ways (date, number, percentage...). By formatting a cell you define what type of interpretation a cell should have. If you do not select the formatting, the computer will treat letters as text and numbers as simple numbers.

-To format a cell, first click on the cell or highlight the cells you want to format. Click on C9.

-Then go to FORMAT, CELLS alternatively you can right click on your mouse and go to FORMAT CELLS.

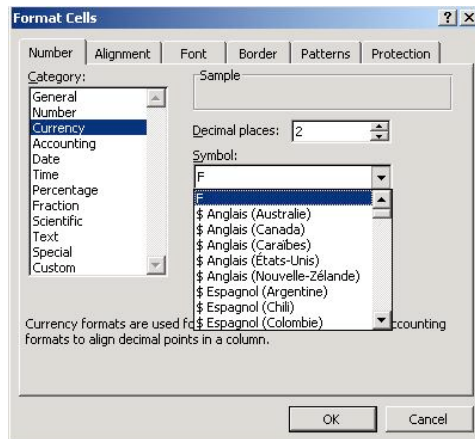


-Click on the NUMBER tab, and in the 'category' section scroll down to TEXT or NUMBER depending on what you wish to enter. If you look at cell C9 under Format, you will see it is designed to currency under the custom section. Now for practice make cells D9 through D24 percentages and use 0 decimal places. If you need a hint, select cell C65 and look at its formatting.

Cost Category	TOTAL
<b>Required Information</b>	
<b>Routine Recurrent Cost</b>	<b>US\$</b>
Vaccines (routine vaccines only)	26,00
-Traditional 6 antigens	
-New and underused vaccines	
Injection supplies	
Personnel	
-Salaries of full-time NIP health workers (central, provincial and district levels)	
-Per-diem (other incentives) for outreach vaccinators/mobile teams	
Transportation	

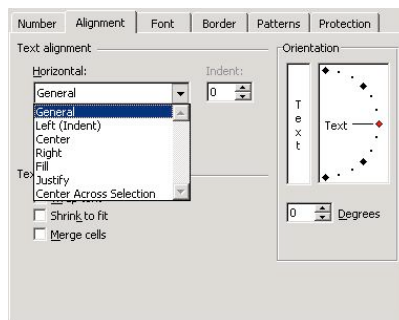
## CURRENCY:

-A currency symbol can also be added automatically to the figure in your cell (\$, £, Sfr...). Select cells D9 to D24 again. Go to NUMBER, CURRENCY, then scroll down the SYMBOLS list to choose your currency. When you then write your number in any of the cells you've formatted you will notice that a currency appears by its side.



## ALIGNMENT:

-Click on cell B9. To align the text or number in a cell go to the ALIGN tab. Now select HORIZONTAL, CENTER, then click OK, you will notice the text moving to the center of the cell, the same can be done to the right and left :

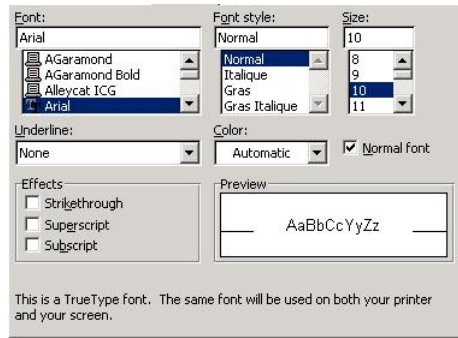


-You can also use the following buttons on your toolbar to select the Alignment :



## FONT :

-Click on cell B26. The font can also be changed by using the FONT tab on the Format Cells area . Now change the Font to 'Times New Roman', choosing a 'Bold' Font Style, and the size to '12' then click OK:

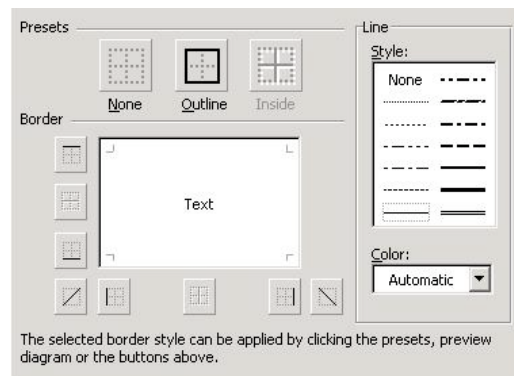


-You can also use the following buttons on your toolbar to select the Font:



## BORDER :

-Click on cell C33. The lines around the cells can be defined by using the BORDER tab. You can separate a cell from the others by putting a box around it. In the BORDER tab, choose a style that will determine the surrounding of the box, and then you can click with your mouse on the surrounding of the white part where it says 'Text' :



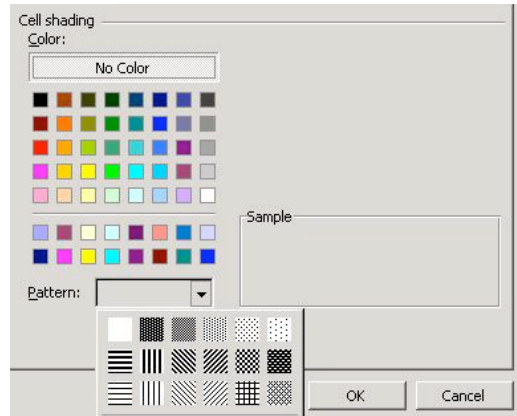
-You can also use the following button on your toolbar to create a Border :



## PATTERNS :

-Click on cell C9. Go to the PATTERN tab on the Format Cells area. There is also the possibility of adding patterns or color to certain or all cells. You can choose the color from the cell shading selection. Then press OK and the cell will become colored.





Cost Category	TOTAL	Government (Central)
Required Information		
[A] Routine Recurrent Cost	US\$	US\$
Vaccines (routine vaccines only)		
-Traditional 6 antigens		
-New and underused vaccines		
Injection supplies		
Personnel		
-Salaries of full-time NIP health workers (central, provincial and district levels)		

Colored cell

-You can also use the following button on your toolbar to select the color :



### C. FUNCTIONS :

Cost Category	TOTAL	Government (Central)	Government (Local)
<b>Required Information</b>			
<b>[A] Routine Recurrent Cost</b>	<b>US\$</b>	<b>US\$</b>	<b>US\$</b>
Vaccines (routine vaccines only)	\$ 50.00	\$ 100.00	
-Traditional 6 antigens	\$ 50.00	\$ 100.00	
-New and underused vaccines	\$ 50.00	\$ 100.00	
Injection supplies	\$ 50.00	\$ 100.00	
Personnel	\$ 50.00	\$ 100.00	
-Salaries of full-time NIP health workers (central, provincial and district levels)	\$ 50.00	\$ 100.00	
-Per-diem (other incentives) for outreach vaccinators/mobile teams	\$ 50.00	\$ 100.00	
Transportation	\$ 50.00	\$ 100.00	
Maintenance and overhead	\$ 50.00	\$ 100.00	
Short-term training	\$ 50.00	\$ 100.00	
IEC/social mobilization	\$ 50.00	\$ 100.00	
Monitoring and disease surveillance	\$ 50.00	\$ 100.00	
Other routine recurrent costs			
(please specify)			
(please specify)			
(please specify)			
<b>Subtotal Recurrent Costs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>[B] Routine Capital Cost</b>			
Vehicles			

In Excel you can perform many simple arithmetic formulas or, as Excel calls them, use different ‘functions’.

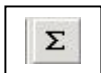
Before we start, let's fill in columns C & D with numbers which we will just use as examples (using 50 for column C and 100 for column D), even though it looks like there's twice as much money available from the government as the program needs each year!

In order to start a calculation (eg : use a function) you must always remember to use the ‘=’ sign before you start typing the function.

In this case we want to add the total of columns C & D, from C9 to C20 and D9 to D20, there are 2 ways to do this :

-Let's start the first example by using column C. Go to the cell where you want the result to appear, in this case cell C25. Type the ‘=’ sign, then click on the cells you want to add, putting a ‘+’ sign between each cell, eg : =C9+C10+C11+C12 up to +C20, to obtain the total just press on the ENTER or RETURN key on your keyboard. As a result in cell C25 you should get the following total : 600

-For the second option we will use column D. Go to the cell where you want the total to appear, in this case cell D25. Then press the SUM button on your Standard toolbar :



Now select the cells you want to add by clicking in the first box, then holding down the mouse button and dragging it along all the desired cells, you will notice a flashing square surrounding the selected cells :

Cost Category	TOTAL	Government (Central)	Government (Local)
<b>Required Information</b>			
<b>[A] Routine Recurrent Cost</b>	<b>US\$</b>	<b>US\$</b>	<b>US\$</b>
Vaccines (routine vaccines only)	\$ 50.00	\$ 100.00	
-Traditional 6 antigens	\$ 50.00	\$ 100.00	
-New and underused vaccines	\$ 50.00	\$ 100.00	
Injection supplies	\$ 50.00	\$ 100.00	
Personnel	\$ 50.00	\$ 100.00	
-Salaries of full-time NIP health workers (central, provincial and district levels)	\$ 50.00	\$ 100.00	
-Per-diems (other incentives) for outreach vaccinators/mobile teams	\$ 50.00	\$ 100.00	
Transportation	\$ 50.00	\$ 100.00	
Maintenance and overhead	\$ 50.00	\$ 100.00	
Short-term training	\$ 50.00	\$ 100.00	
IEC/social mobilization	\$ 50.00	\$ 100.00	
Monitoring and disease surveillance	\$ 50.00	\$ 100.00	
Other routine recurrent costs			
(please specify)			
(please specify)			
(please specify)			
<b>Subtotal Recurrent Costs</b>	\$ -	=SUM(D9:D20)	\$ -
<b>[B] Routine Capital Cost</b>			
Vehicles			
Cold chain equipment			

To get the result you just need to type the RETURN key. As a result you should obtain the following total in cell D25 : 1200.

-Cells can also be added from different areas of the worksheet, for example, on our spreadsheet, if we want to get a Grand Total by adding each subtotal, we need to go to cell C64 where we want the answer and add together the different subtotals. You type: =C25+C30+C49+C63. Then press RETURN or ENTER for the result.

You can do the same operation to subtract numbers : use – Eg : =C9-D9

To multiply numbers : use \* Eg : =C9\*D9

To divide numbers : use / Eg : =C9/D9

Excel has many functions which can be found under INSERT, FUNCTION, or by using the following button on your toolbar :



## D. CHARTS :

To create a chart you need to select the desired cells, let's use the columns for Projected Requirements and Secured Fundings in our spreadsheet, do not forget to select the areas that contains the component and data (eg : Vaccines, Injection supplies...), otherwise it will not appear on the chart :

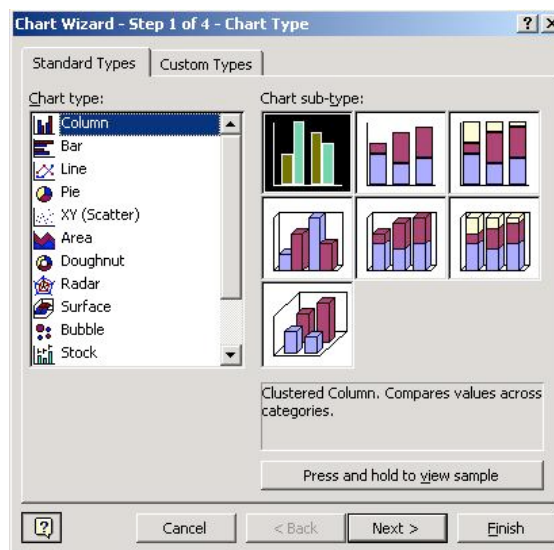
Cost Category	TOTAL	(Central)	(L
<b>Required Information</b>			
<b>[A] Routine Recurrent Cost</b>	<b>US\$</b>	<b>US\$</b>	
Vaccines (routine vaccines only)	\$ 50.00	\$ 100.00	
-Traditional 6 antigens	\$ 50.00	\$ 100.00	
-New and underused vaccines	\$ 50.00	\$ 100.00	
Injection supplies	\$ 50.00	\$ 100.00	
Personnel	\$ 50.00	\$ 100.00	
-Salaries of full-time NIP health workers (central, provincial and district levels)	\$ 50.00	\$ 100.00	
-Per-diems (other incentives) for outreach vaccinators/mobile teams	\$ 50.00	\$ 100.00	
Transportation	\$ 50.00	\$ 100.00	
Maintenance and overhead	\$ 50.00	\$ 100.00	
Short-term training	\$ 50.00	\$ 100.00	
IEC/social mobilization	\$ 50.00	\$ 100.00	
Monitoring and disease surveillance	\$ 50.00	\$ 100.00	
Other routine recurrent costs (please specify)			
(please specify)			

Then you go to INSERT, CHART or click on the Chart Wizard of your toolbar:

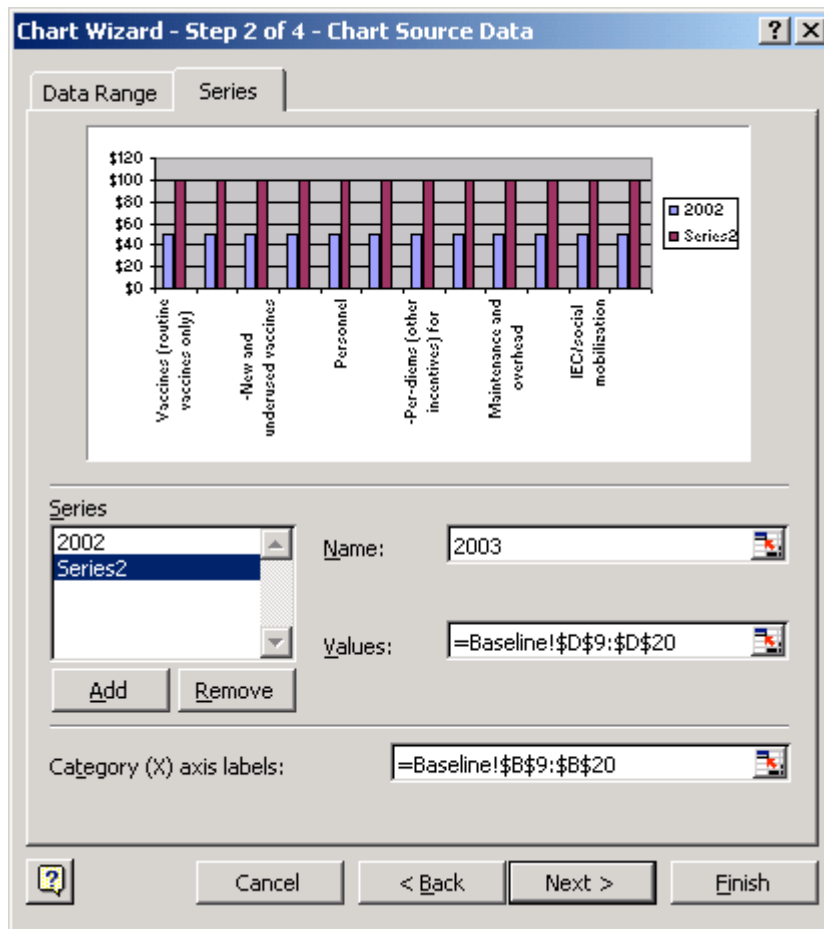


A menu will appear, giving you the choice between different charts (pies, columns, bars etc...). Two of the most frequently used charts are the columns and pies so we will try and make one of each.

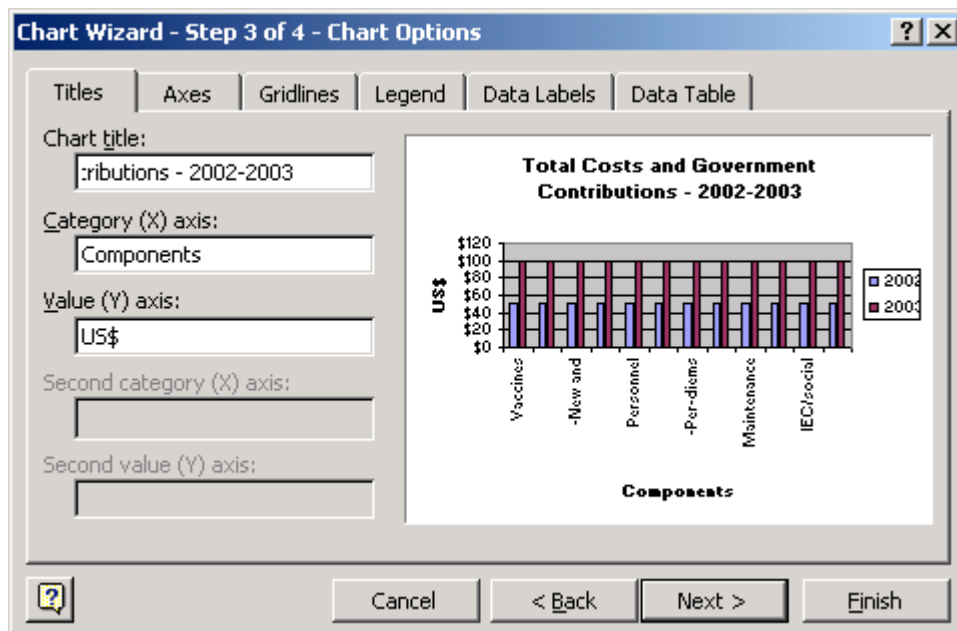
Once in the Chart Wizard Step 1 of 4, select the type of chart. We will use the clustered column :



Press the Next> button and this will take you to Step 2 of 4 which shows what data is included in the chart, you can also include a legend for your chart by going into the SERIES tab. Click on Series 1 and type a name (e.g. 2002) into the Name box. Then click on Series 2 and type 2003.



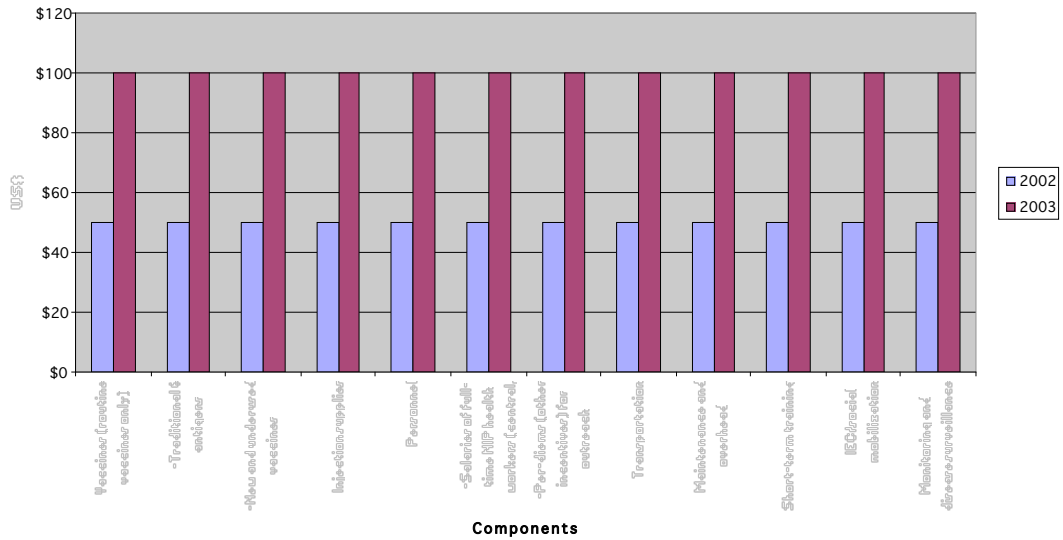
Now press the Next> button and in Step 3 of 4 you need to choose a Title for your chart, we will call ours Total Costs and Government Contribution – 2002-2003, then you need to name the Category (X) Axis which represents the horizontal line of your chart, in our case it will be called ‘Components’, then the same needs to be done for the Value (Y) Axis representing the vertical line, which we will call ‘US\$’.



Once you have named the chart and the axis you can press the Next> button, decide where you want to place the chart and then press the Finish button.

The finished result should appear as such :

**Total Costs and Government Contributions - 2002-2003**



You can now try the same exercise using a Pie instead of Columns. This will give you a sense of the percentage used by each Component over the total.

You've now practiced some of the basic features for using Microsoft Excel. It gets easier with time. Don't forget that if you encounter problems, the best place to go is :

**MICROSOFT EXCEL HELP :**

If you have any problems/troubleshooting whilst you are using Excel, you always have the option of using the office assistant. Go to the HELP menu, and select MICROSOFT WORD HELP. Alternatively you can press F1 on your keyboard, OR click on the exclamation mark on your standard toolbar :



Just type in your question and it will give you possible answers. Why not give it a try !