

Perinatal Problem Identification Program

Version 2.0

INTRODUCTION TO PPIP V2	8
PERINATAL PROBLEM IDENTIFICATION PROGRAM - WHAT'S IT ALL ABOUT?	8
AUDIT SUPPORT PROVIDED BY PPIP	8
MANAGING DIFFERENT LEVELS OF HEALTH CARE PROVIDERS	8
DATA ANALYSIS	9
PROGRAM ADMINISTRATION	9
UPGRADING FROM PPIP V1	10
WHAT'S NEW IN PPIP V2?	11
DATA SETS	13
SOME PRINCIPLES	13
SETTING UP A DATA SET	13
EDIT DATA SET DETAIL	14
DATA SET DETAIL - ENTRY FIELDS	14
DELETE DATA SET	15
OPEN A DATA SET	15
DATA PYRAMID EXPLAINED	17
WHAT HAPPENS IN THE REAL WORLD?	17
HOW DOES PPIP IMPLEMENT THIS SYSTEM?	17
VIEWING YOUR DATA PYRAMID	18
THE THREE DATA TYPES	19
PERINATAL DEATHS ENTERED WITH MONTHLY DATA	20
WHY ENTER PERINATAL DEATHS TWICE?	20
THREE WAYS TO USE PPIP	20
ENTERING MONTHLY DATA	22
ADD MONTHLY DATA	22
EDIT MONTHLY DATA	22
MONTHLY DATA ENTRY FIELDS	22
DELETE MONTHLY DATA	23
PERINATAL DEATHS	25

ADD A PERINATAL DEATH	25
EDIT A PERINATAL DEATH	25
PERINATAL DEATH ENTRY FIELDS	25
PERINATAL DEATH CODES	28
PRIMARY CAUSE OF PERINATAL DEATH	28
FINAL CAUSE OF NEONATAL DEATH	28
AVOIDABLE FACTOR	28
WHAT ARE AVOIDABLE FACTORS?	29
AVOIDABLE FACTOR GRADING	29
DELETE A PERINATAL DEATH	29
<u>MATERNAL DEATH</u>	<u>31</u>
ADD A MATERNAL DEATH	31
EDIT A MATERNAL DEATH	31
MATERNAL DEATH ENTRY FIELDS	31
MATERNAL DEATH CODES	33
OBSTETRIC CAUSE OF MATERNAL DEATH	33
FINAL CAUSE OF MATERNAL DEATH	33
DELETE A MATERNAL DEATH	33
<u>DATA ANALYSIS PRINCIPLES</u>	<u>34</u>
HOW TO GET TO THE DATA ANALYSIS FUNCTIONS	34
<u>DEFAULT DATA ANALYSIS SETTINGS</u>	<u>36</u>
DEFAULT DATES	36
DEFAULT DATA CALCULATION METHOD	36
<u>DATA ANALYSIS</u>	<u>37</u>
TOTAL DELIVERIES	37
DEFINE REPORT - TOTAL DELIVERIES	38
DELIVERIES PER MONTH	39
COMPARE UNITS	40
UNPROCESSED MONTHLY DATA	41
FETAL, PERINATAL & NEONATAL MORTALITY RATES	42
DEFINE REPORT - FETAL, PERINATAL & NEONATAL MORTALITY RATES	44
INFORMATION ON CALCULATION OF RATES & RATIOS	44
MONTHLY PERINATAL MORTALITY RATE	44
PRIMARY CAUSE OF PERINATAL DEATH	46
PRIMARY CAUSE OF PERINATAL DEATH – DATA FILTER	47
FINAL CAUSE OF NEONATAL DEATH	50
FINAL CAUSES OF NEONATAL DEATH – DATA FILTER	51
UNPROCESSED PERINATAL DEATH DATA	53

The Perinatal Problem Identification Program v2.0

LIST AVOIDABLE FACTORS	54
LIST AVOIDABLE FACTORS – DATA FILTER	56
MONTHLY AVOIDABLE MORTALITY RATE	58
MONTHLY AVOIDABLE PERCENTAGE	60
PRIMARY CAUSE OF MATERNAL DEATH	62
FINAL CAUSE OF MATERNAL DEATH	63
MATERNAL MORTALITY RATE & RATIOS	65
DEFINE REPORT - MATERNAL MORTALITY RATE & RATIOS	66
INFORMATION ON CALCULATION OF RATES & RATIOS	66
UNPROCESSED MATERNAL DEATH DATA	67
MODE OF DELIVERY	68
OTHER MISCELLANEOUS DATA	69
PREDEFINED MONTHLY REPORT	71
<u>DATA TRANSFER</u>	<u>72</u>
IMPORT PPIP V1 DATA	72
IMPORT V1 DATA - INCONSISTENT DATA	74
IMPORT DATA FILE	74
IMPORT DATA FILE - DUPLICATE ID	76
EXPORT DATA FILE	76
<u>BACKUP ALL DATA</u>	<u>78</u>
BACKUP GUIDELINES	78
<u>RESTORE ARCHIVED DATA</u>	<u>80</u>
<u>DATA VALIDITY CHECK</u>	<u>81</u>
<u>TOTAL BIRTHS UPDATE WIZARD</u>	<u>82</u>
<u>PRINT DATA SHEETS</u>	<u>84</u>
NUMBER OF COPIES	84
<u>PRINT CODE LISTS</u>	<u>85</u>
NUMBER OF COPIES	85
<u>PROGRAM SETTINGS</u>	<u>86</u>
DATA ENTRY	86
DATA ANALYSIS	86

DATA PRINTOUTS	89
MONTHLY REPORT	89
<u>PRINT PREVIEW</u>	<u>91</u>
<u>REGISTERING PPIP</u>	<u>92</u>
TELL US ABOUT YOURSELF	92
WHAT IF I DON'T WANT TO REGISTER?	92
HOW DO I REGISTER?	92
ARE THERE ANY RESTRICTIONS?	93
<u>LICENSING AGREEMENT</u>	<u>94</u>
<u>CONTACT DETAIL</u>	<u>97</u>
<u>IDENTIFYING PROGRAM FUNCTIONS</u>	<u>98</u>
MAIN MENU	98
DROP-DOWN LIST	98
CHECK BOX	99
BUTTON BAR	99
SPIN BOX	99
TAB	99
POP-UP CALENDAR	100
RADIO BUTTONS	100
<u>DEFINITIONS</u>	<u>101</u>
LIVE BIRTH	101
FETAL DEATH (DEADBORN FETUS)	101
BIRTH WEIGHT	101
LOW BIRTH WEIGHT	102
VERY LOW BIRTH WEIGHT	102
EXTREMELY LOW BIRTH WEIGHT	102
PERINATAL PERIOD	102
NEONATAL PERIOD	102
FETAL DEATH RATIO	103
FETAL DEATH RATE	103
EARLY NEONATAL MORTALITY RATE	103
PERINATAL MORTALITY RATE	103
NEONATAL MORTALITY RATE	104
MATERNAL DEATH	104
MATERNAL MORTALITY RATE	104
MATERNAL MORTALITY RATIO	105
PERINATAL CARE INDEX	105

3-MONTH MOVING AVERAGE	105
OBSTETRIC CAUSE OF PERINATAL DEATH	106
FINAL CAUSE OF NEONATAL DEATH	106
OBSTETRIC CAUSE OF MATERNAL DEATH	106
FINAL CAUSE OF MATERNAL DEATH	106

Introduction to PPIP v2



Perinatal Problem Identification Program - what's it all about?

The Perinatal Problem Identification Program (PPIP) is a tool to make your perinatal and maternal death audit easier. It does not do the audit for you, but it takes the tedious paperwork out of the process. The moment you enter the basic data, you can instantly do extensive data analysis, and even present your data in graphs and print reports - all with the press of a button.

Let there be no doubt: medical audit (and certainly perinatal and maternal death audit) is not a process that happens without dedicated individuals spending time and effort to make it happen. Furthermore, audit is a futile process if it doesn't 'close the loop' by changing the practice it is auditing. The purpose of audit is not the audit, or the figures, or the reports it generates, but the improvement of practice. If you do not intend to change the way you care for mothers and their babies, you can close this program and delete it from your computer - you will be wasting your time. If, on the other hand, you want the quality of your care to be weighed and measured because *you want to do better*, PPIP will provide you with an instrument to make sense of your data without spending hours going through data sheets.

Audit support provided by PPIP

Medical audit includes a number of actions. PPIP makes sense of this process by providing you with three 'levels' of data entry:

- **Doing the numbers**

PPIP allows you to collect numbers of deliveries, stillbirths, early and late neonatal deaths and maternal deaths. This allows the calculation of different rates (e.g. a perinatal mortality rate) and is used as denominator in various calculations. A selection of 'miscellaneous' data fields allows entry and analysis of specific detail, e.g. mode of delivery.

- **Identifying causes**

Each perinatal and maternal death is entered in more detail. PPIP allows entry of basic demographic data, after which a *primary obstetric cause of death* and a *final cause of death* must be identified. Obviously these causes can then be analyzed in detail.

- **Avoidable?**

Lastly, PPIP allows for the identification of specific *avoidable factors*. These are incidents related to the actions of the mother or health care personnel, or the health care system, which may have altered the outcome of the specific case had it been managed differently. Again, these avoidable factors can be included in data analysis.

Managing different levels of health care providers

In real life different health care providers work together on different levels to provide relevant care. PPIP refers to this structure as a *health care pyramid* because a broad base of basic health care providers will refer to, or be included in the responsibility of, a next level of care providers. Every higher level usually includes a progressively larger geographic area. PPIP mirrors this structure by allowing the user to create a *data pyramid* of different 'levels' of units.

When data is entered, it is assigned to a specific *unit* (care provider). Any data analysis for this particular unit will then include this birth/death. When you do any data analysis of a unit higher in the *data pyramid*, you can choose whether you want to include only this unit's data, or all the

units below it as well.

PPIP allows the creation of a *data pyramid* of up to ten levels.

Data analysis

The real strength of PPIP is the fact that it provides a variety of data analysis functions which can be fine tuned to look at exactly what you want to. A data analysis menu is provided, on which the main groups of data analysis options are provided. Different buttons then provide analysis screens with a default analysis. The user can include or exclude birth weight groups, dates, causes of death etc. to drill down to the required answer.

The user can also display and print unprocessed data, i.e. basically the complete data file without any manipulation of the data.

PPIP also allows most data to be exported to Microsoft Excel for any other data manipulation you may require.

Program administration

PPIP allows the following administrative functions:

- **Import version 1 data**

A wizard (step-by-step automated administrative process) makes it simple to make the necessary changes to the data collected with PPIP version 1 to make it compatible with this new version.

- **Export PPIP data**

A wizard transfers selected data to a unique transfer file which can then be imported to PPIP by another user.

- **Import PPIP v2 data**

The data previously exported to a transfer file can be imported, which includes it in the current data file.

- **Backup data**

A two-step process backs up all your data to a single compressed file in .zip format.

- **Restore data**

A previously backed-up file can be restored automatically.

- **Print data sheets**

Data collection sheets can be printed. (Monthly births data, perinatal death and maternal death.)

- **Print code lists**

Lists displaying the codes for causes of death and avoidable factors can be printed.



Upgrading from PPIP v1

PPIP v2 can use all your existing data created with the older version of PPIP, but it **has to be upgraded** (imported) into your new program. Follow these steps to accomplish this:

1. Make a backup of your existing PPIP v1 data. (This includes all the data files with the extension **.tps** found in the program folder *and* all sub folders created by PPIPv1. Keep these backups safe!
2. Open PPIP v2, if it is not already open.
3. Use the Import v1 data wizard to import **each** data set created with PPIP v1. As you import the data, the units in your original data pyramid will become available in the new program. It is a good idea to start importing from the top of your existing data pyramid (if you had more than one unit in PPIP v1) and then to work your way down. This will allow you to place lower level units in their correct place in your new data pyramid.

THAT'S IT!

Now, you may want to read about the most important changes to PPIP - enjoy!



What's new in PPIP v2?

PPIP v2 was designed along the same principles as its predecessor - but with some extra's. This page will mention items, with links to the detailed descriptions found in this Help file.

Things that stayed the same

- You still open one unit's data (called a data set) at a time.
- You still enter your data in three parts: Total births during a month, Perinatal deaths, and Maternal deaths.
- You still have a single menu system to get to all the data analysis functions.
- You can still select the dates for which you want to do your data analyses.
- PPIP still uses the same code lists (Version 2.01) - the version is displayed in the About window.
- You can still define preset data analysis dates before opening data analysis screens, to make it easier to look at the same data on all data analysis windows.
- A context sensitive Help file still explains all the functions. Click on the Help button, or press F1 on the keyboard, to display relevant help topics.
- PPIP is still supplied to you free of charge.

Things that changed

- You don't have to worry about where PPIP keeps its data. All data is now written to a single set of files, kept on the program folder. So, when you create a new data set, you do not have to supply a data folder.
- A number of data fields have been added to Total births, Perinatal deaths and Maternal deaths entries.
- Automated Backup and Restore functions have been added.
- PPIP now allows a more basic use, where no detailed Perinatal death detail is entered, but the number of stillbirths, perinatal deaths and neonatal deaths are entered with Total monthly data. This allows you to calculate certain mortality rates and ratios, **but does not allow you to use all the data analysis methods**. You can also use the death data entered with Total births to do data validity checks. See here for a description of data entry options.
- All data analysis functions offer more ways to define exactly which data is to be included in the analyses.
- In addition to perinatal and neonatal mortality rates, this analysis now includes early neonatal mortality rate, fetal death ratio and fetal death rate.
- Previously only the maternal mortality rate was presented, while this analysis now supplies you with the Maternal mortality ratio (using all births and using live births only) and the Maternal mortality rate.
- PPIP v2 introduces the use of **data filters**, with which you can include or exclude specific subgroups of data when creating lists of causes / factors. Data filters are used in Primary cause of perinatal death analysis, Final cause of neonatal death analysis, List avoidable factors analysis, Primary cause of maternal death analysis and Final cause of maternal death analysis.
- Whenever you are presented with data tables, you can now transfer these data tables to Microsoft Excel with a click of a button.
- All data printouts are displayed as a report preview before they are printed. You can then choose to print only part of the report.

- Monthly data, perinatal death data and maternal death data are also presented unprocessed, i.e. you can display a table containing the data file entries without any data manipulation.
- If a data set has other data sets below it in the data pyramid, you can now choose to include these lower levels when doing the data analyses, or to use only data from the selected data set in the data analysis.
- A preset monthly report can now be defined and printed.
- You now have to register your copy of PPIP with the author, and obtain a licence, to use the program.



Data sets

Some principles

PPIP refers to the place where data is collected as a *Data set*. In reality this can be a single practitioner, a midwife obstetric unit, a clinic, a hospital.... Data in different *data sets* can be combined during data analysis, but data entered in a specific *data set* cannot be separated.

Before any data can be entered in PPIP, you have to set up at least one *data set*. The same program can manage an infinite number of *data sets*, but only one *data set* can be open at any time.

If you want to set up a complete data pyramid, make sure that you have worked out the different levels, then set up the different *data sets* on your computer, starting from the top of the pyramid, and work your way down to the lower levels.

You can select a *data set* to be opened by default when you run PPIP.

Setting up a data set

To set up a new data set, select **File -> New data set...** from the Main program menu, or press Ctrl-N on the keyboard. The **New data set** window will open.

The following entry fields have to be completed:

- **Name**

Enter a name for the new data set. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed. The name must be unique - you will be prompted for a new name if a data set with the name already exists when you save the new data set.

- **Health district**

Identify the health district to which this data set belongs. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed.

- **Health region**

Identify the health region to which this data set belongs. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed.

- **Level of care**

Select a level of care from the drop-down list which best describes the new data set. The choices are:

- Rural
- Rural, periurban
- Periurban
- Periurban, urban
- Urban
- Rural, periurban, Urban

- **Data pyramid**

If this data set is to be positioned under a higher level in the data pyramid, check the **Assign to a**

higher level check box. If the check box is checked, the **Higher level unit** drop-down list will be enabled. This list displays all the data sets previously created. Select the unit under which you want to position the new data set.

Click on the **View data pyramid** button to view the current data pyramid.
Click on the **OK** button to save the new data set, or on the **Cancel** button to cancel without saving the new data set.

Edit data set detail

To change a data set previously set up, select **File -> Edit data set detail...** from the Main program menu, or press **Ctrl-E** on the keyboard. The **Select the data set you want to edit** window will open. This window displays a list of data sets.

Select (Left-click) on the data set you want to edit, then click on the **Edit** button. The **Edit existing data set** window opens, allowing you to make the necessary changes.

(You can also double-click on the data set to be edited.)

Click on the **Close** button to close the list of data sets.

Data set detail - entry fields

The following entry fields can be changed:

- **Name**

You can change the data set's name. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed. The name must be unique - you will be prompted for a new name if a data set with the same name (other than the one you are editing) already exists when you save the data set.

- **Health district**

Identify the health district to which this data set belongs. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed.

- **Health region**

Identify the health region to which this data set belongs. Any alphanumeric characters can be used. A maximum of 35 characters will be allowed.

- **Level of care**

Select a level of care from the drop-down list which best describes the new data set. The choices are:

- Rural
- Rural, periurban
- Periurban
- Periurban, urban
- Urban

- Rural, periurban, Urban

- **Data pyramid**

If this data set is to be positioned under a higher level in the data pyramid, check the **Assign to a higher level** check box. If the check box is checked, the **Higher level unit** drop-down list will be enabled. This list displays all the other data sets previously created. Select the unit under which you want to position the new data set.

Click on the **View data pyramid** button to view the current data pyramid. Click here for more information on setting up a data pyramid.

Click on the **OK** button to save the changes to the data set, or on the **Cancel** button to cancel without saving the changes you have made.

Delete data set

To delete a data set previously set up, select **File -> Delete data set** from the Main program menu. The **Select data set to delete** window will open. This window displays a list of data sets.

Deleting a data set removes the reference to the data set, and does not necessarily delete the data set's data. Before you delete a data set, decide whether you also want to delete the data previously entered for this particular data set. If you *also want to delete the data*, check the **Remove the data as well** check box. If you want to remove the reference to this data set, *but you want its data to remain on disk*, uncheck the **Remove the data as well** check box.

Select (Left-click) on the data set you want to delete, then click on the **Delete** button. A warning will be displayed to ensure you have selected the correct action.

Click on the **Close** button to close the list of data sets.

Open a data set

PIIP uses only one data set's data at a time. Therefore, before you can enter data or do any data analysis, you have to open a data set.

To open a data set, select **File -> Open data set...** from the Main program menu, click on the **Open data set** button on the button bar, or press **Ctrl-O** on the keyboard. The **Select data set** window will open.

If you have not selected a data set to open by default, this window will open automatically when you run PIIP.

To open a data set, select (Left-click on) the data set you want to open, then click on the **Open** button, or double-click the data set. The data set's files will be opened and the **Select data set** window will close. The name of the newly selected data set is displayed on the program frame.

If you will be using the same data set every time you open PPIP, you can bypass this step by selecting a data set to be opened by default. Select (Left-click on) the data set you want to open by default, then check the **Open this data set by default** check box. Now proceed to open the data set as described above. The next time you run PPIP, the selected data set will open without prompting you to select a data set.

You can create a new data set by clicking on the **New data set** button. This will open the New data set window to set up the new data set.

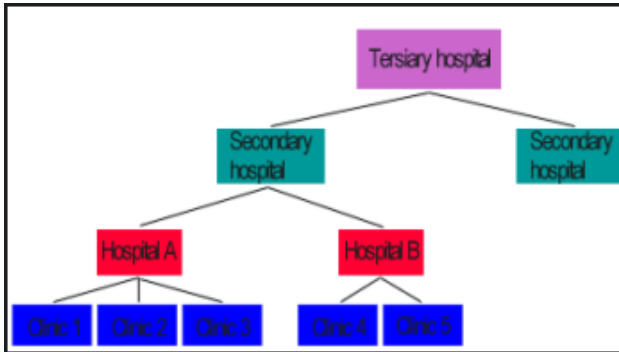
Click on the **Cancel** button to close the window without opening a new data set.



Data pyramid explained

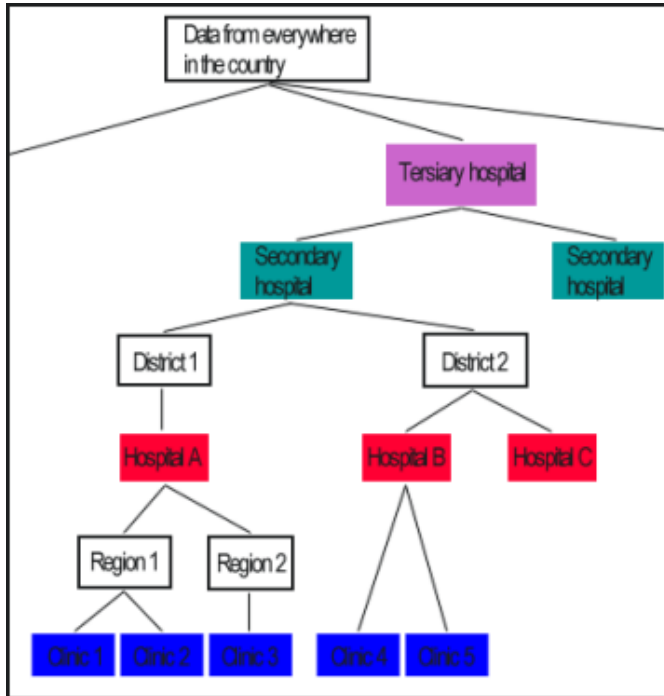
What happens in the real world?

Health care systems usually function on different levels. An individual patient may enter this system at any level, and may stay at that level or be transferred to a next level. This system could be presented as follows:



How does PPIP implement this system?

PPIP mirrors this tiered system to enable you to look at data on different levels. When data collected at different units are all imported to PPIP, in a logical *data pyramid*, you can analyze data for each unit separately and you can perform the same analysis for any level, automatically including all the data collected in the units below it in the *data pyramid*. Take note that the PPIP *data pyramid* will recreate the real-life levels, but may add levels to create a logic data analysis system. The real-life situation in the graphic above may therefore be changed to:



You are allowed to create up to ten levels in the *data pyramid*.

Viewing your data pyramid

To view your current data pyramid, select **File -> View data pyramid** from the Main program menu. The **Data pyramid** window will open.

While adding or editing a data set, this window can be opened by clicking on the **View current data pyramid** button.

This window displays your data pyramid as a hierarchical tree, which makes it easy to understand where a specific data set fits into the pyramid.

If you have changed the structure of the *data pyramid* while this window is open, you will have to close it and open it again to see the changes.



The three data types

PPIP allows you to collect three different data types, all of which are used in different data analyses. You can also use PPIP to collect only one or two of these data types, but this obviously implies that your data analysis will be more limited.

The three data types correspond to the group of three buttons on the button bar.

The data types you can collect are:

- **Monthly data**

This includes the number of births in various birth weight categories, as well as the number of stillbirths and neonatal deaths. It also includes some miscellaneous data fields, e.g. number of multiple births, delivery method and maternal syphilis serology. Data is entered for a period of one month.

- **Perinatal death**

More detailed data is entered about each perinatal death. This includes some demographic data, as well as causes of death and avoidable factors.

- **Maternal death**

Some data is entered about maternal deaths, including some demographic data, as well as causes of death.



Perinatal deaths entered with monthly data

Why enter perinatal deaths twice?

When you enter Monthly data on the **New monthly data** window, you not only enter the total number of births in each weight category, but you can also enter the number of stillbirths and neonatal deaths. Isn't this duplication of data, as you are going to enter detail about the perinatal deaths on the **New perinatal death** window anyway?

Well, yes and no.

The monthly perinatal death entry function was added to allow some users a more basic use of PPIP. If you never enter any detailed perinatal death data, but you enter the total perinatal deaths with the Monthly data, PPIP still allows the calculation of perinatal mortality rates, although the more detailed analyses are not possible.

This implies that there are three ways to implement total perinatal death entries with Monthly data:

Three ways to use PPIP

1 - Detailed perinatal death data entry and analysis, no data validity checks

- Only the first field ("Total births") in every weight category is completed with Monthly data, *do not* enter perinatal death totals here.
- Enter detailed data about perinatal deaths.

All data analyses will be possible, but you cannot use the total perinatal deaths to check whether detailed data has been entered for all deaths.

To define the program setup for data entry and analysis, select **Tools -> Program settings...** on the Main program menu to open the **Program setup** window, then...

Disable data entry checks	On the Data entry tab, uncheck the Check Perinatal Death Entries against Total Births check box and the Check Total Births entries against Perinatal Deaths check box. This means that PPIP does not use the perinatal deaths entered with Monthly data to check whether detail about all these deaths are entered.
Select appropriate data to be used in data analyses	On the Data analysis tab, select Use perinatal deaths for which detailed data was entered in the Perinatal death data to use for analysis radio button group. This will force PPIP to use the detailed perinatal death data when doing the data analysis.

2 - Detailed perinatal death data entry and analysis, AND data validity check

- "Total Births", "Stillborn", "Early neonatal deaths" and "Late neonatal deaths" are completed with Monthly data.
- Enter detailed data about perinatal deaths.

All data analyses will be possible, AND you will be able to use the data about perinatal deaths you entered here to check whether detailed data about all perinatal death was entered.

To define the program setup for data entry and analysis, select **Tools -> Program settings...** on the Main program menu to open the **Program setup** window, then...

Enable data entry checks	On the Data entry tab, you can check the Check Perinatal Death Entries against Total Births check box and the Check Total Births entries against Perinatal Deaths check box. This means that PPIP uses the perinatal deaths entered with Monthly data to check whether detail about all these deaths are entered, and it checks whether monthly data has been entered which includes a perinatal death just entered.
Select appropriate data to be used in data analyses	On the Data analysis tab, select Use perinatal deaths for which detailed data was entered in the Perinatal death data to use for analysis radio button group. This will force PPIP to use the detailed perinatal death data when doing the data analysis.

3 - Monthly perinatal death data entry ONLY, no data validity checks

- "Total Births", "Stillborn", "Early neonatal deaths" and "Late neonatal deaths" are completed with Monthly data.
- NO detailed data is entered about perinatal deaths.

Only very basic data analysis is possible - total deliveries and perinatal mortality rates, as well as miscellaneous data (delivery method, maternal age etc.) can be calculated, but NO causes of death or avoidable factors. This is a much more basic way of using PPIP.

To define the program setup for data entry and analysis, select **Tools -> Program settings...** on the Main program menu to open the **Program setup** window, then...

Disable data entry checks	On the Data entry tab, uncheck the Check Perinatal Death Entries against Total Births check box and the Check Total Births entries against Perinatal Deaths check box. This means that PPIP does not use the perinatal deaths entered with Monthly data to check whether detail about all these deaths are entered, as these are not entered.
Select appropriate data to be used in data analyses	On the Data analysis tab, select Use data entered with total deliveries in the Perinatal death data to use for analysis radio button group. This will force PPIP to use the basic perinatal death data when doing the data analyses that are still possible.



Entering monthly data

Add monthly data

To add new monthly data, select **Insert -> Monthly data** from the Main program menu, or click on the **Add monthly data** button on the button bar . The **New monthly data** window will open.

Enter all the relevant data fields, then click on the **ok** button to save the data. You can set up PPIP to automatically reset the **New monthly data** window for another entry. This is convenient if you have more than one month to enter data for. This function is defined in the **Program setup** window.

Click on the **Cancel** button to close the window without saving the data.

Edit monthly data

To change previously entered monthly data, select **Edit -> Monthly data** from the Main program menu . The **Select the month to edit / delete** window will open.

The **Select the month to edit / delete** window displays a list of all the monthly data previously entered for the currently selected data set.

Scroll down to the month you want to edit, left-click on it to select the month, then click on the **Edit** button. The **Edit monthly delivery data** window will be opened, displaying the data as previously entered.

(You can also double-click on the month to be opened for editing.)

Click on the **Close** button to close the list of months to edit.

Monthly data entry fields

The first data field you need to complete is the month during which this data was collected, known as the **data period**. Select the correct month from the drop-down list, and use the spin box to enter the year. By default the month prior to the current month will be entered for you.

The bigger part of the window is occupied by the data entry fields arranged on two tabs.

- **Deliveries tab**

All deliveries and deaths entered here will be subdivided into five groups depending on birth weight. The groups are:

- 500 - 999g

- 1000 - 1499g
- 1500 - 1999g
- 2000 - 2499g
- 2500g and more

Use the spin boxes to enter the number of deliveries, stillbirths, early neonatal deaths and late neonatal deaths. As you enter the fields, PPIP will display running totals of the different groups.

The perinatal deaths entered here can be used for data analysis, or for checking whether *detailed perinatal death data* has been entered completely. Perinatal deaths entered with monthly data will give you more insight into these options.

As the totals you enter here will be used to check the validity of your data on the next tab, it is recommended that you should complete the **Deliveries tab** before completing the entry fields on the **Miscellaneous tab**.

- **Miscellaneous tab**

The following fields have to be entered:

- Multiple births.

Enter the number of babies born from multiple pregnancies and the number of multiple pregnancies.

- Antenatal care

Enter the number of patients who received antenatal care at the local institution, those who received antenatal care elsewhere, and those who received no antenatal care. PPIP will calculate the number of patients where this data is unknown.

- Born before arrival

Enter the number of women who delivered before reaching the health care facility.

- Delivery methods

Enter the breakdown of the methods of delivery.

- Maternal syphilis serology

Enter the number of patients found to have positive and negative syphilis serology. PPIP will calculate the number of patients where this data is unknown.

- Maternal HIV serology

Enter the number of patients found to have positive and negative HIV serology. PPIP will calculate the number of patients where this data is unknown.

- Age

Enter the number of women who delivered during the month who were younger than 18 years, those who were 18 to 19 years old, and those who were 35 and older.

None of the fields are compulsory.

Click on the **OK button** to save the data, or click on the **Cancel button** to close the window without saving the data.

Delete monthly data

To permanently delete previously entered monthly data, select **Edit -> Monthly data** from the Main program menu. The **Select the month to edit / delete** window will open.

The **Select the month to edit / delete** window displays a list of all the monthly data previously entered for the currently selected data set.

Scroll down to the month you want to delete, left-click on it to select the month, then click on the **Delete** button. A message will be displayed to ensure that you really want to delete the data. Click on **Yes** to delete the data, or on **No** to cancel the action and return to the **Select the month to edit / delete** window.

This action will **permanently** remove all data entered in the current data set for this month from your computer. You cannot undo it!

Perinatal deaths



Add a perinatal death

To add detail about a perinatal death, select **Insert -> Perinatal death** from the Main program menu, or click on the **New perinatal death** button on the button bar . The **New perinatal death** window will open.

Enter all the relevant data fields, then click on the **OK button** to save the data. You can set up PPIP to automatically reset the **New perinatal death** window for another entry. This is convenient if you have more than one perinatal death to enter. This function is defined in the **Program setup** window.

Click on the **Cancel button** to close the window without saving the data.

Edit a perinatal death

To change detail about a previously entered perinatal death, select **Edit -> Perinatal death** from the Main program menu. The **Select the perinatal death to edit** window will open.

The **Select the perinatal death to edit** window displays a list of all the perinatal deaths previously entered for the currently selected data set. Two tabs provide two ways of ordering the data. The first orders the perinatal deaths by date of delivery, while the second orders the deaths according to the ID number allocated to the entries. On the second tab, entering the first character of the ID number on your computer's keyboard will scroll down to the first entry with an ID number starting with that particular character.

Scroll down to the entry you want to edit, left-click on it to select the perinatal death, then click on the **Edit** button. The **Edit perinatal death** window will be opened, displaying the data as previously entered.

(You can also double-click on the entry to open it for editing.)

Click on the **Close** button to close the list of perinatal deaths to edit.

Perinatal death entry fields

The data fields you need to complete are:

- **Identification**

This can consist of up to 15 alphanumeric characters and spaces.

The identification number allocated to each perinatal death must be unique. The hospital number is often used, but be sure about the confidentiality of your data if you do this.

- **Date of delivery**

Enter the date in the format dd/mm/yyyy (or dd/mm/yy which will be converted to the first format). You may also use the pop-up calendar to select the date. To open the calendar, click on the ... button.

- **Date of death**

Enter the date in the format dd/mm/yyyy (or dd/mm/yy which will be converted to the first format). You may also use the pop-up calendar to select the date. To open the calendar, click on the ... button.

If the baby was stillborn, enter the date of birth as its date of death, even if the actual date the baby died is known.

- **Birth mass**

Use the spin box to enter the birth weight in gram. The minimum birth weight that can be entered is 500g.

- **Place delivered**

From the drop-down list, select from the following options:

- Delivered at this unit
- Delivered at home
- Delivered in transit
- Delivered at another unit
- Place of delivery unknown

- **Maternal age**

Use the spin box to enter the mother's age. If her age is unknown, leave the entry field empty and check the **Unknown** check box.

- **Antenatal care status**

Indicate whether the mother received antenatal care. From the drop-down list, select from the following options:

- Yes
- No
- Unknown

- **Condition at birth**

Use the radio buttons to indicate the condition of this baby at birth. The possible selections are:

- The baby was born alive
- The baby was stillborn, but was alive on admission
- The baby was stillborn, not macerated, but was already dead on admission
- The baby was stillborn, not macerated, and the condition on admission is unknown
- The baby was stillborn and macerated at birth

- **Maternal syphilis serology**

Use the radio buttons to indicate the mother's syphilis serology. The possible selections are:

- Positive
- Negative
- The syphilis serology was not determined
- The syphilis serology was determined, but the result is not available

- **Single / multiple pregnancy**

Use the radio buttons to indicate whether this was a single or multiple pregnancy. The possible selections are:

- Single pregnancy
- Multiple pregnancy

- **Maternal HIV serology**

Use the radio buttons to indicate the mother's HIV serology. The possible selections are:

- Positive
- Negative
- The HIV serology was not determined
- The HIV serology was determined, but the result is not available

- **Primary obstetric cause of death**

The primary obstetric cause of perinatal death refers to the particular obstetric condition or pathology that initiated the chain of events eventually leading to the baby's death. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Enter the code for the cause you have identified, or select it from the list of codes by clicking on the ... button next to the entry field. The **Primary obstetric cause of Perinatal death** window will open, from which you can select the appropriate code.

If the code you enter refers to a non-specific cause of death (Description: Other), a new entry field will be displayed for you to enter the specific description. This description can be up to 30 characters in length.

- **Final cause of death**

The final cause of neonatal death refers to the eventual pathology that claims the baby's life. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Enter the code for the cause you have identified, or select it from the list of codes by clicking on the ... button next to the entry field. The **Final cause of Neonatal death** window will open, from which you can select the appropriate code.

If the code you enter refers to a non-specific cause of death (Description: Other), a new entry field will be displayed for you to enter the specific description. This description can be up to 30 characters in length.

If the baby was stillborn, code 0900 (Intrauterine death) must always be used.

- **Avoidable factors**

Avoidable factors refer to incidents related to the actions of the mother or health care personnel, or the health care system, which may have altered the outcome of the specific case had it been managed differently. PPIP is distributed with a list of avoidable factors, each with a code which identifies it. You are not allowed to make any changes to this list of codes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Enter the code for the avoidable factors you have identified, or select it from the list of codes by clicking on the ... button next to the entry field. The **Avoidable factors** window will open, from which you can select the appropriate code.

If the code you enter refers to a non-specific avoidable factor (Description: Other), a new entry field will be displayed for you to enter the specific description. This description can be up to 30 characters in length.

After entering the code, you have to indicate whether this factor **possibly** or **probably** could have avoided the death. See here for further information on avoidable factors.

As soon as an avoidable factor has been entered, one more entry field will become available, allowing a maximum number of five avoidable factors to be entered.

Enter all the relevant data fields, then click on the **OK** button to save the data, or click on the **Cancel** button to close the window without saving the data.

Perinatal death codes

Primary cause of perinatal death

The **Primary obstetric cause of Perinatal death** window displays a list of codes and the associated descriptions of primary causes of death. You can use the scroll bar or the **Up**, **Down**, **Page Up**, **Page Down**, **Home** and **End** keys to scroll up and down, until the correct cause is in view. Select the cause by left-clicking on it, then click on the **Select** button, or double-click on the cause. The code will be entered in the appropriate entry field, and the list of causes will close.

You can print a hard copy of the list of codes and descriptions. Select **Tools -> Print code lists -> Obstetric cause of perinatal death** from the Main program menu. See here for more information.

Final cause of neonatal death

The **Final cause of Neonatal death** window displays a list of codes and the associated descriptions of final causes of death. You can use the scroll bar or the **Up**, **Down**, **Page Up**, **Page Down**, **Home** and **End** keys to scroll up and down, until the correct cause is in view. Select the cause by left-clicking on it, then click on the **Select** button, or double-click on the cause. The code will be entered in the appropriate entry field, and the list of causes will close.

You can print a hard copy of the list of codes and descriptions. Select **Tools -> Print code lists -> Final cause of neonatal death** from the Main program menu. See here for more information.

Avoidable factor

The **Avoidable factors** window displays a list of codes and the associated descriptions of avoidable factors to be used with perinatal deaths. You can use the scroll bar or the **Up**, **Down**, **Page Up**, **Page Down**, **Home** and **End** keys to scroll up and down, until the correct cause is in view. Select the avoidable factor by left-clicking on it, then click on the **Select** button, or double-click on the entry. The code will be entered in the appropriate entry field, and the list of avoidable factors will close.

You can print a hard copy of the list of codes and descriptions. Select **Tools -> Print code lists -> Perinatal death avoidable factors** from the Main program menu. See here for more information.

What are avoidable factors?

PPIP aims to allow you to go one step further than identifying what killed babies. It takes you all the way through the process to the point where you also identify what the circumstances around the deaths were with a view to pinpointing where different circumstances may have lead to a different outcome. Avoidable factors are identified where "a death is judged to be due to an error or omission on the part of the health service or the patient".

When identifying an avoidable factor, therefore, we focus on the *patient*, the *administrative system* and the *medical personnel*. A lack of information (case notes) which makes identification of possible avoidable factors impossible makes up a fourth group.

Avoidable factor grading

If a specific avoidable factors was present, but the perinatal outcome may have been similar even if the particular problem did not exist, this factor is graded **Possible cause**, i.e. it may have caused or facilitated this perinatal death, but not necessarily. On the other hand, if the perinatal death would have been avoided if this particular problem had been avoided, this factor is graded **Probable cause** - i.e. it probably caused or facilitated the perinatal death.

An illustration of the difference in grading: A perinatal death is caused by proteinuric hypertension. An avoidable factor '*No response to history of stillbirth, abruption etc.*' is identified, graded **Possible cause** - even if the medical personnel did respond to the history, the perinatal death would not necessarily have been avoided. On the other hand, in the case of a perinatal death caused by congenital syphilis, an avoidable factor '*No syphilis screening performed at hospital / clinic*' is identified, graded **Probable cause**. This infant probably would have survived had it not been for the absent syphilis testing.

Delete a perinatal death

To permanently delete a previously entered perinatal death, select **Edit -> Perinatal death** from the Main program menu . The **Select the perinatal death to edit** window will open.

The **Select the perinatal death to edit** window displays a list of all the perinatal deaths previously entered for the currently selected data set. Two tabs provide two ways of ordering the data. The first orders the perinatal deaths by date of delivery, while the second orders the deaths according to the ID number allocated to the entries. On the second tab, entering the first character of the ID number on your computer's keyboard will scroll down to the first entry with an

ID number starting with that particular character.

Scroll down to the entry you want to edit, left-click on it to select the perinatal death, then click on the **Delete** button. A message will be displayed to ensure that you really want to delete the data. Click on **Yes** to delete the data, or on **No** to cancel the action and return to the **Select the perinatal death to edit** window.

This action will **permanently** remove data about the selected perinatal death from your computer. You cannot undo it!

Maternal death



Add a maternal death

To add detail about a maternal death, select **Insert -> Maternal death** from the Main program menu, or click on the **New maternal death** button on the button bar . The **New Maternal death** window will open.

Enter all the relevant data fields, then click on the **OK button** to save the data. You can set up PPIP to automatically reset the **New Maternal death** window for another entry. This is convenient if you have more than one maternal death to enter. This function is defined in the **Program setup** window.

Click on the **Cancel button** to close the window without saving the data.

Edit a maternal death

To change detail about a previously entered maternal death, select **Edit -> Maternal death** from the Main program menu . The **Select the maternal death to edit** window will open.

The **Select the maternal death to edit** window displays a list of all the maternal deaths previously entered for the currently selected data set. Two tabs provide two ways of ordering the data. The first orders the maternal deaths by ID number, while the second orders the deaths according to the date of death. On the first tab, entering the ID number on your computer's keyboard will scroll down to the first entry with a corresponding ID number.

Scroll down to the entry you want to edit, left-click on it to select the maternal death, then click on the **Edit** button. The **Edit maternal death** window will be opened, displaying the data as previously entered.

(You can also double-click on the entry to open it for editing.)

Click on the **Close** button to close the list of maternal deaths to edit.

Maternal death entry fields

The data fields you need to complete are:

- **Identification**

This can consist of up to 15 alphanumeric characters and spaces.

The identification number allocated to each maternal death must be unique. The hospital number is often used, but be sure about the confidentiality of your data if you do this.

- **Date of death**

Enter the date on which this patient died in the format dd/mm/yyyy (or dd/mm/yy which will be converted to the first format). You may also use the pop-up calendar to select the date. To open the calendar, click on the ... button.

- **Stage of pregnancy during which the death occurred**

From the drop-down list, select from the following options:

- During early pregnancy (<20w)
- In the antenatal period (i.e. later in pregnancy, but she was still pregnant and not in labour when she died.)
- Intrapartum
- Postpartum
- Unknown

- **Primary obstetric cause of death**

The primary obstetric cause of maternal death refers to the particular obstetric condition or pathology that initiated the chain of events eventually leading to the patient's death. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Enter the code for the cause you have identified, or select it from the list of codes by clicking on the ... button next to the entry field. The **Obstetric cause of Maternal death** window will open, from which you can select the appropriate code.

If the code you enter refers to a non-specific cause of death (Description: Other), a new entry field will be displayed for you to enter the specific description. This description can be up to 30 characters in length.

- **Final causes of death**

The final cause of maternal death refers to the eventual pathology that claims the patient's life. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Enter the code for the cause you have identified, or select it from the list of codes by clicking on the ... button next to the entry field. The **Final cause of maternal death** window will open, from which you can select the appropriate code.

If the code you enter refers to a non-specific cause of death (Description: Other), a new entry field will be displayed for you to enter the specific description. This description can be up to 30 characters in length.

As soon as a code has been entered, one more entry field will become available, allowing a maximum number of three contributory final causes of death to be entered.

Enter all the relevant data fields, then click on the **OK** button to save the data, or click on the **Cancel** button to close the window without saving the data.

Maternal death codes

Obstetric cause of maternal death

The **Obstetric cause of Maternal death** window displays a list of codes and the associated descriptions of primary causes of death. You can use the scroll bar or the **Up, Down, Page Up, Page Down, Home** and **End** keys to scroll up and down, until the correct cause is in view. Select the cause by left-clicking on it, then click on the **Select** button, or double-click on the cause. The code will be entered in the appropriate entry field, and the list of causes will close.

You can print a hard copy of the list of codes and descriptions. Select **Tools -> Print code lists -> Obstetric cause of maternal death** from the Main program menu. See here for more information.

Final cause of maternal death

The **Final cause of Maternal death** window displays a list of codes and the associated descriptions of final causes of death. You can use the scroll bar or the **Up, Down, Page Up, Page Down, Home** and **End** keys to scroll up and down, until the correct cause is in view. Select the cause by left-clicking on it, then click on the **Select** button, or double-click on the cause. The code will be entered in the appropriate entry field, and the list of causes will close.

You can print a hard copy of the list of codes and descriptions. Select **Tools -> Print code lists -> Final cause of maternal death** from the Main program menu. See here for more information.

Delete a maternal death

To permanently delete a previously entered maternal death, select **Edit -> Maternal death** from the Main program menu. The **Select the maternal death to edit** window will open.

The **Select the maternal death to edit** window displays a list of all the maternal deaths previously entered for the currently selected data set. Two tabs provide two ways of ordering the data. The first orders the maternal deaths by ID number, while the second orders the deaths according to the date of death. On the first tab, entering the ID number on your computer's keyboard will scroll down to the first entry with a corresponding ID number.

Scroll down to the entry you want to edit, left-click on it to select the maternal death, then click on the **Delete** button. A message will be displayed to ensure that you really want to delete the data. Click on **Yes** to delete the data, or on **No** to cancel the action and return to the **Select the maternal death to edit** window.

This action will **permanently** remove data about the selected maternal death from your computer. You cannot undo it!



Data analysis principles

PPIP presents you with a wide variety of preset data analysis functions. In addition to these, you can also export your data files and most data tables to Microsoft Excel for any other data manipulation or presentation you may need.

Each data analysis screen allows you, where relevant, to identify exactly which data you want to include in the analysis. To make this easier, you can also select two default settings before doing the analyses. These are:

- **Default data analysis dates**

When a data analysis window is opened, only births and deaths that occurred during the selected months will be included. You may change these dates, but setting up a default makes it easier to include only specific dates on all windows. If no default data analysis dates are set, all data will be included when a data analysis window opens.

- **Calculation method**

If the data set you are using has other data sets below it in the data pyramid, you may elect to analyse data from all levels as one, or to analyse only the current data set's data.

There are three ways to use the data entry and analysis functions in PPIP. Be sure to use the appropriate data analysis method - see here for a description of ways to set up and use PPIP to ensure correct data entry and an appropriate data analysis setup.

Various default data analysis settings can also be defined on the **Program setup** window's **Data analysis** tab.

All data analysis screens are opened from the Data analysis toolbar. All screens stay open until individually closed. You can also set up PPIP to close all data analysis screens when you close the Data analysis button bar.

How to get to the data analysis functions

All the data analysis functions are accessible from the **Data analysis toolbar**. To open the toolbar, select **Data analysis -> Display data analysis toolbar** from the Main program menu, or click on the **Data analysis** toggle button on the button bar. A check mark will appear next to the menu function, and the toggle button will remain depressed. To close the toolbar, again select **Data analysis -> Display data analysis toolbar** from the Main program menu, or click on the **Data analysis** toggle button on the button bar. The check mark next to the menu function will disappear, and the toggle button will return to its normal position.

The toolbar consists of a collection of buttons, grouped by function, which allows all the data analysis windows to be accessed. The toolbar can be positioned to the left (default) or right of the PPIP work area. To move it, left-click on the toolbar outside a button, hold and drag the toolbar to the opposite side. It will 'dock' against the border of the work area.

You are presented with a vertically arranged group of five toggle buttons. Clicking on any of these will open a further selection of buttons leading to the data analysis functions. Selecting a new toggle button will switch the function buttons to the new group. The buttons are grouped as follows:

Toggle button leading to function buttons:

Toggle button	Function
Total deliveries	Total deliveries
	Deliveries per month
	Compare units
	Unprocessed data
Perinatal deaths	Mortality rates
	Monthly mortality
	Primary causes
	Final causes
	Unprocessed data
Avoidable factors	List factors
	Avoidable mortality
	Percentage avoidable factors
Maternal deaths	Primary causes
	Final causes
	Mortality rate + ratios
	Unprocessed data
Miscellaneous	Mode of delivery
	Other

All data analysis functions open in individual windows and all stay open until closed by the user. Selecting a data analysis function that is already open will not open a second instance of the window, but will bring the original window to view.

You can set up PPIP to automatically close all data analysis windows when you close the data analysis toolbar. To enable this function, check the **Close data analysis windows with toolbar** check box on the **Data analysis** tab of the Program setup window.



Default data analysis settings

To set up default data analysis dates and calculation method, select **Data analysis -> Select default data analysis dates** from the Main program menu, or click on the **Default dates** button on the button bar. The **Default data analysis dates** window will open.

Default dates

Each time you open a data analysis window, you can choose to include all data collected or data between specific dates only. If you want to look at different data analyses and you want to include only certain dates, it is easier to select these dates as default before you do the analyses. The **Default data analysis dates** window allows you to set up these default dates.

Four entry fields are provided to enter the first and last month (inclusive) that you want to define as your default data analysis dates. To automatically calculate the first and last month for which data was entered, click on the **Include all dates** button. This is also useful if you want to include, say, the last six months: automatically select all dates, and change only the **First month to include** to six months earlier than the **Last month to include**.

Default data calculation method

If the data set you are using has other data sets below it in the data pyramid, you may elect to analyse data from all levels as one, or to analyse only the current data set's data.

To include only the currently selected data set's data when your data analysis windows open, select the **Own data only** radio button. To include all lower levels in the data analyses by default, select the **Cumulative data** radio button. If the current data set has no units below it in the data pyramid, (i.e. any data analysis will always include only data from this data set) these radio buttons will be disabled and **Own data only** will be selected as default.

You can also set a default data calculation method that will be stored by PPIP between sessions, and always used as your default. This is set on the **Program setup** window's **Data analysis** tab.

Click on the **Close** button to close the window.



Data analysis

Total deliveries

Getting to it

To open the **Total deliveries** data analysis window, open the **Data analysis toolbar**, then click on the **Total deliveries** toggle button, which will show the relevant data function buttons. The **Totals** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the analysis. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the analysis.

- **Data used**

Use the drop-down list to select the data to use to calculate the perinatal outcome. You can select **Total delivery data** (perinatal deaths entered with Monthly data) or **Detailed perinatal death data** (detailed Perinatal death entries).

If you choose to use perinatal deaths entered with Monthly data (**Total delivery data**), a total number of stillborn babies will be calculated, but no further breakdown (Alive on admission, Dead on admission, Admission status unknown and Macerated) is done, as the available data does not allow this.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

Data analysis

This window displays three groups of information:

- **Neonates delivered**

A table showing the total number of babies delivered in each of the five birth weight groups, also displayed as a percentage of the total number of deliveries in all weight groups.

Click on the **Transfer to MS Excel** button to transfer this data table to Microsoft Excel. A new Excel sheet named 'Total deliveries' will be created.

- **Selected birth weight categories**

To calculate the combined number of deliveries in certain weight groups, check the check boxes of the birth weight categories you want to include. A total number of deliveries and percentage of all deliveries will be displayed.

- **Perinatal outcome**

Again, you may select which birth weight categories you want to include in this analysis. Check the check boxes of the birth weight categories you want to include. The following will be calculated:

- Total number (and percentage of all births) of infants born alive.
- Total number (and percentage of all live born babies) of surviving infants.
- Total number (and percentage of all live born babies) of early neonatal deaths.
- Total number (and percentage of all live born babies) of late neonatal deaths.
- Total number (and percentage of all births) of stillborn infants.
- Total number (and percentage of all stillborn babies) of stillbirths where the baby was alive on admission.
- Total number (and percentage of all stillborn babies) of fresh stillbirths where the baby was dead on admission.
- Total number (and percentage of all stillborn babies) of fresh stillbirths where the baby's condition on admission is unknown.
- Total number (and percentage of all stillborn babies) of macerated stillbirths.

Print the data

To print the data analysis, click on the **Print** button. Depending on your program setup, you may be presented with the **Select printout format** window to select which of the three information groups described above you want to include in the printout, or, if you have set up a default printout format, the print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Define report - Total deliveries

When you print the data presented on the **Total deliveries** data analysis window, you can include one or more of the information groups this window presents. Before the data is printed, the **Select printout format** window prompts you to select the data to be printed.

By checking the relevant check boxes, you can print:

- **Neonates delivered**
- **Selected birth weights**
- **Perinatal outcome**

If you always want to include the same information group(s) in your printout without being prompted every time, check the **Use this as default, then don't ask me again** check box. To change this setup, you can open the **Program setup** window, go to the **Data printouts** tab, and change the defaults in the **Total births printout** group.

Click on the **Print** button to proceed with the printout. You will be presented with a preview of the

printout, and can then proceed to print the data.

Click on the **Cancel** button to cancel the process without printing the report.

Deliveries per month

Getting to it

To open the **Deliveries per month** data analysis window, open the **Data analysis toolbar**, then click on the **Total deliveries** toggle button, which will show the relevant data function buttons. The **Deliveries per month** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Data period**

Use the drop-down list to specify the number of months / years to include in the graph. If you have previously specified a default data period for time graphs in your program setup, this will be used when the window opens. If no default data period has been set, the last six months' data will be displayed in the graph.

You can display six months, one year, two years, five years or all data in the time graph.

- **Data used**

Because only Monthly data is used to create this graph, this will always be set to **Total delivery data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Scroll buttons**

The **First data** button will scroll the graph all the way back to the first month for which data was entered.

The **Back half screen** button will scroll back the graph half a screen, i.e. it will move the graph back in time 50% of the **Data period** currently being displayed.

The **Forward half screen** button will scroll the graph forward half a screen, i.e. it will move the graph forward in time 50% of the **Data period** currently being displayed.

The **Last data** button will scroll the graph all the way forward to the last month for which data was entered.

- **Include data**

When the window opens, births in all five birth weight groups are displayed in the graph. By checking or unchecking the birth weight check boxes, you can select which birth weight groups to display.

Data analysis

This window displays the number of births in the five birth weight categories reported per month. On the **Graph** tab the data is presented in a time graph containing cumulative bars, on which each birth weight category is represented by a different colour, with a legend below the graph identifying the birth weight groups. The **Data** tab displays the same information, but as a table containing the actual numbers of births.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Deliveries per month' will be created.

Print the data

To print the graph or data table, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Compare units

Getting to it

To open the **Compare units** data analysis window, open the **Data analysis toolbar**, then click on the **Total deliveries** toggle button, which will show the relevant data function buttons. The **Compare units** button will open the data analysis window.

If your data pyramid setup does not show any data sets below the currently selected data set, the **Compare units** button will be disabled.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the analysis. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the analysis.

- **Data used**

Use the drop-down list to select the data to use to calculate the number of perinatal deaths. You can select **Total delivery data** (perinatal deaths entered with Monthly data) or **Detailed perinatal death data** (detailed Perinatal death entries).

- **Calculation method**

Use the drop-down list to indicate whether you want only data from each data set to be included

in the numbers shown for that particular data set (**Own data only**), or whether the data of all data sets below it in the data pyramid should be included in its totals (**Cumulative data**).

- **Include data**

When the window opens, the table includes all births. By checking or unchecking the relevant check boxes, you can include or exclude stillbirths, early neonatal deaths, late neonatal deaths and survivors in the table.

Data analysis

This table displays the number of births at different levels of units (data sets) in the five birth weight categories, as well as the total number of deliveries. Perinatal deaths can be included or excluded.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Delivery comparison' will be created.

Print the data

To print the data table, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Unprocessed monthly data

Getting to it

To open the **Unprocessed total delivery data** data analysis window, open the **Data analysis toolbar**, then click on the **Total deliveries** toggle button, which will show the relevant data function buttons. The **Unprocessed data** button will open the data analysis window.

Screen controls

You can define the data to be included in this table by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because only Monthly data is used to create this table, this will always be set to **Total delivery data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Reverse sort order**

When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

Data analysis

This table displays the number of stillbirths, early neonatal deaths, late neonatal deaths, survivors and total births in the five birth weight categories, as well as totals in all categories, as entered with Monthly data. The data is presented as it appears in the data file - if you do not enter perinatal deaths with Monthly data, no deaths will be reflected here.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Total deliveries Raw data' will be created.

Print the data

To print the data table, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Fetal, Perinatal & neonatal mortality rates

Getting to it

To open the **Perinatal mortality rates** data analysis window, open the **Data analysis toolbar**, then click on the **Perinatal deaths** toggle button, which will show the relevant data function buttons. The **Mortality rates** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Use the drop-down list to select the data to use to calculate the perinatal outcome. You can select **Total delivery data** (perinatal deaths entered with Monthly data) or **Detailed perinatal death data** (detailed Perinatal death entries).

If you choose to use perinatal deaths entered with Monthly data (**Total delivery data**), the perinatal mortality rates for multiple pregnancies will not be calculated, as the available data does not allow this.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

Data analysis

This window displays its data on two tabs. The **Data** tab is displayed when the window opens, providing you with the following analyses:

- **Mortality rates and ratios**

The mortality rates & ratios are calculated for all birth weight groups, all birth weight groups more than 1,000g and for each of the five separate birth weight categories, as well as for multiple pregnancies (all birth weights). The following rates and ratios are calculated:

- Perinatal mortality rate
- Neonatal mortality rate
- Early neonatal mortality rate
- Fetal death ratio
- Fetal death rate

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Perinatal mortality rates' will be created.

Click on the **Information on calculation of rates and ratios** button to view information on how these rates and ratios are calculated.

- **Mortality rates & ratios: selected birth weight categories**

Check the relevant check boxes to calculate the mortality rates displayed above for a combination of birth weight categories. In this way you can calculate the rates for low birth weight babies, very low birth weight babies and extremely low birth weight babies.

- **Stillborn/Neonatal death ratio**

- **Perinatal Care Index**

The **Graphs** tab displays two bar graphs. To the left is a representation of perinatal mortality rates in the different birth weight categories, and to the right of neonatal mortality rates in the same categories.

Print the data

To print the graph or data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Define report - Fetal, Perinatal & neonatal mortality rates

Select the parts of the report you want to include in the printout.

If you always want to print the same part(s) of this report, select the parts of the report to be printed, then check the **Use this as default, then don't ask me again** check box. This default setup can be changed in the Program setup window.

Click on the **Print** button to preview the printout and print it.

Click on the **Cancel printing** button to close this window *without* printing the report.

Information on calculation of rates & ratios

The **Calculation of rates & ratios** screen shows you how the perinatal mortality rate, neonatal mortality rate, early neonatal mortality rate, fetal death ratio and fetal death rate are calculated. It also reminds you that, in version 1, PPIP included *all deaths* in the calculation of its perinatal mortality rate, not only the deaths in the perinatal period as defined in the actual perinatal mortality rate. (It therefore actually calculated a 'Perinatal related Mortality rate'.)

You can now choose to continue using all deaths (including late neonatal deaths), or you can exclude the late neonatal deaths and adhere strictly to the definition as provided above. To use the true perinatal mortality rate (excluding late neonatal deaths), select the **Include only deaths in perinatal period** radio button. To include all deaths (use a Perinatal 'related' mortality rate), select the **Include deaths in perinatal and late neonatal period** radio button.

This selection can also be made on the Program setup window - see here for more information.

Monthly perinatal mortality rate

Getting to it

To open the **Monthly perinatal mortality rate** data analysis window, open the **Data analysis toolbar**, then click on the **Perinatal deaths** toggle button, which will show the relevant data function buttons. The **Monthly mortality** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Data period**

Use the drop-down list to specify the number of months / years to include in the graph. If you have previously specified a default data period for time graphs in your program setup, this will be used when the window opens. If no default data period has been set, the last six months' data will be displayed in the graph.

You can display six months, one year, two years, five years or all data in the time graph.

- **Data used**

Use the drop-down list to select the data to use to calculate the perinatal outcome. You can select **Total delivery data** (perinatal deaths entered with Monthly data) or **Detailed perinatal death data** (detailed Perinatal death entries).

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Scroll buttons**

The **First data** button will scroll the graph all the way back to the first month for which data was entered.

The **Back half screen** button will scroll back the graph half a screen, i.e. it will move the graph back in time 50% of the **Data period** currently being displayed.

The **Forward half screen** button will scroll the graph forward half a screen, i.e. it will move the graph forward in time 50% of the **Data period** currently being displayed.

The **Last data** button will scroll the graph all the way forward to the last month for which data was entered.

- **Include data**

When the window opens, births in all five birth weight groups are included in the mortality rate displayed in the graph. By checking or unchecking the birth weight check boxes, you can select which birth weight groups to include in the calculation.

- **Display**

The graph consists of two parts. A bar graph (blue) represents the actual perinatal mortality rate for a given month, while a line graph (red) represents the three-month moving average of the actual values. Either of these or both can be displayed by checking or unchecking the **Actual PNMR** and **3-month moving average** check boxes.

Data analysis

This window displays its data on two tabs. The **Graph** tab is displayed when the window opens,

consisting of blue bars representing the actual perinatal mortality rate for a month, and a red line representing the three-month moving average of the values.

The **Data** tab displays the data presented in the graph. When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'PNMR over time' will be created.

Print the data

To print the graph or data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Primary cause of perinatal death

Getting to it

To open the **Primary obstetric cause of perinatal death** data analysis window, open the **Data analysis toolbar**, then click on the **Perinatal deaths** toggle button, which will show the relevant data function buttons. The **Primary causes** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Perinatal death data is used to create this data table, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Display**

By default the data table displays group headings as well as the individual sub-items under these headings. You can display either or both of these by checking or unchecking the **Headings** and **Items** check boxes.

If no deaths were recorded due to a specific cause, the particular item will not be displayed. If you want to include all the items with zero values, check the **Zero items** check box.

Data analysis

This window displays its data on two tabs. The **Data** tab is visible when the window opens, presenting you with a data table which summarizes the primary obstetric causes of perinatal death, ordered from the most to the least common. The total number of perinatal deaths is also calculated.

You can use the data filter to specify any subgroup of data you want to include in the analysis. See here for a detailed description of the data filter.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Primary causes Perinatal death' will be created.

The **Graph** tab presents the data as a pie graph. You can display either the groups of causes (headings) or the specific causes of death (items). Use the **Display** drop-down list to select either **Headings** or **Items**, then click on the **Update graph** button.

The pie can consist of up to ten 'slices', each representing a heading or item, and one additional 'slice' grouping all the remaining headings or items as 'Other'. Use the **Include top xx headings/items** spin box to indicate the number of slices you want to be displayed, then click on the **Update graph** button.

Print the data

To print the table or graph, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Primary cause of perinatal death – Data filter

By using a data filter, PPIP allows the analysis of subgroups of data when creating the list of the primary causes of perinatal death.

When the **Primary obstetric cause of perinatal death** window opens, all perinatal deaths within the specified dates are included in the list. To switch to the filter view, click on the **Set up filters** button. You will be presented with a list of possible data filters, all initially disabled, i.e. **Select all** is checked. Uncheck a specific filter's **Select all** check box to enable it and to proceed to identify the

subgroup to use in the data analysis.

Checking a filter item really tells PPIP to *look only at perinatal deaths where the following is true...* Or, seen in the opposite way, *unchecking* an item means all deaths where that particular fact is true will be *disregarded* when the list of causes of death is drawn up.

Example: If the birth weight group 500 - 999g is *unchecked* in the filter setup, all deaths where the birth weight was 500g to 999g will be ignored when PPIP goes through the data to create the data table.

The following filters are available:

- **Time of perinatal death**

You can include or exclude neonates who were:

- Early neonatal deaths
- Late neonatal deaths
- Macerated stillborn
- Stillborn, alive on admission
- Fresh stillborn, dead on admission
- Fresh stillborn, admission status unknown

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's condition at birth.

- **Birth weight**

You can specify the birth weight categories you want to include or exclude, or you can include specific birth weights by checking the **Specify** check box and entering a minimum and maximum birth weight to include.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's birth weight.

- **Place of birth**

You can include or exclude neonates who were born:

- At this unit
- At home
- In transit
- At another unit
- At an unknown place

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's place of birth.

- **Maternal syphilis serology**

You can include or exclude deaths where the maternal syphilis serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal syphilis serology.

- **Maternal HIV serology**

You can include or exclude deaths where the maternal HIV serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal HIV serology.

- **Maternal age**

You can include only deaths where the maternal age was between specific values. Check **Unknown** to include the perinatal deaths where the maternal age was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal age.

- **Antenatal care**

You can include or exclude perinatal deaths where the mother did, or did not receive antenatal care, or where this information was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the antenatal care.

- **Number of infants**

You can include only singleton or only multiple pregnancies.

Check **Include all** to disregard this item and therefore include both singleton and multiple pregnancies.

- **Final cause of death**

You can include only perinatal deaths where a specific final cause of neonatal death was identified. Use the drop-down list to select the final cause to use as filter.

If you select a specific final cause of death, only perinatal deaths where this cause was identified will be analyzed. If you select a heading, all the specific causes of death under the heading will be included.



Check **Include all** to disregard this item and therefore include all final causes of neonatal death.

- **Avoidable factor**

You can include only perinatal deaths where a specific avoidable factor was identified. Use the drop-down list to select the avoidable factor to use as filter, and to indicate which grades of avoidable factors must be included in the filter - Possible, Probable or both grades.

If you select a specific avoidable factor, only perinatal deaths where this factor was identified will be analyzed. If you select a heading, all the specific avoidable factors under the heading will be included.

Check **Include all** to disregard this item and therefore include all avoidable factors.

Once you have set up the filters you want to use, click on the **Apply filters** button to return to the data table. The filters you have set up will be indicated with a check , while the inactive filters are marked with a cross . The number of perinatal deaths which meet the filter criteria will also be displayed.

Final cause of neonatal death

Getting to it

To open the **Final cause of neonatal death** data analysis window, open the **Data analysis toolbar**, then click on the **Perinatal deaths** toggle button, which will show the relevant data function buttons. The **Final causes** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Perinatal death data is used to create this data table, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Display**

By default the data table displays group headings as well as the individual sub-items under these headings. You can display either or both of these by checking or unchecking the **Headings** and **Items** check boxes.

If no deaths were recorded due to a specific cause, the particular item will not be displayed. If you want to include all the items with zero values, check the **Zero items** check box.

Data analysis

This window displays its data on two tabs. The **Data** tab is visible when the window opens, presenting you with a data table which summarizes the final causes of neonatal death, ordered from the most to the least common. The total number of neonatal deaths is also calculated.

You can use the data filter to specify any subgroup of data you want to include in the analysis. See here for a detailed description of the data filter.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Final causes Neonatal death' will be created.

The **Graph** tab presents the data as a pie graph. You can display either the groups of causes (headings) or the specific causes of death (items). Use the **Display** drop-down list to select either

Headings or Items, then click on the **Update graph** button.

The pie can consist of up to ten 'slices', each representing a heading or item, and one additional 'slice' grouping all the remaining headings or items as 'Other'. Use the **Include top xx headings/items** spin box to indicate the number of slices you want to be displayed, then click on the **Update graph** button.

Print the data

To print the table or graph, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Final causes of neonatal death – Data filter

By using a data filter, PPIP allows the analysis of subgroups of data when creating the list of the final causes of neonatal death.

When the **Final cause of neonatal death** window opens, all neonatal deaths within the specified dates are included in the list. To switch to the filter view, click on the **Set up filters** button. You will be presented with a list of possible data filters, all initially disabled, i.e. **Select all** is checked. Uncheck a specific filter's **Select all** check box to enable it and to proceed to identify the subgroup to use in the data analysis.

Checking a filter item really tells PPIP to *look only at neonatal deaths where the following is true...* Or, seen in the opposite way, *unchecking* an item means all deaths where that particular fact it true will be *disregarded* when the list of causes of death is drawn up.

Example: If the birth weight group 500 - 999g is *unchecked* in the filter setup, all deaths where the birth weight was 500g to 999g will be ignored when PPIP goes through the data to create the data table.

The following filters are available:

- **Time of perinatal death**

You can include or exclude neonates who were:

- Early neonatal deaths
- Late neonatal deaths
- Macerated stillborn
- Stillborn, alive on admission
- Fresh stillborn, dead on admission
- Fresh stillborn, admission status unknown

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's condition at birth.

- **Birth weight**

You can specify the birth weight categories you want to include or exclude, or you can include specific birth weights by checking the **Specify** check box and entering a minimum and maximum birth weight to include.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's birth weight.

- **Place of birth**

You can include or exclude neonates who were born:

- At this unit
- At home
- In transit
- At another unit
- At an unknown place

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's place of birth.

- **Maternal syphilis serology**

You can include or exclude deaths where the maternal syphilis serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal syphilis serology.

- **Maternal HIV serology**

You can include or exclude deaths where the maternal HIV serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal HIV serology.

- **Maternal age**

You can include only deaths where the maternal age was between specific values. Check **Unknown** to include the neonatal deaths where the maternal age was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal age.

- **Antenatal care**

You can include or exclude neonatal deaths where the mother did, or did not receive antenatal care, or where this information was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the antenatal care.

- **Number of infants**

You can include only singleton or only multiple pregnancies.

Check **Include all** to disregard this item and therefore include both singleton and multiple pregnancies.

- **Primary cause of death**

You can include only neonatal deaths where a specific primary obstetric cause of perinatal death was identified. Use the drop-down list to select the primary cause to use as filter.

If you select a specific primary cause of death, only neonatal deaths where this cause was identified will be analyzed. If you select a heading, all the specific causes of death under the heading will be included.



Check **Include all** to disregard this item and therefore include all primary causes of perinatal death.

- **Avoidable factor**

You can include only neonatal deaths where a specific avoidable factor was identified. Use the drop-down list to select the avoidable factor to use as filter, and to indicate which grades of avoidable factors must be included in the filter - Possible, Probable or both grades.

If you select a specific avoidable factor, only neonatal deaths where this factor was identified will be analyzed. If you select a heading, all the specific avoidable factors under the heading will be included.

Check **Include all** to disregard this item and therefore include all avoidable factors.

Once you have set up the filters you want to use, click on the **Apply filters** button to return to the data table. The filters you have set up will be indicated with a check , while the inactive filters are marked with a cross . The number of neonatal deaths which meet the filter criteria will also be displayed.

Unprocessed perinatal death data

Getting to it

To open the **Unprocessed Perinatal Death data** data analysis window, open the **Data analysis toolbar**, then click on the **Perinatal deaths** toggle button, which will show the relevant data function buttons. The **Unprocessed data** button will open the data analysis window.

Screen controls

You can define the data to be included in this table by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Perinatal death data is used to create this data table, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data

pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Reverse sort order**

When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

Data analysis

This table displays the following data fields contained in the Perinatal Death data file:

- User ID
- Delivery date
- Date of death
- Place delivered
- Birth mass
- Maternal age
- Antenatal care
- Condition at delivery
- Maternal syphilis serology
- Maternal HIV serology
- Single or multiple pregnancy
- Obstetric and final causes of death (Codes)
- Avoidable factors

The data is presented as it appears in the data file - no data manipulation takes place.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Perinatal deaths Raw data' will be created.

Print the data

To print the data table, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

List avoidable factors

Getting to it

To open the **Avoidable factors associated with perinatal deaths** data analysis window, open the **Data analysis toolbar**, then click on the **Avoidable factors** toggle button, which will show the relevant data function buttons. The **List factors** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Perinatal death data is used to create this data table, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Percentage method**

For each item (avoidable factor) a *percentage of total* is calculated. Because up to five avoidable factors can be identified for each perinatal death, you can select either to calculate the *percentage of the total number of deaths* (use the **% of** drop-down list to select **Deaths**) or the *percentage of the total number of avoidable factors identified in all the deaths* (use the **% of** drop-down list to select **Codes**).

- **Display**

By default the data table displays group headings as well as the individual sub-items under these headings. You can display either or both of these by checking or unchecking the **Headings** and **Items** check boxes.

If no deaths were recorded due to a specific cause, the particular item will not be displayed. If you want to include all the items with zero values, check the **Zero items** check box.

Lastly, you can include one or more avoidable factor grades in the list. Use the drop-down list to select **Possible cause**, **Probable cause** or **All grades**. (A default can be set on the Program setup window.)

Data analysis

This window displays its data on two tabs. The **Data** tab is visible when the window opens, presenting you with a data table which summarizes the avoidable factors identified with perinatal death, ordered from the most to the least common. The total number of perinatal deaths is also calculated.

You can use the data filter to specify any subgroup of data you want to include in the analysis. See here for a detailed description of the data filter.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Avoidable factors' will be created.

The **Graph** tab presents the data as a pie graph. You can display either the groups of avoidable factors (headings) or the specific avoidable factors (items). Use the **Display** drop-down list to select either **Headings** or **Items**, then click on the **Update graph** button.

The pie can consist of up to ten 'slices', each representing a heading or item, and one additional 'slice' grouping all the remaining headings or items as 'Other'. Use the **Include top xx headings/items** spin box to indicate the number of slices you want to be displayed, then click on the **Update graph** button.

Print the data

To print the table or graph, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

List avoidable factors – Data filter

By using a data filter, PPIP allows the analysis of subgroups of data when creating the list of avoidable factors.

When the **Avoidable factors associated with perinatal deaths** window opens, avoidable factors identified in all perinatal deaths within the specified dates are included in the list. To switch to the filter view, click on the **Set up filters** button. You will be presented with a list of possible data filters, all initially disabled, i.e. **Select all** is checked. Uncheck a specific filter's **Select all** check box to enable it and to proceed to identify the subgroup to use in the data analysis.

Checking a filter item really tells PPIP to *look only at perinatal deaths where the following is true...* Or, seen in the opposite way, *unchecking* an item means all deaths where that particular fact is true will be *disregarded* when the list of avoidable factors is drawn up.

Example: If the birth weight group 500 - 999g is *unchecked* in the filter setup, all deaths where the birth weight was 500g to 999g will be ignored when PPIP goes through the data to create the data table.

The following filters are available:

- **Time of perinatal death**

You can include or exclude neonates who were:

- Early neonatal deaths
- Late neonatal deaths
- Macerated stillborn
- Stillborn, alive on admission
- Fresh stillborn, dead on admission
- Fresh stillborn, admission status unknown

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's condition at birth.

- **Birth weight**

You can specify the birth weight categories you want to include or exclude, or you can include specific birth weights by checking the **Specify** check box and entering a minimum and maximum birth weight to include.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's birth weight.

- **Place of birth**

You can include or exclude neonates who were born:

- At this unit
- At home
- In transit
- At another unit
- At an unknown place

Check **Include all** to disregard this item and therefore include all deaths irrespective of the baby's place of birth.

- **Maternal syphilis serology**

You can include or exclude deaths where the maternal syphilis serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal syphilis serology.

- **Maternal HIV serology**

You can include or exclude deaths where the maternal HIV serology was:

- Positive
- Negative
- Not done
- Done, but the result not available

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal HIV serology.

- **Maternal age**

You can include only deaths where the maternal age was between specific values. Check **Unknown** to include the perinatal deaths where the maternal age was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the maternal age.

- **Antenatal care**

You can include or exclude perinatal deaths where the mother did, or did not receive antenatal care, or where this information was unknown.

Check **Include all** to disregard this item and therefore include all deaths irrespective of the antenatal care.

- **Number of infants**

You can include only singleton or only multiple pregnancies.

Check **Include all** to disregard this item and therefore include both singleton and multiple pregnancies.

- **Primary cause of perinatal death**

You can include only neonatal deaths where a specific primary obstetric cause of perinatal death was identified. Use the drop-down list to select the primary cause to use as filter.

If you select a specific primary cause of death, only neonatal deaths where this cause was identified will be analyzed. If you select a heading, all the specific causes of death under the heading will be included.



Check **Include all** to disregard this item and therefore include all primary causes of perinatal death.

- **Final cause of neonatal death**

You can include only perinatal deaths where a specific final cause of neonatal death was identified. Use the drop-down list to select the final cause to use as filter.

If you select a specific final cause of death, only perinatal deaths where this cause was identified will be analyzed. If you select a heading, all the specific causes of death under the heading will be included.

Check **Include all** to disregard this item and therefore include all final causes of neonatal death.

Once you have set up the filters you want to use, click on the **Apply filters** button to return to the data table. The filters you have set up will be indicated with a check , while the inactive filters are marked with a cross . The number of perinatal deaths which meet the filter criteria will also be displayed.

Monthly avoidable mortality rate

Getting to it

To open the **Influence of avoidable factors on Mortality Rates** data analysis window, open the **Data analysis toolbar**, then click on the **Avoidable factors** toggle button, which will show the relevant data function buttons. The **Avoidable mortality** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Data period**

Use the drop-down list to specify the number of months / years to include in the graph. If you have previously specified a default data period for time graphs in your program setup, this will be used when the window opens. If no default data period has been set, the last six months' data will be displayed in the graph.

You can display six months, one year, two years, five years or all data in the time graph.

- **Data used**

Because detailed Perinatal death data is used to create this data graph, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Mortality rate**

Use the drop-down list to select the mortality rate to be calculated - either the Perinatal mortality rate or the Neonatal mortality rate can be used in the graph.

- **Display**

Use the drop-down list to select whether the actual mortality rates for each month or a 3-month moving average of the rates should be displayed in the graph.

- **Include grade**

Use the drop-down list to select whether PPIP should include avoidable factors graded 'Probable cause' only, or those graded 'Possible cause' only, or all avoidable factors, irrespective of the grading.

- **Scroll buttons**

The **First data** button will scroll the graph all the way back to the first month for which data was entered.

The **Back half screen** button will scroll back the graph half a screen, i.e. it will move the graph back in time 50% of the **Data period** currently being displayed.

The **Forward half screen** button will scroll the graph forward half a screen, i.e. it will move the graph forward in time 50% of the **Data period** currently being displayed.

The **Last data** button will scroll the graph all the way forward to the last month for which data was entered.

- **Include data**

When the window opens, births in all five birth weight groups are included in the mortality rate displayed in the graph. By checking or unchecking the birth weight check boxes, you can select which birth weight groups to include in the calculation.

Data analysis

This window displays its data on two tabs. The **Graph** tab is displayed when the window opens. The graph displays three values. A solid (filled) line graph (blue) represents the actual mortality rate for a given month, a green line represents the mortality rate where no avoidable factors were identified, while a red line graph represents the mortality rate where avoidable factors were identified.

The **Data** tab displays the data presented in the graph. When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Avoidable mortality rate' will be created.

Print the data

To print the graph or data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Monthly avoidable percentage

Getting to it

To open the **Avoidable factors as percentage of all deaths** data analysis window, open the **Data analysis toolbar**, then click on the **Avoidable factors** toggle button, which will show the relevant data function buttons. The **Percentage avoidable factors** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Data period**

Use the drop-down list to specify the number of months / years to include in the graph. If you have previously specified a default data period for time graphs in your program setup, this will be used when the window opens. If no default data period has been set, the last six months' data will be displayed in the graph.

You can display six months, one year, two years, five years or all data in the time graph.

- **Data used**

Because detailed Perinatal death data is used to create this data graph, this will always be set to **Detailed perinatal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Deaths**

Use the drop-down list to select the deaths to be included in this analysis - either **All perinatal deaths**, or **Neonatal deaths** can be used in the graph.

- **Number of avoidable factors**

Use the drop-down list to select the number of avoidable factors a death must have to be

included in the analysis - you can select deaths with **One or more**, **Two or more**, **Three or more**, **Four or more** or **Five** avoidable factors.

- **Include grade**

Use the drop-down list to select whether PPIP should include avoidable factors graded '**Probable cause**' only, or those graded '**Possible cause**' only, or all avoidable factors, irrespective of the grading.

- **Scroll buttons**

The **First data** button will scroll the graph all the way back to the first month for which data was entered.

The **Back half screen** button will scroll back the graph half a screen, i.e. it will move the graph back in time 50% of the **Data period** currently being displayed.

The **Forward half screen** button will scroll the graph forward half a screen, i.e. it will move the graph forward in time 50% of the **Data period** currently being displayed.

The **Last data** button will scroll the graph all the way forward to the last month for which data was entered.

- **Include data**

When the window opens, births in all five birth weight groups are included in the mortality rate displayed in the graph. By checking or unchecking the birth weight check boxes, you can select which birth weight groups to include in the calculation.

- **Display**

The graph consists of two parts. A bar graph (red) represents the actual percentage of deaths during a given month where the selected number and grade of avoidable factors were identified, while a line graph (blue) represents the three-month moving average of the actual values. Either of these or both can be displayed by checking or unchecking the **Actual percentage** and **3-month moving average** check boxes.

Data analysis

This window displays its data on two tabs. The **Graph** tab is displayed when the window opens, consisting of red bars representing the actual percentage of deaths during a given month where the selected number and grade of avoidable factors were identified, and a blue line representing the three-month moving average of the values.

The **Data** tab displays the data presented in the graph. When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Avoidable mortality rate' will be created.

Print the data

To print the graph or data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Primary cause of maternal death

Getting to it

To open the **Primary obstetric cause of maternal death** data analysis window, open the **Data analysis toolbar**, then click on the **Maternal deaths** toggle button, which will show the relevant data function buttons. The **Primary causes** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Maternal death data is used to create this data table, this will always be set to **Maternal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Display**

By default the data table displays group headings as well as the individual sub-items under these headings. You can display either or both of these by checking or unchecking the **Headings** and **Items** check boxes.

If no deaths were recorded due to a specific cause, the particular item will not be displayed. If you want to include all the items with zero values, check the **Zero items** check box.

Data analysis

This window displays its data on two tabs. The **Data** tab is visible when the window opens, presenting you with a data table which summarizes the primary obstetric causes of maternal death, ordered from the most to the least common. The total number of maternal deaths is also calculated.

When the window opens, all maternal deaths within the specified dates are included in the list. You can use the single data filter to specify a subgroup of data you want to include in the analysis. The data filter is initially disabled, i.e. **Include all** is checked. Uncheck the filter's **Include all** check box to enable it and then proceed to identify the subgroup to use in the data analysis.

Checking a filter item really tells PPIP to *look only at maternal deaths where the following is true...* Or, seen in the opposite way, *unchecking* an item means all deaths where that particular fact is true will be *disregarded* when the list of causes of death is drawn up.

The following filter is available:

- **Death occurred**

You can include or exclude women who died:

- During early pregnancy
- In the antenatal period
- Intrapartum
- Postpartum
- Unknown

As soon as you check or uncheck a filter element, the data analysis will be repeated and the list of causes updated.

The number of maternal deaths which meet the filter criteria are also displayed.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Primary causes Maternal death' will be created.

The **Graph** tab presents the data as a pie graph. You can display either the groups of causes (headings) or the specific causes of death (items). Use the **Display** drop-down list to select either **Headings** or **Items**, then click on the **Update graph** button.

The pie can consist of up to ten 'slices', each representing a heading or item, and one additional 'slice' grouping all the remaining headings or items as 'Other'. Use the **Include top xx headings/items** spin box to indicate the number of slices you want to be displayed, then click on the **Update graph** button.

Print the data

To print the table or graph, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Final cause of maternal death

Getting to it

To open the **Final cause of maternal death** data analysis window, open the **Data analysis toolbar**, then click on the **Maternal deaths** toggle button, which will show the relevant data function buttons. The **Final causes** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Maternal death data is used to create this data table, this will always be set to **Maternal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Display**

By default the data table displays group headings as well as the individual sub-items under these headings. You can display either or both of these by checking or unchecking the **Headings** and **Items** check boxes.

If no deaths were recorded due to a specific cause, the particular item will not be displayed. If you want to include all the items with zero values, check the **Zero items** check box.

Data analysis

This window displays its data on two tabs. The **Data** tab is visible when the window opens, presenting you with a data table which summarizes the final causes of maternal death, ordered from the most to the least common. The total number of maternal deaths is also calculated.

When the window opens, all maternal deaths within the specified dates are included in the list. You can use the single data filter to specify a subgroup of data you want to include in the analysis. The data filter is initially disabled, i.e. **Include all** is checked. Uncheck the filter's **Include all** check box to enable it and then proceed to identify the subgroup to use in the data analysis.

Checking a filter item really tells PPIP to *look only at maternal deaths where the following is true...* Or, seen in the opposite way, *unchecking* an item means all deaths where that particular fact it true will be *disregarded* when the list of causes of death is drawn up.

The following filter is available:

- **Death occurred**

You can include or exclude women who died:

- During early pregnancy
- In the antenatal period
- Intrapartum
- Postpartum
- Unknown

As soon as you check or uncheck a filter element, the data analysis will be repeated and the list of causes updated.

The number of maternal deaths which meet the filter criteria are also displayed.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Final causes Maternal death' will be created.

The **Graph** tab presents the data as a pie graph. You can display either the groups of causes (headings) or the specific causes of death (items). Use the **Display** drop-down list to select either **Headings** or **Items**, then click on the **Update graph** button.

The pie can consist of up to ten 'slices', each representing a heading or item, and one additional 'slice' grouping all the remaining headings or items as 'Other'. Use the **Include top xx headings/items** spin box to indicate the number of slices you want to be displayed, then click on the **Update graph** button.

Print the data

To print the table or graph, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Maternal mortality rate & ratios

Getting to it

To open the **Maternal death rates & ratios** data analysis window, open the **Data analysis toolbar**, then click on the **Maternal deaths** toggle button, which will show the relevant data function buttons. The **Mortality rate + ratios** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Maternal death data is used to create this data table, this will always be set to **Maternal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

Data analysis

This window displays the following analyses:

- Maternal mortality ratio using all births
- Maternal mortality ratio using live births only
- Maternal mortality rate (If the number of women of reproductive age is not known, this rate will not be calculated.)
- Total number of maternal deaths identified

Click on the **Information on calculation of rates and ratios** button to view information on how these rates and ratios are calculated and to edit your population's number of women of reproductive age.

Print the data

To print the data, click on the **Print** button. If you have not set up a default report, you will be able to select which rates or ratios to print, after which the print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Define report - Maternal mortality rate & ratios

Select the parts of the report you want to include in the printout.

If you always want to print the same part(s) of this report, select the part(s) of the report to be printed, then check the **Use this as default, then don't ask me again** check box. This default setup can be changed in the Program setup window.

Click on the **Print** button to preview the printout and print it.

Click on the **Cancel printing** button to close this window *without* printing the report.

Information on calculation of rates & ratios

The **Maternal mortality rates & ratios** screen shows you how the maternal mortality ratios and the maternal mortality rate are calculated. It also allows you to enter the number of women of reproductive age (15 - 49yrs) in your population, as this is used as denominator when calculating the maternal mortality rate.

This information can also be entered on the Program setup window - see here for more information.

Unprocessed maternal death data

Getting to it

To open the **Unprocessed Maternal Death data** data analysis window, open the **Data analysis toolbar**, then click on the **Maternal deaths** toggle button, which will show the relevant data function buttons. The **Unprocessed data** button will open the data analysis window.

Screen controls

You can define the data to be included in this table by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because detailed Maternal death data is used to create this data table, this will always be set to **Maternal death data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

- **Reverse sort order**

When the window opens, the data will be sorted according to date, starting at the oldest entries. This sort order can be reversed to show the most recent data at the top of the table. To reverse the sort order, click on the **Reverse sort order** button.

Data analysis

This table displays the following data fields contained in the Maternal Death data file:

- User ID
- Death date
- Part of pregnancy during which the death occurred
- Obstetric cause of death
- Three final (contributing) causes of death

The data is presented as it appears in the data file - no data manipulation takes place.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Maternal deaths Raw data' will be created.

Print the data

To print the data table, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **Close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Mode of delivery

Getting to it

To open the **Mode of delivery** data analysis window, open the **Data analysis toolbar**, then click on the **Miscellaneous** toggle button, which will show the relevant data function buttons. The **Mode of delivery** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because only Monthly data is used to create this table, this will always be set to **Total delivery data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

Data analysis

This window displays its data on two tabs. The **Data** tab is displayed when the window opens, displaying a breakdown of the following delivery methods:

- Normal vaginal delivery
- Ventouse delivery
- Forceps delivery
- Assisted delivery - Unknown (This category reflects data entered with PPIP version 1, which did not distinguish between ventouse and forceps deliveries)

- Vaginal breech delivery
- Caesarean section
- Unknown delivery method

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Delivery method' will be created.

The **Graphs** tab displays a pie graph representing the different methods of delivery.

Print the data

To print the graph or data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Other miscellaneous data

Getting to it

To open the **Other miscellaneous data** data analysis window, open the **Data analysis toolbar**, then click on the **Miscellaneous** toggle button, which will show the relevant data function buttons. The **Other** button will open the data analysis window.

Screen controls

You can define the data to be included in this analysis by setting the following:

- **Dates included**

Use the drop-down lists and spin boxes to enter the months to include in the table. If you have previously selected default data analysis dates, these dates will be included when this window opens. If no default dates have been set, all data will be included in the table.

- **Data used**

Because only Monthly data is used in this analysis, this will always be set to **Total delivery data** and the drop-down list will be disabled.

- **Calculation method**

Use the drop-down list to indicate whether you want data only from the currently selected data set to be included in the analysis (**Own data only**), or this data set **and** all those below it in the data pyramid (**Cumulative data**).

If your data pyramid setup does not show any data sets below the currently selected data set, this drop-down list will be disabled, and **Own data only** will always be selected.

Data analysis

This window displays its data on six tabs:

- **Multiple pregnancies**

This tab displays:

- Total number of multiple pregnancies, and percentage of all pregnancies.
- Total number of babies born from multiple pregnancies, and percentage of all infants born.

- **Antenatal care**

This tab displays:

- Number of women receiving antenatal care at a local clinic
- Number of women receiving antenatal care elsewhere
- Number of women receiving no antenatal care
- Unknown

- **Syphilis serology**

This tab displays:

- Number of women with positive syphilis serology
- Number of women with negative syphilis serology
- Number of women with unknown syphilis serology

These are the number reported with Monthly data.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Maternal syphilis serology' will be created.

- **HIV serology**

This tab displays:

- Number of women with positive HIV serology
- Number of women with negative HIV serology
- Number of women with unknown HIV serology

These are the number reported with Monthly data.

The data presented in the table can be transferred to Microsoft Excel by clicking on the **Transfer to MS Excel** button. A new Excel sheet named 'Maternal HIV serology' will be created.

- **Maternal age**

This tab displays:

- The number of women younger than 18 years of age delivered
- The number of women 18 to 19 years of age delivered
- The number of women older than 34 years of age delivered

- **Born before arrival**

This tab displays:

- The number of women delivered before arrival at the health care facility.

Print the data

To print the data, click on the **Print** button. The print preview will be displayed, ready to print the report.

Close

Click on the **close** button to close this window. Depending on your program setup, the window will also close when the **Data analysis toolbar** is closed.

Predefined monthly report

You can set up and print a summary of monthly data for easy reporting of basic data.

To define which fields you want to include in the report, select **Tools -> Program settings...** from the Main menu. Open the **Monthly report** Tab, and use the check boxes to select the data fields you want to include in the report. The following data fields can be selected:

- **Table containing total births**

This will include a summary of total deliveries, early neonatal deaths, late neonatal deaths and stillbirths in the report.

- **Number of multiple pregnancies**

This will include the number of multiple pregnancies and neonates born from multiple pregnancies.

- **Antenatal care summary**

Check this to include a summary of antenatal care data.

- **Born Before Arrival**

This will include the number of babies born before arrival to the health care institution.

- **Method of delivery summary**

Check this to include a table of delivery methods.

- **Syphilis serology summary**

Check this to include a summary of maternal syphilis serology.

- **HIV serology summary**

This will include a summary of maternal HIV serology.

- **Maternal age summary**

Check this to report on deliveries by teenagers and women older than 34 years of age.

You must also select the data to be used when reporting on perinatal and neonatal deaths. You can either **Use data entered with total deliveries**, OR **Use perinatal deaths for which detailed data was entered**. See here for a discussion of perinatal and neonatal death data entered with monthly data.

Once your default report has been defined, select **Data analysis -> Print Monthly Totals report** from the Main menu. You will be prompted to indicate which month you want to report on, after which the report preview will be displayed, ready to be printed.



Data transfer

Import PPIP v1 data

If you have been using the first Windows version of PPIP, you must *import* your original data to be able to use it in PPIP v2. To open the **PPIP v1 upgrade wizard**, select **File -> Import data -> Import version 1 data** from the Main menu. The wizard automates the process for you by allowing you to define exactly how the data import should proceed, and then writing the existing data to your new data file, changing it to the correct format and entering default where selected.

The following list describes all possible wizard steps. Because the wizard will only present you with the relevant steps, depending on your input, you may not see all these as you go through the process.

On all steps, click on the **Next** button to proceed to the next step, or click on the **Previous** button to go back to the previous step.

Once the wizard has asked all its questions, click on the **Import** button to start the process. Once you have done this, you cannot cancel the process, and you have to wait for it to complete before you will have control of the wizard again.

- **Welcome to the PPIP data upgrade wizard**

You are presented with some background information about the data upgrade (import) process.

- **Existing unit**

Select the data to be imported. As indicated on the screen, in PPIP v1 the file containing the name of the unit was named **Clinic.tps**. Use the **File lookup** button to navigate to the correct file.

- **Duplicate unit name**

You will see this step only if a data set with the same name as that of the data set you want to import, already exists in your data file. You can **Rename the unit about to be upgraded** OR **Select a different data file** to import.

- **Select files to convert**

The wizard will determine which data is available in the data set you have selected. These will be presented to you, to indicate which part(s) should be imported. Use the check boxes to indicate whether you want to import **Total births** (this will use the v1 file **Births.tps**), **Perinatal deaths** (this will use the v1 files **P_Deaths.tps** and **SelectAv.tps**) and **Maternal deaths** (this will use the v1 file **M_Deaths.tps**).

- **Unit detail (Clinic.tps)**

In the current version, you can describe the data set in more detail. Supply the detail here by entering the **Health district** and **Health region**, then select the **Level of care** from the drop-down list. You must also define this data set's position in your data pyramid. If you want to position the new data set below an existing unit, select it from the **Assign to higher unit** drop-down list.

- **Total births (Births.tps)**

A description of changes to the data file setup is provided. If you prefer to see every data entry (data for one month) and manually enter the changed data, check the **Show me every month's data - I'll update manually** check box.

If you are importing a large data file, manual update will take a *very long time*. Because you

cannot stop this process without putting your data file at risk, *be sure that you really want to go through every month* before you proceed.

If you choose *not* to do the file update manually, the next page will inform you about the changes the wizard will make to your file.

- **Perinatal deaths (P_Deaths.tps and SelectAv.tps)**

A description of changes to the data file setup is provided. If you prefer to see every data entry (data for one perinatal death) and manually enter the changed data, check the **Show me every month's data - I'll update manually** check box.

If you are importing a large data file, manual update will take a *very long time*. Because you cannot stop this process without putting your data file at risk, *be sure that you really want to go through every month* before you proceed.

If you choose *not* to do the file update manually, the next page will inform you about the changes the wizard will make to your file.

- **Maternal deaths (M_Deaths.tps)**

A description of changes to the data file setup is provided. If you prefer to see every data entry (data for one maternal death) and manually enter the changed data, check the **Show me every month's data - I'll update manually** check box.

If you are importing a large data file, manual update will take a *very long time*. Because you cannot stop this process without putting your data file at risk, *be sure that you really want to go through every month* before you proceed.

If you choose *not* to do the file update manually, the next page will inform you about the changes the wizard will make to your file.

- **Ready to convert**

A message is displayed before the final import process to give you a chance to change your settings.

- **Total births manual conversion**

The wizard will take you through all the monthly data, displaying data for one month at a time. All the fields not included in PPIP v1 are displayed. Enter the correct data, then click on the Done button. After the last month's data, the wizard will move on to the next page.

- **Total births conversion**

While the wizard automatically updates your data file, you will be informed about its progress.

- **Perinatal deaths manual conversion**

The wizard will take you through all the perinatal deaths, displaying data for one death at a time. All the fields not included in PPIP v1 are displayed. Enter the correct data, then click on the Done button. After the last perinatal death's data, the wizard will move on to the next page.

- **Perinatal deaths conversion**

While the wizard automatically updates your data file, you will be informed about its progress.

- **Maternal deaths manual conversion**

The wizard will take you through all the maternal deaths, displaying data for one death at a time. The field not included in PPIP v1 is displayed. Enter the correct data, then click on the Done button. After the last maternal death's data, the wizard will move on to the next page.

- **Maternal deaths conversion**

While the wizard automatically updates your data file, you will be informed about its progress.

- **Done!**

After the process has been completed, you can either close the wizard, or restart the wizard.

Import v1 data - inconsistent data

The **Inconsistent data** table displays the months during which more perinatal deaths were entered in a specific weight category than the number of deliveries recorded in the same weight category. It implies that for these months, the mortality rate was *more than 100%*!

Click on the **Print** button to print a copy of the table. This enables you to go through your data to correct it.

Click on the **Close** button to close the window

Import data file

If you receive an exported data file from another PPIP user, and you want to make this data part of your data file, you have to *import* it. To open the **PPIP data import wizard**, select **File -> Import data -> Import PPIP v2 data file** from the Main menu. The wizard automates the process for you by allowing you to define exactly how the data import should proceed, and then adding the new data to your existing data file.

The following list describes all possible wizard steps. Because the wizard will only present you with the relevant steps, depending on your input, you may not see all these pages as you go through the process.

On all steps, click on the **Next** button to proceed to the next step, or click on the **Previous** button to go back to the previous step.

Once the wizard has asked all its questions, click on the **Import** button to start the process. Once you have done this, you cannot cancel the process, and you have to wait for it to complete before you will have control of the wizard again.

- **Welcome to the PPIP data import wizard**

You are presented with some background information about the data import process.

- **Select data file**

You now have to select which *exported* data file you want the wizard to use. Click on the **Select folder** button and navigate to the folder containing the file. Make sure the name of the file is displayed in the **File name** entry box, then click on the **Open** button.

- **Select the unit to import**

A list of *exported* data sets is displayed. When you select a data set, a message will appear below the list, indicating whether the exported file also contains data for this unit. (If only the unit name was exported, with no accompanying data, you can still import the unit detail.) This will create an empty data file for this unit.

Although the original data pyramid structure of the *exported* data is maintained, you can only *import* one unit at a time. This protects the integrity of your data pyramid by preventing you from importing duplicate lower level units that may already exist somewhere in your data pyramid.

- **Select data to import**

Use the check boxes to indicate which part(s) of the data file you want to import. You can import Total births, Perinatal deaths and Maternal deaths, depending on whether these were originally included in the *exported* data file. You can also import all data, or only data for selected dates. If you want to enter specific dates, select the **Selected dates** radio buttons, then use the drop-down lists and spin boxes to define the dates.

- **Existing data management**

There are two situations where you may be warned about similar data on your system:

- A data set with the same name as the one you are importing already exists in your current data file. This will happen, for instance, if you have previously imported data from this unit, and you are now importing more recent data from the same unit. You will be given three options:

- Delete the existing data

Select this if you want to discard the existing data, and only want to have the new imported data for this unit. The imported data replaces your existing data.

All existing data in this data set will be deleted, NOT only the duplicates.

- Merge all data, prompt for new ID for duplicates

Select this to add the imported data to your existing data. Monthly data will be added to your existing data if data for the particular months already exist. Perinatal and maternal deaths will be added, but you will be prompted to supply new identification detail if any duplicate identification numbers are found.

You will now import EVERYTHING in the new data file, even if a perinatal or maternal death with the same ID already exists - you will have to supply new ID's for these deaths, but you cannot skip any of them.

- Merge all data, do not import duplicates

Select this to add only data that doesn't already exist in your data set. If monthly data is encountered for a month for which data already exists, the imported data will be ignored. Any perinatal and maternal deaths with ID's already used in your current data set will NOT be imported. New months and new deaths will be added to your current data.

- A data set with the same name as the one you are importing *previously* existed in your data file, but was subsequently deleted. When the data set was deleted, the user elected NOT to remove its data as well. Therefore, although the data still remained on disk, you cannot see it in PPIP, because you cannot open the data set any more. You now have the following options:

- Delete the existing data

Select this if you want to discard the existing data, and only want to have the new imported data for this unit. The imported data replaces your existing data.

All existing data will be deleted, NOT only the duplicates.

- Change the existing data's unit name

You will be allowed to enter a new name for the existing (orphaned) data. You will still not be able to see this data, though, unless you create a new data set with this name.

- Use the existing data for the imported unit

This will import the new unit, and the existing (orphaned) data will become part of its data. You will again be allowed to merge all data and supply new ID's for duplicate deaths, or merge all data but discard duplicates - see the description above.

- **Confirm settings**

A page is displayed with your selections, before the final import process, to give you a chance to change your settings. If you are importing a new unit, you can also now place it in your data pyramid under the relevant higher level unit, if necessary. Click on the **Import** button to start the process.

Once you have initiated the import process, you cannot cancel it, and you have to wait for it to complete before you will have control of the wizard again.

- **Importing...**

While the wizard imports your data, you will be informed about its progress.

- **Done!**

After the process has been completed, you can either close the wizard, or restart it.

Import data file - duplicate ID

The wizard has found an existing record with the ID being imported. The **New ID for duplicate entry** window allows you to supply a new ID for the imported perinatal or maternal death.

Enter a new ID, then click on the **OK** button.

Export data file

If you want the user of another copy of PPIP to open and use data generated by your copy of PPIP, you can select which data you want to send (*export*) to a separate data file, which can then be *imported* by the other user. To open the **PPIP data export wizard**, select **File -> Export data -> Export as PPIP data file** from the Main menu. The wizard automates the process for you by allowing you to define exactly how the data export should proceed, and then writing your existing data to a new data file.

The following list describes all possible wizard steps. Because the wizard will only present you with the relevant steps, depending on your input, you may not see all these pages as you go through the process.

On all steps, click on the **Next** button to proceed to the next step, or click on the **Previous** button to go back to the previous step.

Once the wizard has asked all its questions, click on the **Export** button to start the process. Once you have done this, you cannot cancel the process, and you have to wait for it to complete before you will have control of the wizard again.

- **Welcome to the PPIP data export wizard**

You are presented with some background information about the data export process.

- **Select the data to export**

A list of all your data sets is displayed. Click on the data to be included in the exported file.

- **Select export method**

If there are units below the selected data set in your data pyramid, you must indicate whether you want to include these lower levels in the exported data file. (If no lower levels exist, some options will be unavailable.) Choose one of the following:

- Export only data from the selected unit

The wizard will not include any data other than for the selected unit. No lower levels will be included.

- Include lower levels - keep different units' data separate

Data from *all* the levels below the selected data set will be included in the new data file, and the part of the data pyramid reflected in the selection will be carried over to the exported file. This means that the user *importing* the new file will see all the units separately, and can import one or more of them.

- Include lower levels - merge data under the selected unit's name

Data from *all* the levels below the selected data set will be included in the new data file, **but** the data originally entered for the lower level data sets will be included as if it originated at the selected unit. This means that the user *importing* the new file will see *only* the selected data set, and imports all the data under a single name.

- **Select data to export**

Use the check boxes to indicate which part(s) of the data file you want to export. You can export Total births, Perinatal deaths and Maternal deaths. You can also export all data, or only data for selected dates. If you want to enter specific dates, select the **Selected dates** radio buttons, then use the drop-down lists and spin boxes to define the dates.

- **Select folder for new data file**

You now have to name the file you want to create, and indicate where you want to save it. Click on the **Select folder** button and navigate to the folder to which you want to save the file. Enter the name of the new file in the **File name** entry box, using the extension .tps. (If you do not enter the extension, the wizard will supply it.)

You can name the new file anything other than the data files PPIP uses to save its data. It is a good idea to give it a descriptive name, e.g. the name of the unit being exported.

- **Confirm export setup**

A page is displayed with your selections, before the final export process to give you a chance to change your settings. Click on the **Export** button to start the process.

Once you have initiated the export process, you cannot cancel it, and you have to wait for it to complete before you will have control of the wizard again.

- **Exporting...**

While the wizard exports your data, you will be informed about its progress.

- **Done!**

After the process has been completed, you can either close the wizard, or restart it.



Backup all data

A very important part of any database is the user's effort to keep the data safe from disaster. Every computer hard drive will fail at some stage, so even if you have your computer safeguarded from theft, fire, rain, lightening, viruses, worms, hackers and other users, your data is still at risk if you don't make *regular* backups! So, do yourself a favour and design a backup routine according to these suggestions.

To open the **Backup** function, select **File -> Backup all data** from the Main menu. The backup requires an easy one-step process, but may save you lots of heartache.

Click on the **Browse** button to indicate the drive and folder to which you want to write the backup file, and to supply a name for the file. By default, PPIP will write the backup file to the program folder and will name it "PPyymmdd" where the last six digits represent today's date. So, a backup made on 1 February 2004 will be named "PP040201.zip". You can name the file anything you want, but make sure you use a descriptive name.

After you have named the file, click on the **Start** backup button. You will be informed about the files included in the backup.

Once the process is complete, click on the **Close** button to close the window.

The backup file is written in the standard compressed .zip archive format, and can be 'unzipped' or decompressed by any other archiving software, which will again yield the five files included in the backup.

In case of a data disaster, use the Restore function in PPIP to restore a previous archive.

Backup guidelines

Each user of a data system needs to design a backup strategy that suits his/her way of using the software. The frequency and levels of backup depend on the frequency of data updates. Yet, these basic guidelines may help you to decide on a backup system that will work for you.

The most important aspect of designing a systematic backup is **to keep to the schedule!**

- **Use descriptive file names**

The only way to know what your backup files contain is to restore them and then open the data files. To avoid doing this, make sure to name the files in a way that will allow you to identify the date and source (and possibly the level) of the backup.

- **Rotate your backup media**

Do not write every subsequent backup to the same disk - if this disk should fail, you will lose *all* your backups.

- **Create different archive levels**

Use two rotating sets of archives - one long term and one short term. This means that, depending on the frequency of your data entry, you may create a new backup every month, which is stored away, and also a backup every week which is rotated in a four-week cycle. So on any given day, you will have an archive of your data for the previous month *as well as* four sets of data entered since this archive. In case of a disaster, you will have to redo no more than one

week's data entries, or, if that archive fails, two weeks. Even if *four* weekly archives fail, you will always have data no older than one month. Get the picture?

- **Don't overwrite your last backup**

As stated above, you must always consider that a disk used for archiving may fail. You may also realize after making an archive or two that you have a damaged data file which was carried over to the archive - so make sure you use rotating backup sets.

- **Store your archives in a separate location**

The worst way of losing data is to diligently make backups, only to have them stolen with your computer. Need I say any more?

The most important aspect of designing a systematic backup is **to keep to the schedule!**



Restore archived data

It is hoped that you are reading this part of the Help file out of interest, and not because you have had a data disaster. But if you do need to restore a previous archive, aren't you glad you made backups!?

To open the **Data restore** function, select **File -> Restore previous backup** from the Main menu.

Click on the **Browse** button to select the archive (.zip) file containing your previously backed up data.

After you have selected the file, click on the Start restore button. You will be informed about the files as they are restored.

If you still have data files in your program folder, these will be **overwritten** when you do the restore! So be sure to back up or move your current files if you still want to keep them. PPIP will ask your permission before each file is overwritten.

Once the process is complete, click on the Close button to close the window.



Data validity check

If you chose to enter perinatal death numbers with your monthly data (discussed here) *as well as* detailed perinatal death data, PPIP allows you to use the numbers entered with monthly data to check whether detail about all deaths were entered.

To open the **Data validity check** window, select **Tools -> Data validity check** from the Main menu. When this window opens, PPIP will check all dates for which Monthly data was entered for the currently selected data set, and will display a table which summarizes any discrepancies.

The table displays the particular month, the number of stillbirths, early neonatal deaths and late neonatal deaths entered with the Monthly data, and the number of stillbirths, early neonatal deaths and late neonatal deaths for which detailed data were entered. It also indicates the birth weight categories in which these deaths occurred.

Only months where incorrect or incomplete data seem to have been entered will be included in the list.

You can also check selected months only. Select the **Selected dates only** radio button, then use the drop-down lists and spin boxes to enter the first and last month you want to evaluate. Now click on the **Update** button to update the table.

Click on the **Print** button to print a copy of the table being displayed. A Print preview will be displayed, ready to be printed.

Click on the **Close** button to close the window.



Total births update wizard

If you chose NOT to enter perinatal death numbers with your monthly data (discussed here) but you DID enter detailed perinatal death data, or you imported data without perinatal deaths number in the monthly data entries, PPIP allows you to use the detailed perinatal death data to update the Monthly data file. After this process you will have a Monthly data file which also reflects stillbirths and neonatal deaths.

To open the **Total births update wizard**, select **Tools -> Update Total Births file** from the Main menu. The wizard automates the process for you by allowing you to define exactly how the data update should proceed, and then updating the perinatal death data in your existing data file.

The following list describes all possible wizard steps. Because the wizard will only present you with the relevant steps, depending on your input, you may not see all these pages as you go through the process.

On all steps, click on the **Next** button to proceed to the next step, or click on the **Previous** button to go back to the previous step.

Once the wizard has asked all its questions, click on the **Update** button to start the process. Once you have done this, you cannot cancel the process, and you have to wait for it to complete before you will have control of the wizard again.

- **Welcome to the Total Births update wizard**

You are presented with some background information about the data update process.

- **Select dates to update**

You can also update all data, or only data for selected dates. If you want to enter specific dates, select the **Selected dates** radio buttons, then use the drop-down lists and spin boxes to define the dates.

- **Select update method**

This is the most difficult part of this process to understand. It is also the most important, because it will determine the way in which this wizard changes your data.

You have to select exactly what the wizard must look for, and how it should be corrected. You have three possible actions - you can choose one or more of these:

- **Update if MORE detailed Perinatal Death entries exist than deaths entered with Total Births**
If the wizard finds a month with a birth weight category where MORE detailed perinatal deaths were described than the number entered with the Monthly data, it will update the Monthly data to reflect the correct number of deaths. Stillbirths, early and late neonatal deaths are evaluated and updated separately.
- **Update if LESS detailed Perinatal Death entries exist than deaths entered with Total Births**
If the wizard finds a month with a birth weight category where LESS detailed perinatal deaths were described than the number entered with the Monthly data, it will update the Monthly data to reflect the correct number of deaths. Stillbirths, early and late neonatal deaths are evaluated and updated separately.
- **Correct birth weight category totals in Total Births to include all detailed Perinatal Death entries**
If the wizard finds a month with a birth weight category where the TOTAL number of births is LESS than the total number of deaths in that category for which detailed data has been entered, it will CHANGE the total number of births in the particular weight category to reflect all deaths.

Think very carefully before you use this function! You will actually be changing the total number of births entered previously, and may actually be entering incorrect data. Are you sure all perinatal deaths were entered correctly? Could it be that the date of birth entered for some births may be incorrect, not the total number of births entered for a month? ONLY if you have absolute confidence in the accuracy of your detailed perinatal death data, and are sure that the mistakes were made upon entering or calculating the number of births, should you enable this function.

- **Ready?**

A page is displayed to give you a chance to change your settings. Click on the **Update** button to start the process.

Once you have initiated the import process, you cannot cancel it, and you have to wait for it to complete before you will have control of the wizard again.

The changes to your existing data files are PERMANENT and cannot be undone!

- **Applying updates...**

While the wizard updates your data, you will be informed about its progress.

- **Done!**

After the process has been completed, click on the **Close** button to close the wizard.

Print data sheets



PPIP allows you to print pre designed data sheets on which the different data types can be collected before entry on the computer.

To print the Monthly data sheets, select **Tools -> Print data sheets -> Monthly data sheet** from the Main menu.

To print the Perinatal death sheets, select **Tools -> Print data sheets -> Perinatal death data sheet** from the Main menu.

To print the Maternal death sheets, select **Tools -> Print data sheets -> Maternal death data sheet** from the Main menu.

You will be prompted to enter the number of copies you want to print, after which the print preview will be displayed, ready to print the data sheets.

Number of copies

Enter the number of copies of the selected data sheet you want to print, then click on the **Print** button. You will be presented with a print preview before you actually print the list.

Click on the Cancel button to close the window *without* printing the data sheet.



Print code lists

PPIP allows you to print lists containing the codes used by the program.

To print the codes for the Obstetric causes of perinatal death, select **Tools -> Print code lists -> Obstetric cause of perinatal death** from the Main menu.

To print the codes for the Final causes of neonatal death, select **Tools -> Print code lists -> Final cause of neonatal death** from the Main menu.

To print the codes for the Avoidable factors, select **Tools -> Print code lists -> Perinatal death avoidable factors** from the Main menu.

To print the codes for the Obstetric cause of maternal death, select **Tools -> Print code lists -> Obstetric cause of maternal death** from the Main menu.

To print the codes for the Final causes of maternal death, select **Tools -> Print code lists -> Final cause of maternal death** from the Main menu.

You will be prompted to enter the number of copies you want to print, after which the print preview will be displayed, ready to print the data sheets.

Number of copies

Enter the number of copies of the selected code list you want to print, then click on the **Print** button. You will be presented with a print preview before you actually print the list.

Click on the **Cancel** button to close the window *without* printing the list.



Program settings

PPIP allows you to define certain default settings. These will depend on the way you use the program.

To open the **Program setup** window, select **Tools -> Program settings...** from the Main menu. The default settings are displayed on four tabs:

Data entry

The following defaults are available:

- **Data integrity check**

If you chose to enter perinatal death numbers with your monthly data (discussed here) AND to enter detailed perinatal death data, PPIP can use one data entry to check the validity of the other.

- If you enter Total births for a month *before* you enter detail about perinatal deaths for the particular month, you can check the **Check Perinatal Death entries against Total Births** check box. When you save a perinatal death, PPIP will now check whether it is reflected correctly in your monthly data. (E.g. if your Monthly data for January 2004 shows **one** stillbirth in the 500 - 999g category, you will receive a warning if you enter a **second** stillbirth in this weight category delivered during January 2004.)
- If you enter detail about perinatal deaths for a particular month *before* you enter Total births for the month, you can check the **Check Total Births entries against Perinatal Deaths** check box. When you save monthly data, PPIP will now check whether detailed entries for all the perinatal deaths exist. (E.g. if you have entered detailed data about **two** stillbirths in the 500 - 999g category, delivered during January 2004, you will receive a warning if your monthly data for January 2004 reflects only **one** stillbirth in this weight category.)

- **Continuous data entry**

If you usually enter data for more than one month or death at a time (batch entries), you can check the following check boxes to be presented with a new data entry screen as soon as you save the current record:

- Check the **Total monthly data** check box to do Monthly data batch entries.
- Check the **Perinatal deaths** check box to do Perinatal death batch entries.
- Check the **Maternal deaths** check box to do Maternal death batch entries.

Click in the Close button after the last entry has been saved.

Data analysis

The following defaults are available:

- **Perinatal death data to use for analysis**

If you chose to enter perinatal death numbers with your monthly data (discussed here) AND to

enter detailed perinatal death data, PPIP can use either of these numbers for some of the data analyses. You can select which data should be used by default by selecting one of the following radio buttons:

- If you prefer to use the number of deaths entered with your Monthly data, select the **Use data entered with total deliveries** radio button.
- If you prefer to use the number of deaths entered for which detailed data was entered, select the **Use perinatal deaths for which detailed data was entered** check box.

Although you set a default here, the data analysis windows where either data type can be used will allow you to select the other method as well.

This default will be ignored on data analysis windows where the particular data analysis can only be done if detailed perinatal death data was entered.

Set this default to use the type of data that will always be correct or more up to date in your institution.

- **Default data calculation method**

If you are using a data set with more levels below it in your data pyramid, you can set the default data to use for data analysis:

- Select the **Own data only** radio button to use only the currently selected data set's data, disregarding the lower levels.
- Select the **Cumulative data** radio button to use the currently selected data set's data **as well as** the data from all lower levels.

Although you set a default here, most data analysis windows will allow you to select the other method as well.

If your currently selected data set does not have lower levels below it in the data pyramid, this default will obviously be ignored, and all data analyses will be done for the selected data set only.

- **Default data period for time graphs**

A number of data analyses look at trends over time, and are also presented as graphs where time is displayed on the x-axis. You can include data for six months, one year, two years, five years or all data in these time graphs. Use the radio buttons to set a default time to include in these graphs when the data analysis windows open.

Although you set a default here, all data analysis screens will allow you to change the data period.

- **Maternal Mortality Rate denominator**

Maternal Mortality Rate is defined as Maternal deaths per 100,000 women of reproductive age (15 - 49yrs), i.e.

$$\frac{\text{Maternal deaths}}{\text{Women of reproductive age}} \times 100,000$$

Use this entry field to enter the number of women of reproductive age in your community, if known.

If no denominator is set, the maternal mortality rate is not calculated.

- **Perinatal mortality rate**

The Perinatal Mortality Rate is defined as the number of Fetal deaths and early neonatal deaths per 1000 births, i.e.

$$\frac{\text{Fetal deaths + Early neonatal deaths}}{\text{Total births}} \times 1,000$$

In version 1, PPIP included all deaths in the calculation of its perinatal mortality rate, not only the deaths in the perinatal period as defined here. It therefore actually calculated a 'Perinatal related Mortality rate'. You can now choose to exclude the late neonatal deaths and adhere strictly to the definition as provided above (select the **Include only deaths in perinatal period** radio button, or to continue using all deaths, including late neonatal deaths (select the **Include deaths in perinatal and late neonatal period** radio button).

- **Default number of items in pie graphs**

A number of data analyses look at lists of items, and are also presented as pie graphs to illustrate the relative frequency of specific items. You can include up to ten most frequent items in these pie graphs. Use the radio buttons to set a default number of items to include in these graphs when the data analysis windows open.

Although you set a default here, all data analysis windows will allow you to change the number of items included in the pie graphs.

- **Default grade of avoidable factors to list**

The **Avoidable factors associated with perinatal deaths** data analysis window displays a list of avoidable factors identified with perinatal deaths. The list can include one or both of the avoidable factors grades. Use the radio buttons to set a default grade of avoidable factors to include in this list when the data analysis window opens.

Although you set a default here, the data analysis window will allow you to change the grade(s) to include.

- **Default denominator: avoidable factors**

On the **Avoidable factors associated with perinatal deaths** data analysis window the avoidable factors can be displayed as a percentage of all codes (individual avoidable factors) identified with perinatal deaths, or as a percentage of perinatal deaths. (Up to five avoidable factors can be identified with each perinatal death.) Use the radio buttons to set a default denominator to use when the data analysis window opens.

Although you set a default here, the data analysis window will allow you to change the denominator.

- **Default denominator: maternal deaths**

On the **Final cause of maternal death** data analysis window the causes of death can be displayed as a percentage of all codes (individual final causes of death) identified with maternal deaths, or as a percentage of maternal deaths. (Up to three contributing final causes of death can be identified with each maternal death.) Use the radio buttons to set a default denominator to use

when the data analysis window opens.

Although you set a default here, the data analysis window will allow you to change the denominator.

- **Close data analysis screens**

All data analysis windows can be opened from the **Data analysis toolbar**. You may open all available data analysis windows and may close each window separately when you are done. Check the **Close data analysis windows with toolbar** check box to have all data analysis windows close automatically when you close the data analysis toolbar.

Data printouts

Three data analysis windows present you with different groups of data. When you print reports, you can include one or more of these groups of data in the printouts. Before the reports are created, you will be prompted to select the data to include. You can also make your selections permanent defaults, after which all subsequent reports will include only the selected data groups without giving you a choice.

This tab allows you to change these default data printout setups.

If you want to be presented with a choice when you print the reports, uncheck the relevant **Use this default setup** check box(es). You can then check or uncheck the parts of the data printouts you want to be included or excluded by default.

If you do **not** want to be presented with a choice when you print the reports, make sure the correct parts of the data printout you want included is checked, and then check the relevant **Use this default setup** check box(es).

Monthly report

This tab allows you to set up a summary of monthly data for easy reporting of basic data. This report can be printed.

To define which fields you want to include in the report, use the check boxes to select the data fields you want to include in the report. The following data fields can be selected:

- **Table containing total births**

This will include a summary of total deliveries, early neonatal deaths, late neonatal deaths and stillbirths in the report.

- **Number of multiple pregnancies**

This will include the number of multiple pregnancies and neonates born from multiple pregnancies.

- **Antenatal care summary**

Check this to include a summary of antenatal care data.

- **Born Before Arrival**

This will include the number of babies born before arrival to the health care institution.

- **Method of delivery summary**

Check this to include a table of delivery methods.

- **Syphilis serology summary**

Check this to include a summary of maternal syphilis serology.

- **HIV serology summary**

This will include a summary of maternal HIV serology.

- **Maternal age summary**

Check this to report on deliveries by teenagers and women older than 34 years of age.

You must also select the data to be used when reporting on perinatal and neonatal deaths. You can either **Use data entered with total deliveries**, Or **Use perinatal deaths for which detailed data was entered**. See here for a discussion of perinatal and neonatal death data entered with monthly data.

Print preview



Before any report is printed, you will be presented with a preview of the report, from which you can cancel the process, or print the report or only part thereof.

View controls

You can view different pages in more or less detail, i.e. 'zoomed' in or out. There are various ways to change this:

- Click on the **Zoom in on a page of the report** button. Select the appropriate view from the list of option displayed.
- Select the appropriate view from the **Zoom** drop-down list.
- Select **Zoom** on the Main menu, then select the view from the options displayed.
- Right-click on a page currently displayed, and select the view from the options displayed.
- Left-click on a page currently displayed to alternate between **Page width** and **Tile pages**. **Page width** displays a single page with the page width filling the screen, while **Tile pages** displays one or more pages as thumbnails. To arrange these thumbnails, use the Across and Down spin boxes to specify the number of pages to be displayed on the screen.
- Select **View -> Change display** from the Main menu. The **Change the Report Display** window allows you to arrange page thumbnails on the screen.

Print the report

To print all pages of the report, click on the **Print this report** button, or select **File -> Print** from the Main menu.

To print selected pages only, select **File -> Pages to print...** from the Main menu, enter the page number to be printed, and click on the **OK** button.

Cancel printing

To close the print preview without printing the report, click on the **Exit without printing the report** button.



Registering PPIP

Tell us about yourself

There are two important considerations in the distribution of PPIP. Firstly, it is important to make sure that every user is using the latest update of the program and its code lists. Secondly, we want to bring together different users of the program with a view to possibly comparing and/or combining data for wider analysis.

With this in mind, you will have to register your copy of PPIP with Simply Software. This is NOT an attempt to control the use of PPIP, and PPIP will continue to be distributed free of charge on the Internet. Furthermore, the limited personal information you supply when registering the software will NOT be distributed in any way without your explicit permission.

What if I don't want to register?

When you initially install PPIP v2 on your computer, you will be granted a demo licence for a period of six weeks. During this time you will have access to **all** the program functions. If you have not entered a registration code by the end of this period, you will still be able to enter data, but all data analysis functions will be disabled. Reinstallation of the software will not grant you a new demo licence.

How do I register?

You can apply for a user's licence via surface mail or on the Internet.

Select **Help -> Register this copy of PPIP** from the Main menu. The **Register PPIP** window will open. Select the **Apply for registration code** tab. You can:

- **Register by surface mail**

Click on the **Register by surface mail** button. This will allow you to print a pre designed licence application form. Send the completed form via post to Simply Software at the address indicated.

- **Register on the Web**

Click on the **Register on the Web** button. This will allow you connect to the correct page on the PPIP web site. Complete the application form on the web, which will be sent to Simply Software.

With both application methods you will have to indicate your preferred contact detail. Simply Software will contact you with registration licence detail. Once you have received this, open the **Register PPIP** window as described above, and select the **Enter registration detail** tab. Now enter the registration detail **exactly as it was supplied to you**. Click on the **Register** button to complete the registration process.

Are there any restrictions?

PPIP is licensed per user or institution, whichever is relevant. This means that it can be installed and used on more than one computer, and (if licensed to an institution) by more than one user without applying for more licenses.

Once the licence code for a copy of PPIP has been entered, it will never lapse.

If a user leaves his / her current institution and starts using a personally licensed copy of PPIP in a different institution, we would appreciate a note in that regard - see the first remarks on this page.



Licensing agreement

This is a copy of the complete licensing agreement you agreed to when you installed PPIP v2.

PERINATAL PROBLEM IDENTIFICATION PROGRAM V2 LICENCE AGREEMENT

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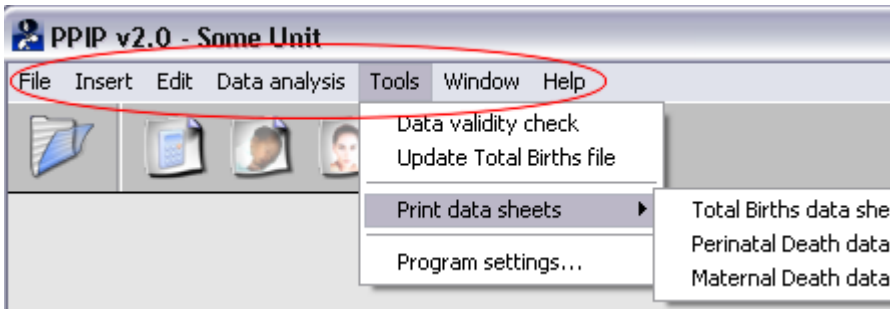
Email: matinfu@global.co.za



Identifying program functions

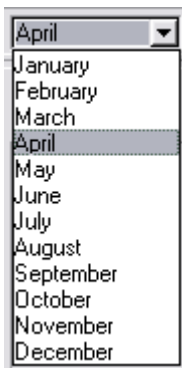
Main menu

The **Main program menu** provides access to some of the program functions. When you left-click on a menu item, a further level of functions will drop down. Point the mouse to the correct function and left-click. Some of the drop-down menus lead to further menu levels - this is indicated by a small arrow to the right.



Drop-down list

A drop-down list allows the user to select from a set list of choices. Left-click on the list to drop down a list of choices, then use the scroll bar to the right if necessary to scroll down the list until the correct choice is displayed. Use the mouse to place the pointer on the correct choice then left-click. The list will close and the selected item will be displayed.



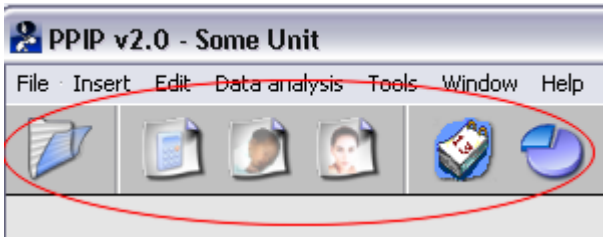
Check box

A check box allows the user to select or deselect an option - similar to an on-off switch. If the box is *checked* (selected, marked) it is 'switched on'. If the box is *unchecked* (not selected, unmarked) it is 'switched off'.



Button bar

The button bar provides you with buttons as shortcuts to the most common functions in PPIP. A *tool tip* will appear if you allow the mouse cursor to hover over a button, serving as a reminder of the button's function.



Spin box

The spin box allows two ways to enter numerical data:

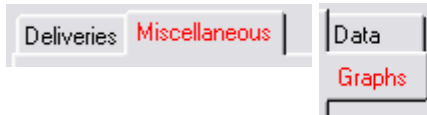
- With the current value selected, simply type in the new value.
- Click on the small arrows to the right of the entry field to increase or decrease the value.



Tab

Tabs are used extensively to display more on the screen by hiding some fields on different 'pages'. As would be the case in a filing cabinet, these 'pages' are identified by *tabs* - clicking on a specific *tab* will bring the particular 'page' into view. The text on the active *tab* will be displayed in red, while the text on all the other *tabs* is black.

Tabs can be positioned on top or to the right of the 'page' attached to it.



Pop-up calendar

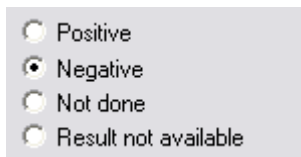
PPIP always provides a pop-up calendar when a date has to be entered. The ... button opens the calendar.



To select the appropriate month and year, use the scroll buttons to the right marked Month and Year to increase or decrease the month currently selected. Once the correct month is displayed, select the day by left-clicking on it. The date will be transferred to the window you were working on, and the calendar will close.

Radio buttons

When PPIP allows you to select from a specific set of options, and it wants to display all the options, it uses *radio buttons*.



The options from which you can choose are displayed with empty radio buttons to the left. When you left-click on an option to select it, the empty button is filled to indicate your choice. Selecting another option will de-select the initial option, so that only one option can be selected.

At times PPIP will already select the most commonly used options for you when a window is opened. You may obviously change this selection.

Definitions



Live birth

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Fetal death (Deadborn fetus)

Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Birth weight

The first weight of the fetus or newborn obtained after birth.

For live births, birth weight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500g grouping for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.

The definition of "low", "very low", and "extremely low" birth weight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap (i.e. "low" includes "very low" and "extremely low", while "very low" includes "extremely low").

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Low birth weight

Birth weight less than 2500g (up to and including 2499g).

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Very low birth weight

Birth weight less than 1500g (up to and including 1499g).

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Extremely low birth weight

Birth weight less than 1000g (up to and including 999g).

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Perinatal period

The perinatal period commences at 22 completed weeks (154 days) of gestation (the time when birth weight is normally 500g), and ends seven completed days after birth.

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Neonatal period

The neonatal period commences at birth and ends 28 completed days after birth. Neonatal deaths (deaths among live births during the first 28 completed days of life) may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before 28 completed days of life.

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Fetal death ratio

Fetal deaths per 1000 live births, i.e.

$$\frac{\text{Fetal deaths}}{\text{Live births}} \times 1000$$

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Fetal death rate

Fetal deaths per 1000 births, i.e.

$$\frac{\text{Fetal deaths}}{\text{Total births}} \times 1000$$

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Early neonatal mortality rate

Early neonatal deaths per 1000 live births, i.e.

$$\frac{\text{Early neonatal deaths}}{\text{Total live births}} \times 1000$$

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Perinatal mortality rate

Fetal deaths and early neonatal deaths per 1000 births, i.e.

$$\frac{\text{Fetal deaths} + \text{Early neonatal deaths}}{\text{Total births}} \times 1000$$

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

In version 1, PPIP included all deaths in the calculation of its perinatal mortality rate, not only the deaths in the perinatal period as defined here. It therefore actually calculated a 'Perinatal related Mortality rate'. You can now choose to continue using all deaths (including late neonatal deaths), or you can exclude the late neonatal deaths and adhere strictly to the definition as provided above.

See program setup for information on how to choose the deaths to include.

Neonatal mortality rate

Neonatal deaths per 1000 live births, i.e.

$$\frac{\text{Neonatal deaths}}{\text{Total live births}} \times 1000$$

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Maternal death

A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management, but not from accidental or incidental causes.

World Health Organization International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Maternal mortality rate

Maternal deaths per 100,000 women of reproductive age (15 - 49yrs), i.e.

$$\frac{\text{Maternal deaths}}{\text{Women of reproductive age}} \times 100,000$$

Maternal mortality ratio

The World Health Organization states:

"The denominator used for calculating maternal mortality should be specified as either the number of live births or the number of total births (live births plus fetal deaths). Where both denominators are available, a calculation should be published for each." International Statistical Classification of Diseases and Health Problems, Tenth Revision. 1992

Therefore, PPIP calculates two maternal mortality ratios using these denominators:

Maternal deaths per 100,000 births, i.e.

$$\frac{\text{Maternal deaths}}{\text{Total births}} \times 100,000$$

AND

Maternal deaths per 100,000 live births, i.e.

$$\frac{\text{Maternal deaths}}{\text{Total live births}} \times 100,000$$

Perinatal Care Index

This index reflects perinatal mortality rate seen against the low birth weigh rate, i.e.

$$\frac{\text{Perinatal mortality rate (Birth weight >999g)}}{\% \text{ Low birth weight infants delivered}}$$

3-month moving average

A moving average is often used in graphs to smooth out the graph line in order to make it easier

to see trends. PPIP uses a three-month moving average, which means a point on the graph is always the average of the actual value for the current month and the two preceding months.

Obstetric cause of perinatal death

The primary obstetric cause of perinatal death refers to the particular obstetric condition or pathology that initiated the chain of events eventually leading to the baby's death. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Final cause of neonatal death

The final cause of neonatal death refers to the eventual pathology that claims the baby's life. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Obstetric cause of maternal death

The primary obstetric cause of maternal death refers to the particular obstetric condition or pathology that initiated the chain of events eventually leading to the woman's death. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

Final cause of maternal death

The final or contributing cause of maternal death refers to the eventual pathology that claims the woman's life. PPIP is distributed with a list of causes, each with a code which identifies the cause. You are not allowed to make any changes to this list of causes - this would eventually lead to chaos, as slowly each unit would develop its own code list, making data analysis in a data pyramid impossible.

