

**2.4 EUROCAT Data Management Program (EDMP) Instructions**



**EUROCAT Data Management Program**

**EDMP**

**Version (6.06) 07/10/2013**

**For Guide 1.4**

**User Guide**

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## **1 Introduction**

The EUROCAT Data Management Program (EDMP) has been designed as a flexible tool to assist you in the collection, management, reporting and analysis of congenital anomaly data.

The major improvements in this new version of EDMP are the ability to output both prenatal diagnosis and perinatal mortality data into Excel format. The prenatal diagnosis output enables you to check figures by outcome, by gestation, by maternal age and by indication. The perinatal mortality output allows you to check fetal deaths and early neonatal deaths by subgroup and also provides an overall perinatal mortality + TOPFA rate. There are new variables: maternal body mass index (BMI), genetic test, prenatal diagnosis per individual anomaly, maternal pregestational diabetes, HbA1c value, first trimester medication, and a new folic acid variable. Occupation of mother has been updated to ISCO-08 coding and McKusick has been re-named OMIM. These variables are compatible with Guide 1.4 which is for births from 01/01/2013 onwards.

### Printing to pdf

You can print any of the EDMP reports to pdf file if you install a pdf print to file driver. A typical example is Adobe Acrobat (not Adobe reader). Dopdf is a good free pdf print to file driver available from [www.dopdf.com](http://www.dopdf.com). Once installed simply select your pdf print to file driver instead of your default printer when you print your report (use Ctrl and P or choose File then Print from the menu to bring up the print dialog box) and enter a file name to save the report as.

### Characters to be avoided in the EDMP database

Do not use the ENTER key to separate information in any text field. Instead, use a full stop to separate information. If you use the ENTER key the information takes up more than one row which causes problems when it comes to importing/exporting files to Central Registry. Do not use inverted commas ( " ") or semi-colons (;) in your data. These symbols cause fatal errors.

### Changes in EDMP to accommodate EUROCAT instruction guides

EUROCAT Guide 1.2 format must still be used for cases born up to the end of 2004. EUROCAT Guide 1.3 format is used for births between 2005 and 2012. Guide 1.4 is for births from 2013 onwards. EDMP will switch between Guide 1.2, 1.3 and 1.4 formats depending upon the year of birth.

If you want to continue to use, at local level, some variables which are no longer included in Guide 1.4 they are available to you as local variables in the 2005+ data entry screen. You can also add up to 32 extra local variables of your choice. These must be the same for all years (before and after 2005). EDMP will automatically select which variables to export to the Central Registry.

You should not have any problems continuing to use all variables of your choice after 2005. If you are unsure, contact EUROCAT Central Registry.

*Please take note of the backing up details given below in section 3.*

## **2 System requirements and program details**

The EDMP database has been written in Microsoft Access and will therefore only run on PCs that have either Access 2000, 2002, 2003, 2007 or 2010 installed. It is not possible to run the EDMP database using earlier versions of Access (e.g. Access versions 1, 2, 95 or 97). The program will automatically scale itself to fit any screen resolution from 800x600 up to 1280x1024. Please note that support for Access 97 has been withdrawn.

You must also have a full version of Excel installed on your PC.

The program is comprised of two database files, one to store the data (Edmpdata.mdb) and the other to provide the user interface (Edmp.mde). You can use the EDMP program on single or networked PC.

## **3 Backup**

You need to make regular backups of your data, ideally you should create a new backup at the end of each day that you have used the EDMP program. Remember to keep a recent backup at a different location to your PC in order to guard against fire or theft.

The data file you need to backup on a regular basis is Edmpdata.mdb. The option 'Data Location' available from the system menu will tell you where this file is on your PC or network. There are many methods and programs available to create your backups. Windows 95, 98, NT and XP provide backup utilities (Microsoft Backup) which can be used if you do not have access to any other third party backup utility. Microsoft Backup is not always installed on initial Windows set-up but can be installed using the add/remove programs option under the settings menu.

## **4 Getting started**

### **4.1 Installation**

There are separate installation instructions for users already using EDMP and for new users.

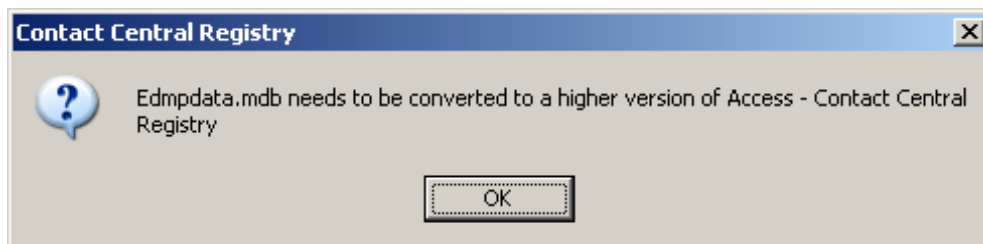
#### **4.1.1 Existing Users**

**Before upgrading please make a backup of your data file Edmpdata.mdb.**

All you need to do is replace your existing copy of Edmp.mde. You can download Edmp.mde in various formats from the EUROCAT website [www.eurocat-network.eu](http://www.eurocat-network.eu).

The first time you run the new version it will automatically apply any table updates to the data database file Edmpdata.mdb. If you are using a networked version of EDMP please ensure that no other EDMP programs are running at the same time.

If your existing Edmpdata.mdb data file is in Access 97 you will receive the following message:



If this happens you will need to send your data file Edmpdata.mdb to the Central Registry for conversion.

#### 4.1.2 New Users

The EDMP program (EDMP.mde) can be downloaded from the EUROCAT website [www.eurocat-network.eu](http://www.eurocat-network.eu). You will be sent a blank copy of the data file Edmpdata.mdb by Central Registry.

To install the EDMP program follow the instructions below.

- a) Create a new folder on your hard drive using windows explorer or My computer. In this example we are using the folder called Edmp (C:\Edmp).
- b) Copy the files Edmp.mde and Edmpdata.mdb to the newly created directory.
- c) Create a shortcut by right clicking on Edmp.mde in windows explorer or My computer and then selecting 'create shortcut'. Drag and drop the shortcut onto your desktop.

#### Network installation

If you wish to install the EDMP program on a network then all you need to do is to follow the next two steps.

- 1) Move Edmpdata.mdb into a shared directory on the server and set any permissions as necessary.
- 2) Copy Edmp.mde onto each PC that will be running the program. Do not run Edmp.mde from the shared server directory, as there are a number of runtime processes that are individual to each session and are not suitable for sharing.

Although the EDMP program is network enabled it is not a true client/server version and will not provide satisfactory response times when used with dial-up remote access.

#### 4.1.3 Access Security Settings

Access 2003 Security Settings

You may get a warning screen message regarding Macro Security when you run the program. To disable this message you need to close the program and then run Access without opening an existing database or creating a new one. Select the 'Tools' menu option then 'Macros' then 'Security' and choose the 'Low' setting.

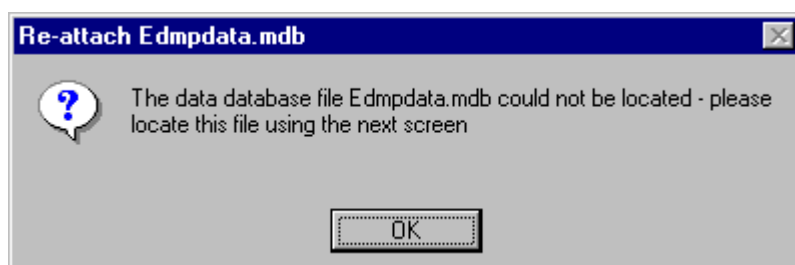
## Access 2007 Security Settings

You may get a warning screen message regarding Macro Security when you run program. To disable this message you need to close the program and then run Access without opening an existing database or creating a new one. Click on the Office button (round coloured button in the top left hand corner). At the bottom of the menu box click on the button labelled 'Access Options' then select 'Trust Center' then click on the 'Trust center settings' button. Now choose 'Macro settings' and select the 'Enable all macros' option.

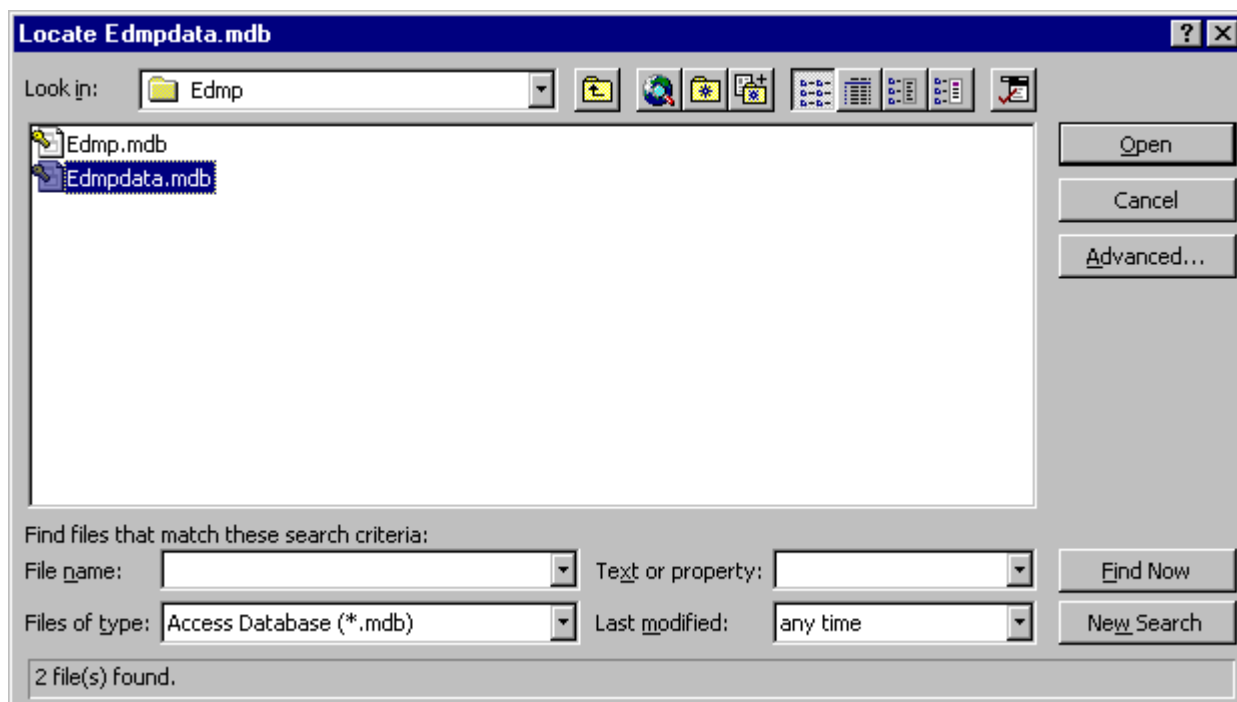
### 4.2 First time use

Logging into the EDMP program is normally a simple affair of typing in your username and password. However, the first time you run the program you may be prompted to locate Edmpdata.mdb (where the data is stored), specify your centre name and select the default printer.

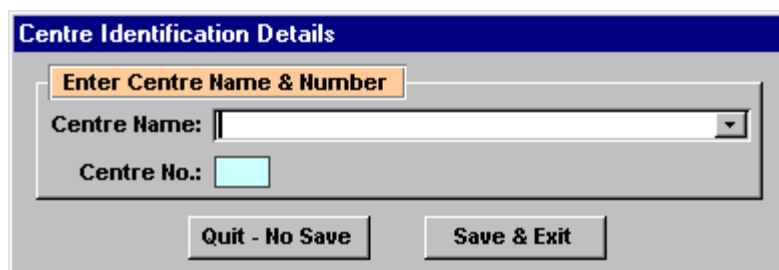
Each time you run the EDMP the first thing it does is to check to see that the program can locate the data file Edmpdata.mdb. If Edmpdata.mdb is not where it thinks it should be (i.e. after installation or if it has been moved to a different folder) then the following message will be displayed.



When you click on OK the following file selection screen will appear from which you select the folder and file (Edmpdata.mdb) in the usual Windows fashion and then click on the 'Open' button.

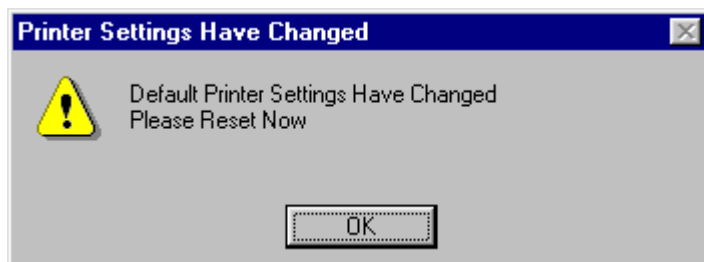


Once EDMP is happy that the data database has been located then you will need to select your centre from the list using the screen below.



Once you have selected your centre the login screen will be displayed. To login all you need to do is enter your username and password at the prompts provided. The program comes with the username 'm' and password 'm' already available. Please note that one of the first things that you should do is to add your own username and password and remove the installation defaults of 'm' and 'm' using the Users & Passwords facility under the System Menu (see below).

Normally the main menu is displayed after you have logged in successfully. However, sometimes (and usually after installation) the following message is displayed and this indicates that the default Windows printer has changed since the last time the program was run.



When this screen appears click on OK and then select the printer you require from the pull down list on the next screen. Once you have selected the required printer click on the exit button (button with door and arrow icon). All the printers, including network printers that are available to your PC will be displayed in the pull down list.



After you have logged in the main menu or navigation screen will be displayed.





## 5 Main menu

The main menu or navigation screen has been divided into logical sections. To access any of the functions simply click on the one you want. The cursor will change to a hand when it is positioned over an option that can be clicked on.

The new logical sections are:

- Manage Cases
- Analyse Data
- User Defined Categories
- Surveillance
- Import/Export Data
- Denominators
- System Menu

Access to each option will depend on individual permissions settings (see Manage Users under the System Menu.)

## 6 Manage Cases

### 6.1 Add / Edit Cases

In EDMP you use the 'Add / Edit Cases' menu option to both add new cases and also edit existing cases. You use the 'Find case to edit' screen, shown below, to either select an existing case to edit or to add a new case by clicking on the 'Add New Case' button. Please note the separate buttons for pre 2005, 2005-2012 and 2013+ year of birth. The 2013+ option includes the new guide 1.4 variables.

When assigning ID numbers, it can be useful to prefix the unique local identifier number with the year of birth as this avoids duplication of ID numbers from one year to the next. For example cases born in 2009 could have ID numbers in the format 2009001, 2009002

When you click on a row to edit a case, EDMP will check the year of birth for that case and will use the correct data entry format which makes allowance for the new guide 1.4 variables.

The find case form is very easy to use. All you have to do is to enter any required selection criteria and then click on the 'List' button. Matching cases will be displayed in the list box and to edit a case simply click on the required row. In the example below three cases match the selection criteria of Infant DoB = 20/06/96.

**Find Case To Edit**

**Enter Selection Criteria**

Local ID:   
Infant Date of Birth:   
Year of Birth:   
Place of Birth:   
Type of Birth:   
Duplicate Status:   
Data Validation Status:

Add New Case (pre 2005)  
Add New Case (2005-2012)  
Add New Case (2013+)

Unknown: ☐ Not Entered: ☐  
Not Entered: ☐  
Not Entered: ☐

List

Clear

Finish

**Select Case by Clicking on Row**

Local ID	Infant DoB	Year of Birth	Place of Birth	Type of birth	Duplicate status
1234-67	20/06/96	1996	34	Livebirth	Checked
9090-87	20/06/96	1996	Not Entered	Stillbirth	Checked
1369-01	20/06/96	1996	1	Termination of Pr	Checked

**Cases Found:** 3

The EDMP display option chosen on the main menu (under System Menu) dictates which data entry form will be displayed. There are three different styles of data entry form, examples of each are shown below. The simplest is for the 'Core Data Only' option where there is a single page of data entry fields. The 'Core and Non-Core Data: Standard Format' screen is similar but has a number of pages which the user tabs through or selects by clicking on the required tab.

You navigate through the 'pages' of data by clicking on the relevant tab i.e. 'Baby & Mother', 'Malformations' etc. This is also the same when editing or viewing a case. When viewing a case you cannot make changes to it, check for duplicates or do validation checking. Core data field backgrounds are highlighted in orange to make them easily identifiable. The page 'Local Variables' provides a number of fields that are for local use only and are not exported under the 'Export Data To EUROCAT' facility. It also includes five spare variables which you can rename to suit your own use.

Note in the example below the last page titled 'Extra Variables (1)'. There can be between none and two of these pages containing the extra variables (maximum of 32, 16 per page) as specified under the System Menu. As with the 'Local Variables' they are not included when exporting data to EUROCAT.

The final version of the data entry screen is for 'Core and Non-Core Data: User Defined Format' where the user has selected which variables (including any of the selected extra variables) to use and in which order to present them on screen

Core Data Only Screen (2013+)

Centre No.: 99	NumEuro: 0004	<b>Add Case (2013+)</b>		Duplicate status: <b>Not checked</b>
<b>Core Data Only</b>		Local ID No.:	DVS: Core data incomplete or invalid	
Date of Birth:	Year:	DOB / Year not known: <input type="checkbox"/>		
Sex:				
No. of babies delivered:			No. malformed (in multiple set):	
Type of birth:				
Civil registration status:	<b>View Anomaly Sub Group(s)</b>			
Birth weight (g):	Confirmed: <input type="checkbox"/>	Date of birth of mother:	Year:	Confirmed: <input type="checkbox"/>
Length of gestation (weeks):	Confirmed: <input type="checkbox"/>	Age of mother at delivery:		
Survival beyond one week of age:				
When discovered:				
Gestational age at discovery:				
First surgical procedure:				
Syndrome:				
Malformation 1:				
Malformation 2:				
Malformation 3:				
Malformation 4:				
Malformation 5:				
Malformation 6:				
Malformation 7:				
Malformation 8:				
<b>Quit - No Save</b>		<b>Save &amp; Exit</b>	<b>Duplicate Check</b>	<b>Validation</b>

Core and Non-Core Data: Standard Format Screen (2013+)

Centre No.: 99 NumEuro: 0004 Add Case (2013+) Duplicate status: Not checked  
DVS: Core data incomplete or invalid, non-core data valid or invalid

Baby & Mother Malformations Exposure Family History & Sociodemographic Local Vars(1) Local Vars(2) Extra Vars(1) Extra Drugs

Local ID No.: [text box]  
Date of Birth (dd/mm/yy): [text box] Year: [text box] DOB / Year Unknown: ☐  
Sex: [text box]  
No. of babies delivered: [text box]  
Specify twin type of birth, like or unlike sex, zygosity: [text box]  
No. of malformed (in multiple set): [text box]  
Type of birth: [text box]  
Civil registration status: [text box]  
Birth weight (g): [text box] Confirmed: ☐  
Length of gestation (weeks): [text box] Confirmed: ☐  
Survival beyond one week of age: [text box]  
Date of death (dd/mm/yy): [text box] Year: [text box]  
Date of birth of mother (dd/mm/yy): [text box] Year: [text box] Confirmed: ☐  
Age of mother at delivery: [text box]  
BMI (body mass index): [text box] Calculate BMI (& Codes)

Mother's residence code: [text box]  
Total no. of previous pregnancies: [text box]  
When discovered: [text box]  
Condition at discovery: [text box]  
Gestational age at discovery: [text box]  
First positive prenatal test: [text box]  
Specify 'other' prenatal test: [text box]  
Karyotype of infant / fetus: [text box]  
Specify karyotype: [text box]  
Genetic test: [text box]  
Specify genetic test: [text box]  
Post mortem examination: [text box]  
First surgical procedure: [text box]

Quit - No Save Save & Exit Duplicate Check Validation

Core and Non-Core Data: User Defined Format Screen (example)

Microsoft Access - [Case Details] Centre No.: 30 NumEuro: 0256 Add Case Duplicate status: Not checked  
DVS: Core data incomplete or invalid, non-core data valid or invalid

Local ID No.: [text box]  
Date of Birth (dd/mm/yy): [text box] Year: [text box] DOB / Year Unknown: ☐  
Sex: [text box]  
No. of babies delivered: [text box]  
Birth order (in multiple set): [text box]  
No. of malformed (in multiple set): [text box]  
Type of birth: [text box]  
Birth weight (g): [text box] Confirmed: ☐  
Length of gestation (weeks): [text box] Confirmed: ☐  
Date of birth of mother (dd/mm/yy): [text box] Year: [text box] Confirmed: ☐  
Age of mother at delivery: [text box]  
Syndrome: [text box]  
Malformation 1: [text box]  
Malformation 2: [text box]

Quit - No Save Save & Exit Duplicate Check Validation Sub Group(s)

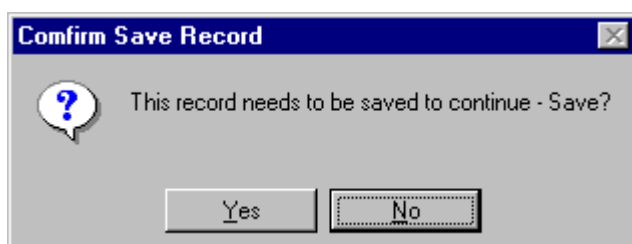
Local ID FLTR NUM

For the user defined data entry screen there are four ways to move between the pages. Firstly when you exit the last field of a page EDMP will automatically move you to the first field of the subsequent page (unless you use the mouse to click on a different part of the current page). Secondly there are 'up' and 'down' arrow buttons in the bottom right hand corner of each page which you can click on. Thirdly you can use the keyboard page up and page down keys and finally there is a vertical scroll bar on the right hand side of the screen.

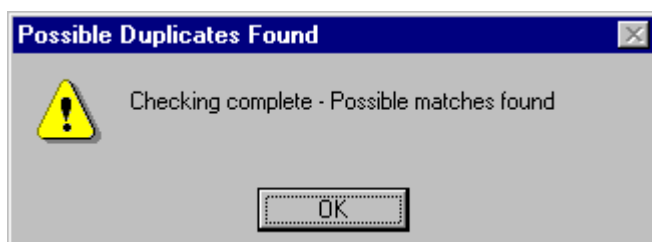
All the data entry screens offer the duplicate checking and validation buttons described below.

#### 6.1.1 Duplicate Checking

The 'Duplicate check' button when clicked checks for possible matches of other cases against the case you are currently adding or editing. You will be asked to save the record first as shown here:



Clicking the 'Yes' Button then allows the checking to take place. Once checking is completed if any matches are found a screen will pop up informing you that possible matches were found.



When you click the 'OK' button a screen will be displayed showing the possible matches against the current case.

Duplicates

Duplicate Case Check

Current Case Details

Local ID: 10028

Sex: Female

Num euro: 0028

Birth Weight: 2977

Date of Birth: 14/02/01

Maternal Age: 23

Possible Case Matches: 1

Local ID	Num euro	Date of Birth	Sex	Birth weight	Age of mother at delivery
10295	0295	14/02/01	Female	1941	23

Not A Duplicate

Duplicate Entry

The screen above shows the current case at the top and then lists out the possible matches in the box below. As you can see from the above example there is one possible match against the case, but if it is not a match you would click the 'Not a duplicate' button. You would then be asked the following:

Confirm Checked For Duplicates

?

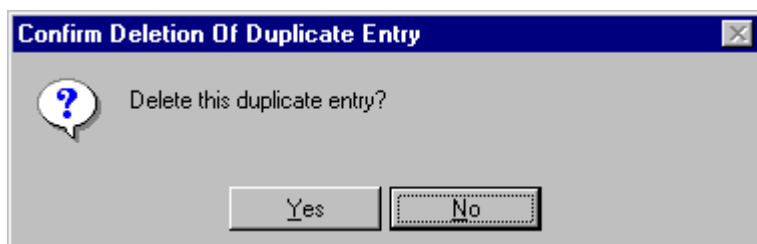
Mark case as checked for duplicates - Sure?

Yes

No

Hitting the 'Yes' button would mark the case as being checked for duplicates (no matches found).

If you had clicked on the 'Duplicate Entry' Button then you would have been asked the following:



By hitting the 'Yes' button you would be confirming the deletion of the duplicate record.

#### 6.1.2 Validation

Validation of the data runs checks on the data checking for possible errors.

The screen below shows the data validation status (DVS) of a case. As you can see from the example core data errors are shown in the top left box, non-core in the top right box and extreme value errors in the bottom left box. To go straight to the error just click on the relevant row. From this screen you also have the option to print out the errors for core and non-core data for that case. For extreme values there is a tick box by the relevant field to confirm that the value entered is correct. Once extreme values have been confirmed they will no longer be displayed as extreme at data validation.

**Data Validation Status**

**Core Data Validation Errors: Click on row to edit data**

- Infant sex not entered
- Max birthweight <= 3500g for gestational age 32 to 35 weeks
- Syndrome / malformation not entered

**Non-Core Data Validation Errors: Click on row to edit data**

**Confirm Extreme Values: Click on row to edit data**

- Confirm birth weight greater than 6000g

Core Error Count: 3 BC FC

Non-Core Error Count: 0 BC FC

Print Core Errors

Print Non-Core Errors

Print Core & Non-core Errors

Close

Form View



## 6.2 View Existing Case

View existing case allows you to view case details, no editing, additions, duplicate checks or data validation can take place. Cases to view are selected in the same way as for editing a case.

## 6.3 Print Case

This provides a print out of an entire case where the amount of data printed is based on the current EDMP display option. All printouts and reports are displayed on the screen in preview mode. You can send the preview to the printer by clicking on the printer icon:



Alternatively you can send the report to Word, Excel or Notepad by clicking on the Office Links button:



## 6.4 Data Validation

In addition to the data validation available when you are adding or editing a case, EDMP allows you to validate multiple cases in one go. The data validation facility allows you to list all the Core, Non-Core and Extreme value errors for selected cases. Select the required cases to check using the screen shown below. Once you have selected the cases you can then print the error log either as a summary or as a list case by case using the 'Print Error Summary' and 'Print Errors By Case' buttons.

You can also select which of the found error type or types that you want to examine. Click on the 'Select Error Types' button and select one or more of the error categories listed and

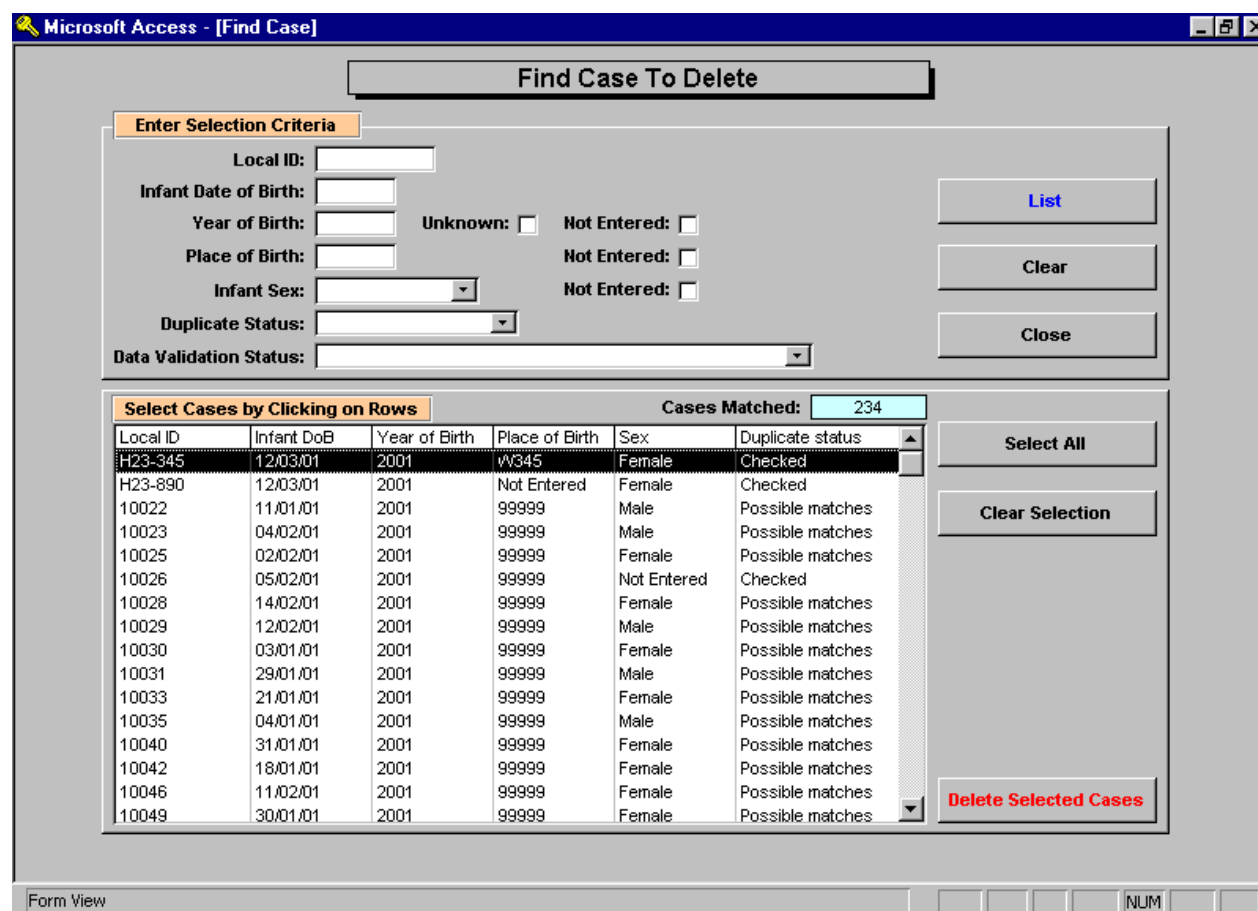
then print the error list again. EDMP will apply the correct checking rules depending upon whether each case relates to Guide 1.2, 1.3 or 1.4.

### 6.5 Delete Case

The delete cases option allows you to delete records for selected case(s).

The list box, in the example below, shows case details. These include local ID number, year of birth, place of birth, sex of infant and duplicate status.

Select the case or cases you wish to delete and then click on the 'Delete Selected Cases' button. There is also a 'Select All' button which highlights / selects all cases. Please note that there is no 'undo' function available to recover deleted cases.



**Find Case To Delete**

**Enter Selection Criteria**

Local ID:

Infant Date of Birth:

Year of Birth:  Unknown: ☐ Not Entered: ☐

Place of Birth:  Not Entered: ☐

Infant Sex:  Not Entered: ☐

Duplicate Status:

Data Validation Status:

List Clear Close

**Select Cases by Clicking on Rows** Cases Matched: 234

Local ID	Infant DoB	Year of Birth	Place of Birth	Sex	Duplicate status
H23-345	12/03/01	2001	w345	Female	Checked
H23-890	12/03/01	2001	Not Entered	Female	Checked
10022	11/01/01	2001	99999	Male	Possible matches
10023	04/02/01	2001	99999	Male	Possible matches
10025	02/02/01	2001	99999	Female	Possible matches
10026	05/02/01	2001	99999	Not Entered	Checked
10028	14/02/01	2001	99999	Female	Possible matches
10029	12/02/01	2001	99999	Male	Possible matches
10030	03/01/01	2001	99999	Female	Possible matches
10031	29/01/01	2001	99999	Male	Possible matches
10033	21/01/01	2001	99999	Female	Possible matches
10035	04/01/01	2001	99999	Male	Possible matches
10040	31/01/01	2001	99999	Female	Possible matches
10042	18/01/01	2001	99999	Female	Possible matches
10046	11/02/01	2001	99999	Female	Possible matches
10049	30/01/01	2001	99999	Female	Possible matches

Select All Clear Selection Delete Selected Cases

Form View NUM

## 7 Analyse Data

This section provides you with a simple and powerful way to analyse and describe your data. In EDMP there are now four categories of reports, List / Export Cases & Frequency Reports, Prevalence Tables, Prenatal Detection Rates and Missing Values tabulation. Each category allows you to select which data to report on.

### 7.1 List / Export Cases & Frequency Reports

This option provides you with a selection criteria screen that allows you to report on defined subsets of your data. Once you have entered your selection criteria, if any, you can then run the standard reports on that subset of data. You analyse your data by comparing the reports for different selection criteria. For instance you can compare the numbers of males and female infants by listing the data after selecting males and again after selecting females. In EDMP there is now the option to write the reports out directly into an Excel spreadsheet which you can save in the usual manner.

The selection screen is shown below and now contains five new pages of criteria relating to the derived variables, anomaly groups, user defined groups, multiple malformation and aetiology categories and locations. EDMP automatically assigns each record into the correct anomaly sub-group or sub-groups and multiple malformation group at either data entry or edit and at import.

To make a selection enter the criteria as necessary. Your current selection will be displayed in the box on the right of the screen. When you are satisfied that the selection is correct click on the 'Reports' button to take you to the report sub menu.

The report menu offers you a number of standard reports you can run on the selected data. For clarity Reports are divided into three categories, namely "List Cases", 'Frequency

Tabulations' and 'Export'. You can skip between the categories using the navigation buttons provided at the bottom of each screen. In addition, you can alter your selection by clicking on the 'New Selection Criteria' button and you will be returned to the selection screen. The selection criteria are printed on each report. You can also export selected core, core & non-core and all variables from the reports screen to a .csv file or to Excel. A new option allows you to save and recall named selections of variables to output.

### 7.2 Prevalence Tables

There are three categories of subgroups that you can produce prevalence tables for. They are 'EUROCAT Anomaly Subgroups', 'User Defined Anomaly Subgroups' and 'User Defined Subgroups'. Once you have selected subgroup type you will be able to select between four different report formats (A1, A5, A6 and B3) similar to those available on the EUROCAT web site. These reports are all based on centre, birth year and anomaly or user defined subgroup. Simply select required report type and relevant selection criteria and the results will be output to an Excel spreadsheet.

### 7.3 Prenatal Detection Rates

This option allows you to output prenatal diagnosis data for a 4 or 5 year period. Ensure that no other Excel sheet is open on your computer. Enter your start and end dates, then click on 'Output Prenatal Diagnosis Data to Excel' and provide a file name. This then opens an Excel spreadsheet with 5 tabs named: Overall, By Outcome, By Gestation, By Maternal Age and By Indication

### 7.4 Perinatal Mortality Rates

This option allows you to output perinatal mortality data for a time period (5 years expected). Ensure that no other Excel sheet is open on your computer. Enter your start and end dates, then click on 'Output Perinatal Mortality Data to Excel' and provide a file name. This then automatically opens an Excel spreadsheet with 2 tabs – Table 1 and Table 2.

### 7.5 Missing Values by Year

This option tabulates the number and percentage of non-missing, missing, unknown and invalid entries by year for selected variables. It is a useful tool in analysing the quality and completeness of your data.

## **8 User Defined Categories**

EDMP provides you with the ability to define three types of definable categories that you can use in the analysis and reporting of your data. The categories are a valuable tool as they offer a great deal of flexibility in their definition and can save time as they are saved. Categories are automatically recalculated when cases are added, imported or edited.

### **8.1 Create User Defined Anomaly Subgroups**

You can define up to ten subgroups with selection criteria, based on ICD codes, which you specify. This allows you to select cases from the database with different subgroup criteria than those already defined in the EUROCAT anomaly subgroups.

Setting up subgroups is simple and each group can contain up to fifty ICD selection criteria. Each ICD selection criteria can be in the form of 'like' (e.g. Q90\*), 'exact' (e.g. Q901) or 'range' (e.g. Q90 to Q91). Further instructions are shown on the set up pages. When you save an user defined subgroup EDMF will check each case against the criteria and mark it as '1' if the criteria are met otherwise '0'. EDMF checks the syndrome and malfo1 to malfo8 fields against the criteria.

### **8.2 User Defined Subgroups**

User defined subgroups are similar to user defined anomaly subgroups above except that you are not limited to ICD malformation codes and you can select any of the EDMF variables to enter criteria for. This is a powerful method of analysing your data as you can specify up to ten user defined subgroups based on a wide range of variables and values.

### **8.3 User Defined Location Categories**

User defined location category allows you to specify up to ten location categories which can be used as selection criteria for reports and for statistical surveillance. The variables available to create a location subgroup are Place of birth, Mothers residence code and any of the extra variables that you have defined (excluding the 'Date' types). Extra variables are defined using the Extra Variables & Layout option under the System Menu.

## **9 Surveillance**

The Surveillance option allows you to scan your data for trends and clusters by EUROCAT and user defined anomaly subgroups. In addition you can now select user defined location categories. Help on trends and clusters is provided on the statistical monitoring screen. For both trends and clusters you can choose to output the results for all anomaly subgroups to Excel or examine individual subgroups in further detail on screen.

There have been significant changes made to the way you perform routine checks for trends and clusters. To perform routine surveillance you need to select your centre (and optionally a location category). In the anomaly selection box you can choose to select all anomaly subgroups or a selected anomaly subgroup or user defined anomaly subgroup. If you select all anomaly subgroups then output will be to Excel with the option to print details for significant trends or clusters. For individual selected anomaly subgroups the results are displayed on screen with the option to print the results. Cases associated with chromosomal anomaly are always excluded (except from chromosomal subgroups) when the all anomaly subgroups option is selected but is optional for individually selected subgroups.

For the clusters & trend option you need to select the start and end years (by date of birth) and alter the months as required. EDMP will automatically calculate the new end date for use with date of conception as nine months less than the end date by date of birth. This is done to ensure that there is no bias due to excluding births with longer gestations that would be delivered after the study period.

**Surveillance Selection Criteria**

Select Registry:

Select Location (if applicable):

**Anomaly Selection**

☐ All anomaly subgroups

☐ Selected subgroup

Select anomaly subgroup:

Select user defined subgroup:

☒ Cases associated with chromosomal anomaly excluded (except from chromosomal subgroups)

**Cluster & Trend**

	Year	Month	
Start date:	<input type="text"/>	<input type="text"/>	<input type="button" value="Generate cluster &amp; trend output"/> <input type="button" value="View additional cluster details"/> <input type="button" value="View additional trend details"/>
End date:	<input type="text"/>	<input type="text"/>	
End date of conception:	<input type="text"/>	<input type="text"/>	
Excel Spreadsheet location:	<input type="text"/>		

**Long Term Trend (minimum 6 years)**

Start year:	<input type="text"/>	<input type="button" value="Generate trend output"/> <input type="button" value="View additional trend details"/>
End year:	<input type="text"/>	
Excel Spreadsheet location:	<input type="text"/>	

When you click the 'Generate cluster & trend output' button you will be prompted for the name and location for the results spreadsheet if you have selected the all anomaly subgroups option. EDMP will then create this spreadsheet containing sheets for trend and cluster results. Cluster checking is not performed on major anomaly groups which are considered to be uninformative (i.e. All Anomalies, Nervous System, Eye etc.). Cases associated with chromosomal anomaly, genetic syndromes/microdeletions and skeletal dysplasia are excluded from trend and cluster analysis of the remaining subgroups.

Trends are always based on date of birth and now include a test for heterogeneity of prevalence over time (change over time without increasing or decreasing). The trend option uses a Chi-square test to test for significant increases or decreases (or heterogeneity of

slope) in the number of cases per year per 10,000 births by anomaly sub group. You must enter denominator data into EDMP in order to be able to use the trend analysis.

Clusters are based on date of conception where possible, if the number of estimated gestations exceeds 10% then the cluster is checked by date of birth. Where gestational age is missing EDMP will use estimated GA based on the average GA by birth year and type of birth. Date of conception is calculated as date of birth minus days gestation (GA weeks \* 7). Clusters are only shown which do not exceed 18 months duration and the last case in the cluster must be within two years of the end date.

You can print out the results of any significant trends or clusters by clicking on the relevant print button. The trend output includes a graphical representation including the trend line where the slope is not heterogeneous. The cluster output lists cases, cluster details for each significant cluster and a graphical 'time line' distribution of cases and the limits of each cluster.

The long term trend (minimum 8 years) option allows you to test for trends either for all anomaly subgroups (including the 'heterogeneous' subgroups excluded from cluster detection) or for selected subgroups. Results for the all anomaly subgroups option are output to Excel with the option to print significant results. Analysis for selected individual subgroups is displayed on screen with the option to print the results.

If the observed average number of cases per year is below the minimum of 5 then EDMP will group the data into two year intervals. If the grouped data has an observed average number of cases per two year interval of 5 or greater then a test for trend will be performed.

## **10 Import / Export Data**

### **10.1 Import Data**

You can use the import facility to enter a batch of cases from file, rather than entering them via the screen. Typically you would import cases if you were converting to EDMP from a different data entry program or if you are using EDMP to validate your own data prior to transmission to the Central Registry.

For a file to be imported successfully it must fulfil the following criteria:

- The file must be in comma separated format (.csv)
- The field names must be in the first row of the data
- One of the field names must be 'centre' which is your EUROCAT centre number.
- The centre number must be present in every row of the data.

- Date fields must be in the format specified in the Data Transmission Form i.e. 6 characters wide and must include any leading zeros. For example the 7<sup>th</sup> May 2001 would be 070501. However, EDMP will try and read date fields that have lost their leading '0' and are only 5 characters long and the dates will be accepted if they convert to a valid date.
- Coded variables must conform to values specified in 'EUROCAT Data Transmission Form' with the exception that '0' entries for coded fields will be converted to blanks where '0' is not a valid entry.
- Blank lines must be removed from the data including trailing carriage returns and line feeds.
- If you are creating your import file using Excel the date fields will need to be formatted to ensure that the leading zeros are not removed from the .csv file. Use 'Text' or 'Custom' formats for these date fields, if you choose custom then specify 000000 as the format (six zeros).
- Extra drugs can be imported in the field named 'extra\_drugs' by first creating an extra column in your data with the heading 'extra\_drugs'. In this column, you will need to enter the ATC code and text description in the following format:

<ATC code|text description>

The ATC code and the text description are enclosed by the '<' and '>' characters.

Also, the ATC code and the text description are separated by the pipe symbol '|'. To get the pipe symbol separating the ATC code and text description, hold down the alt key while typing 124 on the numeric keypad:

Alt 124 = |

If more than one extra drug is to be imported for a single case, then enter the ATC codes (in the same format as above) side by side in your extra drugs field:

<ATC code|text description><ATC code|text description>

So for example a case with valproate and lamotrigine exposure is entered in the extra\_drugs field as: < N03AG01| Sodium Valproate>< N03AX09| Lamotrigine>



To import a .csv file click on the 'Import data' button as shown below:

You will then be prompted for the location of the file using the standard Windows file location screen. Once found the program will try to import the file.

EDMP has a new feature where the import variables that are unmatched (i.e. EDMP does not recognise their name) can be matched with variables not already being imported into. This feature is provided primarily to allow the importation of local data into the user definable extra variable fields but does provide a mechanism of importing files without having to edit all the field names. Please note that here must still be a field named 'Centre' present which contains your centre number.

In order to match variables simply select one each from the 'Unmatched' list (these are from the import file) and from the 'Available variables' list (available slots in EDMP) and then click on the 'Match' button (see below). You will be asked to verify the match and once matched the names will be removed from their respective lists. You can keep matching until done when you click on the 'Finish' button to continue with the import process.

The screenshot shows a window titled "nonmatching : Form" with a tab labeled "Unmatched Import Variables". The window is divided into two main sections: "Unmatched - click to select" on the left and "Available variables - click to select" on the right. Below these sections are two buttons: "Match" and "Finish".

**Unmatched - click to select**

dfyear
Lookup text 1 t100
Lookup text 3 t100
integer 11 1-5
<b>memo 21 memo</b>
date 32
tot_malf
tot_minor
other_in_chapter
out_of_chapter
birth_type
casestatus
erec
byear
bunknown
ddyear
dsyear
dayear

**Available variables - click to select**

byear	Year of birth
bunknown	Birth date unknown
ddyear	Date of death(year)
dsyear	Date of discovery(year)
dayear	Date of birth of mother(year)
dfyear	Date of birth of father(year)
ex1	Extra lookup 1
ex11	Smoking code
<b>ex21</b>	<b>Long text (memo)</b>
ex32	Date type

The status of the import as it goes through various stages is also shown. The Stages of import are as follows:

#### Import Record

This is the import of the raw data from the import csv file into a temporary table within the EDMP. The variables whose name matches those specified in the Data Transmission Form or have been cross matched will be listed in 'Matched' box and those which do not match will be listed in the 'Not Matched' box. If any errors are encountered during import they will be listed in the 'Import Errors Detected In Import File' box. Access has been unable to import these rows and indicates serious data problems that need to be corrected in the raw data prior to import.

#### Converted Records

The data in the imported records are then converted into EDMP format.

#### Fatal Conversion Errors

If any fatal conversion errors are found the import process will be stopped and corrections need to be applied to the original data or the csv file.

#### Duplicate Local ID Errors

If any records within the import file contain the same local ID numbers that are already in the EDMP then again the process will be stopped.

#### Merged Records

Once checks are completed and passed the records will be merged into EDMP.

#### Duplicate Checking

Duplicate checking will then be performed on the newly imported records and each record will be marked with its matching status (Checked / Possible matches).

#### Data Validation Checking

The records will then be validated and given a data validation status. Which are as follows:

- 1) Core data incomplete or invalid, non-core data valid or invalid
- 2) Core data complete & valid, non-core data invalid
- 3) Core data complete & valid, non-core data valid

Once the import has stopped you can print an error report for any errors found (Summary, Full or '0' to blank conversions). EDMP now displays the Local ID number for cases containing errors.

### 10.2 Export Data To EUROCAT

When sending data to the Central Registry you can now send the data for more than one year in a single file. To export data simply select the required year or years from the screen shown below and click on the 'Export Cases' button. You will need to specify the name and location of the export csv file in the usual manner. You can export either Core or Core & Non-core data depending upon the data input/output setting on the main menu. You can export different selections of data under the reports section. Please note that you must export pre 2005, 2005-2012 and 2013+ cases separately.

Export Cases To Central Registry By Year

Please Select Year(s) of Birth to Export Cases By

Infant Year Of Birth  
Select years by clicking on row

1996  
1999  
2000  
2005  
2006  
2007  
2008  
2009  
2010  
2011  
2012  
2013

You must select pre 2005, 2005-2012 and 2013+ years separately

Select All pre 2005

Select All 2005-2012

Select All 2013+

Clear Selection

Exporting: Core & Non-Core Data

Finish

Export Cases

## 11 Denominators

This section allows you to add your denominator data to EDMP and then export it in a format suitable for transmission to the Central Registry. You also need denominator data for some of the reports and for the trend analysis under statistical surveillance.

### 11.1 Add / Edit Denominators

The Add/Edit option allows you to list and then select a year to edit or to add a new year. EDMP automatically detects what year and centre combinations are present in your data and creates a record ready for you to complete. The data entry/edit screen is shown below:

Microsoft Access - [Denominators]

**Add / Edit Denominators**

Centre Number: 30 Centre Name: Basque Country (E) Birth Year: 2001

Live births: 17647 Still births: 71 Total Births: 17718

**Maternal Age**

	Not known	< 20	20-24	25-29	30-34	35-39	40-44	45+	Total	35+	40+
Observed		141	671	3127	8097	4972	683	27	17718	5682	710
Estimated		141	671	3127	8097	4972	683	27		5682	710

**Total Births by Month**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Observed	1433	1325	1514	1475	1657	1385	1537	1540	1399	1532	1510	1411
Estimated	1433	1325	1514	1475	1657	1385	1537	1540	1399	1532	1510	1411

Observed Total: 17718

**Notes:**

Figures rec'd by email 11/03/03

Date total last updated:

Date Live/Stillbirth last updated:

Date age distribution last updated:

Date month distribution last updated:

Been Completed: ☐ Completed by: Imported on 14/05/03

Completed on:

**Save & Exit** **Delete** **Finish**

N.B. Estimated denominators are estimated assuming that births with unknown maternal age or month have the same maternal age or month distribution as those with known maternal age or month.

Live births NUM

The data you enter is the same as that specified in the Template for Denominator Data in chapter 2.3 of the EUROCAT Guide 1.4. For both the maternal age and total births by month sections there are two rows of data namely 'observed' and 'estimated'. You enter your values in the observed row and EDMP will calculate the estimated values by multiplying each observed value by ratio of the total births entered (sum of live and still births) divided by the total of the values entered in the respective observed row.

### 11.2 Import Denominators

You can import denominator data much the same way as you import case data into EDMP. If you are importing data provided by the Central Registry then the file provided will be in the correct format. If you are importing data from a different source you will need to contact the Central Registry to obtain the required file format.

### 11.3 Export Denominators

This option allows you to select denominator years and then create an export file in the format required by the Central Registry.

## 12 System menu

The system menu provides you with facilities to alter login details, change the default printer, determine the current location of the data, set your centre name and number (**note** that the centre name will appear on all reports) and delete selected cases. There are also two options relating to the anomaly subgroups and for the extra local variables and screen layout.

### 12.1 Manage Users

Once you have entered the Manage Users section you can either set up new user details (click the Add New button) or alter the details of existing users by clicking on the required row in the list box. Please remember to alter the user name and password for the 'Administrator' user, which is distributed with the program. The screen shown below will be displayed.



User details allows you to enter (or alter) user details including username and password as well as allow you to alter the personalised screen colour settings for each user. To change screen and highlight colours simply click on the required box on the screen and the standard Windows colour selection screen will appear. 'Security & Access Control' allows you to

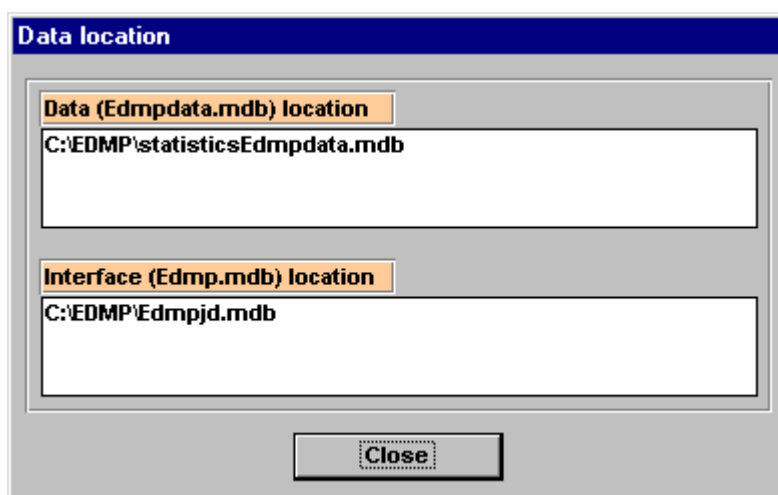
specify which parts of the program are accessible to each user. It is important that at least one user has access to the System Menu!

### 12.2 Set default printer

The default printer facility displays the currently selected default printer and also allows you to select a different default printer by clicking on the 'Change Printer' button. All the printers available to your PC will be displayed in the list for you to choose from.

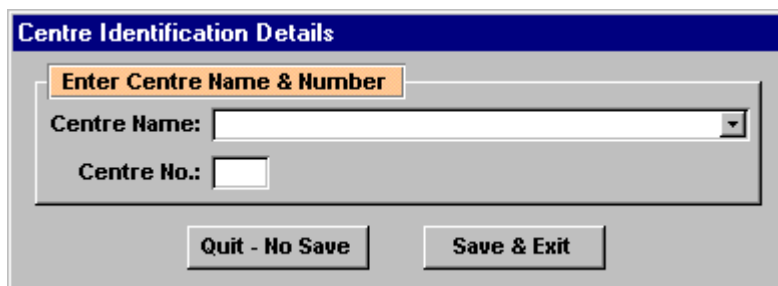
### 12.3 Data location

This facility displays the location of the data file Edmpdata.mdb that the program is currently using as well as the location of the 'front end' of EDMP (Edmp.mde).



### 12.4 Centre Name & Number

This is where you set your centre name and number. Note that the centre name will appear on all reports. You can select your centre name from the pull down list which will then automatically fill in the centre number, or enter the details yourself.



### 12.5 Recalculate Subgroups

Use this option to recalculate the user defined subgroups and categories and multiple malformation code for all cases in your database. This option is provided in case you

encounter any errors during data entry or import and you wish to recalculate to ensure subgroup integrity.

#### **12.6 Extra Variables & Layout**

This menu option allows you to define up to 32 extra variables for use in data entry, create custom data entry form layouts and also change the labels for the five EDMP spare variables.

##### **12.6.1 Extra Local Variables**

You can select a maximum of 32 extra variables for use at data entry. For each variable you can specify its name, position and data type. Data types are 'lookup text' which are option lists to which you can add your own values at data entry, integer numeric with optional minimum and maximum values, unlimited text and finally date type.

##### **12.6.2 Data Entry Screen Layout**

You can specify your own data entry layout using this option. Simply select which variable you want in each field position of the data entry form. EDMP will check that you have selected the minimum number of required (core) variables before allowing you to save the set-up.

Please note that you must define a screen layout for both pre 2005 and 2005 onwards cases as there are new variables (guide 1.3) for use in 2005 onwards.

You can only use the screen layout at resolutions of 800\*600 and 1024\*768 and you will also need to create separate layouts for each of the resolutions. Choose your preferred resolution prior to defining the layout.

##### **12.6.3 Change Spare Variable Names**

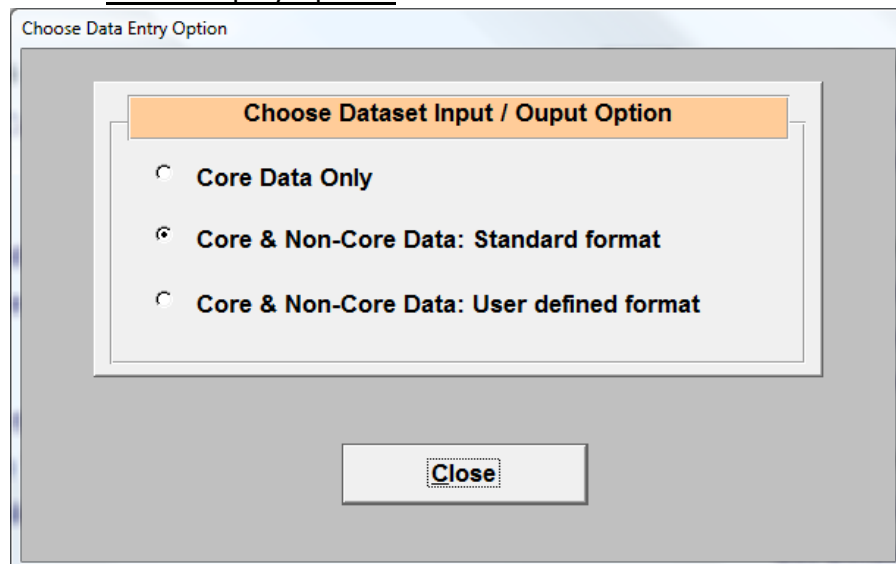
Use this option to change the label captions for the five EDMP supplied spare variables.



#### 12.6.4 Unhide 2005+ Local Variables

This option allows you to show or hide the sources of information (1-5) fields along with the social & ethnic status of mother and father.

#### 12.7 EDMP Display Options



There are three options for EDMP Display Options: 'Core Data Only' and 'Core & Non-Core Data' either as Standard format or User defined format. When the 'Core Data Only' option is selected the data for adding, editing, viewing, printing and exporting is restricted to the core variables only. For the 'Core & Non-Core Data' options the standard format is the tabbed page by page data entry screen layout. The user defined format allows you to select which variables you wish to work with and also their order on the data entry screen. With this format the data entry page is continuous but with page divisions and offers a variety of page navigation methods.

### 13 **Routine Maintenance**

The file Edmp.mde may grow in size due to frequent use of the Import facility. To counter this you can repair and compact Edmp.mde. This is done by opening Microsoft Access without opening or creating a new database and then selecting 'DatabaseTools' from the menu bar. Then select the 'Compact & Repair Databases' option. You will then be prompted for the location of Edmp.mde.

