

## EDITING GUIDELINES

### A. GENERAL GUIDELINES FOR DATA EDITING

The editing guidelines presented in this chapter are concerned only with those checks that must be carried out to verify the internal consistency of responses to questions in the DHS core questionnaires. The specifications do not cover range or skip checks. Depending on the country's data processing situation, most of the simpler consistency checks may be handled at the data entry stage. However, the majority of the more complex consistency checks will be carried out during a secondary stage of machine editing. Some checks are repeated both in the data entry and editing stages. During data entry these checks are used primarily to look for data entry errors.

The consistency edit guidelines include instructions on the steps to take to resolve inconsistencies detected during the editing process as well as the action to take if the inconsistencies cannot be resolved through an examination of the responses to other pertinent questions. While editing data, the supervisor, the data entry clerk and secondary editor must **REVIEW ALL OF THE PERTINENT QUESTIONS INVOLVED IN A SKIP ERROR OR AN INCONSISTENCY** before making a change. Changes should never be made in a rote manner without a thorough review of all relevant responses.

When an error message appears during data entry, the data entry operator should check the question entered and the preceding questions, going back to previous pages and ensuring no data entry error has been made. The operator should also go back to the related questions mentioned in the error message, to verify that no typing mistake was made in any question. If no keying error was made, the operator should request that the data entry supervisor resolve the problem.

During the data-editing phase, the process should be organized in such a way as to maximize consistency in the correcting process. Care should be taken to ensure that all procedures are followed in a standard manner. Each of the editing rules should be applied in accordance with the guidelines. All of the computer outputs specifying the errors detected at this stage should be retained.

The editing staff should be sure that all changes made to the data file on the computer are noted in the questionnaire with a GREEN pen. Use of green pens will allow corrections made by office staff to be distinguished from those made by the interviewers (blue/black pen) and the field editors (red pen). All corrections to the data should be noted on the original questionnaire by crossing through the original response with a single line and writing the new response next to it.

The editing phase of the machine processing of the DHS data should begin immediately after the verification of the questionnaires has been completed for a particular sample point. The editing process should then be repeated for the sample point until no further errors are detected.

Supervision at this stage should ensure that the rules outlined below for correcting inconsistencies are applied uniformly and that errors, which recur across questionnaires are corrected in a standardized manner. Again, the primary rule of data editing whether in the field or office must be observed: **UNDER NO CIRCUMSTANCES SHOULD AN ANSWER BE MADE UP**. Changes can be made only if there is evidence supporting a modification to the response. If an inconsistent value cannot be corrected and a modification is required, the value should be replaced with a code signifying inconsistency (7, 97 or 997). Care should be taken not to confuse the 7 codes (used to replace an inconsistent response that cannot be corrected) with the 8 (98 or 998) codes (used by the interviewer to indicate that the respondent answered a question with the statement, "I don't know") or with the 9 (99 or 999) codes (used in cases of skip errors where the respondent was not asked a question or refused to answer a question to which she should have responded).

Finally, the editing phase for the DHS data necessitates close involvement of the host country DHS Survey Coordinator as well as other senior project staff. Resolving inconsistencies in the responses, particularly those involving date and interval information, requires a detailed understanding of the nature and overall objectives of the survey questionnaire as well as the interrelationships among specific questions. The data processing staff itself ordinarily will

not include personnel with this background or expertise. Consequently, the data editing at this phase should be organized so as to encourage close interaction between the survey's technical staff and the data processing personnel.

## B. ROLE OF THE EVENT TABLE

One of the most crucial tasks in the machine editing of the DHS data is to check the internal consistency of information collected in the survey relating to dates and/or intervals of time. For example, it is necessary to check that the interval between two births reported in a birth history is not too short or that a respondent was not too young to have had a child at the time she reported that her first birth occurred. Information on the durations of breastfeeding, amenorrhea and abstinence between two births also must be checked to see that it is consistent with the reported birth dates.

The crucial events for which a series of consistency checks will be carried out include:

- Date of Respondent's Birth («H07») Have to derive from HH schedule
- Date of First Union («A120»)
- Date of Birth of Each Child («A215»)
- Date of Sterilization («A319»)
- Date of Conception of Current Pregnancy  
(Date of interview minus months of current pregnancy «A227»)
- Date of Interview

Other items the consistency of which will be checked with the above information at the data editing stage include:

- Age of the Respondent («A104»)
- Age of child at Last Birthday (if child alive) («A217»)
- Age of child at Death (if child died) («A220»)
- Time Since Last Period («A237»)
- Duration of Use of Current Method (Calendar «C011»/«A319»)
- Duration of Amenorrhea (live births in last five years) («A456»)
- Duration of Abstinence (live births in last five years) («A459»)
- Duration of Breastfeeding (live births in last five years) («A466»)
- Time Since Last Sexual Intercourse (if ever had sex) («A619»)
- Age at First Sexual Intercourse (if ever had sex) («A612»)

The edit specifications for checking the consistency of these items assume that, as part of the machine editing process, the DHS software will compile an event table. The event table facilitates the checking of the consistency of date and interval responses in the questionnaire. It includes up to 30 entries, beginning with the date of birth of the woman, followed by the date of her first marriage/union, the birth dates of each of her children from the birth history, the date of sterilization (if appropriate), the date of conception of a current pregnancy (if appropriate) and completed by the date of interview.

Entries in the event table will be made in terms of century month codes (CMCs). The CMC for any event is based on the date of the event (e.g., the respondent's birth) and is calculated by multiplying the year (minus 1900) in which the event occurred by 12 and adding the code for the month in which the event occurred. An example of the CMCs that would be calculated by the DHS software based on information for the dates of births in a typical DHS interview follows (see chapter G and section 11):

«A212»	«A215M»	«A215Y»	«A217»	CMC
01	98	1992	09	--
02	01	1995	07	1141
03	98	1997	98	--
04	01	2000	02	1201
05	03	2001	01	1215

For children 02, 04 and 05, the century month codes are considered fully specified since the complete date (i.e., both the month and year) of the birth is known. For children 01 and 03, for whom only the year of birth is known, it is not possible to specify the century month code exactly. However, using information on the age of the child at the time of the interview (question «A217») and the date of the interview (assumed to be August 2002 for the purposes of this example), the lower and upper bounds for the CMC for children 01 and 03 can be determined. The lower bound CMC (LCMC) is calculated based on the earliest month of birth that is possible given the year of birth, age, and date of interview while the upper bound CMC (UCMC) is calculated based on the latest month of birth possible given the same information.

There are a variety of factors other than the year of birth, age and date of interview which may have to be taken into account in calculating the upper and lower bounds for the CMC of an event that is not fully specified, including the dates of surrounding births, but the LCMC (1113) and UCMC (1116) shown in the following example are determined solely by the date of birth and the age of the child. Thus, for child 01, born in 1992 and 9 years old at the time of the DHS interview in August 2002, the lower bound for the birth date (i.e., the earliest possible birth date consistent with the age, year of birth and date of interview) is September 1992 while the upper bound for the birth date is December 1992.

«A212»	«A215M»	«A215Y»	«A217»	LCMC	UCMC
01	98	1992	09	1113	1116
02	01	1995	07	1141	1141
03	98	1997	98	1165	1176
04	01	2000	02	1201	1201
05	03	2001	01	1215	1215

Note that for events for which a date (e.g., the birth date for child 04) is fully specified, the LCMC and the UCMC will be equal.

Chapter G, Imputation and Chapter E, section 11, provides more details on the date editing and imputation process and identifies items which act as constraints on the dates defined as crucial in the DHS editing process. For example, information on the age of a living child acts as a constraint upon the date of birth of the child; i.e., the consistency between the reported age and birth date will be checked and an error message printed if the age is found to be inconsistent with the interval between the birth date and the date of interview. The error must be corrected by the office editing staff, following procedures outlined in the detailed editing guidelines presented in the following sections.

In cases of women or children whose month of birth is the same as the month of interview, the age recorded in response to question «A104» may not be equal to the age calculated from the interview date and the birth date recorded in question «H07». For example, given an interview date of August 17, 2002, the calculated age for a woman born in August 1982 would be 20 years since, for the purposes of editing and imputation in the DHS, all birthdays and other events are assumed to occur on the first day of the month. If the woman's actual day of birth is after the day of interview, e.g., August 25, she may have reported her age as 19 years since she had not yet celebrated her birthday. Generally, the DHS editing and imputation policy calls for the woman's stated age to be set equal to calculated age in the final stages of the preparation of a clean data file. Thus, in the above example, the age computed in the imputation process would be changed from 19 to 20 years.

The only exception to this procedure will occur in the few cases in which a respondent's stated age is 49 but her calculated age is 50. In such cases, setting the stated age to the calculated age would result in the woman being considered ineligible for the DHS. To avoid dropping the respondent from the sample, the month of birth will be adjusted to be consistent with the stated age. For example, in the case of a woman interviewed in August 2002 who reports her birth date as August 1952 and her stated age as 49, the month of birth in question «H07» would be changed from August to September 1952.

In the DHS editing, the intervals between dates of crucial events will also be checked to see that they are equal to or exceed a defined minimum interval. The minimum intervals, which the DHS assumes are summarized in the Event table in Chapter G, Imputation and Chapter E, section 11.

The DHS software uses century month codes (CMCs) in checking the consistency between two sequential events. For example, the interval (in months) between the births of child 04 and child 05 can be calculated using CMCs as follows:

$$\begin{aligned} \text{BI} &= \text{UCMC}(\text{child } 05) - \text{LCMC}(\text{child } 04) \\ 14 &= 1215 - 1201 \end{aligned}$$

The above interval is consistent with an assumed minimum birth interval of 9 months, which is required between each birth. Between twins the minimum birth interval used is zero. It should be noted that the minimum of 9 months is different from the minimum interval of 7 months applied in DHS phase I and in WFS.

Finally, for children born since January «D1997», the DHS editing process will check the consistency between the birth dates of the children in question and information collected on the durations of breastfeeding, amenorrhea and abstinence as well as on the dates a child was immunized. In editing these data the DHS software uses the maximum possible interval against which to test a given response. For example, in checking the consistency of the reported duration of amenorrhea following the birth of child 04, the software calculates the maximum duration of amenorrhea (MDAM) consistent with the date of birth of child 05, assuming that the minimum allowable pregnancy duration is 7 months. Note that the minimum birth interval is two months longer than the minimum pregnancy duration on the assumption that it is not possible to become pregnant for at least two months after the birth of a child. In the case of the above example:

$$\begin{aligned} \text{MDAM} &= (\text{UCMC}(\text{child } 05) - 7) - \text{LCMC}(\text{child } 04) \\ \text{MDAM} &= (1215 - 7) - 1201 \\ 7 &= 1208 - 1201 \end{aligned}$$

If the duration of amenorrhea reported by the mother in response to question «A456» for child 04 exceeds 7 months, the software will issue an error message, indicating that the duration of amenorrhea was inconsistent with the length of the interval between the births of children 04 and 05.

A full discussion of the event table and the calculations to establish and check the dates present in the table can be found in Chapter G, Imputation and Chapter E, section 11.

Detailed guidelines as to the procedures to follow in correcting consistency errors for these items are described below. In checking each error message generated as part of this process, it is important that the editing staff always thoroughly examine all the relevant responses in the questionnaire before making changes. A CORRECTION SHOULD NEVER BE MADE ONLY ON THE BASIS OF AN ERROR MESSAGE WITHOUT LOOKING AT THE QUESTIONNAIRE.

### C. RESOLVING SKIP ERRORS

Before discussing the guidelines for correcting inconsistencies in the data file, the problem of resolving skip errors must be addressed. These errors will be discovered during data entry. Both supervisory personnel and data entry operators should review the following suggestions.

Skip errors can result from interviewer errors in the field or from keying errors made by the data entry operators. Skip errors will be evident to an operator if he finds (1) responses in the questionnaire that he is not able to enter in the computer data file or (2) no responses in the questionnaire for a data field for which the software is awaiting an entry.

To resolve these errors, the operator should review the questionnaire in hand and the data, which have been entered into the file. By returning through the computer screens and comparing the codes entered into each field with the codes found in the questionnaire, the operator should be able to locate the problem.

If the codes on the screen do not match those in the questionnaire, the operator should go back through more of the computer screens to make certain that no errors were made prior to the error found. The operator should then correct all errors encountered, making no changes to the questionnaire.

If the codes on the computer screens match those in the questionnaire, the error was made in the field and a "not stated" code of 9, 99 or 999 should be entered in the computer (and noted in GREEN ink in the questionnaire) for each question that has not been answered. For alphanumeric variables (questions containing letters as codes), such as the calendar and certain questions in section 4 of the questionnaire, the code "?" is to be used for missing data.

In a few situations it is possible to deduce the correct response from other information recorded in the questionnaire. This is particularly true for questions, which affect the flow of the questionnaire. For example, if the question "Are you pregnant now?" was left blank, but the following question, "How many months pregnant are you?" contained the response "3 months", the response to the first question is clearly "Yes". This response should be used in such a case, as using a "not stated" code for the missing data is generally assumed to be a negative response and the following question would be skipped in data entry.

If major skip errors are encountered, they should be listed on the problem report and supervisory personnel should be advised so that field personnel can be alerted to the problems.

#### **D. SPECIFIC GUIDELINES FOR DATA EDITING**

The following section provides specific guidelines to apply in correcting inconsistencies that will be detected at the data entry or machine editing stages of the DHS. Again, in deciding on corrections to be made, these general principles should be observed:

- In making corrections at this stage, the data editing staff must examine the questionnaires in which errors are detected, looking initially for data entry errors and then checking for the inconsistency, and not only looking at the error listing.
- All pertinent questions in both the individual and household questionnaires must be examined before a decision is made as to the manner in which inconsistent responses will be corrected. The DHS editing staff should never correct errors in a rote manner (e.g., by routinely entering a code 97 even in cases where it is possible to determine the correct response).
- Some of the calculations done in the computer have a tolerance of one month. For example, if a child is born on the last day of July 2002 and the interview occurs on August 1, 2002, the child's age would be calculated as one month when, in fact, the child is zero months old.

This tolerance should be kept in mind when reviewing inconsistencies. If an error is reported, and the error is a matter of one month, the data can be made to fit; that is, the data are not necessarily inconsistent, and the least reliable piece of data can be corrected by 1 month. If, however, the error is greater than one month, the least reliable piece of data should be changed to 7, 97 or 997 to represent an inconsistent response.

In the guidelines that follow, you will find the phrase: "The 'Rule of One' can be applied". This refers to correcting the data if the error is no more than 1 month. This rule should not be applied in any other case.

- The guidelines for correcting errors detected at this stage should be applied in a standardized manner. Uniform rules must be followed in making decisions to change responses that are inconsistent. Editing decisions that are not covered by the following guidelines should be documented.

- The editing staff should be careful to make changes only when there is evidence to support the new response. Again the chief rule of data editing must apply: UNDER NO CIRCUMSTANCES SHOULD AN ANSWER BE MADE UP.
- In correcting inconsistencies, another basic editing rule is to change the fewest possible responses.
- All errors detected at this stage must be corrected in the questionnaire as well as on the screen. Corrections should be made in GREEN pen so that they can be distinguished from those made at the field stage. Original responses in the questionnaire should be crossed through with one line, and the new response should be written alongside the coding boxes. NEVER WRITE A CORRECTION OVER THE ORIGINAL RESPONSE.

The task of resolving inconsistencies is frequently quite difficult. The senior members of the survey staff should be consulted by the editing staff for assistance in resolving difficult problems. They should also be sure to regularly review the work of the editing staff to ensure that they are observing the above principles.

#### E. DATA EDITING MESSAGES AND CORRECTION GUIDELINES

The following codes are used to indicate the source and type of error messages:

Codes for errors messages:

- During data entry:
  - D** Data entry errors requiring correction of data.
  - W** Warnings during data entry requiring checking of data entered, but correction only if typing errors are found.
- During editing/imputation:
  - E** Errors during editing/imputation requiring checking and probable correction.
  - M** Messages during editing/imputation indicating unusual situations in the data, which often do not require correction.
- Automatically controlled:
  - C** Controlled automatically by the data entry program. No message is generated and the guidelines are presented for completeness.

Messages contain the values found in the data so the editor can easily check the questionnaire.

Several messages contain references to flag variables. These flag variables are set during the imputation phase to indicate inconsistencies found in the data for certain variables. A full list of the flag variables, their codes and the meaning of the codes is given in section H.

The following abbreviations are used in some messages:

cmc	Century month code
dob	Date of birth
dou	Date of union
age at u	Age at first union
HH	Household
Rel	Relationship
Elig	Eligibility
h	Height
w	Weight

## HOUSEHOLD QUESTIONNAIRE COVER SHEET

### 0001 D Cluster n not found in the sample design file

A sample design data file is used to keep track of all of the clusters that have been selected for interview. The cluster number entered is not a valid cluster number, as it cannot be found in the sample design data file.

Quit the data entry program, correct the cluster number and then restart the data entry program. The data entry supervisor should be informed that files with an incorrect cluster number have been created on the diskette.

### 0002 D Filename for x file incorrect (n): Quit, correct the filename and then restart

The main data file for the cluster should be in the root directory of the A: drive. Its filename should start with the letter C (for cluster), be followed by the three digit cluster number and then the extension .DAT. The complete filename should be 'A:\Cnnn.DAT' where nnn is the cluster number (with leading zeros, if necessary). For the "Other" answers data file the filename should be 'A:\Onnn.DAT'.

If this is not the name given for the data file then quit the data entry program, correct the name and then restart the data entry program. The data entry supervisor should be informed that files with an incorrect name have been created on the diskette.

### 0003 D Date on computer incorrect (dd/mm/yyyy): Quit, correct the date and then restart

At the start of data entry, the date and time set on the computer should be checked. It is important for the management of the data that each data file is recorded with the correct date and time.

If the date and time are incorrect, data entry may not proceed. Quit the data entry program and ask the data entry supervisor to correct the date and time on the computer before restarting data entry.

### 0005 E Cannot open CONTROL file

The CONTROL file used to keep track of the status of each cluster or sample point cannot be opened. The application will terminate without any further processing. Check that the file has not been deleted by mistake.

### 0006 E Data file not ready for editing

The data file that has been selected for editing has not passed the structural completeness (CKID) step and the verification step prior to secondary editing. It is required that each cluster or sample point should be processed step by step, with the structural completeness checks and the verification checks being performed prior to secondary editing. Rerun these checks to ensure that they have been recorded as performed before trying to rerun the secondary editing for this cluster or sample point.

### 0007 E Failed to update CONTROL file

It was not possible to update the CONTROL file to indicate that a pass of the editing program had been performed on this data file. This problem usually occurs because the CONTROL file is write protected. Ensure that the correct access rights have been given to this file. In network environments or multitasking environments, this message can also mean that the file is already in use by another user or in another window.

**0008 E Count of questionnaires (n:n:n n:n:n n:n:n) does not match CONTROL file (n:n:n n:n:n n:n:n)**

The control file contains the counts of questionnaires by result code based on the reception clerk's tally. If this message is produced, the supervisors must check the field supervisor's control sheet, the cluster control sheet and the questionnaires to find the error. This error must be rectified before further processing can be attempted.

See message 50150 for a complete explanation.

**0010 D Cluster number in filename (n) different from cluster number entered (n)**

The cluster number in the data file name is checked with the cluster number entered at the beginning of data entry for the cluster. The data for each cluster should be entered into a data file named after the cluster.

If the cluster number entered has been mistyped then correct the cluster number and continue with data entry. If the cluster number in the data filename is incorrect then quit the data entry program, correct the cluster number in the data file name, and then restart data entry. The data entry supervisor should be informed that a data file with an incorrect name may have been created on the disk.

**0011 D Identification for cluster, region, urban/rural, place of residence or keyer incorrect: n, expected n**

Each data entry operator will enter a complete cluster of questionnaires. Within a cluster all of the geographic identification information for the cluster must be identical. Each of the identification information variables must also be consistent with the cluster number.

If any one of the pieces of information is inconsistent with the cluster number or is different from the previous questionnaire's identification information then the erroneous information should be corrected.

**0012 W Household number not in increasing order: n**

Household questionnaires should be entered in increasing order of household number. Questionnaires should be ordered before the data entry staff receives them.

Check the household number of the questionnaire to ensure that the number has been entered accurately and correct it if there has been a typing error. If the number is correctly entered then no further action is necessary. The questionnaires can be sorted at a later stage. Correct the order of the unentered questionnaires so that the remaining questionnaires are in ascending order of household number.

**0013 D Questionnaire already entered. Check household number**

An index file of questionnaires entered is maintained by the system. If a data entry operator tries to enter a questionnaire that has already been entered the system will alert the operator.

If the household number has been mistyped then correct the household number and continue. If not, then either the questionnaire has already been entered and does not need to be entered again, or the household number of an earlier questionnaire has been incorrectly entered. Ask the data entry supervisor to delete the incorrectly entered household, and then reenter the previously entered household before continuing with the current household.

**0014 W Household questionnaire incomplete. Check result code**

If the result code for the household questionnaire is not 1 (Completed) the data entry for the household will terminate at the end of the cover page of the household questionnaire. This is only a warning to ensure that data are not lost inadvertently.

If the household schedule was not completed then continue, but if the household schedule has been completed then go back and correct the result code entered to ensure entry of the complete household schedule.

**0015 D More eligible women/men than household members: n**

The number of eligible women/men given on the cover page of the household questionnaire must be less than or equal to the number of household members given.

Check the number of household members and the number of eligible women/men given on the cover page with the number listed in the household schedule and correct the erroneous number.

**0016 D Date of interview impossible**

The date of interview must be a complete valid date, earlier than the current date and later than the date of the start of the survey.

Check that the date of interview specified on the questionnaire has been correctly entered and that the date of interview written in the boxes on the questionnaire agrees with the date written for the last visit. Change the date of interview entered to the correct date.

**0017 D Line number of respondent out of range**

The line number of the respondent for the household schedule must not be zero and cannot exceed the total number of household members listed. Correct the line number entered if a keying error.

If it is not possible to identify the person, enter code 99 (missing).

**0020 D Identification variable x inconsistent with sample design definition, expected n**

A value has been entered for the identification variable specified which is not the expected value according to the information in the sample design file.

The value entered should be checked and corrected. If there is no error on the questionnaire, the sample design file should be checked to ensure that there is no mistake in the information recorded in that file.

## HOUSEHOLD SCHEDULE

A detailed explanation of the household schedule and the internal consistency of the information recorded within the schedule is given in Chapter G, Imputation and Chapter E, section 11.

### **0029 D E Can only be one head in the household**

Although the head of the household can appear on any line in the household, there should only be one head included in the listing. Review the entire listing and if 2 persons have been coded "01" in relationship to head, change one to "missing" (99) if no other solution can be found. However, by checking relationships between other members, mother's and father's line numbers, etc, you should be able to identify the correct head and correct the other person's relationship code.

### **0030 W M Can only be one spouse/parent/parent-in-law of each sex in the household**

In most households there is only one head of the household, one spouse, one male parent of the head, one female parent, one male parent-in-law and one female parent-in-law. In some households, particularly polygynous households, this rule may not hold.

During data entry, verify that the relationship codes, line number of parents, sex and age have been correctly entered for each member. If no typing mistake has been made then no further action need be taken.

During editing, check the relationship codes of each member of the household and attempt to identify the correct relationships. If it is not possible to correct the problem or it is clear that the rule does not hold for this household then no further action is necessary.

### **0031 W M HH Line n: Head of household should be first line, Spouse should be second line**

The head of the household is normally listed as the first person in the household listing and the spouse of the head of household is normally listed as the second person in the household. Occasionally the head of household or the spouse are not listed as the first and second members, particularly when the household is polygynous.

During data entry, verify that the relationship codes have been correctly entered. If no typing mistake has been made then no further action need be taken.

During editing, check the relationship, sex, father's line number and mother's line number information for each member of the household and ensure that no mistake has been made in entering the data or recording the information on the household schedule. If no mistake is found then no correction is required.

### **0032 D For co-wives, head of household must be female**

In countries in which polygyny exists, there may be several wives in a household. In a number of these cases, the head of household may be a woman, in which case the other wives of the head of household's husband are recorded as co-wives of the head of household. The code used for co-wives may only be used in households in which the head of household is female. Correct the coding for the household member (or for the head of the household if the head is actually female).

### **0050 D E HH Line n: Member neither resident («AH05»=n) nor slept last night («AH06»=n)**

For each household member, the codes in questions «AH05» & «AH06» may not both be code 2. Members should be included in the household schedule only if they are either a usual resident of the household (question «AH05») or they slept in the household the previous night (question «AH06»).

If neither of these conditions is true then the member should be removed from the household questionnaire. When removing members from the household schedule all line numbers in the household schedule should be adjusted correspondingly. This includes the line number of the member, the eligibility code, the mother's line number and father's line number codes of each member listed, and the respondent's line numbers on each of the individual questionnaires. . It may also be necessary to correct the household line numbers listed in the birth histories (Section 2) of eligible women and the household line number of the respondent's husband in Section 5.

**0060 W E HH Line n: Sex («AH04»=n) of spouse (n) must be different from sex («AH04»=n) of head of household (n)**

The sex of the member with relationship code 02 should be different from the sex of the head of household (relationship code 01). The head of the household should be listed as the first member in the household.

During data entry, check that the sex and relationship codes on the household schedule have been entered correctly for each member. A common error is for the line number of the second member to be entered instead of the relationship code for that member. If no data entry error has occurred then no further action is necessary.

During editing, the relationship code, sex, age and mother/father's line numbers of each member should be checked. In many cases the relationship code 02 (spouse) has been recorded on the questionnaire instead of code 03 (child), and this can usually be clearly seen from the ages and parent's line numbers of the members. In other cases the names of the members can often be used to check the sex of the members. Correct either the sex or the relationship of one of the members.

**0061 E HH Line n: Son/daughter of head of household («AH03»=n), but head (line=n) not father/mother of member («AH23»/«AH21»=n)**

The household member is either the son or the daughter of the head of the household and is under the age of 15, but the head of the household is not listed as the father or mother of the child.

Follow the procedures in message 0122 to attempt to correct the error.

**0062 D Sex of co-wife not valid**

The sex of a household member recorded as a co-wife of the head of the household is male. Co-wives can only be female, and can only occur when the head of the household is female. Check and correct either the relationship code or the sex for this household member.

**0071 W M HH Line n: Age («AH08»=n ) of head of household or spouse is under 12**

The head and/or the spouse of the head of the household are expected to be adults. A minimum age of 12 is usually used in checking the age of the head/spouse.

During data entry, the age of the head and/or the spouse should be checked to ensure no typing mistake. If no typing error is found then no further action is necessary. Similarly, during editing, if there is no obvious correction then the data should be left as originally recorded.

**0072 W M Check age of head of household (line n age «AH08»=n) and his/her parent (line n age «AH08»=n)**

It is expected that the parent's of the head of household would be at least 12 years older than the head. Check for data entry errors in the age's of the head and each of his/her parents, but otherwise make no correction to the data.

**0073 W M Check age of spouse (line n age «AH08»=n) and his/her parent (line n age «AH08»=n)**

It is expected that the parent's of the spouse of the head of household would be at least 12 years older than the spouse. Check for data entry errors in the age's of the spouse and each of her/his parent's, but otherwise make no correction to the data.

**0075 W Check age of the person with age in household schedule («AH08»=n) [Entry, Women]**

The age of the respondent in the height/weight section is not consistent with the age listed in the household section. This variable should be classified depending on the age of the respondent in the household schedule «AH08», i.e., whether the woman is 15-17 years of age or 18+ years of age.

If no typing mistake has been made, then verify that the women are listed in the same order in the household roster as in the Height and Weight section («B76»).

**0090 D Level and grade of education inconsistent**

Under the educational system of a country people usually spend a maximum number of years in primary school, secondary school and higher education. This check ensures that the grade given does not exceed the maximum expected for the level of education reported.

The grade and level entered should be checked to ensure there has been no typing error, and correction should be made as necessary to either level or grade. See message 1091 for further explanations and examples.

**0120 D E HH Line n: Line number («AH21» / «AH23»=n) of mother/father not valid**

The line number of the mother (question «AH21») or the father (question «AH23») of the member is greater than the total number of household members.

Check the line number and the sex and relationship codes of members of the household to identify the mother or father of the member. If the parent is no longer listed as a member of the household, because he/she was neither a usual resident of the household nor had slept in the household the previous night, then correct the line number code to 00 (parent not member of household). If the parent can be identified then correct the line number to be the line number of the parent.

Checking the household line number «A219» in the birth histories of women in the household may assist in correcting line numbers of the mothers. Also, the husband's line number found in Section 1 (and the date of marriage) may assist in correcting the father's line number. If no correct parent line number can be found after careful checking, the line number of the parent can be changed to missing (99). See also messages 0122 and 0123.

**0121 D E HH Line n: Sex of mother/father (n) incorrect**

The sex of the mother of the member should be female and the sex of the father should be male. Similarly the mother and father should be at least 12 and 15 years older, respectively, than the member. In some cases the age restriction does not hold, but as a general rule very few cases exist which would break this restriction.

During data entry, verify that the relationship codes, line number of parents, sex and age have been correctly entered for each member. If no typing mistake has been made then no further action need be taken.

During editing, check the line number of the mother or father, the relationships to the head of the household and the ages of the member and parent. Identify the mother or father of the member and correct the line number. If the mother or father is not a member of the household, change the line number to 00. If the correct mother or father is already defined and the sex and age of the parent in the data file equals those in the questionnaire then no change should be made.

**0122 W E HH Line n: Relationship («AH03»=n) between mother/father (line=n rel(«AH03»)=n) and child not correct**

For each member of the household whose mother and/or father's line number is recorded the relationship of the member and the relationship of the parent to the head of the household should be consistent. For example, a member of the household cannot be recorded as a child of the head of the household while its mother is recorded as a parent of the head of the household.

During data entry, verify that the relationship codes, line number of parents, sex and age have been correctly entered for each member. If no typing mistake has been made then no further action need be taken.

During editing, check the mother and father's line numbers and the relationship codes for each of the members and identify the correct relationship. Modify the relationship codes of the member and the parent so that their relationship codes conform if the members are truly parent and child, otherwise correct the information on the line number of the parent for the member.

**EXAMPLES:**

1.	Line	Relationship	Sex	Age	Mother	Father
	01	01	1	33		
	02	02	2	31		
	03	03	2	08	02	01
	04	04	1	06	02	01

In this case, the fourth child is recorded as being a child of the head of the household according to his father's line number, but is recorded as a stepson according to the relationship codes. Clearly the interview has recorded the line number rather than the relationship to the head of household in the relationship code column. The relationship code for line 04 should be corrected to 03.

2.	Line	Relationship	Sex	Age	Mother	Father
	01	01	2	57		
	02	03	2	33		
	03	12	2	30		
	04	05	2	06	03	00

The household member line 04 is recorded as being the granddaughter of the head of household, but the mother, according to the mother's line number is not related to the head of the household. Both of the women recorded in lines 02 and 03 are eligible for the individual interview. After reviewing the individual questionnaires it should be clear who is the correct mother of the child. If line 03 is the mother, then she is clearly related to the head of the household, as her child is the grand daughter of the head of the household. Line 03 may be the daughter of the head of household, but it is more likely that she is the stepdaughter. Change the relationship code for line 03 to code 04.

If, however, after reviewing the individual questionnaires, it is found that line 02 is the mother of the child, correct the mother's line number for the child to 02. The problem in this situation was probably due to the interviewer recording the relationship code of the mother rather than the line number in the mother's line column.

## 0123 W E HH Line n: Child has different mother/father (n vs. n) in household according to relationship code

In some cases it is possible to identify the mother or father of a member of the household, solely on the basis of the relationship of each of the members to the head of the household. In these cases the line number of the mother or father recorded is checked against the line number of the mother or father identified to check for errors.

During data entry, verify that the relationship codes, line number of parents, sex and age have been correctly entered for each member. If no typing mistake has been made then no further action need be taken.

During editing, check the relationship codes and the parent's line number of each member of the household and identify the correct relationships. In most situations, the relationship code of the member or the parent should be changed or the line number of the parent for the member should be modified, as necessary. In a few cases it may be decided that no correction of the data will be made.

### EXAMPLES:

1.	Line	Relationship	Sex	Age	Mother	Father
	01	01	1	35		
	02	02	2	30		
	03	03	2	08	02	00
	04	03	2	02	02	01

In this example there are four household members, the head of the household, his spouse and two children. The mother of both of the children is line 02, the father of the second child is line 01, but the father of the first child is reported as not living in the household, although the relationship code of the child indicates that he/she is the child of the head of the household. There are two possibilities in this situation: either the line number of the father should be 01 for the first child, or the head of the household is not the natural father of the child (perhaps the wife was previously married and had the child during that marriage).

The individual questionnaire for the spouse can be used to look for indications as to whether the head of the household is the natural father of the child. For example, if the spouse had been married more than once, it is likely that the child was the child of a previous marriage. In this case the relationship code for the child should be changed to 09 (Other relative). If the spouse was only married once and the first marriage was prior to the birth of the child, then it is safe to assume that the child is actually the father's and the line number of the father should be corrected to code 01.

2.	Line	Relationship	Sex	Age	Mother	Father
	01	01	1	35		
	02	02	2	19		
	03	03	2	08	00	01
	04	03	2	02	02	01

This situation, though similar to the previous example, differs in some important ways. The mother of the first child does not live in the household, whereas the mother of the second child is line 02. The woman listed as line 02 is 19 years old and would have been 11 at the birth of the first child (line 03). Thus, it appears that the child is the child of a different woman, not listed in the household, and so no correction is needed for the mother's line number. The head of the household is clearly the father of the child, so no change is needed for the relationship code. The data, in this example, should be left unchanged.

## 0124 W M Line n: Age of mother/father (n) unlikely.

See message 0121.

**0150 D E HH Line n: Eligibility of member incorrect: Sex «AH04»=n Age «AH08»=n Elig «AH11»=n**

To be eligible for the individual interview a household member must be female and 15 to 49 years of age. If a member is eligible then the code entered for eligibility should be the line number of the member, and otherwise the eligibility code must be 00.

The eligibility of household members is checked at data entry to ensure that all eligible members and only those that are eligible are included in the individual data. Check the sex of the member (question «AH04») is female and the age of the member (question «AH08») is between 15 and 49. In some surveys, only ever-married women are selected for the individual interview and the marital status of the member should also be checked.

If all of these conditions are correct then the member is eligible and the eligibility code (question «AH11») must be the same as the line number of the member (question «AH01») and an individual questionnaire should exist for the member. If any of the conditions is not met then the eligibility code must be 00 and no individual questionnaire should exist for this member. Check the existence of an individual questionnaire before deciding on which piece of information is incorrect.

If this error appears during editing then, not only should the household schedule be corrected, but also individual women's data may need to be added or deleted from the data file, depending on the source of the error.

**0151 D E Number of eligible women/men incorrect: Expected n, found n**

The number of eligible respondents in the household schedule must equal the number of eligible respondents stated on the household questionnaire cover.

If they are not in agreement, the household schedule should be reviewed. Each member in the household schedule should be checked regarding their sex, age and their marital status (if applicable). An individual questionnaire should exist for each eligible respondent. Either the total eligible women/men field on the cover page should be corrected or the entries in the household schedule should be adjusted.

**0160 W M HH Line n: Level and grade of previous education «AH19»= n inconsistent with most recent level and grade of education «AH17»= n.**

The level and grade of education given in question «AH19» in the household schedule is higher than the level and grade of education reported in question «AH17». This implies that the household member was demoted to a lower level of education. This happens on occasions, but is not very common.

Review the education levels in questions «AH14», «AH17» and «AH19» to look for inconsistencies. Also look at the education questions in the women or men's questionnaire if the respondent is aged 15 or over. If there is no obvious error, then make no changes to the data.

This message may also be displayed during data entry and may compare any of the three questions on education. Remember that question «AH14» asks for the highest level of education attended and the highest grade completed at that level, whereas question «AH17» asks for the level and grade attended in the past school year, and question «AH19» asks for the level and grade attended in the previous school year.

**0190 E HH Line n: Level (n) and grade (n) of education inconsistent.**

The highest grade completed must be less than or equal to the maximum grade consistent with the highest level of school attended («AH14», «AH17», «AH19»).

If the response exceeds the maximum grade of schooling possible at the highest level reported, check first to see if the error may have occurred in the form in which the answer was recorded; for example, at the secondary level, grade 10 might be recorded rather than the number of years of schooling completed at the level (4 years). If the error is related to the form in which the answer was recorded, correct the response.

If the inconsistency still cannot be resolved, change the number of years of schooling to 97.

EXAMPLE: The level of education is secondary, indicating that the response to the highest grade should range between 01 through 05. However, the response recorded for the grade is 08. If it is common to refer to secondary education as grades 8 through 12 then the error can be explained as a mistake in reporting the grade rather than the number of years of schooling in which case the grade should be changed to maximum (5, in this example). If reporting of grades in this manner is not usual the response to the highest grade should be changed to 97.

This edit specification and its rules for correction should be adapted to fit country-specific educational systems.

- 0350      E    Data for child n already exists (probably as a respondent to her own questionnaire). Data will not be written again.**

This is a warning regarding a daughter's individual questionnaire existing with a date of birth and a date of birth from the mother's birth history. This message will not appear during processing of the survey; this will only appear during the final imputation process.

- 0351      E    Data for the respondent already exists (probably as a child in another questionnaire). Overwritten data with respondent's CMC.**

This error also will be produced at final imputation run. This error should be investigated since 2 children should not have the same household line number. Careful review of names, ages, sexes, mother's line number from the household, relationship codes should be used to correct Q219 for one of the children.

## WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT

### 0410 D Line number of child in column n incorrect: Expected n

The children must be entered in section B1 in reverse order from the youngest to the oldest. Only living children are entered in this section of the questionnaire. If the children are listed out of order or dead children are included in the questionnaire, then enter the children in reverse order according to their line numbers, excluding dead children, and not by the order they are listed in the questionnaire.

### 0420 W Age (n) different from age in household schedule («AH08» =n)

If the child's mother is in the household list and was successfully interviewed, check the birth history in that questionnaire for the child's age and date of birth. The data recorded there for age and date of birth should be copied from the birth history. It is not necessary for the age recorded here to be the same as the age in the household schedule. It is more important to have consistency between the age and date of birth recorded here and the age and date of birth recorded in the mother's birth history.

### 0430 D Date of birth of child out of range

The date of birth of the child in question «B62» is not correct. This message is produced when the date of birth is after the date of interview, before the minimum date of birth for this question or the day of birth is not valid (i.e. February has only 28 or 29 days, April, June, September, and November have only 30 days). If there is no keying error attempt to resolve the problem by looking at the date of birth in the birth history and at the vaccination dates.

### 0440 W M Woman/child row n Line n: Weight B78/B65=n. If outside range expected for age=n sex=n

The weight of the respondent or child is outside of the expected range. For the respondent, the range is 30-100 kilograms. For children, the range is dependent on the age and sex of the child. The exact limits are given in section F.

Carefully check the data entered. If no keying error was made then no correction is necessary.

### 0450 W M s/child row n Line n: Height (length) B77/B64=n. If outside range expected for age=n sex=n

The height or length of the respondent or child is outside of the expected range. For the respondent, the range is 130-200 centimeters. For children, the range is dependent on the age and sex of the child. The exact limits are given in section F.

Carefully check the data entered. If no keying error was made then no correction is necessary.

### 0460 W M Woman/child row n Line n: Children under 2 are usually measured lying down (children 2+) measured standing up: Measured B66=n age=n

In measuring the height or length of children, the measurers are instructed to measure children aged under 2 years lying down, and children aged 2 years and over standing up. The code entered for this question, does not agree with this rule.

Check the data entered, but make no correction unless a keying error was made.

**0470 D Result of measurement («BH79»/«BH67»=n) inconsistent with measurements recorded (height «BH77»/«BH64»=n, weight «BH78»/«BH65»=n)**

There are two reasons that this message may be produced:

- i) According to question «BH67» the child was successfully measured, however there is no measurement for either the height or length of the child or the weight of the child in questions «BH64» and «BH65».
- ii) Measurements exist for both the height or length of the child in question «BH64» and the weight of the child in question «BH65», but the result code for the weighing and measuring is not code 1.

In both cases, correct the result code in question «BH67» to agree with the data found in questions «BH64» and «BH65». For example, if the height is missing but the result is coded 1 change the result code to 6 (Other: height/weight missing). Similarly if both the height and weight are recorded for the child, but the result in question «BH67» is not code 1, change the result code to 1.

**0480 D Result of Hemoglobin measurement («BH84»/«BH71»=n) inconsistent with measurements recorded (g/dl «BH83»/«BH71»=n)**

See the same procedure in message 0470.

## INDIVIDUAL QUESTIONNAIRE COVER SHEET

### 1000 D Line number of respondent incorrect: Please enter woman number n

Each eligible woman in the household schedule must have an individual questionnaire entered, and the individual questionnaires should be entered in order of line number in the household schedule.

If the line number entered is incorrect, then correct the line number and continue. If the line number on the questionnaire does not agree with the line number expected make sure that the individual questionnaires are sorted in ascending order of line number before entering the individual.

If there is no questionnaire with the line number expected, then check the eligibility of the member and verify that a questionnaire should exist for the member. If there is a mistake in the eligibility of the member, correct the sex, age, residence or marital status (if applicable) for the household member.

If the individual is eligible but a questionnaire does not exist then check the Field Supervisor's Control Sheet to ensure that an interview was conducted with the member. If no interview was conducted, but the member was eligible, a dummy questionnaire should be created for the member with a result code 7 (Other: "Eligible woman missed for interview"). If it is possible to return and reinterview the eligible member, then the dummy questionnaire may be replaced at a later time by a completed questionnaire. The DP Control Sheet and the Field Supervisor's Control Sheet should be corrected to reflect the addition of an individual questionnaire.

In a few cases, questionnaires are completed for ineligible respondents and no data is expected for these respondents. The eligibility of the respondent should be checked carefully to see if the respondent was really eligible. In general it should be assumed that the respondent was eligible, unless there is sufficient information to determine that the respondent was ineligible.

If the respondent was clearly ineligible then the cover of the individual questionnaire should be crossed through and marked "INELIGIBLE", and the DP Control Sheet and the Field Supervisor's Control Sheet corrected to reflect the ineligibility of an individual questionnaire.

### 1002 W Individual questionnaire incomplete. Check result code

If the result code for the individual questionnaire is not code 1 (Completed) then the data entry for the individual will terminate at the end of the cover page. This is only a warning to ensure that data is not lost inadvertently.

Check the individual questionnaire to see if a complete interview was conducted. If the result code shows a partly completed interview, but all questions were answered up to section 7 and the interviewing stopped on the last page of the section, the interview should be considered completed, the result code changed to 1 and the last few unanswered questions set to the code for missing data. In particular, the anthropometrics section of the questionnaire should not be considered a part of the interview as far as the result code is concerned. If only the weighing and measuring is not done then the result code should be 1.

If the individual interview was not completed continue with the data entry, but if the individual interview has been completed then go back and change the result code entered to 1 to allow entry of the whole of the individual interview.

## SECTION 1. RESPONDENT'S BACKGROUND

### 1031 W M Respondent is a visitor(«A102»=n), however she is a usual resident in the household schedule («AH05»=n)

In question «A102» the respondent reported that she was a visitor to the household, but in question «AH05» she is recorded as being a usual member of the household.

Check for keying errors, both in the individual questionnaire and in the household data. If there are no keying errors, make no correction to the data.

### 1060 D M Neither date of birth nor age specified: «H08»=mm/yyyy «A104»=n

The age of the respondent is one of the most important pieces of information in the individual data file. It is crucial that the age of the respondent should be known for all women in the individual data file. For this reason either the age or the year of birth are required for all respondents.

If no information has been recorded for either of these questions, then check other related pieces of information to see if the age of the respondent can be deduced. The information to check includes the following:

- Age of the respondent in the household schedule («AH08»)
- Age at first union and date of first union («A120» and «A121»)
- Date of birth of the first child («A215»)
- Age at first sexual intercourse («A612»)

If none of the related information gives any clear idea as to the correct date of birth or age of the respondent, use the age of the respondent reported in the household schedule («AH08») in question «A104».

### 1061 W M Age of respondent and age in household different: «A104»=n «AH08»=n

The age of the respondent and the age given for the respondent in the household schedule should be the same, but the household schedule is often reported by a different member of the household.

If the age of the respondent has been recorded differently in the household schedule and the individual questionnaire, but both have been correctly entered then the information should be left as recorded.

However, in surveys where an ever-married sample of women is used for the individual interview, the age of the respondent as recorded in the household schedule is more important. This information is used to calculate the proportion of women ever married by age group to allow the adjustment of results from an ever-married woman sample to represent all women. Cases where the age of the respondent is significantly different from the age recorded in the household schedule should be carefully reviewed. However, unless there has been a keying error, the ages should not be changed.

If there are two or more eligible women in the household, each of the individual questionnaires should be checked to ensure that the correct questionnaire is being entered. Occasionally the wrong line numbers are written on the cover pages of the questionnaires. If this is the case, the line numbers should be corrected, the questionnaires reordered and the entered according to the correct order.

**HERE THERE IS THE NEED TO LINK THE HOUSEHOLD DOB DATA WITH THE WOMAN AGE DATE**

**1062 D E Date of birth and age inconsistent: dob «H107»=mm/yyyy cmc=cmc-cmc age «A104»=n interview=mm/yyyy cmc=cmc**

The age calculated based on the month and year of birth of the respondent (question «H07») must be equal to the respondent's age in completed years (question «A104»).

In resolving inconsistencies in the calculated and reported ages, it may be necessary to consider other information in the DHS household and individual questionnaires including:

- The age recorded for the respondent in the household listing
- The number of live births
- The date of birth of the respondent's first child
- The date and age at first union

If, after reviewing all other relevant items of information, the inconsistency cannot be resolved, there are two ways of correcting the data. If the inconsistency is 1 year, correct the year of birth if the month is given; otherwise correct the age. If the inconsistency is greater than 1 year, choose the age or date of birth, whichever is assumed to be more correct. If the age is chosen, change the year of birth to 9997 and the month to 97. If the date of birth is chosen, change the age to 97.

Note that, in many cases, the difference between the calculated and reported ages will not be large. In those instances, the error is most likely to have occurred because the respondent reported her age at her next birthday rather than at her last birthday.

**EXAMPLES:**

1. The birth date was recorded as May 1971, indicating that the respondent was 31 years old at the time of the DHS interview in August 2002. However, her age, as recorded in the individual questionnaire and in the household schedule, was 32 years. Both the birth date and the age are consistent with the date of first union (July 1992) and date of birth of her first child (August 1994). To resolve the inconsistency between the birth date and the age response, change the age reported (question «A107») to 31. Do not change the age as recorded in the household schedule.

2. The birth date was recorded as March 1970, indicating that the respondent was 32 years old at the time of the DHS interview in September 2002. However, her age as recorded in the individual questionnaire and in the household schedule, was 42 years. The respondent also reported that she was 17 years old when she first married, that she had five children, and that her first child was born in June, 1979. The latter responses are more consistent with current age of 42 years than 32 years (e.g., if the respondent was 32 years at the time of the interview, she would have only been 9 years old at the birth of her first child). The year of birth (question «H07») should, therefore, be changed to 9997 and the month to 97.

**1063 E Date of birth of respondent out of range: dob «H07»=mm/yyyy interview=mm/yyyy range=mm/yyyy-mm/yyyy**

The respondent must be aged between 15 and 49 complete years of age. Depending on the date of interview, this translates into a minimum and maximum possible date of birth for the respondent. Occasionally a date of birth recorded is outside of this range.

Check that all information relating to the date of birth of the respondent are correct as in message 1062.

If the date of birth is one month before the minimum date of birth, and the age of the respondent is recorded as 49, then change the month of birth of the respondent to the month following. This will ensure consistency of information, without dropping the respondent from the sample.

If the respondent was clearly born outside of the expected range, then the respondent should be dropped from the sample due to ineligibility. Cross through the front cover of the individual questionnaire and mark it ineligible. Correct the age and eligibility in the household schedule to reflect the correct age of the respondent. Change the Field Supervisors Control Sheet and the DP Control Sheet to reflect the correction.

**1064 M Month of birth of respondent inconsistent with other information: cmc=cmc-cmc [mm/yyyy-mm/yyyy] month «H07M»=n**

If the year of birth was not recorded, but the month of birth was given, the editing and imputation program will attempt to correctly calculate the year of birth from other information provided in the questionnaire. In some cases, after constraining the date of birth using all other available information, the month of birth proves to be inconsistent with the constrained date. This message will usually be accompanied by message 9921.

If the month of birth is truly inconsistent with the other available data, no correction is necessary as the month of birth will be ignored in the imputation of the date of birth of the respondent. However, if the month of birth is believed to be correct, then the information used to constrain the date of birth will need to be modified to avoid the inconsistency. In general, it is better to assume that the month of birth is not correct, and allow a new month of birth to be imputed.

**1080 W Level of education n different from level in household n**

The data recorded in the household listing for education should be checked for consistency with the information recorded in the individual questionnaire. This check is important for ever-married samples, since the ever-married sample will be expanded to all-women for some analyses, and this expansion will be based on data reported at the household level for all women.

Only keying errors should be corrected. The household data should not be changed to be consistent with the respondent's data since it is not possible to correct the data reported for the never-married women at the household level. If there are two or more eligible women in the household, check each of the individual questionnaires to ensure that the correct individual questionnaire is being entered as in message 1061.

**1090 W Grade of education n different from grade in household n**

See message 1080.

## SECTION 2. REPRODUCTION (CHILDREN EVER BORN)

### 2030 D Number of boys and girls must be greater than zero

The number of boys and girls specified in questions «A203», «A205», or «A207» must be greater than zero or the response in questions «A202», «A204» or «A206» respectively should be "No" (code 2).

Check the number of boys and girls living at home, living elsewhere, and who have died in the birth history against the numbers given in questions «A201» to «A208». If there are no boys and no girls in a particular category, then the response to the preceding question should be "No". For example, if there are no boys living elsewhere and no girls living elsewhere then the response to question «A204» should be corrected to "No" (code 2).

### 2080 D Number of children ever born incorrect

The total number of live births must be equal to the sum of the total number of children reported in questions «A203» (number of sons and daughters at home), «A205» (number of sons and daughters elsewhere) and «A207» (number of boys and girls dead).

If the total reported in question «A208» does not agree with the sum of the number recorded in questions «A203», «A205» and «A207», the detailed checks described for message 2210 should be employed to determine which questions require correction.

## SECTION 2. REPRODUCTION (BIRTH HISTORY)

A detailed description of the birth history and the internal consistency of the information recorded within the birth history is given in section H.

### 2120 D Multiple birth code incorrect

There are three possible causes of this error:

- The current birth is marked as a single birth and the preceding birth is marked as the first of a multiple birth.
- The current birth is the first of a multiple birth, but there are no further births.
- The current birth and the preceding birth are recorded as part of the same multiple birth, but the date of birth is different.

Check that the multiple birth status is coded correctly. The definition of a multiple birth is a pregnancy that results in the birth of two or more children. Stillbirths are not included as children, but a child that lived for a short time and then died is counted.

Ensure that the children listed in the birth history are entered in order of their line numbers, which should reflect the chronological order of the births. For example a dead child may have been missed from the birth history at first, but then added at the end of the birth history during the interview. The line number of each child in the birth history should have been changed to reflect the correct ordering of the children and the children should have been entered according to this order. If this is not done, twins may be separated in the entered data, causing this error.

If the children are correctly ordered and the multiple birth status is correctly coded, check that the date of birth recorded for each of the children resulting from the multiple birth is exactly the same. If the children were born on different dates, the multiple birth status of each child should be changed to reflect the fact that they were single births, but if they were born at the same time, the date of birth should be exactly the same.

In a few cases there may be triplets or one pair of twins born after another pair of twins. It is important to check the data carefully to ensure that each of the twins is correctly coded and that the twins are recorded as being born on the same date.

### 2141 W E Child n has different sex in household («AH04»=n «A214»=n)

The sex of the child given in the women's questionnaire is different from the sex of the child in the household questionnaire.

Check that the line number given in question «A219» refers to the correct child in the household schedule by checking the name and age of the child referred to. If question «A219» points to the wrong child, correct «A219». If question «A219» refers to the correct child, check questions 201-204 to check if there was a mistake with the sex in question «A214». Also review the name of the child to see if that can be used to determine the sex of the child. If there is no way to determine the sex of the child, assume that the sex given in the women's questionnaire is correct and change the sex given in the household questionnaire («AH04») for the line pointed to by question «A219».

**2150 D Date of birth of child after date of interview**

The date of birth of the child (question «A215») must be prior to or the same as the date of interview.

If the date of birth is later than the date of interview, the error may be in either the response to question «A215» or with the interview date. In resolving the problem, check to see that the age of the child (question «A217») is consistent with the response in question «A215», i.e., that the child was 00 years old at the time of the interview. If the child's age is greater than 00, change the year of birth of the child (question «A215») to be consistent with the child's age. Other information that may help in determining the child's correct age and/or birth date include the child's age in the household listing and the dates recorded for immunizations (question «A506»). The interview date should be checked with the dates recorded on the questionnaire cover page for each interview visit. Also ensure that it is consistent with the dates recorded for other interviews in the cluster.

If both the interview date and question «A215» appear to be correct, change the month of birth of the child in question «A215» to 97.

**2151 D Date of birth of child and twin are different**

If a child is recorded as the second (third or fourth) of a multiple birth, the date of birth of the child must be exactly the same as the date of birth of the preceding child.

If the dates of birth are different, check that the age of the child is the same for each living twin and ensure that they are twins. If twins are recorded with slightly different dates of birth, then the dates should be made to be exactly the same. For example, a child who has died may be recorded as being born in 1988, but the month of birth was unknown (98), while the living twin is recorded as being born in February 1988. In this case the dead twin's month of birth should be changed to February (02).

Other errors occur sometimes because of poorly written entries on the questionnaire. For example, one of the twins is recorded as being born in March 2000, while the other is listed as being born in March 2001. The age of the twins, the dates of birth of other children born before or after the twins, immunization dates, etc. can be used to deduce which year is correct.

**2152 D Date of birth of child not in order**

Each child must be entered in chronological order. The line numbers of each child must reflect this ordering.

Check the date of birth of the child to see if it was entered correctly and that it was recorded accurately on the questionnaire. Check that the date of birth of the child is consistent with the age of the child (if the child is alive). If the date of birth of the child is correct, then the ordering of the children in the birth history should be changed, but before reordering, the birth history must be checked to ensure that this change will not produce any other inconsistencies.

For example the interval between the births of children must be sufficiently wide. Nine months is the minimum birth interval allowed, and about two and a half years is the expected interval. Also ensure that the age of the woman was not too young or too old at the time of the birth, and that the birth was not too far away from other births. These are all signs of a possible error in the date of birth.

If, after carefully checking that the date is correct and reordering will not create other problems then correct the order of the births and the line numbers of each of the children affected. If the reordering affects any children born in the last five years, then the line numbers and the ordering of columns in sections 4A and 4B of the questionnaire should be corrected. Reordering is done in each section by writing the correct column number at the top of each column and marking with '\*' the columns to be reordered. It is important that the data entry operators enter the data from the entire column into the

correct column in the data file. It is not enough to simply change the line number in «A403» and «A502».  
The entire section must be correctly entered.

**2153 D Child should be coded as multiple birth if born on same date as previous child**

Each child that was born on the same date as another child should be recorded as a multiple birth. First check that the date from the correct line of the birth history has been entered for the current entry and the previous entry. Check the multiple birth status of the previous child to see if that child was marked as a multiple birth. Verify that the age of each child is the same.

If all information indicates that the dates of birth and ages are correct and the children are twins, then correct the multiple birth status of the child, and the previous child if necessary. If the children do not appear to be twins, then the date of birth of one of the children must be changed.

**2170 D Age of child and age of twin different**

If two children are recorded as twins and their dates of birth are the same, then the ages of the children must be the same. Modify the ages of the children to be the same and to be consistent with the date of birth.

**2171 D E Child n: Age of child and date of birth inconsistent: dob «A215»=mm/yyyy interview=mm/yyyy age «A217»=n**

For all surviving children in the birth history table (i.e. question «A216» is code 1), the age calculated on the basis of the date of birth (question «A215», month and year) must be equal to the age of the child reported in question «A217».

In resolving inconsistencies in the calculated and reported ages for children, first check the consistency between the two items of information (date/age) and similar information for the preceding and/or subsequent births. Using all of this information, the following rules should be applied in resolving inconsistencies between the date of birth and age of a child:

- i) If both the date and age are consistent with information for the surrounding births, then either the date of birth or the age should be corrected. If the month and year of birth are both reported, change the age to be consistent with the month and year of birth, otherwise change the year of birth to be consistent with the age.
- ii) If one response is inconsistent with information relating to a preceding or subsequent birth while the other response is consistent, change the inconsistent response.
- iii) If both items are inconsistent, follow the procedures outlined in message 9905 for correcting errors relating to the interval between two births.

**2172 M Child n: Month of birth inconsistent with other information: cmc=cmc-cmc [mm/yyyy-mm/yyyy] month «A215M»=n**

Follow the same procedure as for message 1064.

**2173 W M Child n has different age in household («AH07»=n «A217»=n)**

The age of the child given in the women's questionnaire is different from the age of the child in the household questionnaire.

Check that the line number given in question «A219» refers to the correct child in the household schedule by checking the name and sex of the child referred to. If question «A219» refers to the wrong child correct «A219».

Check the age of the child in «A217» and the age given in the household schedule. Look for corrections marked on the women's questionnaire to deduce the correct age of the child. If neither is obviously wrong, make no changes to the age of the child in either questionnaire.

**2181 D Household line number of child invalid**

The line number of the child given in question «A219» is greater than the total number of household members.

Review the household schedule and identify the child using the name, sex and age of the child, and correct question «A219» to the line number of the child from the household schedule. If no child in the household schedule matches the child, change question «A219» to 00.

**2182 W E Child n has different mother in household («AH21»=n mother's line=n)**

According to the line number in the household schedule given in question «A219», and referring to the mother's line number in question «AH21» of the household schedule for that line, the mother's line number differs from the line number of the respondent (who is reporting the child as one of her children).

Check that the line number given in question «A219» refers to the correct child in the household schedule by checking the name, age and sex of the child referred to. If question «A219» points to the wrong child correct «A219».

Verify the line number of the mother according to question «AH21» in the household schedule. Check that the line referred to by question «AH21», is the mother of the child.

Check that the child is not listed as the child of another respondent in the household. If the child is listed in another respondent's questionnaire, try to determine which woman is the natural mother of the child. Also determine whether the child is the same in both questionnaires or if they are different children.

**2184 D E Child n: line number («A219»=n ) of child from the household already used**

The line number of the child given in question «A219» is also used for another child in the household.

Check that the line number given in question «A219» refers to the correct child in the household schedule by checking the name, age and sex of the child referred to. Correct «A219» for the child that was incorrectly coded.

**2185 W M HH line n: mother has child n listed in household but not in birth history**

In the household schedule, a child was listed with the respondent as his or her mother, but that child is not listed in the birth history of the respondent.

Check each entry in the birth history, reviewing the name, age, sex and residence status of each child to see if they are listed in the household schedule. For each child listed in the household schedule, ensure

that question «A219» is correctly coded. All other living children should be coded 00 in question «A219».

**2186 E Child n: child has no line number in household («A219»=n) but mother is de jure member («AH05»=n) and child lives with mother («A218»=n)**

A child listed in the birth history is reported to live with the respondent according to question «A218», and the respondent is a usual (*de jure*) member of the household according to question «AH05» in the household questionnaire, however the child is not listed in the household schedule according to question «A219».

Check the household schedule to see if the child is listed in the household -- if so, change question «A219» to the line number from the household schedule. If not, check the residence status of both the respondent and the child in the household schedule and check questions «A201»-«A205» and question «A218» in the women's questionnaire. If there is no obvious error, then make no change to the data.

**2190 D Age at death invalid for units=9**

The special responses for missing data, don't know and inconsistent are the only codes accepted with the units code equal to 9.

If an age at death is recorded in the questionnaire, but the units for age at death have not been circled, the code adjacent to the completed boxes on the questionnaire should be entered. For example, if the value 03 is entered in the Days box, but the unit code was not circled, then circle code 1 and enter it. If the code 9 is entered for the units of age at death, only the special responses for missing (99), don't know (98) and inconsistent (97) are acceptable.

**2191 W M Child n: Age at death «A220N»= n out of range for the units «A220U»=n**

The age at death should usually be in the ranges 0-30 for days, 1-23 for months, and 2 or higher for years.

During data entry and editing, the age at death entered should be checked to ensure that it is the same as that recorded on the questionnaire. If no data entry error was made, then no further action should be taken. Under no circumstances should the data be modified. The age at death will be flagged with code 6.

**2192 W M Child n: Age at death and date of birth inconsistent: dob(«A215»)=mm/yyyy, death(«A220»)=n, interview=mm/yyyy**

The age at death of a child («A220») should be less than or equal to the interval between the birth of the child («A215») and the date of the interview.

Check for data entry errors, but make no other corrections. During imputation, the age at death flag will be set to code 1.

**2200 E Child n: Line number of child («A219»=n) also used in individual questionnaire n**

The line number of the child given in question «A219» is also used for another child in the household, but in a different respondent's questionnaire.

Check that the line number given in question «A219» refers to the correct child in the household schedule by checking the name, age and sex of the child referred to. Correct «A219» for the child that was incorrectly coded.

Also review the procedures for message 2182 to resolve the error.

**2212 E Child n HH Line «A219»=n: Date of birth of child and date of birth in height/weight section different: «A215»=mm/yyyy «B62»=dd/mm/yyyy**

The date of birth of the child in the women's questionnaire and the date of birth in the height and weight section of the household questionnaire must be the same.

Compare the age and date of birth given in questions «A217» and «A215» with the date of birth given in question «B62» of the household questionnaire. If there are no obvious errors and the age and date of birth in questions «A217» and «A215» are consistent with each other, change the date of birth in «B62» in the household questionnaire to be consistent with question «A215».

It is important to make the date of birth of the child consistent in the heights/weights section and the birth history. The range of the heights and weights are checked based on the age and sex of the child and it is best to have the "final" date of birth for the child recorded in the household heights and weights section. It is NOT necessary to change the age of the child in the household listing («AH08»).

**2240 D Sons living at home/Daughters living at home/Sons living away from home/Daughters living away from home/Sons who died/Daughters who died inconsistent: «A203», «A205» or «A207»=n, count=n**

There are a number of edits which must be carried out to check the consistency between responses to questions «A201» through «A208» and responses to questions «A214», «A216», and «A218». They include:

- Total number of live births («A208») must be equal to the total number of births recorded in the birth history.
- Number of sons and daughters at home («A203») must be equal to the total number of boys and girls reported as still alive and living with the mother in («A214» (sex of child), «A216» (whether child still alive) and «A218» (whether child living with mother).
- Number of sons and daughters elsewhere («A205») must be equal to the number of boys and girls reported as still alive but not living with the mother in «A214», «A216» and «A218».

- Number of boys and girls dead («A207») must be equal to the number of boys and girls reported as having died in questions «A214» and «A216».

Three basic types of inconsistencies may occur in the above responses:

i) Inconsistencies in the sex distribution of surviving and/or dead children.

To resolve differences in the sex distribution of surviving and/or dead children, first check the names recorded in question «A212» to determine if the names are consistent with the sex recorded in question «A214». (For surviving children who are living with their mothers, a check may also be made with the names recorded in the household listing). If the names are not consistent with the reported sex (e.g., Mary is recorded as a boy in question «A214»), change question «A214». Then check to see if the sex distributions of children reported in questions «A203», «A205» and «A207» are consistent with those in the corrected birth history.

If the names are consistent with the sexes reported in question «A214» or the inconsistencies cannot be resolved, change the sex distribution of the totals reported in questions «A203», «A205» and/or «A207» to be consistent with the birth history.

EXAMPLE: According to question «A203», a respondent has two sons and one daughter at home. However, in the birth history, the respondent is reported to have one son and two daughters living with her. An examination of question «A212» shows that the names of the children listed as living with the respondent are consistent with the sex recorded in question «A214». Therefore, question «A203» should be changed to be consistent with the information in the birth history: i.e., in question «A203» change the number of sons at home to 01 and the number of daughters to 02.

ii) Inconsistencies in the residence status of surviving children.

If the mother is a usual resident of the household, check the information on residence in the household listing to see if the responses are consistent with the responses to question «A218». If they are not consistent (e.g., a child is reported to be living with the mother in question «A218» but is not listed in the household questionnaire as a household member), change the response in question «A218» to be consistent with the information in the household listing. Then check to see if the distribution of children by residence status in questions «A203», «A205» and «A207» is consistent with the corrected birth history.

If the residence status in the household listing for the children in question is consistent with question «A218» or the inconsistencies cannot be resolved, change the residence status of the totals reported in questions «A203» and «A205» to be consistent with the birth history.

EXAMPLE: According to questions «A203» and «A205» a respondent has five children living at home (three sons and two daughters) and two children living away (one son and one daughter). These totals are inconsistent with the responses to question «A218» in the birth history which indicate that six children are living with the mother (three sons and three daughters) and only one child (a son) is living away. An examination of the household questionnaire indicates that one of the daughters reported as living at home is not listed as a household member. Because the household listing is consistent with the response in question «A205», the answer in question «A218» for that daughter should be changed to "No" (code 2), and no change should be made in the answers to questions «A203» and «A205».

iii) Inconsistencies in the survival status of births.

To resolve inconsistencies in the survival status of births, it will be necessary to check responses to other questions in the birth history, in section 4 and section 8 (for children under 5 years of age) and information in the household listing.

In general, the responses to questions «A203», «A205» and «A207» should be changed to be consistent with the survival status of children as reported in question «A216» of the birth history. However, if there is clear evidence that a "No" (code 2) response in question «A216» is incorrect (e.g., there is no answer to age at death (question «A220») but there are answers for the current age of the child (question «A217») and whether the child is living with the mother (question «A218»), consistent with the child being alive), the response to question «A216» may be changed to "Yes" (code 1).

EXAMPLE: According to the responses to questions «A203», «A205» and «A207», a respondent has five surviving children, three children at home and two children (a son and a daughter) living elsewhere. In the birth history, the respondent is, however, reported as having four surviving children (three at home and one living elsewhere) and one dead child. For the latter child (a daughter), the responses to other questions in the birth history are consistent with the reported survival status. The responses to questions «A205», «A206» and «A207» should be changed to be consistent with the birth history, i.e., only one child (a son) should be reported as living elsewhere in question «A205», the answer in question «A206» should be changed from "No" (code 2) to "Yes" (code 1), and one child (a girl) should be reported as dead in question «A207».

**2241 W Interval between birth n (mm/yyyy) and birth n (mm/yyyy) too small**

The interval between births (i.e., the number of months between the date of birth of one child and the date of birth of the next child) must be greater than or equal to nine months for all births in the birth history.

Check the dates of birth of each of the children to ensure that they have been correctly entered. If no data entry error has been made then leave the data as it is. A similar message will be produced during editing/imputation and corrective action can be taken at that time. This is described under message 9905 (Interval between two births).

**2250 D E Number of births («A224»=n) since «D2001» different from births in birth history n**

The number of births since January «D2001» found in the birth history should equal the number in question «A224». In cases where there is some incomplete reporting of dates of birth, it is not always possible to calculate how many children were born since January «D2001», and a range of possible values is displayed.

The number recorded in question «A224» is used to control the entry of information in section 4 of the questionnaire, i.e. data will be required for the number of children specified in question «A224». The date of birth of each child in the birth history, the response to question «A224» and the number of children included in the health section should be reviewed carefully.

If a child has been included in the health section, but the date of birth of the child is recorded as being before January «D2001» then the date of birth of the child has probably been incorrectly recorded and should be changed. The immunization information can often be used to estimate the correct date of birth.

If a child was not included in the health section, but its birth was recorded as after January «D2001», there are two possibilities. Either the date of birth of the child was incorrect and should be before the cutoff date, or the interviewer failed to include the child when asking the questions in the health section. The latter is the more usual case but, before assuming this is the source of error, the interval between the birth and any succeeding birth should be checked to ensure that it is not too narrow.

If the interviewer has failed to ask the questions in section 4 for the child, then the section should be completed with missing data for this child and the number recorded in question «A224» should be adjusted accordingly. The questionnaire may be sent back to the field after data entry for the information to be collected and later updated in the data file. A record of any questionnaires sent back to the field must be kept.

## SECTION 2. REPRODUCTION (OTHER PREGNANCIES)

### 2270 D E Current pregnancy («A226»=n) information inconsistent with calendar ( x ).

The respondent is recorded as being pregnant, either in the month of interview in «Col1» of the calendar or in question «A226», but not in both places.

This error is usually because of a mistake in the calendar, such as the current pregnancy information being ignored when completing «Col1» of the calendar or a pregnancy resulted in a birth in the month of interview, and the "«CODEB»" was not recorded clearly in the calendar. In general, corrections should be made to the calendar; only in situations where it is clear that the mistake is in the main part of the questionnaire should question «A226» be corrected.

### 2280 D E Duration of pregnancy in calendar (n) and questionnaire («A227»=n) different

The current pregnancy is recorded in the calendar after asking question «A227», and the duration of the pregnancy must be the same as the response to question «A227». The problem is usually caused by data entry error while entering the calendar or by the interviewer failing to enter the correct number of "«CODEP»"s in «Col1» of the calendar.

If the problem is not a data entry error, then the calendar should be changed to reflect the correct duration of pregnancy, while taking care to maintain the information recorded in the calendar for the months immediately preceding the start of the pregnancy.

### 2300 D Pregnancy termination in calendar (row n), but never terminated a pregnancy

A pregnancy termination, other than a live birth, is recorded in the calendar, but the response to question «A229» was "No" (code 2). Check to see if there is a date recorded in question «A230», in which case the response to question «A229» should have been "Yes" (code 1).

If the termination ("«CODET»") in the calendar is preceded by one or more months of pregnancy ("«CODEP»"), but no pregnancy termination information is recorded in questions «A229»-«A236», and it appears that the information in the calendar is correct, questions «A229»-«A236» should be modified to reflect this. In other words, question «A229» should be changed to code 1, question «A230» to the date of termination recorded in the calendar, question «A232» to the duration of the terminated pregnancy (i.e. the number of Ps in the calendar plus one) and question «A233» to missing data (9). (If there is another pregnancy termination recorded in the calendar, question «A233» should be set to code 1).

If the pregnancy termination ("«CODET»") in «Col1» of the calendar is not preceded by any months of pregnancy ("«CODEP»"), the information in the calendar should be modified. The "«CODET»" may have been misread and might, perhaps, be a code 1 or a code 7. Check the surrounding months in the calendar and the information on current use and ever use of contraceptive methods to resolve the problem.

### 2310 D E Last pregnancy termination date («A230»mm/yyyy, cmc=cmc-cmc) different from termination date given in calendar (cmc=cmc [mm/yyyy] row n)

The date of termination of the last pregnancy that did not result in a live birth, recorded in question «A230», does not match the date of termination as recorded in the calendar.

In general the calendar should be corrected, but only after ensuring that the date recorded in question «A230» is not inconsistent with other information. The information to review includes the dates of surrounding births and the durations of amenorrhea and abstinence after a preceding birth.

**2330 D E Duration of last terminated pregnancy («A232»=n) different from duration in calendar (n)**

The duration of the last terminated pregnancy, recorded in question «A232» does not equal the duration of the pregnancy recorded in the calendar.

The information recorded in the calendar should be corrected in most circumstances, after verifying that the response in question «A232» appears correct and is not inconsistent with other information.

**2340 D E Earlier terminated pregnancy in calendar (row n), but no other terminated pregnancy mentioned («A233»=n)**

A second pregnancy termination was recorded in the calendar, but question «A233» shows no record of a prior pregnancy that did not result in a live birth.

A similar procedure should be applied as for messages 2280/2300. If the termination ("«CODET»") is preceded by some months of pregnancy ("«CODEP»") then the error is probably in question «A233» and it should be changed to code 1, but if the "«CODET»" stands alone in the calendar then it has probably been misread and should be corrected.

**2360 W M Last period before last birth («A237»=n) but never gave birth (ceb «A208»=n)**

The response recorded in question «A237» is that the respondent's last period was prior to her last birth, but the respondent has never given birth according to question «A208». There are two possible explanations:

- i) The response relates to the respondent's last pregnancy, not her last birth.
- ii) The response was incorrectly recorded.

During data entry, the question should be checked for a typing error. If no typing error is found then data entry should continue without correction.

During editing, review the question and related questions to see if the wrong code was circled. For example, the respondent may be in her menopause, or may never have menstruated. If it is clear that the wrong code was circled, then the code should be corrected. If not, the data should be left as it is, and a flag variable will be set indicating the problem during the imputation phase. The flag value is 4.

**2362 M Amenorrhea («A454»(1)=n) inconsistent with time since period returned («A237»=n)**

Either the respondent claimed to have had a period after her last birth according to question «A454», but has reported her last period as before her last birth in question «A237», or her last period was after her last birth according to question «A237», but she has reported that her period has not returned since her last birth in question «A454».

The data should not be corrected and the flag variable will be set during the imputation phase by a later message that differentiates between different types of inconsistency to indicate the exact problem found.

**2364 M Time since last period exceeds interval: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interview=cmc [mm/yyyy] last period «A237»=n**

The time since the last period from question «A237» exceeds the interval between the birth of the child and the date of interview. It is possible that the respondent's last period may have been before her last birth, but she replied to question «A237» with the actual time since the last period.

The data should not be corrected and the flag variable will be set during the imputation phase. If the last period is calculated to be before the last birth, and this is consistent with the response to whether the respondent's period had returned since her last birth (question «A454»), then the flag variable will be set to 9. If the information is inconsistent, the flag variable will be set to 1.

**2365 M Time since last period given («A237»=n), but period not returned («A454»(1)=2) since last birth**

The respondent reported the time since last period in question «A237», which was calculated to be after the last birth, but according to question «A454» her period had not returned after the last birth.

The data should not be corrected and the flag variable will be set to 3 during the imputation phase.

**2366 M Duration of amenorrhea + time since last period exceeds interval: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interview=cmc [mm/yyyy] amenorrhea=n last period «A237»=n**

The duration of amenorrhea after the last birth, as reported in question «A456», plus the time since the last period exceeds the interval between the date of the last birth and the date of interview.

The data should not be corrected and the flag variable will be set to 2 during the imputation phase.

**2367 M Never menstruated («A237N»=n), but time period returned given for a birth in the last 5 years**

The respondent reported never having had a period according to question «A237», but has reported her period returning after a birth in the last five years in question «A454».

Review the question and related questions to see if the wrong code was circled. For example, the respondent may be in her menopause, or may have last menstruated before her last birth. Only if it is clear that the wrong code was circled may the code be corrected. In most cases the data should not be corrected and the flag variable will be set to 6 during the imputation phase.

**2368 M Not menstruated since last birth («A237N»=n), but stated period returned («A454»(1)=n) after last birth**

The respondent reported in question «A237» that her last period was before her last birth, but in question «A454» she stated that her period had returned since her last birth.

The data should not be corrected and the flag variable will be set to 5 during the imputation phase.

**2369 M Never menstruated («A237N»=n), but had children («A208»=n)**

The respondent has never menstruated according to question «A237», but has had children (question «A208»). This is possible in a few cases, but is very unlikely.

The data should not be corrected and the flag variable will be set to 8 during the imputation phase.

**2370 M Last period («A237»=n) occurred during current pregnancy («A227»=n)**

The last period as reported in question «A237» would have occurred during the current pregnancy.

The data should not be corrected and the flag variable will be set to 7 during the imputation phase.

### SECTION 3. CONTRACEPTIVE KNOWLEDGE AND EVER USE

#### 3030 D Sterilized but currently pregnant

If the respondent reports that she has ever used sterilization (question «A302»), it is assumed that she is still sterilized, in which case she cannot be pregnant as reported in question «A226».

Check to see if the respondent is recorded as having used sterilization in any of the other questions relating to use of contraception («C01» of the calendar, questions «A311», «A311A»). If there is no use of sterilization in any other question, change the response in question «A302» to "No" (code 2).

If the respondent is currently using sterilization in question «A311» in the questionnaire, then question «A226» should be checked to see if the respondent is currently pregnant. If the respondent was incorrectly recorded as being currently pregnant, question «A226» should be changed to "No" (code 2).

#### 3031 D Sterilized but not currently using sterilization according to calendar

If the respondent reports that she has ever used sterilization (question «A302»), then she should be recorded as sterilized in the calendar.

Check to see if the respondent is recorded as currently using sterilization in question «A311». If she is not currently using sterilization, change the response in question «A302» to "No" (code 2).

However, if code "A" (Female sterilization) is circled in question «A311», the calendar should be corrected to reflect the current use of sterilization.

#### 3050 D Ever use of a method inconsistent between contraceptive table and calendar

According to the contraceptive use table, the respondent has never used any contraceptive method, but at least one contraceptive method is recorded as having been used in «C01» of the calendar.

Check the calendar and the contraceptive table for typing errors or for misread entries in the calendar. Check to see if the questions in section 3 were asked as if the respondent had ever used a contraceptive method. If the respondent has used a contraceptive method, the method should be recorded as having been used in question «A302» by changing the response to "Yes" (code 1). If method was not recorded as being known in question «A301», the response should be changed to "Yes" (code 1).

Codes in the calendar are often misread. For example a code 1 may really be a "«CODET»" for a pregnancy termination or a line "|" used to record several months of the calendar containing the same code. If it appears that the method use recorded in «C01» of the calendar is incorrect, the codes in the calendar should be changed.

#### 3051 D Ever use of a method inconsistent with contraceptive table

The value entered in «A304» is not consistent with the data entered in the contraceptive table.

Check the value entered and the contraceptive table for typing errors. Check to see if the questions in section 3 were asked as if the respondent had ever used a contraceptive method. If the respondent has used a contraceptive method, the method should be recorded as having been used in question «A302» by changing the response to "Yes" (code 1). If method was not recorded as being known in question «A301», the response should be changed to "Yes" (code 1). If «A304» was incorrectly recorded according to information in the contraceptive table, correct «A304». If there is no indication that a method has been used, enter code 2 in «A304».

### SECTION 3. CONTRACEPTIVE PRACTICE

#### 3090 W M Living children («A307»=n) before first use exceeds children ever born («A208»=n)

The respondent reported that she had given birth to a certain number of living children (question «A307») before she first used a contraceptive method, but that number of living children is greater than the number of children she has ever given birth to according to question «A208».

During data entry, check that the values recorded on the questionnaire were not mistyped. If no keying mistake was made, leave the data as entered.

During editing, verify the number of children ever born (question «A208») and the number of living children at first use (question «A307»). Check the calendar to see when the earliest recorded use of contraception took place, if all births have been during the 5 calendar years prior to the survey. Remember that the question relates to living children and not to all children ever born. If it is not possible to deduce exactly when the respondent first used contraception, then question «A307» should be changed to 97 (Inconsistent).

EXAMPLE: The response to question «A307» is 03, but the birth history contains only 2 children, both born in the 5 years prior to the survey. The first birth died at age 08 days. An inspection of the calendar shows that the respondent used a method prior to the second child's conception, two months after the birth of the first child, but used no contraceptive prior to the first child. Since the respondent had no living children at the time of contraceptive use, the response to question «A307» can be corrected to 00.

#### 3130 W E Current use of contraception («A310»=n «A311»=x) inconsistent with calendar (last use in row n)

The response to question «A310» concerning current use of contraception is not consistent with the use of contraception as recorded in the month of interview in «Col1» of the calendar.

There are two ways in which this information may be inconsistent:

- The calendar records a contraceptive method as being used in the month of interview, but the respondent is not currently using a method according to questions «A310»-«A311».
- Current use of contraception is recorded in questions «A310»-«A311», but no method is recorded as having been used in the month of interview in «Col1» of the calendar.

During data entry, the operator should check that no typing errors have been made in entering the calendar or recording the responses to questions «A310»-«A311». Carefully check the original questionnaire to ensure that the data in the calendar has been properly transcribed onto the data entry screen. Many errors relating to the calendar may be due to poorly recorded responses on the calendar. Any data entry errors should be corrected, but if the error was made in the field no changes should be made and this error will be corrected during the editing phase.

During the editing phase, the two ways the error may occur need to be treated differently:

i) In the first case it is possible that the respondent used the contraceptive method in the month of interview, but stopped using the method just prior to the day of interview. This situation will be unusual, but if it occurred then there should be a code in the month of interview in «Col3» of the calendar recording the reason for the discontinuation of the method. If the method has been discontinued then no further action is required.

If this message is not the result of discontinuation of the method then the error should be resolved and corrected. First check for transcription errors, then ensure that the contraceptive method was recorded as

ever used in the contraceptive table. Also check the responses recorded in section 3 of the questionnaire to see whether the respondent was actually using a contraceptive method, but was incorrectly recorded as not using in question «A310».

If the contraceptive method recorded in the calendar was only used in the month of interview and not in the preceding months, the response has probably been incorrectly recorded in the calendar and should be corrected to code 0 (Not using).

If the contraceptive method is recorded in the calendar as being used for several months, but has never been used according to the contraceptive table, again change each month of use in the calendar to code 0. However, if the contraceptive method has been ever used, assume that the method was used in the month of interview, but not currently and code a discontinuation in the month of interview for an unknown reason, code "?" (Missing code).

EXAMPLE: The respondent reports six months of sterilization (code 1) in the last six months of the calendar, but is not currently using a contraceptive method according to «A311», and has never used sterilization according to question «A302». After reviewing section 3 of the questionnaire and «Col1» of the calendar, change the code 1 in the calendar to a code 0 (Not using) for each of the last six months.

EXAMPLE: «Col1» of the calendar shows pill use in the last three months, but the respondent is not currently using a method according to «A311», but has used the pill according to «A302». Inspection of section 3 of the questionnaire shows no indication that the respondent was currently using a method. Assume that the respondent had stopped using the pill in the month of interview and code a "?" in «Col3» of the calendar, indicating that the method was discontinued for an unknown reason.

ii) In the second situation, the respondent is recorded as currently using a method in question «A311», but not in the calendar. This is possible if the respondent had just had a birth or pregnancy termination in the month of interview and had immediately started using contraception after the pregnancy. In this case there should be a code "«CODEB»" or code "«CODET»" in the month of interview in «Col1», and no further action is necessary.

In all other cases a correction to the data is necessary. If, after inspecting section 3 of the questionnaire, it is clear that the respondent was not currently using a contraceptive method, then a correction should be made to question «A310» to change the response to "No" (code 2). In most cases, though, it should be assumed that the respondent is currently using contraception, and record that method in «Col1» of the calendar in the month of interview.

EXAMPLE: If the respondent is recorded as currently using an IUD, but no contraceptive use was recorded in the last three months of the calendar, change the last month in the calendar to code 4.

**3131 D E Method used («A311»=x) inconsistent with current method in calendar ( x )**

See message 3140.

**3140 E Current method different («A311»=x) from method in calendar ( x )**

The respondent is recorded as currently using a contraceptive method in question «A311» and in the calendar, but the methods recorded in «A311» and the calendar are not the same.

Check the questionnaire and the calendar for typing errors and then verify that both methods were ever used according to the contraceptive table in question «A302». If one of the methods was never used according to «A302», change that method in «A311» or the calendar to be the same as the one that was used. If both methods were ever used, check other questions in section 3 of the questionnaire, to verify which kind of method was used. For example, look for responses to questions «A316»-«A319» for sterilized women or partners, «A319»A for date of initiation of current use, «A326»-«A328» about

methods' side effects, «A332» for source of method. Each of these may give a clue as to which method was currently being used. Also look at which methods had been used earlier in the calendar to decide which method is most likely to be correct. If there is no clear correction, then assume that the method recorded in question «A311» is correct and change the method in each month of use in «Coll» of the calendar.

**3141 D E Respondent's sterilization status («A302»(n)=n) inconsistent with current method («A311»=x)**

The respondent is either recorded as currently using female sterilization in «A311», but has never used sterilization according to question «A302» in the contraceptive table; or has ever used female sterilization according to «A302», but is not currently using the method in «A311».

The most common cause for this message is usually a data entry error. Ensure that the data entered in the contraceptive table is correct and that the current method is entered correctly. If the data have been entered correctly review the questions answered in section 3 to verify the method being currently used (if any). If the current method appears to be female sterilization as recorded in question «A311» then change question «A302» for female sterilization to code 1 (if question «A301» is "No" (code 2), then this should be corrected to code 1 ("Yes")).

If the current method is not female sterilization or the respondent is not currently using a contraceptive method this may indicate a sterilization failure, however this is extremely unlikely. In general it should be assumed that the contraceptive table is incorrect and question «A302» should be changed to code 2 (Never used).

**3142 D E Current method («A311»=x) never used according to contraceptive table**

If a method is recorded as being currently used then the method must also have been recorded as ever used in the contraceptive table. If the response in question «A302» is "No" (code 2) for the current method then change the response to "Yes" (code 1). If the response in question «A301» for the method was "No" change it to "Yes" (code 1).

**3143 E Current pregnancy information («A226»=n) inconsistent with current use information («A311»=x)**

A respondent cannot be recorded as currently using a contraceptive method while being pregnant. If the respondent is currently pregnant, then the respondent should be recorded as not currently using a method. In fact, this situation is normally impossible due to the flow of the questionnaire.

**3144 M Respondent's ever use of male sterilization («A302»(n)=n) inconsistent with current method («A311»=x)**

If the respondent's partner had ever been sterilized, it is assumed that he is still sterilized, and that this is the method the couple are currently using. While there are a few cases of failed or reversed sterilizations, these are not the norm. Additionally, the respondent may be in her second marriage or union, with the first partner having been sterilized.

The main purpose of this message is not to check that the question on current use is correctly recorded, but to check for keying errors in the contraceptive table relating to ever use of male sterilization. Ensure that the data entered in the contraceptive table is correct and that the current method is entered correctly. If the data have been entered correctly review the questions answered in section 3 to verify the method being currently used (if any).

If there are no keying errors, make no changes to the data.

**3145 E Current method in «A311N»=n is different from current method expected=n**

The variable «A311N» is a working variable calculated in the data entry program from question «A311». To correct this message, simply modify the case, advance to the end of the case and the variable should be automatically corrected.

**3211 W E Date of start of use of current method («A319»=mm/yyyy = cmc cmc-cmc) does not agree with calendar (cmc=cmc-cmc [mm/yyyy-mm/yyyy] row n)**

The date of start of use of current method in question «A319» does not agree with the date of start of use as recorded in «Col1» of the calendar. For both pieces of data, the date of start of use may not be exact. If question «A319» does not contain an exact date then the programs allow a range of dates for the start of use of the current method. Similarly, if the date of start of use as recorded in the calendar is immediately after a birth or pregnancy termination then it is assumed that the date of start of use may have taken place during the pregnancy, and so a range of dates is allowed based on the calendar. This message appears if the range of dates from each of the sources does not overlap.

During data entry, check for typing errors in question «A319» and in «Col1» of the calendar. If no data entry error was made then leave the error for correction during the editing stage.

During editing, again ensure that no data entry error was made. Otherwise change the date of start of use recorded in question «A319» to agree with the calendar unless there is compelling reason to believe that the calendar is incorrect.

**3212 W E Female sterilization use in calendar in row n (cmc=cmc [mm/yyyy] ) but not continuously used after that date**

The respondent has used female sterilization, but there has been a break in the period of use.

If the break in the use was caused by a birth or pregnancy termination, and the date of sterilization as recorded in question «A319» is prior to the date of birth or pregnancy termination then it is assumed that the female sterilization method failed. In this case no further action is necessary.

If the sterilization use was interrupted by a period of nonuse or by the use of a different method, then this period of interruption of sterilization should be changed to the code for sterilization (code 1).

**3215 M Date of start of use of sterilization (cmc=cmc-cmc [mm/yyyy-mm/yyyy]) before date of first union (cmc=cmc-cmc [mm/yyyy-mm/yyyy])**

The date of start of use of current method is reported as being before the date of union. If the method that is currently being used is sterilization, it is very unusual, but is not impossible. If, after carefully checking the data on the date of union and the date of sterilization, there is no error in the data entered then the data should be left unchanged.

**3216 M Date of start of use of method (cmc=cmc-cmc [mm/yyyy-mm/yyyy]) and minimum age at first contraceptive use (n) inconsistent: dob=cmc-cmc [mm/yyyy-mm/yyyy]**

The respondent's age at start of use of the current contraceptive method is younger than a prescribed minimum age (20 for sterilization and 12 for all other methods). As in message 3215, this will be unusual, but not impossible. Again the data should be carefully checked for typing errors, but no correction is necessary unless a data entry error was made.

**3217 E** Month of start of use of current method inconsistent with other information:  $cmc = cmc - cmc$   
[mm/yyyy-mm/yyyy] month «A319M»=n

Follow the same procedure as for message 1064.

**3270 D** Current method in question «A311»= x must be the same in this question («A325»)

The code entered for the current method in question «A325» is not the same as the code entered for question «A311».

Check the data entered and correct the relevant question.

**3280 M** Source («A332»=n) of current method («A311»=x) inconsistent with method

The source for the current method of contraception in question «A332» should be consistent with the method given in question «A311».

In cases where the source appears to be inconsistent with the method used (e.g. "Friends/relatives" as a source for female sterilization), the survey team may elect to change the response in question «A332». The exact rules for which sources are acceptable for each method should be established on a country specific basis.

## SECTION 4A. PREGNANCY AND BREASTFEEDING

### 4030 D Line number of child in column n incorrect: Expected n

The children must be entered in section 4 in reverse order from the youngest to the oldest. If the children are listed out of order in the questionnaire, then enter the children in reverse order according to their line numbers and not by the order they are listed in the questionnaire.

### 4050 M Column n: Stopped to get pregnant in row n with child n, but did not want child then (n)

According to the calendar the respondent stopped using a method to get pregnant, but then reported that she did not want to become pregnant then in question «A405».

This message is used to check for data entry errors. If no error is found the data may be left unchanged.

### 4140 E Column n & n: Twins should have the same responses for questions «A405»-«A406», «A435»-«A444». Please check.

Questions «A405»-«A406», «A435»-«A444», relate to prenatal care and the birth of the child and not to the children themselves. For twins the responses should be identical for each child. However, in rare cases the responses to questions «A435»-«A444» may be different. For example, a woman may give birth to one child at home, experience complications and then go to hospital to give birth to the other child.

Check the data entered for these questions to ensure there are no typing errors. Look for possible changes in responses marked on the questionnaire to try and deduce the correct answer. For questions «A405»-«A406», the responses should be identical. Check for missing data in one of the variables in one column, but data given in the other column. If missing data is found, replace it with the value from the other column. If there are two different responses and it is not possible to deduce which response is correct, change the data in the second of the two columns in question to agree with the data in the first of the two columns.

### 4141 E Column n & n: Twins should have the same responses for questions «A454»-«A459». Please check.

Questions «A454»-«A456», «A459», relate to the birth of the children and not to the children themselves. For twins the responses should be identical for each child. In the first two columns of the questionnaire, there is a slightly different skip pattern used between these questions. If these two columns contain twins, then question «A454» in the first column must be identical to question «A455» in the second column. Similarly, if «A458» in the first column is code 2 (No), question «A459» in the second column should be set to the missing value code (99) as the question has been skipped in the first column.

Check the data entered for these questions to ensure there are no typing errors. Look for possible changes in responses marked on the questionnaire to try and deduce the correct answer. Check for missing data in one of the variables in one column, but data given in the other column. If missing data is found, replace it with the value from the other column. If there are two different responses and it is not possible to deduce which response is correct, use the following rules:

If the last birth is one of the births involved in the error:

- a) Check «A237» to see whether it can help to correct an error in «A454»-«A456».
- b) Check «A619» to see whether it can help to correct an error in «A459».

If these questions do not help to resolve the problem, and the inconsistency relates to the last birth and its twin, assign the responses for the last birth to the other multiple births in the inconsistency.

If the last birth is not involved, select the shorter duration in «A456» as the correct response. Do the same for «A459» if necessary.

**4211 W Months with no period n inconsistent with interval: interview=mm/yyyy dob=mm/yyyy**

The duration of amenorrhea after the birth of the last child exceeds the interval between the last birth and the date of interview.

Check for data entry errors, but if no keying errors are found, leave further editing for the secondary editing phase.

**4212 W Duration of amenorrhea between pregnancies n inconsistent dob=mm/yyyy dob=mm/yyyy**

The duration of amenorrhea after the birth of a child exceeds the interval between the birth and the start of the following pregnancy.

Check for data entry errors, but if no keying errors are found, leave further editing for the secondary editing phase.

**4241 W Duration of abstinence n inconsistent with interval: interview=mm/yyyy dob=mm/yyyy**

The duration of abstinence after the birth of the last child exceeds the interval between the last birth and the date of interview.

Check for data entry errors, but if no keying errors are found, leave further editing for the secondary editing phase.

**4242 W Duration of abstinence between pregnancies n inconsistent dob=mm/yyyy dob=mm/yyyy**

The duration of abstinence after the birth of a child exceeds the interval between the birth and the start of the following pregnancy.

Check for data entry errors, but if no keying errors are found, leave further editing for the secondary editing phase.

**4260 M Column n: Time first breastfed («A461A»=n) child (n) after age at death of child («A220»=n)**

The time at which the child was first breastfed after the birth (question «A461A») is inconsistent with the age at death of the child (question «A220»).

If there is no data entry error, then do not make any correction for this message. A flag variable will be set to code 4 for the age at death variable to indicate that an inconsistency was found between the age at death and the time first started breastfeeding.

**4280 W M Column n: Still breastfeeding child (n) that is not the last child. «A465»=n**

The respondent is still breastfeeding a child other than the last-born child. Check for keying errors in the data. Check also for a response to question «A466» for this child, and if a response exists, change question «A465» to code 1.

**4290 W Duration of breastfeeding (n) inconsistent with interval: interview=mm/yyyy dob=mm/yyyy**

The duration of breastfeeding after the birth of a child exceeds the interval between the birth and the date of interview.

Check for data entry errors, but if no keying errors are found, leave further editing for the secondary editing phase.

**4291 M Column n: Duration of breastfeeding («A466»=n) exceeds age at death in months (n) of child (n)**

The duration of breastfeeding (question «A466») exceeds the age of the child at death recorded in question «A220».

This message is used to find data entry errors. If there is no typing error, no correction is necessary. A flag for the breastfeeding variable will be set to code 3 to indicate that there is an inconsistency between the duration of breastfeeding and the age at death of the child. This flag will be taken into account during analysis of the data.

## SECTION 5. IMMUNIZATION AND HEALTH

### 4430 D Line number of child in column n incorrect: Expected n

Follow the same procedure as for message 4030.

### 4470 D Date of vaccination out of range

The date of vaccination given is outside the acceptable range of values. The date must be between 01/01/«D2001» and 31/12/«D2006» or should be 0 (Vaccination not given), 44444444 (Vaccination recorded without date), 66666666 (Vaccination received according to mother). In addition the values of 97/9997 (Inconsistent) and 99 (Missing) are acceptable for the day and month of a date. No other values are accepted for the date of vaccination.

### 4471 E Column n: Date of x vaccination (dd/mm/yyyy) is after date of interview (dd/mm/yyyy)

The date of vaccination recorded is after the date of interview.

Check that the date of vaccination was correctly recorded. Look for recording errors on the questionnaire, such as two vaccinations being recorded on the same day and month, but a with a different year. For example, Polio 2 being recorded as January 12th 2006 and DPT 2 as January 12th 2007, assuming the date of interview as August 2006. If there is an obvious error of this type, then correct the vaccination date.

Also check to see that the day and month of immunization have not been reversed. For example, an immunization given on April 9th 2006 should be coded in the *ddmm/yyyy* form as 09042006; however, the day and month may have been reversed and the date recorded as 04092006. If reversing the month and day codes will allow the date to be consistent with the birth date (and will not cause an inconsistency between dates of immunization given in a series), reverse the two codes.

In some countries, a date for a return visit for a vaccination may have been recorded on the vaccination card rather than the date of vaccination itself. If this is believed to be the case then the date of vaccination should be changed to code 0 (Vaccination not received).

In efforts to resolve inconsistencies in the dates of immunizations for a child, attention should be paid to dates of immunization recorded for other children in the table since children of different ages may have been immunized on the same date.

If there is no clear correction for the data, then use code 97 for the month if the year is the same as the year of interview. If the year is after the year of interview, use code 9997 for year of vaccination.

### 4472 E Column n: Date of x vaccination (dd/mm/yyyy) is before minimum date of birth of child calculated as (dd/mm/yyyy)

Dates of vaccination in question «A506» must be the same or later than the date of birth of the child. If the date recorded for an immunization in «A506» is earlier than the date of birth for the child, look for recording errors on the questionnaire as for message 4471. If this does not solve the inconsistency, use code 97 for the month if the year is the same as the year of birth. If the year is prior to the year of birth, use code 9997 for year of vaccination.

**4473 E Column n: Date of (name) vaccination (dd/mm/yyyy) is earlier than x vaccination (dd/mm/yyyy)**

Dates for immunizations of a particular type (DPT or Polio) that are given in series must be consistent in their order, i.e., the date for the second and third immunizations in a series cannot be earlier than or on the same date as the first immunization, and so forth.

If the dates of immunization are inconsistent, look for recording errors on the questionnaire as for message 4471. If these rules will not resolve the inconsistency among the three dates of immunization, change the month or year codes for those that are most inconsistent to 97/9997. For example, if the first and third immunization dates appear consistent, change the code for the second to 97/9997; if the second and third appear consistent, change the code of the first to 97/9997.

As an example, the dates of vaccination may be as follows:

BCG	Polio 1	Polio 2	Polio 3	DPT 1	DPT 2	DPT 3	Measles
24122000	28012001	27032001	01052000	27032001	24042001	04062001	16092001

By examining the dates of vaccination it is clear that the date of the Polio 3 vaccination should have been in 2001 (01052001) and not in 2000.

**4474 M Column n: Dates of vaccinations are different (b=dd/mm/yyyy vs. p0=dd/mm/yyyy p1=dd/mm/yyyy vs. d1=dd/mm/yyyy p2=dd/mm/yyyy vs. d2=dd/mm/yyyy p3=dd/mm/yyyy vs. d3=dd/mm/yyyy)**

In most countries, routine Polio and DPT vaccinations are given together and the dates of the vaccinations are the same. This message is used to check for typing errors in the data and recording errors on the questionnaire.

Follow the same procedures used in message 4471 to look for typing and transcription errors in the dates of vaccination. If the vaccinations appear to have been given on different dates the data should be left unchanged. Corrections should only be made when there is convincing evidence that a mistake has been made.

For example, the dates of vaccination recorded are as follows:

BCG	Polio 1	Polio 2	Polio 3	DPT 1	DPT 2	DPT 3	Measles
04062000	06092000	08082000	13092000	06092000	08082000	13092001	24032001

By examining the dates of vaccination it is clear that the date of the DPT 3 vaccination should have been in 2000 (13092000) and not in 2001.

**4475 E Column n: Date of x vaccination (dd/mm/yyyy) is after date of death (dd/mm/yyyy)**

The date of vaccination is recorded after the latest possible date at which the child could have died, calculated from the age at death given in the birth history.

Check the age at death of the child against the vaccination dates and compare the vaccination dates to each other and against the vaccination dates of the other children listed. Use the procedures in message 4471 to try to determine whether the error exists in the vaccination date or in the age at death. If the error is in the vaccination date it should be corrected or set to the inconsistent code (97 in the day, 97 in the month or 9997 in the year of vaccination). However, if the error appears to be in the age at death no change should be made as a flag variable will be set to code 5 in the imputation to indicate the problem.

**4476 M Column n: Vaccination card «A504»=n, but no vaccinations received**

The vaccination card is reported as having been seen by the interviewer in question «A504» (code 1), however no date is recorded for any vaccination on the card.

Check that there is no data entry error, but otherwise no correction is necessary.

**4480 W M Column n: Receipt of other vaccinations (A507=n) inconsistent with vaccinations recorded (B=dd/mm/yyyy P=dd/mm/yyyy dd/mm/yyyy dd/mm/yyyy dd/mm/yyyy D=dd/mm/yyyy dd/mm/yyyy dd/mm/yyyy M=dd/mm/yyyy VA=dd/mm/yyyy)**

According to question «A507» the child received a vaccination that was not recorded on the card, but there is no record of that vaccination in question «A460» (i.e. no code 66 in the day of vaccination for any vaccination).

In some cases the respondent may state that the child has received another vaccination that is not listed on the questionnaire (for example, Yellow fever) and may be referring to that in answering question «A507». However, this question is only concerned with the vaccinations listed on the questionnaire and all other vaccinations should be ignored. If this is believed to be the case the response to question «A507» should be changed to code 2 ("No").

## SECTION 6. MARRIAGE

### **5020 D E Current marital status («A114»=n) and marital status from calendar (x) inconsistent**

The marital status recorded in question «A114» does not agree with the marital status recorded in the calendar. If the respondent is currently married (code 1) or living together with a partner (code 2) the calendar should contain an "X" in «Col4» in the month of interview. However, if the respondent is widowed (code 1), divorced (code 2) or separated (code 3) according to question «A116», the calendar should contain a "0" in the month of interview in «Col4».

If there is no sign of an error in the recording of responses in section 5 of the questionnaire and no data entry error in section 5 or in the calendar, the calendar should be corrected to agree with the information in section 5.

### **5060 D E Line number («A118»=n) of husband/partner exceeds number of household members («AHMEMBER»=n)**

The line number of the husband of the respondent given in question «A118» is greater than the total number of household members.

Review the household schedule and identify the husband using his name, sex and age, and correct question «A118» to the line number of the husband from the household schedule. If the husband is not in the household schedule, change question «A118» to 00.

### **5061 D E Sex («AH04»=n) of husband/partner («A118» line=n) not male.**

The sex of the respondent's husband whose line number is given in question «A118» is not male according to question 4 in the household schedule.

Check that the line number given in question «A118» refers to the correct person in the household schedule by checking the name, age and relationship of the person referred to. If question «A118» points to the wrong person, check the household schedule for the right person and change question «A118» to this line number. If the person does not exist in the household schedule, change question «A118» to 00.

### **5062 W M Age («AH07»=n) of the husband/partner («A118» line=n) is under n**

The age of the respondent's husband whose line number is given in question «A118» is less than 15 years according to question «AH08» in the household schedule.

Check that the line number given in question «A118» refers to the correct person in the household schedule by checking the name, age and relationship of the person referred to. If question «A118» points to the wrong person, check the household schedule for the right person and change question «A118» to this line number. If the person does not exist in the household schedule, change question «A118» to 00.

Also check that the age of the husband is correctly recorded in the household schedule. If there is no obvious mistake in the age, then make no changes to the data.

### **5063 M Possible husband (n rel=n) found in household but not listed as husband of woman (n rel=n)**

According to the relationship to the head of the household («AH03»), there is a possibility that the person to whom the message relates is the husband. However the respondent didn't declare in question «A605»

that this man is her husband. Check thoroughly the household schedule to see if in fact they are husband and wife, and if that is the case, change «A605» accordingly. Otherwise make no correction.

**5064 W M Relationship between woman (rel «AH03»=n) and husband («A118» line=n rel «AH03»=n) not correct**

The relationship to the head of household of the respondent and her husband are inconsistent.

Check the relationship codes in the household schedule and ensure that the woman and husband are correctly related. Check the line numbers to ensure the correct line number has been entered in «A118».

**5120 W E First union after date of interview: dou «A120»=mm/yyyy age at u «A121»=n interview=mm/yyyy dob «H07»=mm/yyyy age «A104»=n**

The date of first union as entered is after the date of interview. During data entry this message should be used just for the correction of typing errors, with corrections to the questionnaire data being left until the editing stage.

Check the date of first union reported in question «A120» is before the date of interview, or that the age at first union reported in question «A121» does not exceed the age of the respondent and try to correct «A120» or «A121» based on this information and the date of birth and age of the respondent. For example, the respondent is born in July 1970 and is 32 years old in August 2002. She was married in September 2002. The year of first union is after the date of interview. Review the questionnaire for other information that would indicate the date of first union or her age at first union. For example, the interviewer may have done a calculation in the margin of the questionnaire and this shows that the respondent's age at first union was 28. In this case the respondent's date of first union should have been September 1998.

If the date of first union is after the date of interview and it is impossible to deduce the correct date of first union or age at first union from other information, change the year in question «A120» to the inconsistent code 9997, if the date was given, or change the age in question «A121» to the inconsistent code 97, if the age was originally given. For example, the respondent is 27 years old when interviewed in August 2002, but her date of birth has not been given. The date of first union places the union in October 2002. The age at first sex is given as 19, and the date of first birth is given as 1995. Assuming all other data are correct, the union probably took place in 1993, 1994, or 1995 and rather than guess which is correct the code 9997 should be used for the year of first union in «A120».

**5121 W M First union before age n: dob «H07»=mm/yyyy age «A104»=n dou «A120»=mm/yyyy age at u «A121»=n**

The first union took place before the respondent reached a specified minimum age (usually 12). Check for keying errors in the data and recording errors on the questionnaire, but if the data appear correct then leave the data unchanged.

**5122 W E First union (cmc=cmc-cmc [mm/yyyy-mm/yyyy]) after first month of union on calendar (cmc=cmc [mm/yyyy])**

The date of first union recorded in question «A120» is after the first month of union registered in «Col4» of the calendar.

During data entry, check for typing errors in question «A120» and in «Col4» of the calendar, but make no other corrections.



**5123 W E First union (cmc=cmc-cmc [mm/yyyy-mm/yyyy]) before first month of union on calendar (cmc=cmc [mm/yyyy])**

The date of first union recorded in question «A120» is before the first month of union registered in «Col4» of the calendar and the respondent has been married only once.


In the data entry stage, ensure that there are no keying errors in questions «A119» and «A120» and in «Col4» of the calendar, but make no other corrections.

During editing, first make sure that the respondent has only been married one time. If the date of first union given in «A120» appears consistent with the dates of birth of children in the birth history and there is a gap in the birth history that would be consistent with the respondent being widowed, divorced or separated for a period of time, change question «A119» to code 2 (Married more than once).

If the respondent has only been married once check the earliest month of union recorded in the calendar and the date of union from question «A120» against the month of conception of any pregnancy in «Col1» of the calendar. If the date of first union in «A120» is just before or exactly on the first month of a pregnancy, but the first month of union in «Col4» of the calendar is just after the first month of pregnancy, change the marital status in the calendar to agree with the date of first union in «A120». Similarly, if the date of first union is just before or exactly on the month of birth of a child and the first month of union is just after the month of birth of the child, correct the marital status in the calendar to agree with the date of first union.

If there is a large difference and it appears that the calendar is correct, set the year of first union in «A120Y» to 9997 and the age at first union to 97 in question «A121». In general however, assume the date of first union in «A120» is most accurate, and change the calendar to agree with «A120».

**EXAMPLES:**

1. 

	1997	1998	1999	2000	2001	2002
«Col11»	000000000000000000	PPPPPPPB	0000011111111000	PPPPPPPB	0099999955555555	
«Col14»	000000000000000000	000000	XX			

Date of union: 01/1998 Age at union: 21 Date of birth: 98/1986 Date of interview: 08/2002  
Married: Once Births: 2

The date of first union given in the questionnaire is five months before the first month of pregnancy for the first child recorded in the calendar, but the first month of union in the calendar is three months after the first month of pregnancy. The calendar should be changed to indicate the first month of union starting in January 1998 and the union continuing through to the date of interview.

[illegible]

Date of union: 98/1992 Age at union: 15 Date of birth: 98/1977 Date of interview: 08/2002  
Married: Once Births: 4

The year of first union recorded in «A120» is 1992, but the first month of union recorded in the calendar is August 2000. The respondent has had several births, prior to the calendar, but has a break of over four years between births, during which time the respondent was not married. It seems likely that the



to correct the date of first union and age at first union, but it is clear that the union was prior to the calendar, change the year of first union and/or the age at first union to code 97/9997 (Inconsistent).

If the date of first union is definitely after January «D2001» change «Col4» of the calendar to indicate the start of union in the month given according to question «A120M». If the date of first union is not completely specified, take the midpoint of the possible range of months as the start of first union. As the respondent is not currently married, the union must have terminated before the interview and the line of "X"s in the calendar must end before the month of interview. Try to estimate the date of end of the union from the other information in the calendar, such as pregnancies, changes in the use of contraception, employment changes and changes of residence. However, if it is impossible to estimate the month of termination of the union, take the midpoint between the start of the union and the date of interview to be the last month of union.

- 5126 E Month of first union of respondent inconsistent with other information: cmc=cmc-cmc [mm/yyyy-mm/yyyy] month «A615M»=n**

Follow the same procedure as for message 1064.

- 5130 W E Age at first union exceeds current age: interview=mm/yyyy birth «H07»=mm/yyyy age «A104»=n union «A120»=mm/yyyy age at union «A121»=n**

The age at first union in question «A121» must be less than or equal to the age of the respondent reported in question «A104». During data entry this message should be used just for the correction of typing errors, with corrections to the questionnaire data being left until the editing stage.

If the date of first union is reported in the questionnaire, check the age at first union against the date of first union reported in question «A120» and try to correct «A121» based on this information and the date of birth of the respondent. For example, the respondent was born in October 1975 and is 26 years old in August 2002. She was married at age 28 in September 1994. Clearly the respondent must have been 18 in September 1994. Question «A121» should be corrected to 18.

If the age at first union is greater than the respondent's current age and it is not possible to deduce the correct age at first union from the date of first union, change question «A121» to code 97.

**5131-5134 Date of first union and age at first union**

The following messages are only used in surveys that collect both the date of first union and the age at first union.

- 5131 E Age at first union and date of first union inconsistent: interview=mm/yyyy age «A104»=n dob «H07»=mm/yyyy age at u «A121»=n dou «A120»=mm/yyyy**

The age at first union and date of first union are not consistent with the date of birth of the respondent. This message is produced in editing the date of birth of the respondent based on the date of first union and age at first union. Follow the procedures for message 5132 in correcting this problem.

- 5132 E Age at first union and date of first union inconsistent: interview=mm/yyyy age «A104»=n dob «A106»=mm/yyyy age at u «A121»=n dou «A120»=mm/yyyy**

The age at first union and date of first union are not consistent with the date of birth of the respondent. This error is one of the most common messages to be produced during editing. There are several possible reasons for the error:

- The age at first union is incorrect.
- The date of first union is incorrect.

- The date of birth and age of the respondent are incorrect.

Although the first and second cases are the more common, the third situation should not be overlooked, particularly if either the date of birth or the current age of the respondent has already been changed during earlier machine editing or during field editing.

During data entry check for typing errors, but make no other changes to the data. Consistency editing when there is no data entry error should be done during the editing stage.

During the editing stage, there are several pieces of data to be taken into account in checking the age and date of first union, including:

- Age of the respondent («A104»)
- Date of birth of the respondent («A106»)
- Date of birth of the first child («A215»)
- Date of sterilization («A319»)
- Age at first sexual intercourse («A612»)
- Date of interview

Using these data it should be possible to deduce which piece of data is incorrect and to make the required correction. However, if there is any uncertainty as to what the correction should be then either the age at first union or the date of first union should be set to the inconsistent code 97/9997. Here there may also be some uncertainty as to which piece of data is to be changed to the inconsistent code. As a general guideline, a complete date of an event, with both the year and month reported, is assumed to be more accurate than the age at the event, while the age at the event is assumed to be more accurately reported than a date where the month of the event has not been given. It should be remembered that the imputation program will use the data available in imputing the complete date of an event and so the least reliable piece should be changed to 97 or 9997.

#### EXAMPLES:

1.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	25	12/1976	21	06/2000	04/1999	-	96

Set the year of first union to 1998 as the first sexual intercourse was at marriage and the first child was born in 1999. If the age at first union is correct the only year consistent with that is 1998.

2.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	42	04/1960	18	98/1984	98/1975	-	14

Set the year of first union to 9997. There is no data here to indicate whether the date of first union or the age at first union is more accurate. Taking either of the two, the first birth would have been before the union. The year of first union was chosen for correction on the basis that incomplete dates are assumed to be less accurate than the age at the event.

3.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	38	98/1963	29	98/1984	03/1987	98/1991	19

Change the age at first union to 9997 as age 29 would mean that union was after the first birth. Additionally, if the age at first union was correct it would imply that the sterilization was before the union.

4.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	48 46	98/1956	17	98/1971	98/1973	-	96

In the last case the age of the respondent has earlier been corrected in the field from 48 to 46 to be consistent with the date of birth of the respondent. However, the age at first union and date of first union are now inconsistent. The current age originally recorded was probably correct and should be reinstated and the year of birth of the respondent should be changed to 46. With this change the age at first union and date of first union would be consistent.

- 5133 E Age at first union and date of first union inconsistent after imputing date of birth: interview=mm/yyyy age «A104»=n dob «H07»=mm/yyyy age at u «A121»=n dou «A120»=mm/yyyy**

In rare cases, the date of first union and age at union information may be inconsistent after the imputation of the date of birth of the respondent. This will only occur when the logical range for the date of birth of the respondent was adjusted by some further piece of data after constraining the logical range for the date of first union. In practice this implies that there is an inconsistency between this other piece of data and the age at first union information. Either this other data item may be adjusted, or a new age at first union will be imputed if no change is made.

- 5134 E Age at first union and date of first union inconsistent after adjustment: interview=mm/yyyy age «A104»=n dob «H07»=mm/yyyy age at u «A121»=n dou «A120»=mm/yyyy**

The age at first union and date of first union are not consistent with the date of birth of the respondent after all other date editing constraints have been met. Follow the procedure for message 5132 to resolve the inconsistency.

- 5135 W M No information given for date of first union: age at u «A121»=n dou «A120»=mm/yyyy**

No information was reported or recorded for the data of first union or age at first union. With no information available, the imputation program will attempt to impute a plausible date of first union but it is better if some information were available. Check the questionnaire to see if there was a typing mistake or if both pieces of information were unnecessarily set to the inconsistent code 97.

- 5152 M Last sex before last birth («A619»=nn), but currently pregnant («A226»=n)**

The respondent reported that her last sexual intercourse was before her last birth according to question «A619», but the respondent is currently pregnant according to «A226». Data entry errors should be corrected, but other problems will be flagged with code 5.

- 5153 M Time since last sex exceeds interval: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interview=cmc [mm/yyyy] last sex «A619»=nn**

The time since last sexual intercourse («A619») is longer than the total length of the interval from the date of the last birth to the date of interview. Correct the typing errors made during data entry but leave other inconsistencies; the flag variable will be set to code 9 for these inconsistencies in the imputation process.

- 5154 M Time since last sex given («A619»=n,n), but sexual relations not resumed («A458»(1)=2) since last birth.**

The respondent reported last having sexual relations a certain time prior to the interview in question «A626», but according to question «A458» she has not resumed sexual relations since the birth of her last child. Data entry errors should be corrected, but other inconsistencies will be flagged with code 3 during the imputation process and require no correction.

- 5155 M Duration of abstinence + time since last sex exceeds interval: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interview=cmc [mm/yyyy] abstinence=n last sex «A619»=n**

The duration of abstinence, recorded in question «A459», plus the time since last sexual intercourse (question «A619») is longer than the total length of the interval from the date of the last birth to the date of interview. Only typing errors made during data entry should be corrected; other problems will be flagged with code 2 in the imputation process.

- 5156 M No sex since last birth («A619N»=n), but stated sexual relations resumed («A458»(1)=n) after last birth**

Question «A619» states that the respondent last had sexual intercourse prior to her last birth, but according to question «A458» she has resumed sexual relations since the last birth. Correct data entry errors, but leave all other inconsistencies to be flagged with code 6.

- 5157 M Last sex («A619»=n) longer ago than start of current pregnancy («A227»=n)**

The respondent is reported as being currently pregnant, but has stated that her last sexual intercourse was longer ago than the start of the current pregnancy. Check for data entry errors in the duration of current pregnancy (question «A227») and in the time since last sexual intercourse («A619»). For the non-data entry errors the flag variable will be set to code 7.

- 5158 M Last sex before last birth («A619»=n), but never given birth («A208»=n)**

According to question «A619» the respondent last had sexual intercourse before her last birth, but she has never given birth (question «A208»). Correct typing errors; other inconsistencies will be coded 4 on the flag variable during the imputation stage.

- 5190 W M Age at first sex exceeds current age: interview=mm/yyyy dob «H07»=mm/yyyy age «A104»=n first sex «A612»=n**

The age of the respondent when she first had sexual intercourse (question «A612») exceeds her current age («H07»). After data entry errors are corrected, the flag variable for the age at first sex variable will be set to code 1 for the remaining inconsistencies.

- 5191 W M Age at first sex after age at first conception: child born «A215»=mm/yyyy birth «H07»=mm/yyyy first sex «A612»=n**

Based on the date of birth of the respondent and the age of the respondent when she first had sexual intercourse and the date of birth of her first child, the respondent reported first having sex at a later date than the date of conception of her first birth. This is one of the more common error messages. Keying mistakes should be corrected, but other problems should be left to be flagged in the imputation process. The age at first sex flag variable will be set to code 2 if the difference is more than one year, and code 3 if the difference is only one year and is probably due to rounding up of the age at first sex.

- 5192 D M First sex («A612»=n) when first married, but never in union («A602»=n)**

The respondent reported that she first had sex when she was first married/started living with first partner according to question «A618», but the respondent has never married/in union («A602» is code 3).

During data entry, just check for data entry errors.

At the imputation stage, the age at first sex flag variable will be set to code 4 for remaining inconsistencies after data entry errors have been corrected.

- 5193 M Age at first sex after marriage: union «A120»=mm/yyyy age at u «A121»=n birth «H07»=mm/yyyy first sex «A612»=n**

The age at first sex reported by the respondent in question «A612» is later than the respondent's age at first union. This is possible, but very unusual. If it is not caused by a data entry error then the data should be left unchanged and the age at first sex flag variable will be set to code 6.

- 5194 M Age at first sex at marriage after age at first conception: child born «A215»=mm/yyyy union «A120»=mm/yyyy age at u «A121»=n first sex «A612»=n**

The respondent reported first having sex when she was first married in question «A612», but the date of her first union was after the conception of her first child. After correcting data entry errors, the remaining inconsistencies will be coded 5 on the age at first sex flag variable.

- 5200 M Had sex with no men in last 12 months (A626=%1d,%02d), but is or may be pregnant (A226=Yes or DK: %1d)**

According to question «A619», the respondent's last sex was more than one year, however the respondent is or maybe pregnant according to question «A226».

Review the current pregnancy status of the respondent in «A226» and the time since last sex in question «A619» and look for corrections to the data. If there are no obvious corrections to the data, make no changes to the data.

- 5241 W Total number of partners must be greater or equal to partners in the last year (last year=n)**

new message to data entry, need to document

## SECTION 7. FERTILITY PREFERENCES

### 6020 D Response (n) inconsistent with current pregnancy status («A226»=n)

Question «A702» (codes 4 and 5) must be consistent with the respondent's current pregnancy status («A226»).

If the respondent is currently pregnant («A226»=1) and code 5 is given in question «A702», change the answer to code 4 'Undecided and pregnant'. If she is not currently pregnant and code 4 is given in question «A702», then change the answer to code '5'. Follow the skip and assign '9/99' codes to missing questions if it is necessary.

**THIS MESSAGE BELOW 6031 is not valid**

### 6031 W M Time to next pregnancy seems incorrect («A703»=n)

The time period specified to wait for a future pregnancy in question «A703» is less than 9 months, however it is rarely possible to give birth to a child in less than 9 months and so the response given appears to be incorrect. It may be that the respondent desires to have a child at the time specified, but it is clearly not practical. The question should be checked for a data entry or recording error; perhaps the response is supposed to be in years rather than months, or perhaps the time is incorrectly recorded. If there is no obvious correction then the data should be left unchanged.

### 6071 W M Response "Knows no method" («A707»=x), but methods known in contraceptive table (n known)

In questions «A707», the respondent stated that the main reason she is not using/she would never use a method is because she does not know any method, but according to question «A301» the respondent has heard of at least one method.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

### 6074 M Declared menopausal/hysterectomy («A707»=x) inconsistent with response to time since last period («A237»=n)

In questions «A707», the respondent stated that the main reason she is not using/she would never use a method is because she is menopausal or had a hysterectomy, but according to question «A237» the respondent is not in menopause.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

### 6075 M Declared subfecund/infecund («A707»=x) inconsistent with response to desire for future birth («A702»=n, «A703»=n)

In questions «A707», the respondent stated that the main reason she is not using/she would never use a method is because she is subfecund or infecund, but according to questions «A702» and «A703» the respondent does not say she can not get pregnant.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6078 M Response "Wants more children" («A707»=x) inconsistent with desire for future birth («A702»=n)**

In questions «A707», the respondent stated that the main reason she is not using/she would never use a method is because she wants more children, but according to question «A702» the respondent does not want to have more children.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6081 M Declared knows no source («A707»=x), however knew of a source of family planning («A333»=n)**

In questions «A707», the respondent stated that the main reason she is not using/she would never use a method is because she does not know any method, but according to question «A333» the respondent reported she doesn't know a source of family planning.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6101 W M Response "Knows no method" («A711»=n), but methods known in contraceptive table (n known)**

In questions «A711», the respondent stated that the main reason she is not using/she would never use a method is because she does not know any method, but according to question «A301» the respondent has heard of at least one method.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6104 M Declared menopausal/hysterectomy («A711»=n) inconsistent with response to time since last period («A237»=n)**

In questions «A711», the respondent stated that the main reason she is not using/she would never use a method is because she is menopausal or had a hysterectomy, but according to question «A237» the respondent is not in menopause.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6105 M Declared subfecund/infecund («A711»=n) inconsistent with response to desire for future birth («A702»=n, «A703»=n)**

In questions «A711», the respondent stated that the main reason she is not using/she would never use a method is because she is subfecund or infecund, but according to questions «A702» and «A703» the respondent does not say she can not get pregnant.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6108 M Response "Wants more children" («A711»=n) inconsistent with desire for future birth («A702»=n)**

In questions «A711», the respondent stated that the main reason she is not using/she would never use a method is because she wants more children, but according to question «A702» the respondent does not want to have more children.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6111 M Declared knows no source («A711»=n), however knew of a source of family planning («A333»=n)**

In questions «A711», the respondent stated that the main reason she is not using/she would never use a method is because she does not know any method, but according to question «A333» the respondent reported she doesn't know a source of family planning.

Check for keying errors, but otherwise make no corrections and leave the data as it is.

**6131 W M Boys («A714A»=%02d), girls («A714B»=%02d), and either («A714C»=%02d) should add up to total ideal number of children («A713»=%02d)**

The total number of boys desired, girls desired and either sex desired should add up to the total ideal number of children.

If there are no keying errors and the sum of boys and girls in «A615» equals «A713», change the response for 'others' to "00". Otherwise, make no changes to the data.

## SECTION 8. HUSBAND'S BACKGROUND, RESIDENCE AND WOMAN'S WORK

### **7051 D E Level («A804»=n) and grade («A805»=n) of partner's education inconsistent**

The highest grade completed must be less than or equal to the maximum grade consistent with the highest level of school attended.

If the response exceeds the maximum grade of schooling possible at the highest level reported, check first to see if the error may have occurred in the form in which the answer was recorded; for example, at the secondary level, grade 10 might be recorded rather than the number of years of schooling completed at the level (4 years). If the error is related to the form in which the answer was recorded, correct the response.

If the inconsistency still cannot be resolved, change the number of years of schooling to the maximum for that level.

**EXAMPLE:** The level of education is secondary, indicating that the response to the highest grade should range between 01 through 05. However, the response recorded for the grade is 09. If it is common to refer to secondary education as grades 8 through 12 then the error can be explained as a mistake in reporting the grade rather than the number of years of schooling in which case the grade should be changed to maximum (5, in this example). If reporting of grades in this manner is not usual the response to the highest grade should be changed to 97.

This edit specification and its rules for correction should be adapted to fit country-specific educational systems.

### **7250 W The husband/partner makes a household decision («A820»), or has the final say («A823»-E) or is present during interview («A827B»), but respondent not in union («A601»=n)**

According to questions «A820», «A823»-E, «A827B» the respondent's husband or partner participates in some household activities alone or jointly with the respondent, but the respondent has stated that she is not currently married or living together with a man («A601»), i.e. she has no husband or partner.

This message is used just to identify data entry errors. If no typing mistake is found then leave the data unchanged.

## SECTION 9. AIDS

### **8110 D E Time of start of interview («A101»=hh:mm) after time of end of interview («A1019»=hh:mm), but only one visit**

If only one visit is made to interview the respondent, the time recorded at the start of the interview (question «A101») must be earlier than the time recorded at the end of the interview (question «A1019»).

If the time recorded at the start of the interview is equal to or later than the time recorded at the end of the interview, check the time recorded for the start and end of other interviews conducted by the interviewer in question on the same date to see if the inconsistency can be resolved. If the inconsistency cannot be corrected, change the values recorded for hours and minutes at the end of the interview (question «A1019») to 97.

## SECTION 10. CALENDAR EDITING

### 9800 D No entries allowed in row n column n

Entries in the calendar may not be made for months after the month of interview. These months should be left blank. Ensure that the entries in the calendar finish in the month of interview and do not go into one of the later months.

### 9801 D E Invalid code x in column n row n of calendar

Each column of the calendar corresponds to specific questions in the questionnaire. Check the pertinent sections. For example, Birth history, current pregnancy, pregnancy termination, contraceptive use (ever and current) for «Col1» errors. Check date of marriage and number of unions for the "marriage column". Check contraceptive source question(s) for the "source" column, etc. If it is not possible to identify the correct code, use "missing" code ("?").

### 9802 D E Birth in row n of calendar (cmc=cmc [mm/yyyy]) out of range from birth history (event n type=n cmc=cmc-cmc [mm/yyyy-mm/yyyy])

According to the birth history the respondent gave birth to a child somewhere between two dates (the dates are given in terms of century month codes and are calculated based on the date of birth and age of the child), however in the calendar the birth is reported in a month that is outside of this range.

Check the birth history and the calendar to ensure that there is no typing error in the date of birth in the birth history or the keying of the calendar. Look at the age of the child as recorded in the birth history, the spacing between births, the date of first union and age at first sex to decide the correct date of birth of the child.

If there is no clearly correct date of birth for the child, assume that the date of birth given in the calendar is correct and set the month of birth in the birth history to the inconsistent code 97. If the year of birth is also inconsistent, then change this to 9997 as well.

### 9803 W E Birth in row n of calendar has gestation length of n months

A birth in the birth history is reported as having a gestation length other than 9 months, that is, the code "«CODEB»" is not preceded by 8 code "«CODEP»"s. It is not unusual for a birth to have a gestation length of 8 or 10 months.

Carefully check the data entered. If no keying error was made then no correction is necessary.

### 9804 D E Birth n (cmc-cmc [mm/yyyy-mm/yyyy]) in birth history does not have entry in calendar

According to the birth history the respondent gave birth to a child somewhere between two dates (the dates are given in terms of century month codes and are calculated based on the date of birth and age of the child), however in the calendar there is no birth reported.

This message is treated in a similar manner to message 9802. If the birth definitely took place since January «D1997», correct the calendar to reflect the birth of the child. However, if the birth probably occurred before January «D1997», set the year of birth in the birth history to the inconsistent code 9997.

### 9805 D E Discontinuation of use but no code given in «Col3» row n: col.1=x col.1(n)=x

The respondent is recorded in «Col1» of the calendar as having discontinued the use of a contraceptive method, but the reason for discontinuation is not recorded in «Col3» of the calendar. A discontinuation is defined as either a change in the type of method of contraception, the start of a pregnancy immediately

after contraceptive use, or merely the termination of use of a contraceptive method. The reason for discontinuation should be recorded against the last month of use of the contraceptive method.

First check that the reason for discontinuation has not been coded in the wrong month and that there was a break in the use of the method. If there is no recording error in the calendar and there is nothing recorded in the questionnaire or alongside the calendar for the reason for discontinuation in this month, use the "?" code to indicate missing data in «Col3» for the last month of use of the method.

**9806 W M Discontinuation ( x ) in consecutive months n. Please check!**

According to the calendar, there are reasons for discontinuation recorded in the calendar for two consecutive months, implying that the respondent discontinued contraceptive methods in consecutive months.

Check that there are two discontinuations of methods recorded in the two months in «Col1» of the calendar. If there are no errors then leave the data unchanged.

**9807 D E No discontinuation of use, but code for discontinuation given in «Col3» row n=x**

A reason for discontinuation is recorded in «Col3» of the calendar, but there is no discontinuation of a contraceptive method recorded in «Col1» of the calendar. A discontinuation is defined as either a change in the type of method of contraception, the start of a pregnancy immediately after contraceptive use, or merely the stopping of use of a contraceptive. The reason for discontinuation should be recorded against the last month of use of the contraceptive method.

First check for a data entry error in «Col1» of the calendar. There may be a change of contraceptive method, which was not noticed during data entry. Also check to see if the reason for discontinuation should be recorded against a different month of contraceptive use. However, if there is no data entry error, remove the reason for discontinuation and replace it with a blank character.

**9812 E Became pregnant while using («Col3»=x), but use in row n not followed by a pregnancy**

The respondent stated that she stopped using the contraceptive method, because she became pregnant while using it, but there is no pregnancy recorded in the month after the discontinuation.

If the discontinuation is followed by a single month of non-use of contraception and then the start of the pregnancy, move forward the last month of use of the contraceptive and the reason for discontinuation to replace the month of non-use.

In all other cases, the reason for the discontinuation should be replaced by the code "?".

**9813 E Stopped to become pregnant («Col3»=x), but no month of non-use or pregnancy after discontinuation in row n**

The respondent stated that she stopped using the contraceptive method to try and become pregnant, but the discontinuation of the method is not followed by either the start of a pregnancy or at least one month without using a contraceptive method.

Change the code for the reason for discontinuation of the contraceptive method to the code "?".

**9814 M Column n: Abstaining («A459»=n) but using a method (col.«Col1» row n=x) in same month**

The respondent was abstaining after the birth of a child, but «Col1» indicates that the respondent was using a contraceptive method in the same month.

If no recording or keying errors in the calendar, then no further action should be taken.

**9815 M Column n: Abstaining/amenorrhea («A459»/«A456»=n) during pregnancy (col.«Col1» row n=x)**

A period of amenorrhea or abstinence after the previous birth has extended into the following birth.

If no data entry error was made, then no further action should be taken. The abstaining or amenorrhea variables will be flagged with code 4.

**9816 M Pregnancy in row n outside of union**

At least one month of a pregnancy recorded in «Col1» of the calendar occurred outside of union according to «Col4». This message will only be produced for ever-married samples.

Check for data entry errors in the calendar but, if none are found, leave the information in both columns unchanged.

**9817 E Method (n) used in row n, never used in contraceptive table («A302»=n)**

The method recorded as being used in a certain month in «Col1» of the calendar has never been used according to the contraceptive table in section 3 of the questionnaire.

Follow the same procedure as for message 3050.

**9818 D E Pregnancy code in row (n) in «Col1» of calendar not followed by a termination code**

A «CODEP» was found in «Col1» of the calendar that is not followed by a termination code («CODEB» or «CODET»). Check the calendar for typing error, if no keying errors check the calendar against the births history to see if the respondent had a child on the date marked in the calendar. If this is the case, correct the problem adding a code «CODEB» in «Col1» row n. If this is not the case, check question «A228»-«A236» to see if the respondent has had a termination and correct the problem with the code «CODET».

If after checking the birth history and question «A228»-«A236» the problem cannot be solved, verify if there is any method discontinuation code in «Col3» of the calendar. If this is the case check the contraceptive table and section 3 to determine the method and change the «CODEP» codes for the corresponding method. If there is no discontinuation code, enter «?» for missing data.

**9819 W E Terminated pregnancy in row (n) of calendar has a gestation length of n months**

A pregnancy with more or less than 9 months of gestation was found in the calendar. Extreme cases like births with more than 10 months of gestation or less than 6 months of gestation must be check carefully before proceed.

This is a warning message for keying errors. If no keying errors, make no changes to the data.

**9820 D E Start of new method but no code given in «Col2» row n.**

The respondent started a new method in «Col1» row n, but no code for 'source of method' found in «Col2».

If there are no keying errors enter a missing code "?" in row (n) «Col2».

**9821 E No new method started but code x given in «Col2» row n**

A code for "source of method" was found in «Col2» row n of the calendar, but there is no new method started in «Col1» row n. Check for typing error or for misread entries in the calendar:

A method can be obtained from different sources, for example, the first time a woman started using the pill she got the cycle from the pharmacy but the next time she got it from a family planning clinic. The method source code must be place in the calendar when she started using the method the first time (the first month of continuous use).

Codes for «Col1» in the calendar are often misread. For example a code 1 may really be a code "J" for Foam/Jelly or "L" for Periodic Abstinence.

If it appears that the method use recorded in «Col1» of the calendar is incorrect, the codes in the calendar should be change. Otherwise, just blank out the code given for sources of method in «Col2» row n.

## SECTION 11. INTERVAL EDITING

### 9901 E Interval between birth and first union inconsistent: $cmc(n)=cmc-cmc$ [mm/yyyy-mm/yyyy] $cmc(n)=cmc-cmc$ [mm/yyyy-mm/yyyy] interval= $n$

The respondent's age at first union should not be less than a certain minimum, usually 10 years. In some countries, this minimum may need to be changed to a lower value, perhaps 8 years, while others may have laws restricting marriage to older ages, and a higher limit may be used. The term marriage is used here to mean married or living together in union with a partner. A few women in each country will truly have married earlier than the minimum age, but most cases are incorrect and should be corrected.

Errors in the woman's age at her first union may arise from two sources:

- The respondent's birth date and/or age (questions «H07» and «A104») are incorrect.
- The date of first union and/or age at first union (questions «A120» and «A121») are incorrect.

To resolve inconsistencies in the age of the respondent at her first union, all of the information relating to each of the above items must be examined carefully, including the birth history and the age at first sexual intercourse, in addition to the date of birth and age of the respondent and her date of first union and age at first union, and date of interview. Study the questionnaire for recording errors and, in particular, look at the responses that have been crossed out in attempting to correct the data.

If the date of union seems to be incorrect, and the date of birth, age at first sexual intercourse, and date of birth of the first child all appear consistent, then change the year of first union and/or the age at first union to code 97/9997 as necessary.

However, if the date of first union appears consistent with the date of birth of the first child and the date of birth of the respondent is in conflict with the date of first union and the date of birth of the first child, then the date of birth of the respondent needs to be corrected.

If it is not possible to find the correct date of birth and age, change the date of birth (and age) of the respondent to be consistent with the sum of the age of her first child (or the number of years since her first birth if the child is dead) and her age at the time she first had sex, plus one year. If her age at the time she first had sex is missing or she first had sex when she was first married, the age of 16 should be substituted (as long as the new age doesn't force the women to be ineligible). In addition, the age of the respondent at first union should be set to code 97.

#### EXAMPLES:

1.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	27	98/98	07	98/1981	04/1992	-	15

In this case the age at first union (and year of first union) should be set to code 97/9997 and a date of first union will be imputed.

2.	Dol	Age	DoB	AgeU	DoU	DoBFC	DoS	AgeFS
	08/2002	27	98/98	07	98/1981	04/1982	-	15

The date of first union and the date of birth of the first child are consistent, but both occurred at too young an age. Change the age of the respondent to be 36 (years since first birth (20) + age at the time she first had sex (15) + one year). Age at first union should be set to code 97, but date of first union should be left unchanged.

**E Interval between birth and first birth inconsistent:  $cmc(n)=cmc-cmc$  [mm/yyyy-mm/yyyy]  
 $cmc(n)=cmc-cmc$  [mm/yyyy-mm/yyyy] interval= $n$**

A respondent's age at the birth of her first child as calculated from the date of her birth (question «H07»), her current age (question «A104») and the date of birth of her first child (question «A215») and its current age, if alive, (question «A217») cannot be less than a certain minimum, usually 12 years. Typically there are one or two cases in each country where the age at first birth is less than this minimum, but these are very unusual, and most occurrences of this message should be corrected.

Errors in the woman's age at her first birth may arise from three sources:

The child is not the woman's own (biological) child.

The respondent's birth date and/or age (questions «H07» and «A104») are incorrect.

The birth date and/or age of the first child (questions «A215» and «A217») are incorrect.

To resolve inconsistencies in the age of the respondent at her first birth, all of the information relating to each of the above items must be examined carefully.

Items which can help indicate whether the child is the woman's own child include the name of the child and its residence and fostering status as reported in the household questionnaire and the responses to questions «A203», «A205», and «A207». If the child is not the respondent's own biological child then it should be removed from the birth history and adjustments should be made to questions «A201» to «A208» and any other affected variables. This should only be done when the child is clearly not the respondent's own child.

If the child is one of the respondent's biological children then either the date of birth of the first child or the date of birth of the respondent should be adjusted. First check to see if the date of birth of the first child was before the date of first union. This may indicate that the date of birth of the child is incorrect, particularly if the respondent stated that her first sexual intercourse was at marriage.

The birth history should be reviewed, especially the interval between the first and second births (if a second birth exists). If the interval between these births is large enough to allow the date of the first birth to be moved forward and it appears that the date of birth of the first child is incorrect, the date of birth (and age, if the child is alive) should be changed to code 97/9997.

If, however, a second birth does not permit this, and it seems likely that the respondent's date of birth (and age) has been incorrectly reported then the woman's date of birth should be corrected. Checking the woman's age in the household schedule, the date of first union of the respondent and her age at first union may serve to confirm the inconsistency between the date of birth of the first child and the date of birth of the respondent. Look for recording errors in the date of birth and age of the respondent, particularly responses that were crossed through, to assess the correct date of birth.

If it is not possible to find the correct date of birth and age, change the date of birth (and age) of the respondent to be consistent with the sum of the age of her first child (or the number of years since her first birth if the child is dead) and the higher of her age at the time she first had sex and her age at first union, plus one year. If there is no information for her age at the time she first had sex or her age at first union, the age of 16 should be substituted.

## EXAMPLES:

1.	Dol	Age	DoB	AgeU	DoU	DoBC	AgeC	DoS	AgeFS
	08/2002	27	98/98	16	98/98	98/1982	20	-	15
						98/1994	08		

Clearly the date of birth and age of the first child are incorrect. Look for original responses recorded on the questionnaire, but crossed through, and reinstate the original response if it would be consistent. If the date of birth and/or age of the child are incorrect, change them to the inconsistent code 97/9997.

2.	Dol	Age	DoB	AgeU	DoU	DoBC	AgeC	DoS	AgeFS
	08/2002	27	98/98	16	98/98	98/1982	20	-	15
						98/1984	18		

In this case the date of birth of the respondent is obviously wrong. Question «H07», if reported, would be changed to code 97/9997. The current age of the respondent (question «A104») should be changed to 37 (years since first birth (20) + age at first union (16) + one year).

### 9903 E Interval between first union and first birth inconsistent: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n

In most societies, children are usually conceived within marital unions. This message is generated whenever a child appears to have been conceived prior to the date of the first union. Although it is clearly not a requirement that children be conceived within marriage, this message is used to try to reduce the number of cases that may be incorrectly categorized as pre-marital conceptions. It should be noted that, in most countries, it will not be necessary to correct data from this message when there is convincing evidence that the conception of the child took place before the date of first union.

Typically, inconsistencies may arise because of problems in any of the following information:

- The respondent's date of union and/or age at union (question «A120» and «A121») are incorrect.
- The birth date and/or age of the first birth (questions «A215» and «A217») are incorrect.
- The respondent's own date of birth and/or age (questions «H07» and «A104») are incorrect.
- The first child is not the woman's own (biological) child.

To resolve inconsistencies between the date of first union and the date of the first birth all of the information relating to each of the above items must be carefully examined.

Follow the procedures outlines in messages 9902 and 9905 to attempt to resolve the inconsistency. In general, attempts should be made to reduce the incidence of pre-marital births, if not pre-marital conceptions, as it is fairly uncommon for a woman to deliver a child when she is not married, even if the child was conceived outside of a marital union.

It is not necessary to correct this message if it is believed that the child was conceived prior to the first union.

### 9904 E Interval between birth or union and later event inconsistent: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n

The interval between the birth of the respondent or the date of her first union and the date of start of current use or date of conception of the current pregnancy is too short.

If the message relates to the interval between the birth of the respondent and the date of start of current use, follow similar procedures as for message 9901. If the message relates to the interval between the birth of the respondent and the date of conception of the current pregnancy, use similar procedures as for

message 9902. If the message relates to the interval between the date of first union and the date of start of current use, refer to message 3215. If it relates to the interval between the first union and the date of conception of the current pregnancy, follow similar procedures as for message 9903.

9905

**E Interval between births inconsistent: child n: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] child n: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n**

The interval between births (i.e., the number of months between the date of birth of one child and the date of birth of the next child) must be greater than or equal to 9 months for all births in the birth history.

If the interval between two births is less than 9 months, examine the information on the dates of birth (and ages) for other births occurring before and after the births in question. Information on the ages recorded in the household listing for all the children in question should also be examined, as should information on the dates of immunization (if any) reported for the children in section 4.

The following is an example of a birth history in which there is an interval of less than nine months between a pair of births (child 02 and child 03). The example assumes an interview date of August 2002.

«A212»	«A215M»	«A215Y»	«A217»
01	09	1997	04
02	03	2000	02
03	09	2000	01
04	06	2002	00

To resolve the inconsistency between the reported dates of birth for child 02 and child 03 check:

- i) The ages of the children in the household listing. If the age in the household listing for one child (or both children) is different from the age reported in question «A217», change the age and year of birth for that child to be consistent with the age in the household listing, providing that the corrected age and birth year will yield a more consistent birth interval.

EXAMPLE: For instance, assuming in the above example, that the household listing shows that child 02 was 3 years old, the age in question «A217» should be changed to 03 and the year of birth to 1999.

- ii) The immunization record (for children under 3 years) in question «A460». If the immunization record for the children in question indicates that the year of birth for one of the children may have been different from that reported in the birth history, change the year of birth to be consistent with the immunization record.

EXAMPLE: The immunization record (question «A506») shows that child 02 had a BCG shot in April 2000, child 03 had a BCG shot in October 2002 and child 04 had a BCG shot in July 2002. Since the pattern of immunizations for both child 02 and child 04 suggests that the respondent in question takes her children to receive the BCG immunization when the children are one month old, it is likely that child 03 was born in 2001, the year in which the BCG immunization was given. Thus, for child 03, the year of birth in question «A215» should be changed to 2001 and the age in question «A217» to 00.

In general, it will not be possible to easily resolve birth interval inconsistencies. If neither of the birth dates can be corrected, the month for the later of the two births should be changed to 97, except in cases where the interval between that birth and a subsequent one is less than 12 months. In the latter case, the month of birth for the first child in the pair of births for which the interval is too short should be changed to 97.

- 9906 E Interval between last birth and later event inconsistent: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n**

Interval between the last birth and sterilization/current pregnancy

A respondent's age at the time of adoption of the current method of contraception as determined by question «A319» (Date of start of use of method) and the date of birth/age of the respondent (questions «A106» and «A107») should be greater than or equal to a certain minimum, usually 20 years for sterilization and 12 years for any other method.

The survey team may elect to make no changes to question «A319», but questions «A106», «A107» and «A319» should be checked for keying errors. If the age at start of use of the method is less than 20 (for sterilization) or 12 (for other methods), you may elect to change the year in question «A319» (Year) to code 9997.

- 9907 E Interval between events inconsistent: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n**

This message usually relates to inconsistencies between the date of conception of the current pregnancy and the date of interview. A few messages are produced relating to the date of start of current use and the date of interview.

Use the procedures outlined in messages 9904-9906 to correct the problem.

- 9914 M Duration of amenorrhea between events inconsistent: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] amenorrhea=n interval=n**

The duration of amenorrhea recorded in question «A456» is longer than the interval between two events (see section B - Role of the Event Table). The events are usually the births of two children, but may be between the birth of a child and the date of interview.

These inconsistencies are flagged with code 2 on the flag variable for duration of amenorrhea.

- 9915 M Duration of abstinence between events inconsistent: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] abstinence=n interval=n**

The duration of abstinence recorded in question «A459» is longer than the interval between two events (see section B - Role of the Event Table). The events are usually the births of two children, but may be between the birth of a child and the date of interview.

These inconsistencies are flagged with code 2 on the flag variable for duration of abstinence.

- 9916 M Duration of breastfeeding between events inconsistent: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] breastfeeding=n**

The duration of breastfeeding recorded in question «A466» is longer than the interval between the birth of a child and the date of interview.

These inconsistencies are flagged with code 2 on the flag variable for duration of breastfeeding.

- 9917 M Duration of contraceptive use between events inconsistent: child n cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] contraceptive use=n interval=n**

The duration of contraceptive use reported in question «B326» exceeds the interval between the birth of the last child and the date of interview.

These inconsistencies are flagged with code 2 on the flag variable for duration of contraceptive use.

- 9918 E Cannot create gap between events: cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] cmc(n)=cmc-cmc [mm/yyyy-mm/yyyy] interval=n**

The minimum interval between two events cannot be maintained in preparation for the imputation of the final dates for these events. This message is usually accompanied by some other message indicating an earlier error. The correction of this earlier error will remove this inconsistency and allow the imputation of the final dates. This message must not appear in the listing for the final imputation run.

As an example, if the dates of birth of two children are reported as 3/1999 and 5/1999 and the minimum interval between the births is 9 months, an earlier message will be generated, but will be accompanied by this error message, indicating that the events are too close together.

- 9919 E Minimum and maximum date of event n cross over: cmc=cmc-cmc [mm/yyyy-mm/yyyy]**

After all preparation for imputation the minimum and maximum date of an event have crossed over such that the minimum date of the event is now greater than the maximum date of the event. This message will often be accompanied by message 9918 and an earlier message. The problem is very similar to that in message 9918 and must always be corrected before the final imputation run.

- 9920 E Minimum and maximum date of birth of twins n cross over: cmc=cmc-cmc [mm/yyyy-mm/yyyy]**

In the preparation for the final imputation, it is found that the constraints that applied to the date of birth of one twin were in conflict with the constraints that applied to the date of birth of a different twin. For example, the duration of breastfeeding may apply a constraint on the date of birth of the second twin, while the date of birth of an earlier child places a constraint on the date of birth of the first twin. These constraints are in different directions and may lead to inconsistencies in the date of birth of the twins. These inconsistencies must be resolved prior to the final imputation.

- 9921 E Event n: Month of event (n) inconsistent with final range for event: cmc=cmc-cmc [mm/yyyy-mm/yyyy] imputed=cmc [mm/yyyy]**

See message 1064.

- 9989 E This is an unusual combination of unit and number for question %s (%d/%d). Please check to see that the interviewer recorded it correctly.**

**Q237U : Q237N**

1 : 0-45  
2 : 1-10  
3 : 1-20  
4 : 1-15  
9 : 94-96,missing

**Q220U : Q220N**

1 : 0-30  
2 : 1-23  
3 : 2-40  
9 : 98,missing

**Q406U : Q406N**

1 : 1-30  
2 : 1-15  
9 : 98,missing

**Q430U : Q430N**

1 : 0-30  
2 : 1-50  
9 : 98,missing

**Q441U : Q441N**

0 : 0  
1 : 0-23      2 : 1-40  
9 : missing

**Q515U : Q515N**

1 : 0-30  
2 : 1-51  
3 : 1-11  
4 : 1-20  
9 : missing

**Q518U : Q518N**

1 : 0-30  
2 : 1-51  
3 : 1-11  
4 : 1-20  
9 : missing

**Q522U : Q522N**

1 : 0-30  
2 : 1-51  
3 : 1-11  
4 : 1-20  
9 : missing

**Q522EU: Q522EN**

1 : 0-30  
2 : 1-51  
3 : 1-11  
4 : 1-20  
9 : missing

**Q603U : Q603N**

1 : 0-23  
2 : 1-20  
9 : 93-96,98,missing

The above are "reasonable " ranges for the units given for each question. If the value entered in the "number" portion of the response is outside of the range for that unit, the data entry operator will be given a warning to check for a keying error. Otherwise no change should be made during data entry for units 1-4. The number portion for the unit "9" is set and cannot be outside of that range.

During secondary editing, a message will be produced to give the question number and the values given for unit and number. Please check the questionnaire to see if there is some information that would warrant changing the unit or the number. Otherwise no change is necessary.

**9993 W Please check the value entered**

This is a warning to the data entry operator to confirm an entered value. The message is given for certain numeric values that are usually reported in rounded units that end in 0 or 5, or, in some variables, 00 or 50.

Check that the data has been correctly entered and only change the data if it was keyed incorrectly.

**9994 D Special answers inconsistent**

If the units code is a 9 then the response code must be one of the special response categories, and similarly if the units code is not 9 the response code cannot be one of the special categories. Reenter the correct code.

In addition, there is a restricted range for some numeric values in questions that collect both unit and number responses. See message 9989 for those ranges. The data entry operator will be warned that the number recorded for the unit is unusual. In the secondary edit, the survey director will have an opportunity to review the responses and correct the unit or number, based on other data.

**9995 D Response "No one" inconsistent with other responses**

Either the response "No one" was circled along with some other responses or no responses were circled for the question. In the first case the response "No one" should be ignored in favor of the other responses, but in the second case the code "?" should be entered to indicate missing data.

**9996 D Response "Don't know" inconsistent with other answers**

Either the response "Don't know" was circled along with some other responses or no responses were circled for the question. In the first case the response "Don't know" should be ignored in favor of the other responses, but in the second case the response "Don't know" should be circled.

**9997 D The response code "?" is not use for this question**

Because there are many questions related to «A311», it is not allowed the response code "?". This question needs to have a valid code. . If no code is circled, check the skip pattern following «A311» to see if it indicates a specific method. If not, check the contraceptive table for methods used; perhaps this will indicate the method currently being used. If it is not possible to identify a method, or no further "current use" questions have responses, change «A310» to "no" (2), not currently using.

**9998 D Codes given for alpha variable not acceptable**

For variables with letter codes, the codes should be entered in order with no spaces in between them and with no duplication of the codes. For example, if the codes "A", "C" and "F" are circled for a question then they should be entered as "ACF" in the field on the data entry screen. The following are not acceptable: "CAF", "A CF", " ACF", "ACCF". If no codes have been circled for the question, then the special code "?" may be used for missing data.

**9999 D Code out of range expected x**

The code entered for the question is outside of the acceptable range of values. Correct the code entered.

## CKID APPLICATION

This is the first secondary editing step to be taken after the Main data entry of a cluster has been completed. Before executing this program, it will be necessary to enter the questionnaire totals from the Cluster Control Sheet into the Control file. It will be necessary to also enter the Main data entry clerk's name, number and date of assignment into the Control file.

This program will identify any structural errors in the data:

- Missing household questionnaires
- Missing women's questionnaires
- Missing men's questionnaires
- Missing questionnaire sections (records)
- Totals of household, women and men questionnaires that do not match the Control data file
- Invalid selection of households for the male sub-sample.

In addition to the messages detailing the problem, the program will produce a list of households found in the data file and the result code for each household. If eligible women/men exist in the household, the program will list the women/men by line number and include each woman/man's result code. This listing is very helpful if there are problems to be reconciled. This list should be printed for each cluster and kept with the cluster as it is processed.

All errors marked with an E below must be corrected. Once CKID produces no errors, the data file for the cluster can proceed to verification. The verification listings should also be kept with the cluster as it passes through processing. Any secondary editing listings should be kept with the cluster to document the processing of the cluster.

**50010 E Line number n outside of range for household 0-%2d**

Because of the control during data entry, this error message should not occur.

**50020 E Line number n already entered**

Because of the control during data entry, this error message should not occur.

**50030 E Line number n not an eligible %s**

Because of the control during data entry, this error message should not occur.

**50040 E Eligible %s n not entered**

This message should not occur if the data entry operators enter all women/men within a household before leaving the computer. If it occurs, the cluster should be returned to the operator with the instructions to modify the household. With the cursor on the household in the left panel, right click and select add node. The data entry operator will be presented with a woman/man's questionnaire to complete.

**50050 E Number of household members found (n) does not agree with number on cover page (n)**

Because of the control during data entry, this error message should not occur.

**50051 E Number of women weighted found (n) does not agree with number on cover page (n)**

Because of the control during data entry, this error message should not occur.

**50052 E Number of children weighted found (n) does not agree with number on household schedule (n)**

Because of the control during data entry, this error message should not occur.

- 50060 E Number of eligible %s found (n) does not agree with number on cover page (n)

Because of the control during data entry, this error message should not occur.

- 50070 E Number of children found in birth history (n) does not agree with expected number (n)

Because of the control during data entry, this error message should not occur.

- 50080 E Number of children in health section (part 1=n, part 2=n) does not agree with expected number (n)

Because of the control during data entry, this error message should not occur.

- 50090 E Number of children {+ mother} in height and weight section (n) does not agree with expected number (n)

Because of the control during data entry, this error message should not occur.

- 50100 E Sections missing

Because of the control during data entry, this error message should not occur.

- 50110 E Further information found for incomplete %s interview (result=n)

Because of the control during data entry, this error message should not occur.

- 50120 E Unexpected information found for %s interview

Because of the control during data entry, this error message should not occur.

- 50130 E Number of household selected for male interview %d outside range %d-%d expected

In most surveys that include a male survey component, a sub-sample of households is selected for the male questionnaire. Typically this sub-sample is one third of all households. For example, if there are 20 households in a cluster, the number selected for the male survey should be either 6 or 7 households. If the number of households selected for the male sub-sample is outside of this range, then either too few or too many households have been selected. This message will be accompanied by message 50140, which will show which households have been selected and which households have not. To resolve the problem view the list of households given by message 50140 and identify where the household selection scheme breaks down. If one third of households are selected, then every third household in the list should be selected. There are three basic types of problems:

Household is not selected, but should be selected:

Household is selected, but is not selected.

Households are selected in a non-uniform order. The right number are selected, but in the wrong order.

In the first case, the household should be marked as selected. Check the household listing to see if there are any eligible men in the household. If there are men who would now be eligible, it is necessary to add a men's questionnaire with an incomplete result code, indicating that the interviewers failed to select the man.

In the second case, the household should not be marked as selected. However, if the household was marked as selected and one or more eligible men were interviewed, do not change the selection information.

The third case is often a special situation of the first and second case, and the wrong household was selected by mistake, but the correct total number was selected. In this case it is not necessary to make any corrections to the data, provided the correct total number of households were selected for the male sub-sample.

Occasionally the situation is more complicated and there is more than one mistake in the cluster, which may require multiple corrections to cases. A common error is not to mark the household as selected for the male sub-sample when either the household questionnaire is incomplete or when there are no eligible men in the household schedule. In either of these cases, the correct is simply to mark the household as selected for the male sub-sample.

In making any corrections related to the selection for the male sub-sample, always refer back to the sample selection spreadsheet which should indicate which households were eligible for the male sub-sample, as well as to the listing of households for the cluster on which the selection should have been marked.

**50140 M Household %03d: selected=n**

This message just gives an indication of which households have been selected for the male sub-sample and which have not, in order to find out where there has been a mistake in the selection of households. This message will be accompanied by message 50130, 50180, or 50190. Follow the instructions for those messages to resolve the problems.

**50150 E Count of questionnaires does not match control file for cluster %03d**

This is the major error found by the program CKID and it is an error that must be corrected with great care. If the questionnaire reception clerk made an error and an incorrect number of households (complete and incomplete), women (complete or incomplete) or men (complete or incomplete) was entered into the CONTROL data file, this message will appear. If the data entry clerk did not enter all of the households, this message will appear. If the data entry clerk incorrectly entered the household listing and did not identify ALL eligible women, this message will appear.

To correct this error, the supervisor must review the team supervisor's control sheet (of households, their result codes, the number of women/men and the women/men's line numbers and result codes), the cluster control form completed by the questionnaire reception clerk, and all of the questionnaires in the cluster. This work must be done with great care; the supervisor SHOULD NOT simply change the totals reported in the control file. Perhaps an eligible woman was not identified by the team in the field and the questionnaire reception clerk did not spot this. Perhaps the data entry clerk missed a household or entered an incorrect result code for a household or a woman.

Once the supervisor has identified where the error (or errors) are, corrections must be made. It is not possible to move to the next stage of secondary editing until this problem is corrected. After the problems have been corrected, it will be necessary for the program to be executed again, until no errors exist.

**50160 E Error loading control information for cluster n**

This message is caused when the control file (usually called CONTROL.DAT) is not located in the correct directory or the control file contains no information for the cluster. Check the cluster number given to the control file and also the existence of the control file.

**50170 E Data entry not assigned in control sheet. Assign data entry and rerun.**

Before any editing can be done to the main data file, it will be necessary for the supervisor to enter the questionnaire totals into the control data file. It is also necessary to enter the data entry operator's name, number and date of assignment into the control file.

**50180 E First household for male interview is household %d (no.=%03d), expected to be %d**

This problem is a related issue to the problem described in message 50130. Follow the procedures for message 50130 in correcting this problem.

**50190 M Problem of selection for male interview at household no. %03d**

This message indicates the household at which the program believes there is a problem in the selection of households for the male sub-sample. Follow the same procedures as for message 50130 in correcting this problem.

## F. LIMITS FOR LENGTH AND WEIGHT OF CHILDREN

In editing the length and weight of children to ensure that no data entry errors are made, the following values are used as the minimum and maximum expected values. The ranges are dependent on the sex and age of the child and are given in centimeters for the length (height) of the child and kilograms for the weight of the child.

Age in Months	LENGTH (cm.)				WEIGHT (kg.)			
	questionnaires		Females		questionnaires		Females	
	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Maximum</u>
0 - 2	36.0	74.0	36.0	72.0	0.5	10.0	0.5	9.0
3 - 5	45.0	83.0	44.0	80.0	1.0	13.0	1.0	12.0
6 - 8	51.0	87.0	50.0	86.0	2.0	15.0	2.0	14.0
9 - 11	56.0	91.0	54.0	90.0	3.0	16.5	2.5	15.5
12 - 14	59.0	96.0	57.0	95.0	4.0	17.5	3.0	16.5
15 - 17	62.0	100.0	60.0	99.0	4.0	18.5	3.5	17.5
18 - 20	64.0	104.0	62.0	102.0	4.0	19.5	3.5	18.5
21 - 23	65.0	107.0	64.0	106.0	4.5	20.5	4.0	19.5
24 - 26	67.0	108.0	66.0	107.0	4.5	23.0	4.5	21.5
27 - 29	68.0	112.0	68.0	111.0	5.0	24.0	5.0	23.0
30 - 32	70.0	115.0	69.0	114.0	5.0	24.5	5.0	24.5
33 - 35	71.0	118.0	71.0	117.0	5.0	25.5	5.0	25.5
36 - 38	73.0	121.0	72.0	120.0	5.0	26.0	5.0	27.0
39 - 41	74.0	124.0	74.0	122.0	5.0	27.0	5.0	28.0
42 - 44	75.0	127.0	75.0	124.0	5.0	28.0	5.5	29.0
45 - 47	77.0	129.9	77.0	126.0	5.0	29.0	5.5	30.0
48 - 50	78.0	132.0	78.0	129.0	5.0	30.0	5.5	31.0
51 - 53	79.0	134.0	79.0	131.0	5.0	31.0	5.5	32.0
54 - 56	80.0	136.0	81.0	133.0	5.5	32.0	6.0	33.0
57 - 60	82.0	139.0	81.0	136.0	5.5	33.0	6.0	34.5
61 - 72	82.0	140.0	81.0	137.0	5.5	34.0	6.0	36.0

## G. EVENT TABLE

The event table contains a history of the key events in the life of the respondent, including the dates of each event. The event table is to be used to help resolve problems in the data. The event table contains the following information:

IX	Index to events			
T	Type of event		Female	questionnaire
	1	Date of birth of respondent	«A106»/«A107»	«AM106»/«AM107»
	2	Date of marriage	«A615»/«A616»	«AM411»/«AM412»
	3	Date of birth of children	«A215»/«A217»	«AM212»
	4	Date of conception of current pregnancy	«A227»	
	5	Date of sterilization/start of contraceptive use	«A319»	
	6	Date of interview	«AINTM»/«AINTY»	«AINTM»/«AINTY»
Ord	Birth order of children in birth history		«A212»	
M	Whether birth was a multiple birth		«A213»	
	•	Single birth		
	>0	Order in multiple births		
S	Survival status of child (type=3) or		«A214»	
	Sterilization or other method code (type=5)		«A311»	
F	Flag for date calculations			
	•	Month and year reported		
	•	Month and age reported - year imputed		
	•	Year and age reported - month imputed		
	•	Year and age reported - year ignored, month imputed		
	•	Year only reported - month and age imputed		
	•	Age only reported - month and year imputed		
	•	Month only reported - age and year imputed		
	•	Nothing reported - age, month and year imputed		
E	Error. An ***appears where there is an inconsistency between date events.			
Date	Date given in the mmyyyy format, e.g. 061999 is June, 1999.			
CMC	Century month code. The event table gives the minimum and maximum century month codes for the data of each event. These will be the same if the date given is complete (i.e. month and year given - code 1 for column F), or there will be a range if either the month or year of the event is not known.			
Int	Minimum interval between events in months. For example between event type 1 (date of birth of respondent) and type 2 (date of marriage) the minimum interval is assumed to be 120 months (10 years).			
Concep	Minimum waiting time between a birth and conception of the next pregnancy, which is assumed to be 2 months.			
Amen	Dur	duration of postpartum amenorrhea	«A456»	
	F	flag for duration of amenorrhea		
Abst	Dur	duration of postpartum abstinence	«A459»	
	F	flag for duration of abstinence		
Bf	Dur	duration of postpartum breastfeeding	«A466»	
	F	flag for duration of breastfeeding		
Meth	Dur	duration of current method use	«A319»	
	F	flag for duration of current method use		
Age	Death	Age at death for children born alive, who later died. The first digit is the unit from «A220U». The last two digits are the number in the units from «A220N»	«A220»	
	F	Flag for age at death		
Last Period	First digit gives the units, last two digits give the number		«A237»	
Last Sex	First digit gives the units, last two digits give the number		«A626»	«AM419»
Age at first sex			«A618»	«AM414»
Flag	Flag variable for last period, last sex, and age at first sex.			

## H. LIST OF FLAG VARIABLES AND CODES

«AWFLG»	Date flag for woman's date of birth	
	values:	value label
		1 Month and year
		2 Month and age - year imputed
		3 Year and age - month imputed
		4 Year & age - year ignored
		5 Year - age, month imputed
		6 Age - year, month imputed
		7 Month - age, year imputed
		8 None - all imputed
«ACFLG»	Date flag for child's date of birth	
	values:	value label
		1 Month and year
		2 Month and age - year imputed
		3 Year and age - month imputed
		4 Year & age - year ignored
		5 Year - age, month imputed
		6 Age - year, month imputed
		7 Month - age, year imputed
		8 None - all imputed
«A106F»	Flag for «A106C»: s's date of birth	
	values:	value label
		1 Month and year
		2 Month and age - year imputed
		3 Year and age - month imputed
		4 Year & age - year ignored
		5 Year - age, month imputed
		6 Age - year, month imputed
		7 Month - age, year imputed
		8 None - all imputed
«A215F»	Flag for «A215C»: Child's date of birth	
	values:	value label
		1 Month and year
		2 Month and age - year imputed
		3 Year and age - month imputed
		4 Year & age - year ignored
		5 Year - age, month imputed
		6 Age - year, month imputed
		7 Month - age, year imputed
		8 None - all imputed

«A220F»	Flag for «A220C»: Child's age at death		
	values:	value	label
		0	No flag
		1	> interview
		2	< breastfeeding
		3	< age supplemented
		4	< first breastfed
		5	< last vaccination
		6	Outside range
		7	Imputed, units given
		8	Imputed, no units
«A227F»	Flag for «A227C»: Duration of current pregnancy		
	values:	value	label
		7	Month - exact date
		8	None - imputed
«A237F»	Flag for «A237»: Time since last period		
	values:	value	label
		1	N > interval since birth
		2	N + amenorrhea > interval
		3	N, but period not returned
		4	95, but no birth
		5	95, but period returned
		6	96, but period returned
		7	N, last period in pregnancy
		8	96, had children
		9	N, period before last birth
«A319F»	Date flag for «A319C»: Start of contraceptive use		
	values:	value	label
		1	Month and year
		5	Year - month imputed
		7	Month - year imputed
		8	None - all imputed
«A456F»	Flag for amenorrhea		
	values:	value	label
		0	No flag
		1	> interval
		2	> interval by 1 month
		4	During pregnancy in calendar
«A459F»	Flag for abstinence		
	values:	value	label
		0	No flag
		1	> interval
		2	> interval by 1 month
		4	During pregnancy in calendar

«A466F»

Flag for breastfeeding

values:	value	label
	0	No flag
	1	> interval
	2	> interval by 1 month
	3	> age at death
	4	During pregnancy in calendar

«A611F»

Date flag for «A611C»: Date of first union

values:	value	label
	1	Month and year
	2	Month and age - year imputed
	5	Year - age, month imputed
	6	Age - year, month imputed
	7	Month - age, year imputed
	8	None - all imputed

«A618F»

Flag for «A618»: Age at first sex

values:	value	label
	0	No flag
	1	After interview
	2	After conception $\geq$ 1 year
	3	After conception < 1 year
	4	At marriage, never married
	5	At marriage, after conception
	6	After marriage

«A626F»

Flag for «A626»: Last sex

values:	value	label
	0	No flag
	1	N > interval since birth
	2	N + abstinence > interval
	3	N, but sex not resumed
	4	96, but no birth
	5	96, but currently pregnant
	6	96, but resumed sex
	7	N, last sex before pregnancy
	8	N, inconsistent 4 weeks
	9	N, sex before last birth

«AM106F»

Date flag for «AM106C»: Men's date of birth

values:	value	label
	1	Month and year
	2	Month and age - year imputed
	3	Year and age - month imputed
	4	Year & age - year ignored
	5	Year - age, month imputed
	6	Age - year, month imputed
	7	Month - age, year imputed
	8	None - all imputed

«AM411F»	Date flag for «AM411C»: Date of first union		
	values:	value	label
		1	Month and year
		2	Month and age - year imputed
		5	Year - age, month imputed
		6	Age - year, month imputed
		7	Month - age, year imputed
		8	None - all imputed
«AM414F»	Flag for «AM414»: Age at first sex		
	values:	value	label
		0	No flag
		1	After interview
		2	After conception $\geq$ 1 year
		3	After conception $<$ 1 year
		4	At marriage, never married
		5	At married after conception
		6	After marriage
«AM421F»	Flag for «AM419»: Time since last sex		
	values:	value	label
		0	No flag
		1	N > interval since birth
		2	N + abstinence > interval
		3	N, but sex not resumed
		4	96, but no birth
		5	96, but currently pregnant
		6	96, but resumed sex
		7	N, last sex before pregnancy
		8	N, inconsistent 4 weeks
		9	N, sex before last birth