Department of International Economic and Social Affairs

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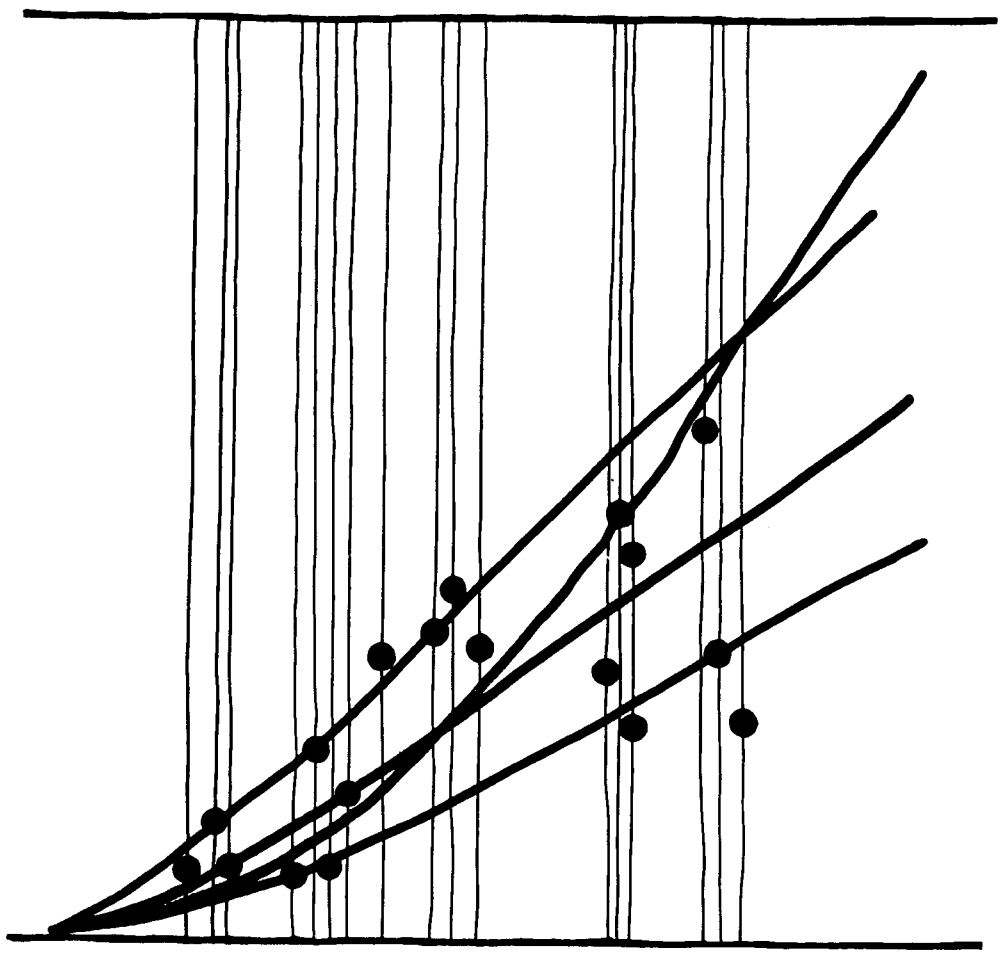
Population Studies No. 107

QFIVE-
UNITED NATIONS PROGRAM FOR CHILD MORTALITY ESTIMATION

A microcomputer program to accompany the
Step-by-Step Guide to the Estimation of Child Mortality



United Nations New York, 1990

CONTENTS

INTRODUCTION

These are instructions for the use of QFIVE, a computer program to estimate mortality in childhood. The program has been prepared to accompany the *Step-by-Step Guide to the Estimation of Child Mortality.* QFIVE produces estimates of infant mortality (the probability of dying between birth and exact age 1), child mortality (the probability of dying between exact ages 1 and 5) and under-five mortality (the probability of dying between birth and exact age 5) by applying the two versions of the Brass method described in the *Guide:* the Trussell version, which is based on the Coale-Demeny model life tables, and the Palloni-Heligman version, based on the United Nations model life tables for developing countries.

Anyone familiar with the contents of the *Guide,* even the inexperienced computer user, should find QFIVE simple to use. Its design follows that of *Mortpak-Lite, the United Nations Software Package for Mortality Measurement: Interactive Software for the IBM-PC and Compatibles.*[a] The chapters that follow describe the hardware requirements of QFIVE, the use of the program itself and the output it produces. Self-explanatory screens guide the user during each application, making QFIVE a useful self-teaching tool.

Knowledge of the estimation methodology, however, is essential. Appropriate use and interpretation of the estimates yielded by QFIVE demand a good understanding of the methods applied and their limitations. The user is referred to the *Guide* for an in-depth discussion of these topics.

The input required for QFIVE is described in the *Guide* for the different versions of the Brass method. It consists mainly of the number of children ever born and surviving, or dead, classified by age of mother and the number of women classified by age. In order to minimize hand calculations in the preparation of input data, QFIVE accepts as input several data combinations that permit the calculation of the basic information needed to apply the method.

The Population Division of the United Nations Secretariat would welcome any comments on the performance of QFIVE that might help improve future software development activities. For further information concerning QFIVE, please contact the Director, Population Division, United Nations, New York, New York 10017.

[a] United Nations publication, Sales No. E.88.XIII.2.

I. HARDWARE REQUIREMENTS AND INSTALLATION

A. Hardware requirements

QFIVE 1.0 can run on an IBM-PC–compatible microcomputer equipped with MS-DOS, version 2.1 or later, and a random access memory of 300K or more. Although, strictly speaking, only one floppy-disk drive is needed to run the program, it is easier to use when a hard disk or two floppy-disk drives are available. A math co-processor or graphics adaptor is not necessary.

The output of the program can either be viewed on the screen or be printed. To print the output, a printer with an IBM Graphics or Proprinter set-up is required. The output will be printed in compressed mode, which will be set automatically by QFIVE, using standard IBM printer control codes.

B. Backup and installation

QFIVE is stored on one diskette, which also contains two sample input files.

Before installation, it is recommended that you write-protect and make a backup copy of your QFIVE diskette. Put the original away for safekeeping and work only with your backup. If your system has a hard disk, installation of the QFIVE program on the hard disk will automatically create a backup. In systems with two floppy-disk drives and no hard disk, the procedure that follows can be used to make backups. Press **ENTER** after each DOS command.

STEP 1. Change the prompt line to **A>**

STEP 2. Insert the DOS diskette in drive A and format a blank diskette in drive B by typing the DOS command

A>FORMAT B:

STEP 3. When the formatting process is completed, copy the **COMMAND** command to the diskette in drive B by typing

A>COPY COMMAND.COM B:

STEP 4. Insert the original (write-protected) QFIVE diskette in drive A and the newly formatted diskette in drive B; then copy all files from drive A to drive B by typing the DOS command

A>COPY A:*.* B:

Keep the original QFIVE diskette in a safe place. Always work with the copy.

If your system has a hard disk, it is convenient to copy the contents of the QFIVE diskette onto the hard disk. To do so, follow the procedure below. Press **ENTER** after each DOS command.

STEP 1. Change the prompt line to C> by typing **C:**

STEP 2. Make a new subdirectory called QFIVE by typing the DOS command

C>MD QFIVE

(You can use any valid directory name instead of QFIVE.)

STEP 3. Enter that subdirectory by typing the DOS command

C>CD QFIVE

STEP 4. Insert the QFIVE diskette in drive A, and copy all files from that diskette to the QFIVE directory on the hard disk by typing the DOS command

C>COPY A:*.* C:

II. USING QFIVE

This chapter describes the QFIVE interface, explains how to start QFIVE, how to enter data and how to run the program. Chapter III describes the output.

A. Getting started

To start QFIVE on a hard-disk system, change to the QFIVE subdirectory by typing the DOS command

C>CD \QFIVE

and pressing **ENTER.**

At the C> prompt, type

C>QFIVE

and press **ENTER.**

On a one- or two-drive system, put the QFIVE program diskette into drive A, and at the **A>** prompt-type

A>QFIVE

and press **ENTER.**

These commands start the operation of QFIVE. The screen displays a welcome, followed by the QFIVE copyright notice. Press any key to get to the main menu. The last line on the main menu screen indicates the existing drive specifications—that is, it specifies the drives where QFIVE expects to find or allocate different files. Those specifications must agree with your program set-up. To change them, select option D and press **ENTER.** For instructions, refer to the section on main menu option D, below.

B. Moving through the screens

QFIVE has a menu-based interface built around a main menu. The main menu offers primary options; each option moves the user through a series of screens on which the user provides certain pieces of information that determine the next screen that will appear.

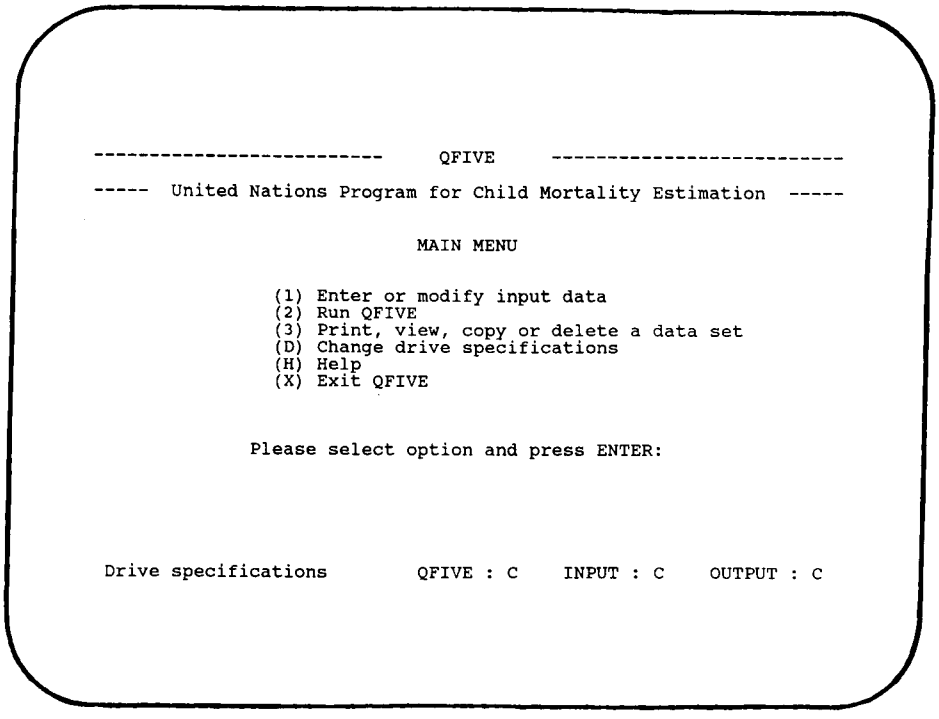
Screen change is initiated by pressing either the **ENTER** key in response to a question or an **F**-key (function key). The function keys accepted by QFIVE and their definitions are as follows:

F1	Presents help screens
F2	Returns user to main menu
F3	Moves user to utility menu (to print, view, copy or delete data sets)
F4	Lists files on a specified drive
F5	Copies files on a specified drive into the currently active worksheet during edit
F9	Runs the program directly from the worksheet
F10	Saves data in the active worksheet and returns to the main menu

Active function keys are indicated at the bottom of the screen. <**ENT**> following the indicated function key means that the **ENTER** key must be pressed after pressing the function key.

C. THE MAIN MENU

QFIVE is built around the following main menu:



The main menu contains six options, each of which will be discussed in turn.

Main menu option 1. Enter or modify input data

Selection of option 1 will move the user to a screen asking for the name of the data set to be edited. If a new data set is being created, the user should assign it a new name according to DOS conventions: up to eight characters before the period and an optional extension of three characters after the period. Names containing more characters will be truncated to eight and three characters respectively.

If an existing data set is being modified, enter its name. Note that pressing **F4** followed by the **ENTER** key will provide a list of all files on the designated input drive.

After the data set name has been entered, the first page of a two-page worksheet will appear, and the user will be asked for the following information:

Label	Up to 72 characters describing the input data. The label will be printed as a header on each page of output.
Month	A number from 1 to 12 indicating the month of enumeration. If the data collection took place over several months, provide the central one.
Year	The year of enumeration.
Sex	A number from 1 to 3 indicating the sex of the children whose mortality is being estimated.
Mean age at maternity	The value of *M* needed for the application of the Palloni-Heligman version of the Brass method (see step 3(*a*) in chapter V of the *Guide*). If the data necessary to calculate *M* are not available and a value is not given for *M*, the program will use 27.0 as the default value.
Type of data	A number from 1 to 5 indicating the type of data to be used as input. QFIVE admits several data combinations as input, as explained below.

As described in chapter II of the *Guide,* three pieces of information are necessary to estimate mortality in childhood using the Brass method: (1) the number of children ever born classified by age group of mother, (2) the number of children dead classified by age group of mother and (3) the total number of women classified by age group. Since the sources of such data often do not contain tabulations of the number of children ever born and dead *per se,* QFIVE accepts as input different data combinations from which the required pieces of information can be derived.

The data combinations admitted, which are also defined on the screen, are as follows:

1. Number of children ever born, number of children surviving and total number of women classified by age group.

2. Number of children ever born, number of children dead and total number of women classified by age group.

3. Number of children surviving, number of children dead and total number of women classified by age group.

4. Average parity by age group of women and the proportion of children dead by age group of women. Average parity is the ratio of the number of children ever born to the number of women. The proportion of children dead is the ratio of the number of children dead to the number of children ever born.

5. Average parity and average number of children surviving by age group of women. Children surviving per woman is the ratio of the number of children surviving to the number of women.

The type of information required for input options 4 and 5 is often the only type available from the secondary sources that do not present the raw data needed for the application of the Brass method. These options should be used only if the raw data are not available, since rounding and other types of errors could have been introduced in the calculations to obtain the average numbers.

The necessary information should be typed in and **ENTER** or a cursor key should be pressed after each item has been completed. Make sure that all items are typed according to the specifications provided on the screen. An example of a properly completed first page is provided below.

```
                    Q F I V E    Data Entry    (Page 1 of 2)

LABEL: BANGLADESH, 1974 RETROSPECTIVE SURVEY

                  Month (1 - 12) ..........................    3
                  Year (4 digits) ......................... 1974
                  Sex (1=Male, 2=Female, 3=Both) ..........    3
                  Mean Age at Maternity (Default 27.0).....27.07
                  Type of data (choose 1-5, below).........    1

                                  Data Types

          1 = Number of women, children ever born and children surviving
          2 = Number of women, children ever born and children dead
          3 = Number of women, children surviving and children dead
          4 = Average parity and proportion of children dead
          5 = Average parity and children surviving per woman

F1 - Help    F2 - Main Menu    F5 - Copy    F9 - Run    F10 - Save  (PgUp/PgDn)
```

Once the "Type of data" entry has been provided, the second page of the input worksheet can be obtained by pressing the **PgUp** or **PgDn** key. The headings appearing on the second page will vary according to the "Type of data" selected. Entries can be made in the worksheet by typing each number and pressing **ENTER** once the entry is completed. For purposes of illustration, the screens below show how the second page looks according to the "Type of data" selected.

Type of data = 1

```
                    Q F I V E    Data Entry    (Page 2 of 2)

   ---------      ---------      ---------      ---------
   Age Group        Number       Number of      Number of
     of               of         Children       Children
    Women           Women       Ever Born      Surviving
   ---------      ---------      ---------      ---------
    15 - 19        3014706        1160919         945554
    20 - 24        2653155        4901382        3903998
    25 - 29        2607009        9085852        7147897
    30 - 34        2015663        9910256        7649060
    35 - 39        1771680       10384001        7893833
    40 - 44        1479575        9164329        6749306
    45 - 49        1135129        6905673        4946129


F1 - Help    F2 - Main Menu    F5 - Copy    F9 - Run    F10 - Save  (PgUp/PgDn)
```

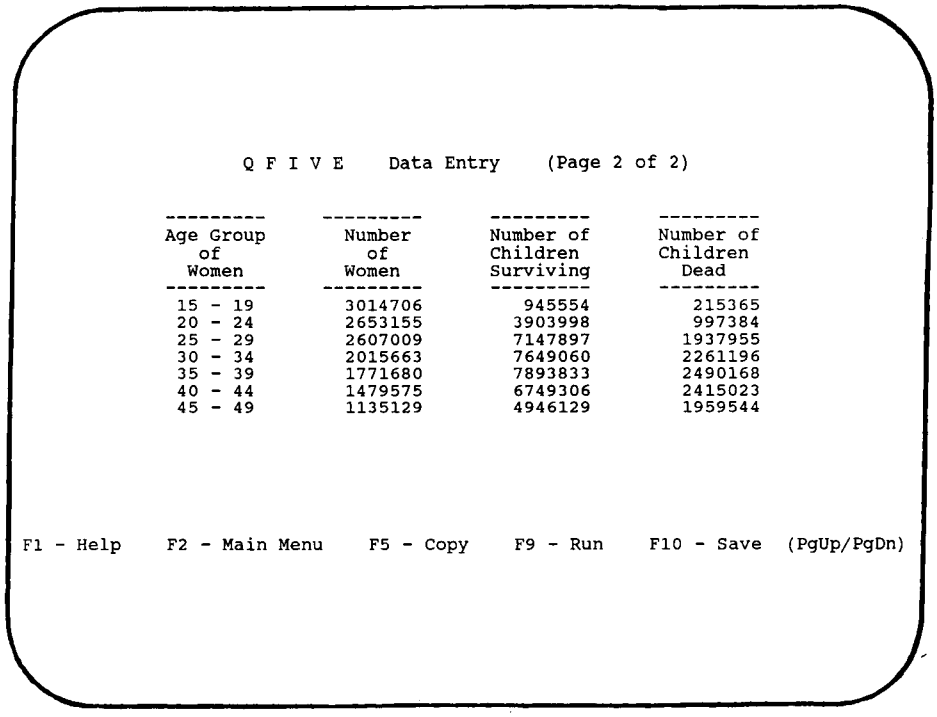
Type of data = 2

```
                    Q F I V E    Data Entry    (Page 2 of 2)

   ---------      ---------      ---------      ---------
   Age Group        Number       Number of      Number of
     of               of         Children       Children
    Women           Women       Ever Born        Dead
   ---------      ---------      ---------      ---------
    15 - 19        3014706        1160919         215365
    20 - 24        2653155        4901382         997384
    25 - 29        2607009        9085852        1937955
    30 - 34        2015663        9910256        2261196
    35 - 39        1771680       10384001        2490168
    40 - 44        1479575        9164329        2415023
    45 - 49        1135129        6905673        1959544


F1 - Help    F2 - Main Menu    F5 - Copy    F9 - Run    F10 - Save  (PgUp/PgDn)
```

Type of data = 3

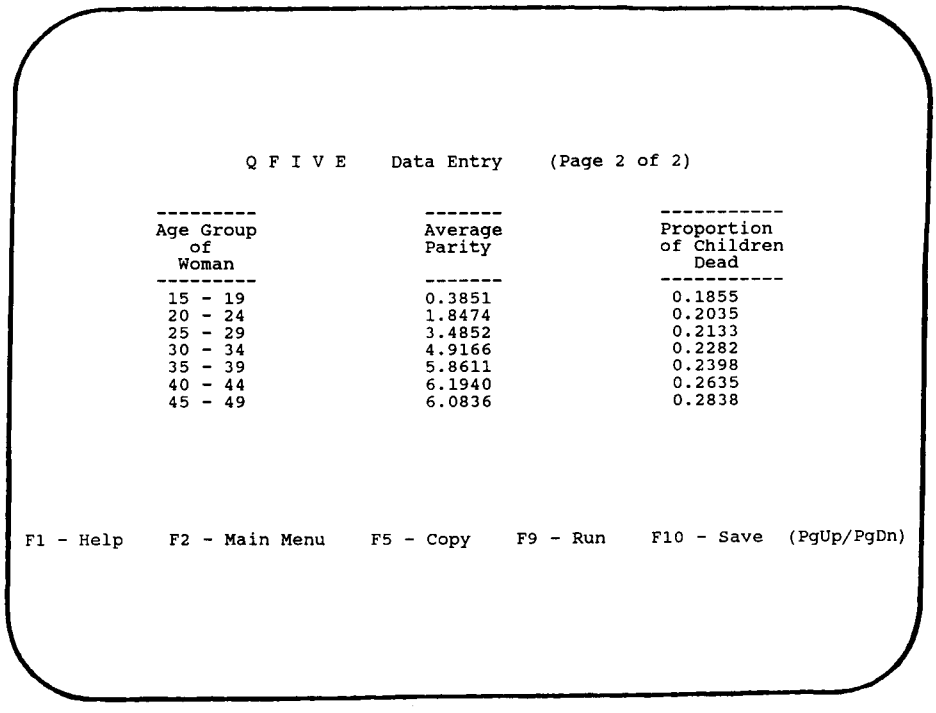


Q F I V E Data Entry (Page 2 of 2)

Age Group of Women	Number of Women	Number of Children Surviving	Number of Children Dead
15 - 19	3014706	945554	215365
20 - 24	2653155	3903998	997384
25 - 29	2607009	7147897	1937955
30 - 34	2015663	7649060	2261196
35 - 39	1771680	7893833	2490168
40 - 44	1479575	6749306	2415023
45 - 49	1135129	4946129	1959544

F1 - Help F2 - Main Menu F5 - Copy F9 - Run F10 - Save (PgUp/PgDn)

Type of data = 4

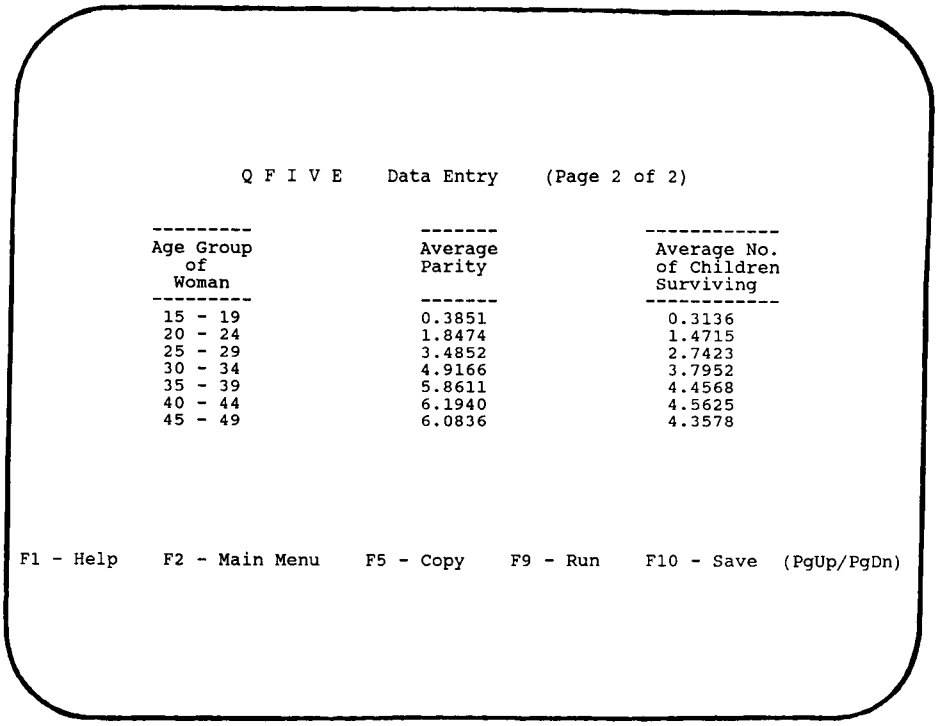


Q F I V E Data Entry (Page 2 of 2)

Age Group of Woman	Average Parity	Proportion of Children Dead
15 - 19	0.3851	0.1855
20 - 24	1.8474	0.2035
25 - 29	3.4852	0.2133
30 - 34	4.9166	0.2282
35 - 39	5.8611	0.2398
40 - 44	6.1940	0.2635
45 - 49	6.0836	0.2838

F1 - Help F2 - Main Menu F5 - Copy F9 - Run F10 - Save (PgUp/PgDn)

Type of data = 5



Note that the data entries for input options 1, 2 and 3 must be in absolute numbers. Entries must have at most 10 figures. No commas should be used to separate them. Entries for options 4 and 5 can have at most four decimal places, and the decimal point must be indicated explicitly, as, for instance, in 1.8474.

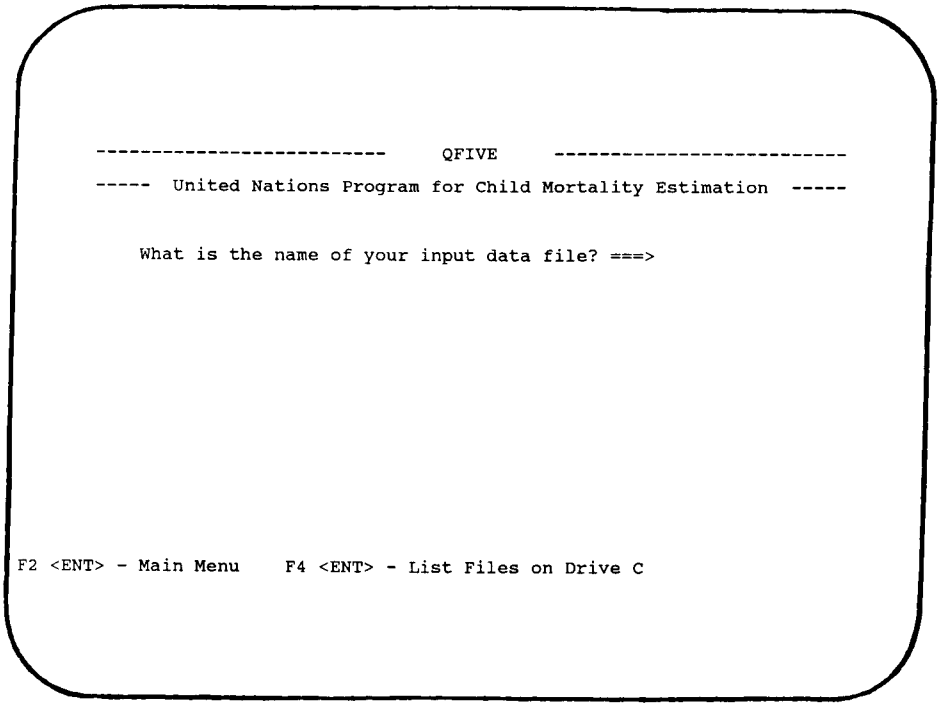
The process of data input is straightforward. Cursor movement is restricted to valid input data fields and is controlled by keyboard keys. Whenever the cursor leaves a field, numeric data are right-justified. Definitions of the keys are as follows:

ENTER	This key moves the cursor to the next data field.
CURSOR (arrow)	These keys move the cursor left, right, up or down one position.
BACKSPACE	This key moves the cursor one position to the left and deletes the entered character.
RIGHT TAB	This key moves the cursor one field to the right.
LEFT TAB	This key (shift tab) moves the cursor one field to the left.
HOME	This key moves the cursor to the first position of the first data field on the page.
END	This key moves the cursor to the last non-blank character of the field plus one. If the last character is not blank, it moves the cursor to the last character of the field.
CTRL-END	Pressing these keys simultaneously erases all data from the current cursor position through the end of the field.
INSERT	From the point of the cursor, this key moves all data from within the field one position to the right.
DELETE	This key deletes the character at the cursor position. Data in the same field and to the right of the cursor moves left one position.
PgUp/PgDn	These keys are used for moving between the two pages of the worksheet.

The **F5** key, which appears on the screen on both pages of the worksheet, enables the user to copy data from a different file into the active worksheet.

Main menu option 2. Run QFIVE

To run QFIVE, the user can either press **F9** from the input worksheet or select option 2 from the main menu. The choice of option 2 leads to a screen requesting the name of the input file.



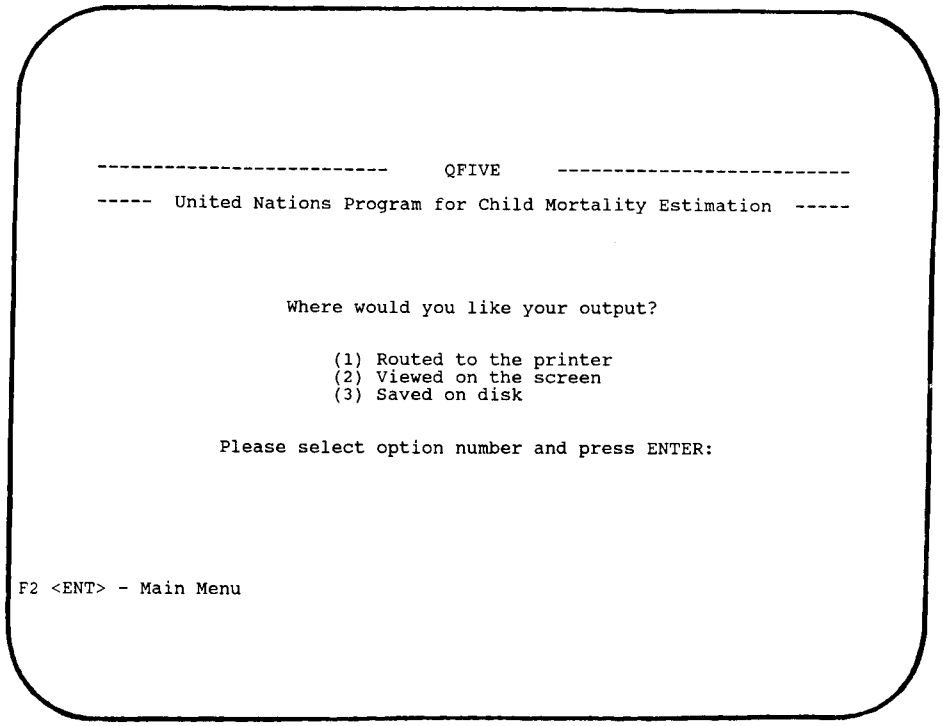
At the query, the user should provide the name of an existing input file. Two function keys are available at the bottom of the screen. The **F2 <ENT>** key sequence returns the user to the main menu; the **F4 <ENT>** key sequence displays a list of all files on the input data drive.

Pressing the **ENTER** key after entering the file name causes the program to run. When processing is complete, the screen shown at the top of page 11 (referred to as a utility menu) appears, allowing the user to route the output.

Option 1 sends the output to the printer. Make sure that the printer is on-line before selecting option 1. Before printing, the question "How many copies would you like?" appears on the screen. Any integer response is acceptable; there is no maximum number of copies. The default is 1. Printing will begin immediately.

Option 2 sends the output to the screen. It is usually a good idea to examine the output on the screen to ensure that it is correct before sending it to the printer or saving it on disk. After viewing the output on the screen, the user can return to the utility menu by pressing **F3 <ENT>** and can then choose option 1 or 3, to print or save the output.

Option 3 saves the output on disk. The user is requested to provide the name of the output file to be saved. It should conform to DOS naming conventions. Typing the output file name and



pressing **ENTER** copies the output file onto the output drive under the designated file name. Once this is completed, the user is returned to the utility menu.

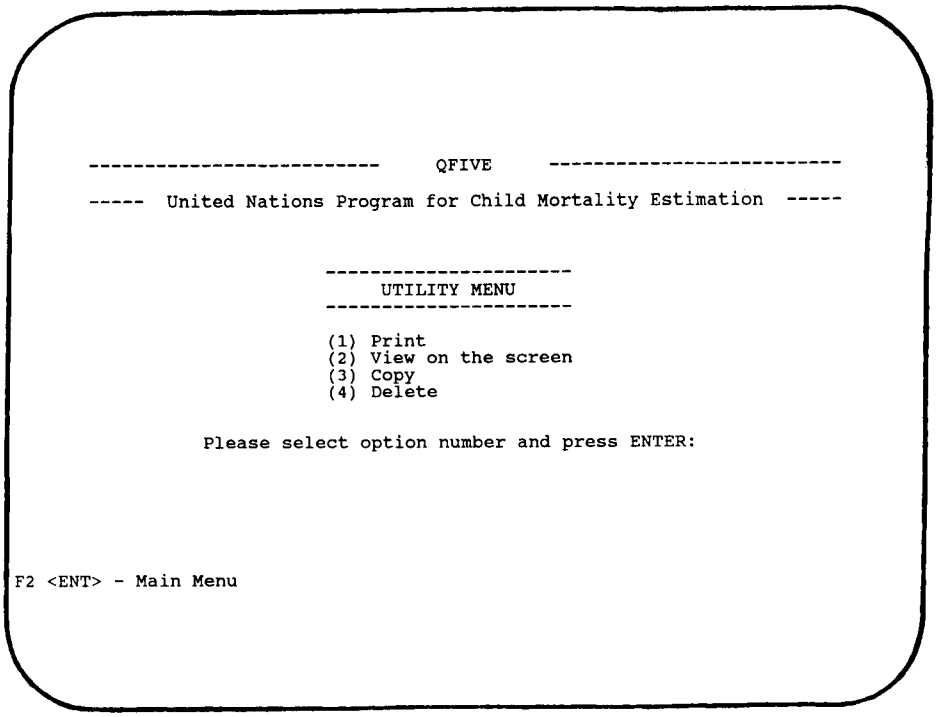
Main menu option 3. Print, view, copy or delete a data set

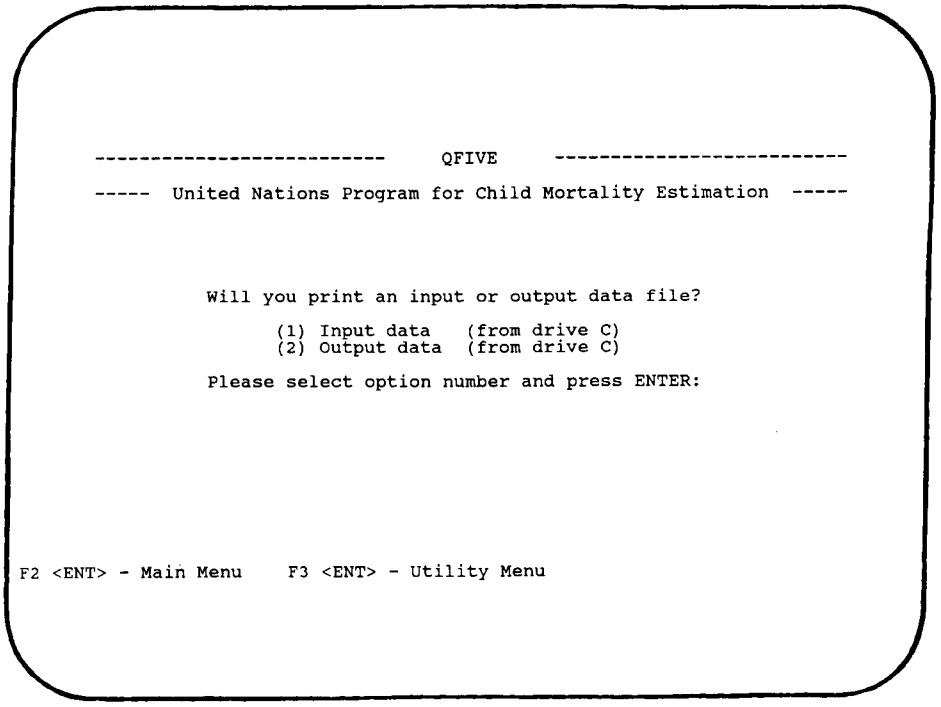
This option allows the user to carry out common file-handling activities without returning to DOS. Selection of option 3 yields the screen shown at the top of page 12.

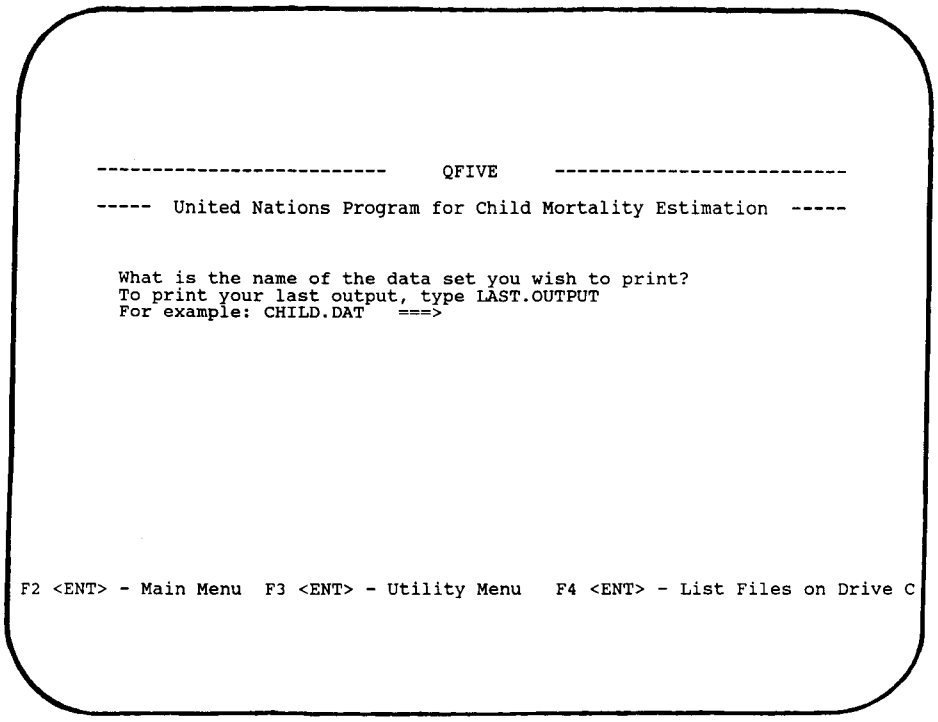
Option 1 routes a file to the printer. Selection of option 1 calls forth a series of screens querying the user for characteristics of the file to be printed: whether it is an input or an output data set, the name of the data set and the number of copies desired (second illustration, page 12, and page 13).

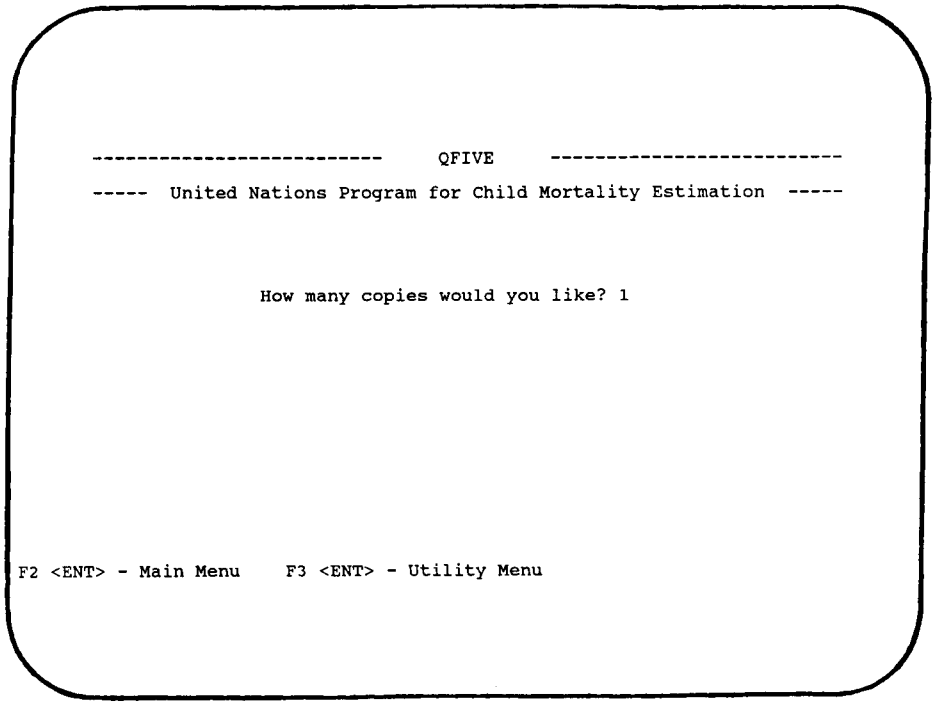
Option 2 routes a file to the screen for viewing. As in the case of option 1, several queries about characteristics of the file will appear on the screen. Specifically, the user is asked: "Will you view on the screen an input or output data file?" and "What is the name of the data set you wish to view on the screen?" Often the output file wanted is the last one processed. This can be indicated by typing in **LAST OUTPUT.**

The user should note that this utility will print or display an input file using the format in which the data are stored on disk. To see the input data in worksheet format (i.e., with the appropriate headings), one must use option 1 of the main menu or print the first page of an output file.

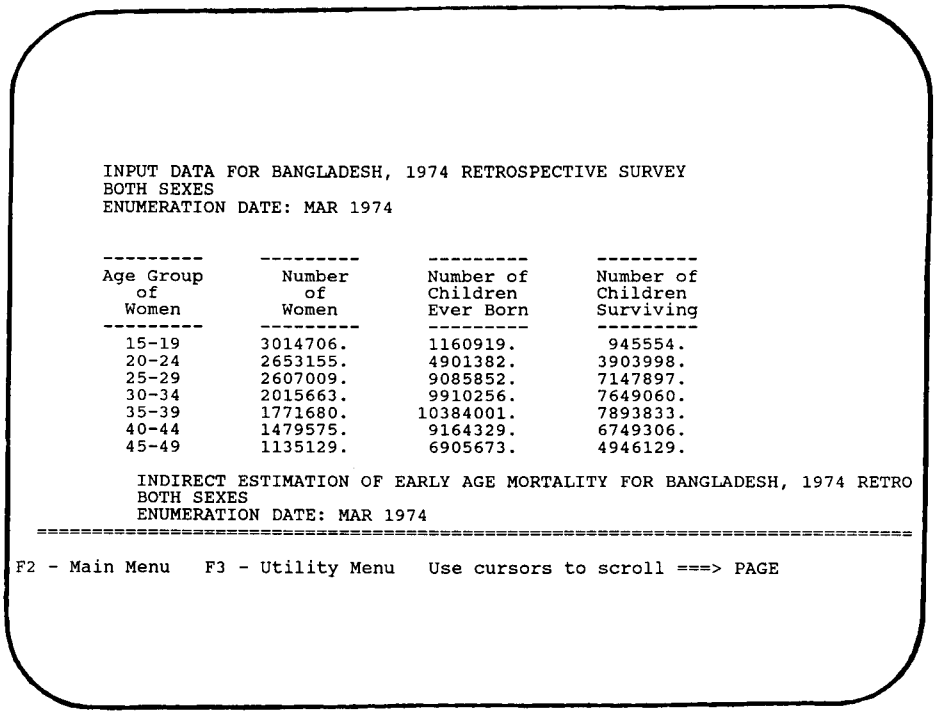

QFIVE
United Nations Program for Child Mortality Estimation
UTILITY MENU
(1) Print
(2) View on the screen
(3) Copy
(4) Delete
Please select option number and press ENTER:
F2 <ENT> - Main Menu


QFIVE
United Nations Program for Child Mortality Estimation
Will you print an input or output data file?
(1) Input data (from drive C)
(2) Output data (from drive C)
Please select option number and press ENTER:
F2 <ENT> - Main Menu
F3 <ENT> - Utility Menu


QFIVE
United Nations Program for Child Mortality Estimation
What is the name of the data set you wish to print?
To print your last output, type LAST.OUTPUT
For example: CHILD.DAT ===>
F2 <ENT> - Main Menu F3 <ENT> - Utility Menu F4 <ENT> - List Files on Drive C


QFIVE
United Nations Program for Child Mortality Estimation
How many copies would you like? 1
F2 <ENT> - Main Menu F3 <ENT> - Utility Menu

The following screen displays an output file as viewed on the screen.



```
INPUT DATA FOR BANGLADESH, 1974 RETROSPECTIVE SURVEY
BOTH SEXES
ENUMERATION DATE: MAR 1974

---------    ---------    ---------    ---------
Age Group       Number      Number of    Number of
   of             of        Children     Children
  Women         Women      Ever Born    Surviving
---------    ---------    ---------    ---------
  15-19       3014706.      1160919.      945554.
  20-24       2653155.      4901382.     3903998.
  25-29       2607009.      9085852.     7147897.
  30-34       2015663.      9910256.     7649060.
  35-39       1771680.     10384001.     7893833.
  40-44       1479575.      9164329.     6749306.
  45-49       1135129.      6905673.     4946129.

  INDIRECT ESTIMATION OF EARLY AGE MORTALITY FOR BANGLADESH, 1974 RETRO
  BOTH SEXES
  ENUMERATION DATE: MAR 1974
================================================================================

F2 - Main Menu   F3 - Utility Menu   Use cursors to scroll ===> PAGE
```

When viewing a file, the user can return at any time to the main menu by pressing **F2 <ENT>** or to the utility menu by pressing **F3 <ENT>.**

Because of screen size, only part of a file can be seen at one time. The cursor keys are used to scroll the screen in order to view different parts of a file. The cursor functions are:

RIGHT CURSOR	Exhibits data to the right of the screen.
LEFT CURSOR	Exhibits data to the left of the screen.
DOWN CURSOR	Exhibits data below the screen.
UP CURSOR	Exhibits data above the screen.

The extent of scrolling is determined by the user and is indicated at the bottom right-hand corner of the screen. Scrolling is always pre-set to "page". The extent of scrolling can be changed by pressing one of the keys indicated below:

M	Indicates "maximum". Depending on the cursor key pressed, data at the right, left, top or bottom margin are brought into view.
P	Indicates "page". The displayed data file is moved in the indicated direction a "full page"—that is, up to 23 lines or up to 80 columns, depending on the cursor key activated. Scrolling is always pre-set to **P.**
1 through **9**	Entering an integer between 1 and 9 sets the scrolling to that number of lines or columns.

Option 3 allows the user to make copies of an input or output file (data set) on the same disk drive. This utility may be used, for example, to make a backup copy of a data set before modifying its contents. Before copying, the user must provide information on file characteristics by answering the queries: "What is the name of the data set you wish to copy?" and "In what data set would you like to save the copy?" If the data set already has a name, the user will be given

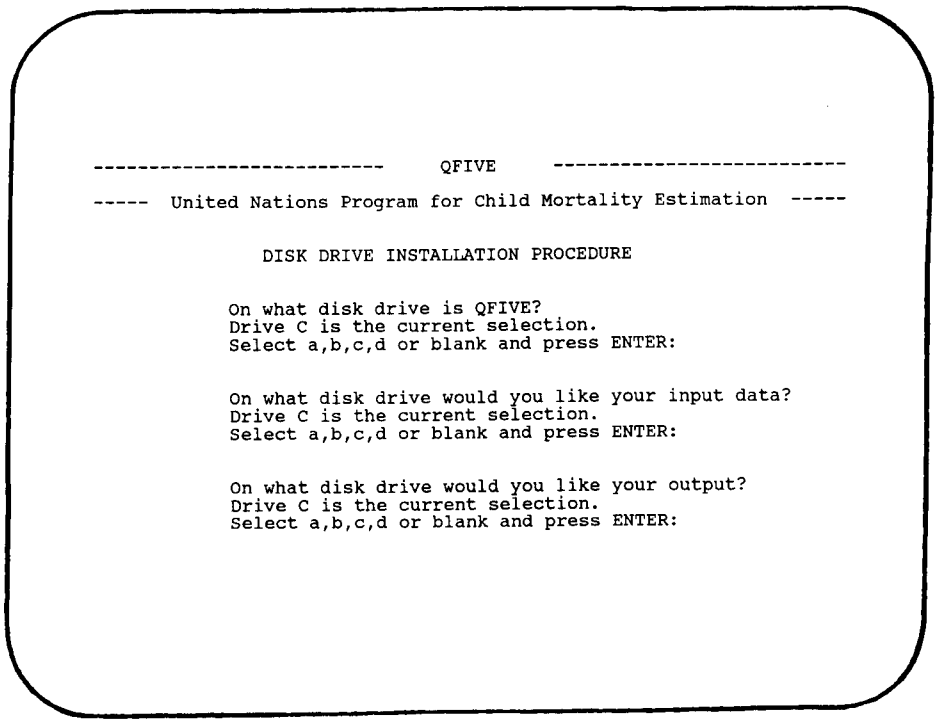
the option of choosing another name for the backup copy or using the existing name. If the existing name is used and the data are modified, the original data will be destroyed.

Option 4 allows the user to delete files. The user must indicate whether an input or output data set is being deleted (only if input and output data sets reside on different disk drives) and the name of the data set to be deleted. Before the file is deleted, the user is asked to confirm that the selected file is to be deleted.

Main menu option D. Change drive specifications

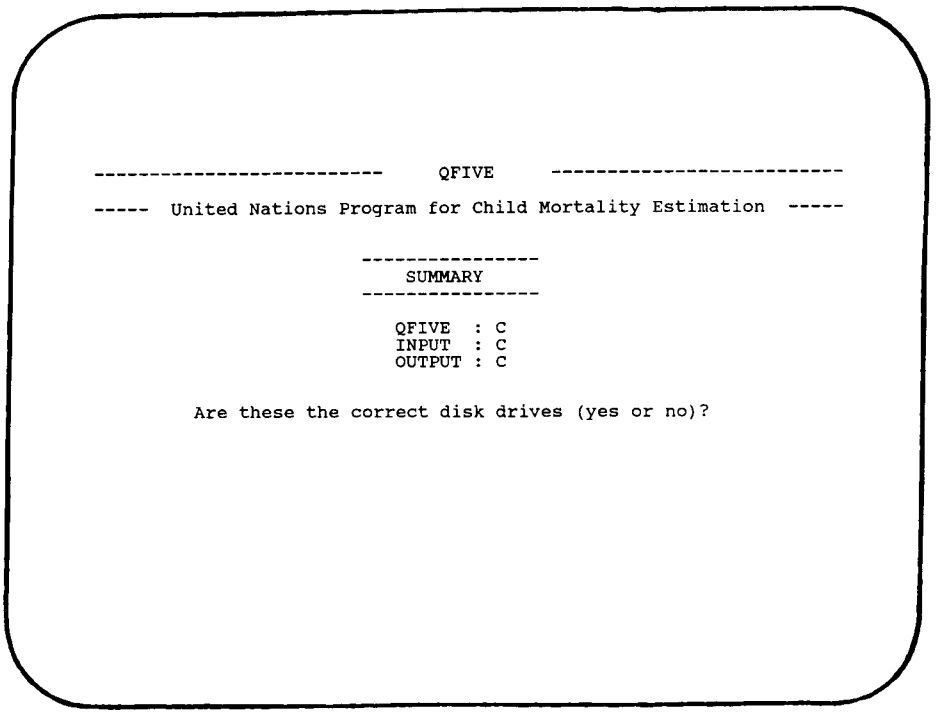
Option D specifies the disk drives for the QFIVE program and the input and output files. Drive specifications must be correct for QFIVE to work properly. In a hard-disk drive system, QFIVE should be installed in drive C. The input and output files can be stored in any combination of drive A, B or C. In a two-drive system, QFIVE may be assigned to drive A, and the input and output files to drive B. In a one-drive system, QFIVE and the input and output files have to be assigned to drive A.

When option D is selected, the following screen will appear.



Pressing **ENTER** without making an entry (a blank response) leaves the existing selection active.

After a selection has been made for all items, the user is asked to confirm the choices made.



A "yes" response sets the indicated drive specifications and returns the user to the main menu. A "no" response returns the user to the previous screen to respecify the necessary drives.

QFIVE updates the information on drive specifications so that the latest configuration will appear on the screen the next time the program is used.

Main menu option H. Help

Option H brings forth a text providing general instructions on using QFIVE. An application-specific help screen is also available within the data-entry worksheet.

Main menu option X. Exit QFIVE

Option X ends the QFIVE session, clears memory and returns the user to DOS.

III. DESCRIPTION OF THE OUTPUT

An example of QFIVE's printed output is displayed on pages 18-20. The output can only be described as comprehensive. Three pages are printed for each set of input data. The label, sex of children and enumeration date are printed at the top of each page. The first page gives the input data in worksheet format as they were entered on the screen, while the second and third pages show the estimates obtained.

The second page presents the estimates produced by the application of the Trussell version of the Brass method, while the third presents the equivalent estimates obtained using the Palloni-Heligman version. Both pages consist of an upper panel showing the average number of children ever born (average parity), the average number of children surviving, the reported proportions dead and the estimates of the probability of dying by age x, $q(x)$, yielded by the different versions of the Brass method using all available mortality models. Each $q(x)$ is accompanied by the corresponding $t(i)$, its time reference, expressed in number of years before the date of the survey or census.

The lower panel of each page presents three sets of estimates: $q(1)$, that is, the probability of dying between birth and exact age 1, also known as infant mortality; ${}_4q_1$, the probability of dying between exact ages 1 and 5, termed "child mortality" in the *Guide*; and $q(5)$, the probability of dying between birth and exact age 5, also called "under-five mortality". All those estimates are "common indices" to which the estimates of $q(x)$ shown in the upper panel were translated by using model life tables. As explained in the *Guide*, it is recommended that the user focus on the estimated set of $q(5)$ equivalents. The estimates of $q(1)$ and ${}_4q_1$ are given to make comparisons possible with estimates from other sources where infant mortality is often the only measure of mortality in childhood used. The reference dates are given with one decimal point to make it easier to plot the estimates on a graph.

Note that QFIVE produces estimates for all the life-table models presented in the *Guide*. As explained in chapter IV of the *Guide*, the Trussell version is based on the Coale-Demeny regional model life tables, which have four variants: North, South, East and West. The Palloni-Heligman version, on the other hand, uses the United Nations model life tables for developing countries, whose five variants are Latin American, Chilean, South Asian, Far Eastern and General. The user is therefore faced with at least nine different sets of estimates for each set of input data. As suggested in the *Guide*, the best way of comparing and evaluating those estimates is graphically, by plotting the $q(5)$ estimates, for instance, against their respective reference dates (see figures 12 and 13 in chapter VI of the *Guide*).

Often, the user will not have to consider the whole array of estimates produced by QFIVE. If, for example, the data necessary to estimate the mean age at maternity (M) are not available, the user may wish to ignore the estimates produced by the Palloni-Heligman version, which would depend on an arbitrary default value for that parameter. If, on the other hand, additional evidence suggests that the mortality pattern in a country is very close to that of the Chilean model, the Trussell estimates and those produced by all other United Nations models can be disregarded. For a further discussion on choice of model life table and interpretation of the estimates, see chapter VI of the *Guide*.

Although QFIVE probably provides more information than is strictly necessary for the estimation of child mortality, this feature gives it added flexibility and should make it possible to meet the needs of most users.

Example of the first page of the printed output:

INPUT DATA FOR BANGLADESH, 1974 RETROSPECTIVE SURVEY
BOTH SEXES
ENUMERATION DATE: MAR 1974

Age Group of Women	Number of Women	Number of Children Ever Born	Number of Children Surviving
15-19	3014706.	1160919.	945554.
20-24	2653155.	4901382.	3903998.
25-29	2607009.	9085852.	7147897.
30-34	2015663.	9910256.	7649060.
35-39	1771680.	10384001.	7893833.
40-44	1479575.	9164329.	6749306.
45-49	1135129.	6905673.	4946129.

Example of the second page of the printed output:

INDIRECT ESTIMATION OF EARLY AGE MORTALITY FOR BANGLADESH, 1974 RETROSPECTIVE SURVEY
BOTH SEXES
ENUMERATION DATE: MAR 1974

AGE OF WOMAN	AVERAGE NO. CHILDREN BORN	AVERAGE NO. CHILDREN SURVIVING	PROPORTION DEAD	AGE x	COALE-DEMENY MODELS (TRUSSELL EQUATIONS) NORTH q(x)	NORTH t(x)	SOUTH q(x)	SOUTH t(x)	EAST q(x)	EAST t(x)	WEST q(x)	WEST t(x)
15-19	.385	.314	.186	1	.177	(1.2)	.170	(1.2)	.187	(1.2)	.182	(1.2)
20-24	1.847	1.471	.203	2	.193	(2.6)	.203	(2.6)	.206	(2.6)	.204	(2.6)
25-29	3.485	2.742	.213	3	.197	(4.5)	.211	(4.6)	.211	(4.7)	.208	(4.7)
30-34	4.917	3.795	.228	5	.221	(6.7)	.230	(7.0)	.227	(7.1)	.227	(7.0)
35-39	5.861	4.456	.240	10	.248	(9.2)	.247	(9.6)	.245	(9.8)	.243	(9.6)
40-44	6.194	4.562	.264	15	.270	(11.8)	.266	(12.4)	.265	(12.7)	.264	(12.3)
45-49	6.084	4.357	.284	20	.285	(14.6)	.283	(15.5)	.283	(15.9)	.282	(15.2)

COALE-DEMENY:	NORTH		SOUTH		EAST		WEST	
AGE OF WOMAN	REFERENCE DATE	q	REFERENCE DATE	q	REFERENCE DATE	q	REFERENCE DATE	q
INFANT MORTALITY RATE: q(1)								
15-19	1973.0	.177	1973.0	.170	1973.0	.187	1973.0	.182
20-24	1971.7	.151	1971.6	.149	1971.6	.174	1971.6	.163
25-29	1969.7	.135	1969.6	.141	1969.5	.167	1969.6	.152
30-34	1967.5	.131	1967.2	.141	1967.1	.169	1967.2	.152
35-39	1965.1	.127	1964.6	.140	1964.4	.169	1964.6	.150
40-44	1962.4	.129	1961.8	.144	1961.5	.176	1961.9	.154
45-49	1959.6	.127	1958.7	.145	1958.3	.178	1959.0	.153
PROBABILITY OF DYING BETWEEN AGES 1 AND 5: $_4q_1$								
15-19	1973.0	.146	1973.0	.149	1973.0	.083	1973.0	.111
20-24	1971.7	.122	1971.6	.116	1971.6	.074	1971.6	.097
25-29	1969.7	.108	1969.6	.104	1969.5	.070	1969.6	.089
30-34	1967.5	.104	1967.2	.104	1967.1	.071	1967.2	.089
35-39	1965.1	.100	1964.6	.103	1964.4	.071	1964.6	.087
40-44	1962.4	.102	1961.8	.109	1961.5	.075	1961.9	.090
45-49	1959.6	.101	1958.7	.110	1958.3	.077	1959.0	.090
PROBABILITY OF DYING BY AGE 5: q(5)								
15-19	1973.0	.297	1973.0	.294	1973.0	.254	1973.0	.273
20-24	1971.7	.254	1971.6	.248	1971.6	.235	1971.6	.244
25-29	1969.7	.228	1969.6	.230	1969.5	.225	1969.6	.228
30-34	1967.5	.221	1967.2	.230	1967.1	.227	1967.2	.227
35-39	1965.1	.214	1964.6	.229	1964.4	.228	1964.6	.224
40-44	1962.4	.218	1961.8	.237	1961.5	.238	1961.9	.230
45-49	1959.6	.215	1958.7	.239	1958.3	.241	1959.0	.229

NOTE: A q VALUE OF .999 DENOTES VALUE BELOW A LEVEL 1 MODEL LIFE TABLE
" .000 " ABOVE A LEVEL 25 "

Example of the third page of the printed output:

INDIRECT ESTIMATION OF EARLY AGE MORTALITY FOR BANGLADESH, 1974 RETROSPECTIVE SURVEY
BOTH SEXES
ENUMERATION DATE: MAR 1974

AGE OF WOMAN	AVERAGE NO. CHILDREN BORN	SURVIVING	PROPORTION DEAD	AGE x	UNITED NATIONS MODELS (PALLONI-HELIGMAN EQUATIONS) LATIN AM q(x)	t(x)	CHILEAN q(x)	t(x)	SO ASIAN q(x)	t(x)	FAR EAST q(x)	t(x)	GENERAL q(x)	t(x)
15-19	.385	.314	.186	1	.179	(1.1)	.199	(1.3)	.179	(1.1)	.183	(1.2)	.181	(1.1)
20-24	1.847	1.471	.203	2	.207	(2.5)	.215	(2.6)	.209	(2.5)	.206	(2.6)	.207	(2.5)
25-29	3.485	2.742	.213	3	.213	(4.3)	.217	(4.5)	.215	(4.4)	.211	(4.4)	.212	(4.3)
30-34	4.917	3.795	.228	5	.231	(6.5)	.231	(6.8)	.234	(6.6)	.227	(6.6)	.229	(6.5)
35-39	5.861	4.456	.240	10	.249	(8.9)	.243	(9.3)	.249	(9.1)	.243	(9.0)	.247	(8.9)
40-44	6.194	4.562	.264	15	.262	(11.7)	.264	(12.1)	.269	(12.0)	.262	(11.6)	.262	(11.7)
45-49	6.084	4.357	.284	20	.284	(15.3)	.283	(15.7)	.286	(15.9)	.283	(14.9)	.284	(15.2)

MEAN AGE AT MATERNITY = 27.07

AGE OF WOMAN	UNITED NATIONS: LATIN AM REFERENCE DATE	q	CHILEAN REFERENCE DATE	q	SO ASIAN REFERENCE DATE	q	FAR EAST REFERENCE DATE	q	GENERAL REFERENCE DATE	q
INFANT MORTALITY RATE: q(1)										
15-19	1973.1	.179	1972.9	.199	1973.1	.179	1973.0	.999	1973.1	.181
20-24	1971.7	.155	1971.6	.185	1971.7	.157	1971.6	.999	1971.7	.160
25-29	1969.9	.142	1969.7	.176	1969.8	.146	1969.8	.148	1969.9	.147
30-34	1967.7	.138	1967.4	.175	1967.6	.143	1967.7	.144	1967.7	.143
35-39	1965.3	.135	1964.9	.174	1965.1	.142	1965.3	.139	1965.3	.140
40-44	1962.5	.136	1962.1	.179	1962.2	.148	1962.6	.139	1962.5	.141
45-49	1958.9	.138	1958.5	.180	1958.3	.150	1959.3	.134	1959.0	.142
PROBABILITY OF DYING BETWEEN AGES 1 AND 5: $_4q_1$										
15-19	1973.1	.166	1972.9	.086	1973.1	.152	1973.0	.999	1973.1	.148
20-24	1971.7	.131	1971.6	.075	1971.7	.123	1971.6	.999	1971.7	.120
25-29	1969.9	.114	1969.7	.068	1969.8	.108	1969.8	.103	1969.9	.105
30-34	1967.7	.108	1967.4	.068	1967.6	.105	1967.7	.098	1967.7	.100
35-39	1965.3	.105	1964.9	.067	1965.1	.104	1965.3	.092	1965.3	.097
40-44	1962.5	.105	1962.1	.071	1962.2	.111	1962.6	.092	1962.5	.097
45-49	1958.9	.109	1958.5	.071	1958.3	.114	1959.3	.088	1959.0	.098
PROBABILITY OF DYING BY AGE 5: q(5)										
15-19	1973.1	.316	1972.9	.268	1973.1	.304	1973.0	.999	1973.1	.302
20-24	1971.7	.266	1971.6	.245	1971.7	.261	1971.6	.999	1971.7	.261
25-29	1969.9	.239	1969.7	.232	1969.8	.238	1969.8	.236	1969.9	.237
30-34	1967.7	.231	1967.4	.231	1967.6	.234	1967.7	.227	1967.7	.229
35-39	1965.3	.226	1964.9	.229	1965.1	.231	1965.3	.218	1965.3	.223
40-44	1962.5	.227	1962.1	.237	1962.2	.242	1962.6	.218	1962.5	.224
45-49	1958.9	.232	1958.5	.238	1958.3	.248	1959.3	.210	1959.0	.226

NOTE: A q VALUE OF .999 DENOTES VALUE FROM TABLE WITH LIFE EXPECTANCY LESS THAN 35
" .000 " GREATER THAN 75

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89-40940—April 1990—4,075