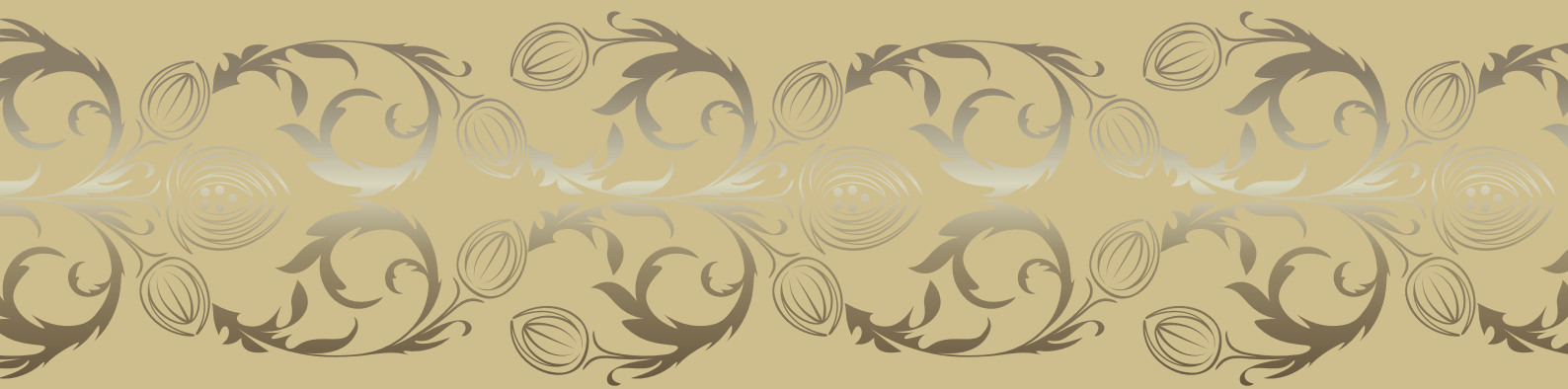


# Egypt



**Health Issues  
Survey**

**2015**



# EGYPT HEALTH ISSUES SURVEY 2015

Ministry of Health and Population  
Cairo, Egypt

El-Zanaty and Associates  
Cairo, Egypt

The DHS Program  
ICF International  
Rockville, Maryland, USA

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Ministry of Health and Population



El-Zanaty and Associates



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## PREFACE

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**H**ealth for all is a main objective of the Egyptian government. The Ministry of Health and Population (MOHP) has placed high priority on achieving this objective, developing a national system of health facilities providing services at all levels. The MOHP is committed to increasing the quality and coverage of the health care system. To monitor and evaluate progress toward the achievement of this goal, reliable data are needed.

Beginning in 1980, a number of household surveys have been carried out in Egypt to obtain data from the community on their current health situation, including a series of Demographic and Health Surveys (DHS). Several of the DHS have included special components designed to provide in-depth data to investigate topics of particular concern. In 2008, for example, the Egypt DHS provided the first nationwide data on the prevalence of infection with the hepatitis C virus among the Egyptian population age 15-59. The 2015 EHIS builds on the 2008 EDHS experience, expanding the testing component to include hepatitis B as well as hepatitis C and expanding the population eligible for the testing component to include children age 1-14 in addition to adults age 15-59. Similar to the 2008 EDHS, the 2015 EHIS provides data on the prevalence of hypertension among adults and valuable information relating to other non-communicable diseases and associated risk factors. The EHIS also obtained information on several reproductive health issues, including knowledge and attitudes relating to Caesarean sections which the 2014 EDHS results indicate now occur in more than half of all births in Egypt.

Together with the findings of the 2014 EDHS, the results of the 2015 EHIS are very important for assessing the achievements of the health program to date as well as for planning future interventions to address Egypt's health and population challenges. Based on the above-mentioned considerations, it is very important that the results of the 2015 EHIS should be widely disseminated at different levels of health management, in central offices as well as local governments, and to the community at large.

Dr. Ahmed Emad  
Minister of Health and Population



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The 2015 Egypt Health Issues Survey (EHIS) continues the long-standing commitment and efforts in Egypt to obtain data on key health challenges facing the country including hepatitis C and non-communicable diseases. The wealth of health data that the survey provides will help in charting future directions for the health programs addressing these challenges.

The EHIS could not have been implemented without the active support and dedicated efforts of a large number of institutions and individuals. Special thanks are owed to H.E. Prof. Dr. Ahmed Emad. The support and approval of H.E. Prof. Dr. Adel Adawy also was instrumental in securing the implementation of the EHIS.

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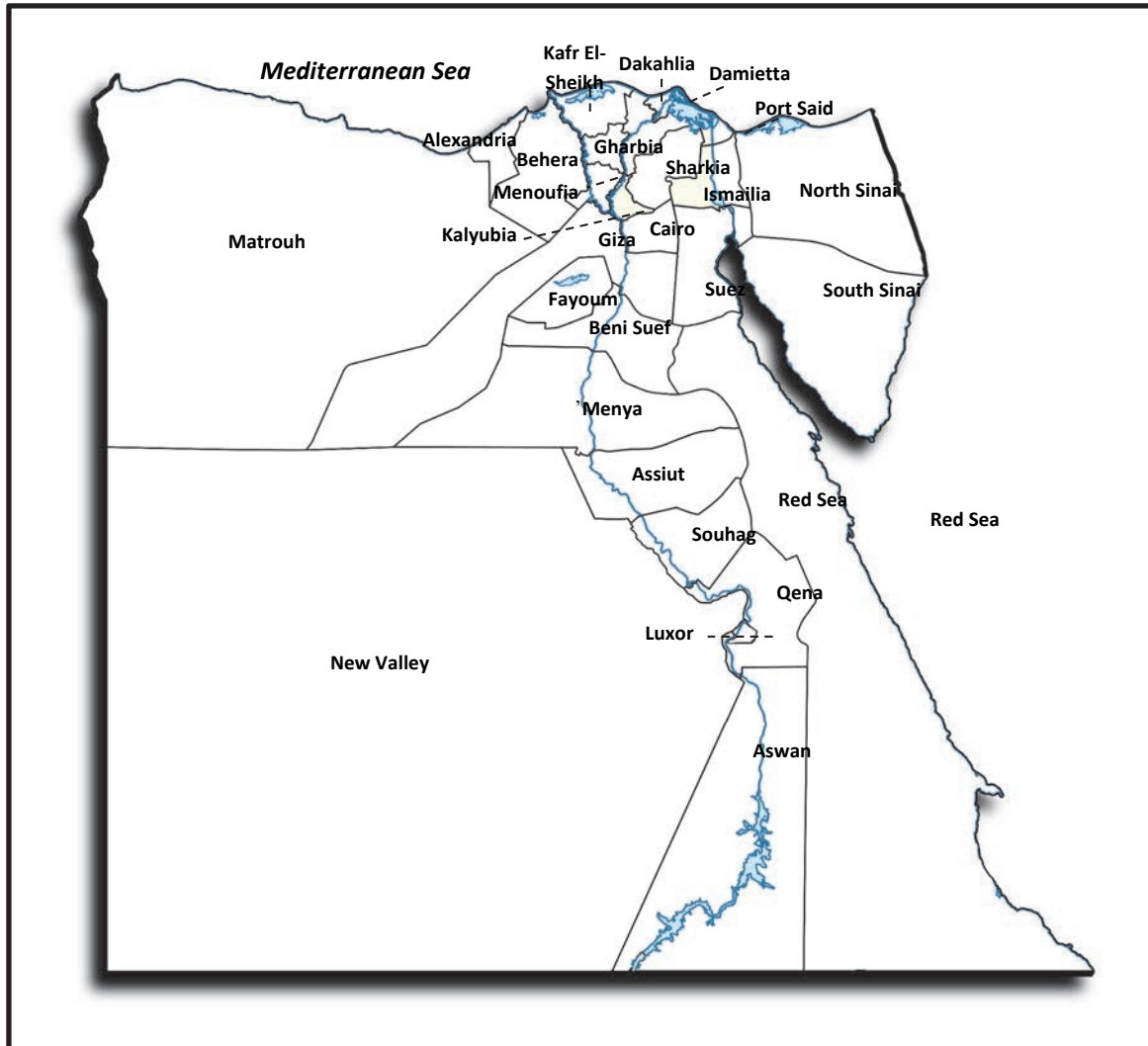
Technical assistance came from the USAID-sponsored DHS-7 project. Dr. Ann Way, who worked closely with us on all phases of EHIS, deserves special thanks for all her efforts. I would like to thank Mr. Guillermo Rojas for his assistance in preparing programs for tracking the test results at the Central Laboratory and in producing preliminary tabulations from the survey. Ms. Jeanne Cushing deserves my deepest thanks for her assistance with data processing and tabulation for this report. Mr. Dean Garrett and Dr. Hamdy Abdel Ghafar Moussa provided invaluable assistance with the hepatitis testing component of the survey.

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Finally, I would like to express my appreciation to all households and individuals who responded in the survey; without their participation this survey would have been impossible.

Fatma El-Zanaty  
Technical Director

# MAP OF EGYPT



## INTRODUCTION

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Quality health care in Egypt is a constitutional right for all citizens and the government is committed to maintain and support a comprehensive health care system (State Information Service 2014). Understanding the health challenges which face the Egyptian population is crucial for planning for their prevention, treatment and control within the national health care system. In addressing the health challenges, it is important not only to understand the scope of the problems but to be able to assess the factors that are contributing to the problems.

The 2015 Egypt Health Issues Survey (EHIS) was undertaken as part of the Ministry of Health and Population's commitment to obtain data on a number of Egypt's key health concerns, particularly the prevalence of hepatitis and of hypertension, smoking, and obesity, which are major risk factors for non-communicable diseases (NCDs) such as diabetes and cardiovascular disease. Egypt has the highest rate of hepatitis C infection in the world, and NCDs are among the leading causes of death in Egypt.

The 2015 EHIS shared the same national sample as the 2014 Egypt Demographic and Health Survey (EDHS). Together, the results of the EHIS and EDHS surveys provide the Ministry of Health and Population (MOHP) with a rich body of data that can be used to improve the delivery of health care services in Egypt.

### 1.1 BACKGROUND AND MAJOR OBJECTIVES OF THE 2015 EHIS

The 2008 Egypt Demographic and Health Survey was designed not only to collect information to track the progress of the country's family planning and maternal and child health programs but also to investigate a number of critical health issues for which Egypt lacked nationally representative data. In particular, the 2008 EDHS was the first survey to investigate the health challenge of hepatitis C in Egypt (El-Zanaty and Way 2009). The 2008 EDHS documented a high level of hepatitis C in the adult population; 1 out of 10 respondents age 15-59 tested in the 2008 EDHS was found to have an active hepatitis C infection.

When planning began for the latest round of the DHS in Egypt, priority was given again to expanding the objectives of the survey beyond the traditional focus on fertility, family planning and maternal and child health to include the collection of data relating to hepatitis and non-communicable disease. In order to achieve those objectives, it was decided that the EDHS would include two components: a survey of ever-married women to update key fertility, family planning and maternal and child indicators and a special separate survey to obtain updated information on other critical health problems facing Egypt including the prevalence of hepatitis B and C and the population's experience with non-communicable diseases. Fieldwork for the first of these two components, the one covering ever-married women age 15-49 (referred to as the 2014 EDHS) was undertaken in April-June 2014 and a report on results was released in May 2015 (Ministry of Health and Population et al. 2015). This report presents results from the second component, the 2015 Egypt Health Issues Survey.

As was the case in the 2008 EDHS, a primary focus of the 2015 EHIS was to obtain information on awareness and prevalence of hepatitis. The population eligible for hepatitis testing was expanded in the 2015 EHIS to include children age 1-14 as well as adults age 15-59. In addition, testing was conducted in the 2015 EHIS for hepatitis B as well as hepatitis C. Another key objective of the EHIS was to obtain information on the proportion of respondents who had been diagnosed and

were being treated for non-communicable diseases including diabetes, heart attack, and stroke. The EHIS also collected blood pressure measurements and information on the proportion of adults who had previously been diagnosed and were being treated for high blood pressure in order to estimate the prevalence of hypertension. The survey obtained data on several factors including smoking and obesity which place Egyptians at higher risk of hypertension, diabetes, and cardiovascular disease.

In addition, the EHIS investigated several reproductive health care issues including the extent to which women are being screened for breast and cervical cancer and factors that may be contributing to the recent rapid expansion in the rate of caesarean deliveries. The survey took advantage of the fact that men were being interviewed to obtain information on male attitudes toward family planning use and ideal family size and their beliefs concerning the practice of female circumcision.

Finally, USAID and the Ministry of Health and Population requested that consent be obtained to utilize residual blood collected for children age 12-59 months and their mothers to test for aflatoxins. They also asked that consent be obtained to collect and store capillary blood from children age 6-11 months for the aflatoxin testing and that a 24-hour dietary history be included in the EHIS for children age 6 -59 months and their mothers for use in the aflatoxin study. The aflatoxin study was planned to be undertaken after the EHIS was completed when the laboratory resources needed for the aflatoxin study would be available. Aflatoxins are harmful chemicals produced by molds that are believed to affect the growth of the child, in particular causing children to be stunted or too short for their age. The aflatoxin study is expected to contribute to an understanding of the role aflatoxins may play in causing stunting, which the 2014 EDHS showed affects around 1 in 5 young children in Egypt.

## **1.2 ORGANIZATION AND IMPLEMENTATION OF THE 2015 EHIS**

### **1.2.1 Organization**

The 2015 EHIS was conducted under the auspices of the MOHP and implemented by El-Zanaty and Associates. Technical support for the survey was provided by ICF International through The DHS Program. The DHS Program is sponsored by the United States Agency for International Development (USAID) to assist countries worldwide in conducting surveys to obtain information on key population and health indicators. USAID/Egypt provided the main funding to support the implementation of the survey. The United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) also contributed to the funding of the survey.

The Central Public Health Laboratory was responsible for testing the blood samples obtained in the survey for hepatitis B and C, while the Theodor Bilharz Research Institute (TBRI) was responsible for external quality assurance activities related to hepatitis testing.

### **1.2.2 2015 EHIS Timetable**

The 2015 EHIS was executed in four stages. The first stage involved preparatory activities, including the selection of the household sample and the development, pretesting, and finalization of the survey questionnaires. The preparatory stage was initiated in September 2014, and all of its activities were completed by early January 2015. The second stage, which took place from mid-January through beginning of May 2015, involved the training of the field staff, the interviewing and collection of blood samples from eligible individuals, and the testing of the blood samples for hepatitis B and C at the Central Public Health Laboratory. The third stage encompassed all of the data processing activities necessary to produce a clean data file, including editing, coding, entering and verifying data and checking the data for consistency. This stage started soon after the beginning of the fieldwork and lasted until mid-May 2015. The focus of the fourth and final stage of the survey was on



the return of the hepatitis test results and the analysis of the data and preparation the report. The process of returning results started in early June and was completed by mid-July. The analysis and report preparation activities began in mid-May 2015, with the production of preliminary tables and lasted through the end of September 2015.

The activities involved in each of the stages are described in more detail below. The survey timetable is presented in Table 1.1.

Activity	Starting date	Duration
Sample selection	September 2014	6 weeks
Questionnaire design	September 2014	2 months
Preparation of training materials	September 2014	2 months
Pretest	November 2014	2 weeks
Finalization of questionnaires	December 2014	1 month
Training of data collection staff	January 2015	3 weeks
Printing survey materials	February 2015	2 weeks
Fieldwork	February 2015	3 months
Hepatitis testing	February 2015	3 months
Re-interviews	May 2015	2 weeks
Return of the hepatitis test results	June 2015	6 weeks
Data entry	March 2015	10 weeks
Office editing and coding	February 2015	10 weeks
Computer editing	April 2015	1 month
Preliminary tables	May 2015	1 week
Detailed tabulations	June 2015	2 months
Final report preparation	June 2015	2 months
Final report review and finalization	August 2015	1 month

### 1.2.3 Sample Design

The 2015 EHIS took advantage of the sample developed for the ever-married women survey component of the 2014 EDHS. The 2014 EDHS was implemented in a total of 842 primary sampling units (PSUs) selected from 25 governorates. The frame for selection of these units was a list of all shiakhkas and villages in Egypt. This list was obtained from the Central Agency for Public Mobilization and Statistics (CAPMAS) and updated as necessary to reflect any recent changes.

For the EHIS, a sub-sample of 614 PSUs (shiakhkas/villages) was selected from the 842 PSUs included in the 2014 EDHS sample. The household listing prepared during the 2014 EDHS for these PSUs was used to select the household sample for the 2015 EHIS. The selection was conducted in such a way that the EHIS household sample was totally independent of the 2014 EDHS sample, i.e., no household was included in both samples. It was expected that approximately 28,500 individuals age 6 months to 59 years, eligible for the 2015 EHIS testing and interviews, would be identified in the selected households.

The sample for the 2015 EHIS was designed to provide estimates of the key health indicators that the survey was designed to measure including the prevalence of hepatitis B and C for the country as a whole and for six major subdivisions (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt, and Frontier Governorates). The sample also allows for estimates of some key indicators at the governorate level. Additional information on the sample design and implementation is provided in Appendix A.

### 1.2.4 Questionnaire Development

The 2015 EHIS involved three questionnaires: a household questionnaire, an adult questionnaire for eligible individuals 15-59 years, and a child questionnaire for eligible individuals 6 months-14 years. A considerable number of the questions in the EHIS questionnaires were based on

the survey instruments developed for the 2008 Egypt DHS and, especially with respect to the household questionnaire, on the model questionnaires prepared in the DHS Program. In some cases, the questions were intended to collect information on new topics recommended by data users. All questionnaires were developed in English and then translated into Arabic.

The 2015 EHIS household questionnaire was used to enumerate all usual members and visitors in the selected households and collect information on the socioeconomic status of the households. The first part of the household questionnaire collected information on the age, sex, marital status, educational attainment, and relationship to the household head of each household member or visitor. These questions were included in order to provide basic demographic data for the 2015 EHIS households. They also served to identify the eligible persons for the individual interviews. In the second part of the household questionnaire, there were questions on housing characteristics (e.g., the number of rooms, the flooring material, the source of water, and the type of toilet facilities) and on ownership of a variety of consumer goods.

The adult individual questionnaire was administered to all individuals age 15-59 who were usual residents or who were present in the household during the night before the interviewer's visit. It obtained information on the following topics:

- Respondent's background
- Hepatitis
- Knowledge of HIV/AIDS
- Non-communicable diseases and other health issues
- Female circumcision
- Women's health issues
- Reproductive health knowledge and attitudes
- Gender roles and attitudes
- 24-hour dietary history for mothers of children under age five years
- Blood pressure measurements
- Biomarker testing

The child questionnaire for children age 6 months-14 years was similar to the adult questionnaire but much shorter, covering the following topics: background information, hepatitis, circumcision and a 24- hour dietary history for children under five years, as well as biomarkers. It was administered to the mother of an eligible child or other adult caretaker responsible for the child at the time that EHIS interviewer visited the household.

### **1.2.5 Biomarker Data Collection**

The biomarker component of the 2015 EHIS involved:

- Hepatitis B and C testing. In the 2015 EHIS, all individuals age 1-59 were eligible for hepatitis B and C testing. After obtaining informed consent, venous blood samples were collected from these individuals and tested for hepatitis B and hepatitis C at the MOHP Central Public Health Laboratory in Cairo. After the testing was completed, results were returned to all individuals providing samples for testing. More details on the procedures followed during the collection of the venous blood samples and the protocol followed during the hepatitis testing is presented below.

- Aflatoxin testing. As discussed, blood samples from children age 6-59 months and their mothers will be tested for aflatoxins in a study that will be conducted after the 2015 EHIS is completed.
- Blood pressure measurement. Blood pressure measurements were taken for all individuals age 15-59 who consented to the procedure. The measurements were taken at three points during the interview by interviewers using fully automatic digital blood pressure monitors with upper arm automatic inflation. Prior to taking the first blood pressure reading, the interviewer measured the respondent's arm circumference in order to determine the appropriate cuff size to use. Respondents were asked for information about recent intake of food and caffeinated beverages as these factors can influence blood pressure readings. Respondents were given information on their blood pressure at the end of the interview.
- Anthropometric data (height and weight measures). In the 2015 EHIS, anthropometric measures were obtained for all individuals age 15-59 who consented. Height and weight measurements were also obtained for all children age 6-59 months. Measuring boards produced by Shorr Productions were employed in collecting the height measures. Lightweight SECA scales with a digital screen were used to obtain the weight measures.

### **1.2.6 Hepatitis Testing Protocol**

The hepatitis testing component of the 2015 EHIS involved the collection of venous blood samples for testing at the Central Public Health Laboratory of the MOHP. All individuals age 1-59 years were eligible for the hepatitis testing. Blood specimens were collected from eligible individuals only after informed consent for the testing was obtained. Verbal informed consent was sought from all individuals age 18 and older and from married minors age 15-17. For non-emancipated minors age 15-17, consent was obtained first from the parent/guardian or other responsible adult, followed by assent from the respondent. For children under age 15, consent was obtained from a parent or other adult serving as the child's caretaker. In addition to consent for the testing, consent was also sought for anonymous storage of the blood sample for unspecified testing and/or aflatoxin testing that might be undertaken after the survey was completed. At the time of the survey, all respondents, whether or not they consented to the testing, were given an informational brochure about hepatitis B and C.

Respondents were told during the consent process that if they tested positive for hepatitis B and/or hepatitis C they would be referred to additional screening and counseling at a special Liver Treatment Center. They were also advised during the consent process that, because the hepatitis testing would be conducted at the Central Public Health Laboratory in Cairo, the results would not be returned to them for around three months. Permission was requested from each respondent to leave the results of the hepatitis testing in a sealed envelope with another household member if the respondent was not at home at the time the call back visits were made to return the test results.

If a 2015 EHIS respondent consented to the testing, the laboratory technician drew approximately seven milliliters of venous blood in an EDTA vacutainer tube. The blood tube was labeled with a preprinted barcode identification number. Labels with the same barcode ID were also pasted on the household questionnaire and on the form used by the EHIS biomarker staff to track the collection of specimens from eligible respondents. Before starting work in a given area, each 2015 EHIS biomarker team established a temporary field laboratory. The tubes of blood collected during the fieldwork each day were stored in cool boxes prior to their transfer to the temporary field laboratory. In the field laboratory, the 2015 EHIS biomarker staff centrifuged the blood and transferred the serum to five microvials, labeled with the same barcode ID as the original vacutainer tube. The microvials containing the serum were stored in liquid nitrogen tanks. Samples were

collected three times weekly, or sometimes more frequently, and transferred in coolers on dry ice to the Central Public Health Laboratory in Cairo.

The hepatitis B testing protocol at the Central Public Health Laboratory involved an HBcAb test to screen for antibodies to the hepatitis B core antigen; the HBcAb test identified respondents who had ever been infected with the hepatitis B virus. An HBsAG test, which detects the presence of hepatitis B surface antigen in the blood, was used to identify individuals with an active hepatitis B infection.

The hepatitis C testing protocol at the Central Public Health Laboratory included an initial round of screening to detect the presence of antibodies to hepatitis C. The presence of antibodies indicated that the individual had been exposed to hepatitis C virus (HCV) at some point. A third generation Enzyme Immunoassay (ELISA), Adlatis EIAGEN HCV Ab test was first used to test for HCV antibodies. All positive samples and approximately 5 percent of negative samples from the ELISA screening were then tested again for the presence of HCV antibodies, using a more specific assay, the Chemiluminescent Microplate Immunoassay (CIA). Samples that were found to be positive on both ELISA and CIA tests were further tested to identify individuals with active (current) hepatitis infection. For this purpose, quantitative real time PCR was used at the Central Public Health Laboratory for the detection of HCV RNA, which is indicative of active (current) infection.

For internal quality assurance, the Central Public Health Laboratory re-tested approximately 10 percent of the samples collected. In addition, the Theodor Bilharz Research Institute (TBRI) conducted external quality control on approximately 5 percent of the total number of samples tested at the Central Public Health Laboratory.

The protocol for the hepatitis B and C testing was approved by the Scientific and Research Ethics Committee of the MOHP and the Institutional Review Board at ICF International.

### **1.2.7 Pretest**

A pretest was conducted during the preparation for the 2015 EHIS. After a two-week training course for the interviewers and health staff, the pretest fieldwork took place in late November 2014. Two supervisors, two field editors, and eight interviewers participated in the pretest. In addition, two health teams consisting of technicians/nurses were assigned for blood sample and height and weight measurements. The pretest was carried out in Beni Suef in Upper Egypt and Menoufia in Lower Egypt. A sample of 150 households was selected for the pretest: 75 households in each governorate. The data collection took about five days. A total of 131 households and 432 individual interviews were completed during the pretest. In addition, blood samples were drawn for 353 individuals.

The questionnaires for the 2015 EHIS were finalized after the pretest. Both comments from interviewers and tabulations of the pretest results were reviewed during the process of finalizing the questionnaires. English versions of the final Arabic language questionnaires are included in Appendix E.

### **1.2.8 Recruitment and Training of Field Staff**

*Staff recruitment.* To recruit female interviewers and field editors, a list was obtained from those who worked with El-Zanaty and Associates of the staff who had participated in the 2014 EDHS. The female interviewers were ranked based on their performance during the 2014 EDHS, and the best 30 candidates were selected. A total of 15 male interviewers were recruited from those who worked in the 2014 EDHS quick count and listing stages and performed well.

All candidates for the interviewer and field editor positions were recent university graduates. Another basic qualification was willingness to work in any of the governorates covered in the survey.

As for the health team, the MOHP identified a large list of candidates for the positions. Senior staff interviewed all the candidates and those most promising were selected to participate in the training. A total of 27 physicians and 54 technicians/nurses were recruited for the training.

*Training materials.* A variety of materials were developed for use in training personnel involved in the fieldwork. A lengthy interviewer's manual, including general guidelines for conducting an interview as well as specific instructions for asking each of the questions in the EHIS questionnaires, was prepared and given to all field staff.

Other training materials including special manuals describing the duties of the team supervisor and the rules for field editing were prepared. Instructions for anthropometric data collection were included in a manual for use in training the staff who would be collecting the height and weight data. A special manual covering the procedures to be followed in the collection of the blood samples for hepatitis testing and a manual on the procedures for the blood pressure measurement were also prepared.

*Training for supervisors and interviewers.* Training for the 12 candidates for the team supervisor positions was conducted over one day prior to the main fieldwork training. This training focused specifically on the supervisor's duties, but it also covered the 2015 EHIS questionnaires in order to give the supervisors a basic understanding of the content of the survey prior to the main training program.

Training for 54 candidates (supervisors, interviewers and field editors) for the 2015 EHIS data collection began in the third week of January. This training program, which lasted for more than two weeks, was held in Cairo. It included the following:

- Sessions on how to fill out the questionnaire, using visual aids
- Sessions on blood pressure measurement
- Role playing and mock interviews
- Three days of field practice in areas not covered in the survey
- Two quizzes

Trainees who failed to show interest in the survey, who did not attend the training program on a regular basis, or who failed the two quizzes were excluded immediately.

Before the second field practice, a list was prepared for the 12 trainees who had performed best during both the classroom and field practices. Following the third field practice, nine of these trainees were chosen to be field editors (four females and five males). A special training session was held for the field editors after their selection. By the end of the training course, 36 out of the 42 candidates originally recruited for the interviewer position were selected to work as interviewers or field editors in the 2015 EHIS fieldwork. Nine supervisors were selected out of the 12 candidates to participate in the data collection.

*Training for health staff for hepatitis B and C testing.* Eighty-one personnel were recruited for the health team training. The training included both classroom lectures and practice measurement and blood testing in a nursery school and in households contacted during the field practice sessions. The training of health staff started in mid-January 2015 and lasted for almost four weeks. The training was held in parallel to the main training of interviewers in two different classrooms. The supervisors

attended most of the health staff training sessions including those on the procedures for drawing blood samples and the centrifuging and storage of the blood so they could monitor the activities involved in the collection, processing, and storage of the blood samples in the EHIS. At the end of the training program, 18 physicians and 36 technicians/nurses that were most-qualified (18 males and 18 females) were selected for the blood sample and height and weight measurements. As discussed earlier, all of the personnel involved in the collection of the blood samples in the EHIS had a medical background. The best three physicians were selected to supervise the medical teams in the field.

### **1.2.9 Fieldwork**

Fieldwork for the 2015 EHIS began in the second week of February 2015 and was completed in the first week of May 2015. The field staff was divided into nine teams; each team had one supervisor, one field editor, three interviewers (two females and one male), and two health subteams; each health subteam included one physician and two technicians/nurses. All supervisors were males, while the field editors and interviewers were females or males. At least one of the two health technicians/nurses on each team was a female. During the fieldwork, the nine field teams worked in separate governorates. Three governorates were assigned to each team with an equal workload for each team.

As a quality control measure, field editors regularly conducted re-interviews using a shortened version of the 2015 EHIS questionnaire during the fieldwork period. The results of the re-interview were compared to the responses in the original interview and errors were discussed with the interviewer. The teams were closely supervised throughout the fieldwork by a fieldwork coordinator, two assistant fieldwork coordinators, two anthropometric consultants, and another senior staff. In addition, the best three physicians were selected to supervise the medical teams' work in the field. Three personnel were selected to collect the blood samples from the field on a regular basis and deliver them to the Central Public Health Laboratory. Finally, the results of special tabulations, i.e., field check tables, prepared on a weekly basis throughout the data entry and editing of the questionnaires, helped to identify field staff whose performance was below expectation. They were the target of immediate feedback and more intensive monitoring.

As a further quality control measure, after the main data collection was completed, a random sample of around 10 percent of the households was selected for each team for re-interviews using the shortened version of the questionnaire. The visits to the sample points to conduct the re-interviews also afforded an opportunity to make callbacks to complete interviews with households or individuals who were not available at the time of the original visit by the 2015 EHIS interviewers. Household or individual questionnaires in which there were significant errors that could not be corrected in the office were also assigned for re-interview. Special teams including staff who had worked in the main survey were organized to handle the re-interviews. During this phase of the survey, interviewers were not allowed to work in the same governorate in which they had worked in the initial fieldwork. Re-interviews began in early May 2015 and took around two weeks to complete.

### **1.2.10 Data Processing Activities**

*Office editing.* Staff from the central office were responsible for collecting questionnaires from the teams as soon as interviewing in a cluster was completed. Limited office editing took place for consistency and completeness, and a few questions (e.g., occupation) were coded in the office prior to data entry. To provide feedback for the field teams, the office editors were instructed to note any problems detected while editing the questionnaires; the problems were reviewed by the senior staff and communicated to the field staff. If serious errors were found, the supervisor of the team was notified and advised of the steps to be taken to avoid these problems in the future.

*Machine entry and editing.* Machine entry and editing began while interviewing teams were still in the field. The data from the questionnaires were entered and edited on microcomputers using the Census and Survey Processing System (CSPro), a software package for entering, editing, tabulating, and disseminating data from censuses and surveys. In addition, the transmittal forms as well as the blood sample worksheets which included the barcode were entered by two persons.

Special computer programs were also set up to facilitate the tracking of the results of the testing of the blood samples collected during the survey at the Central Public Health Laboratory. The barcodes attached to the samples in the field were used for logging in and identifying the samples throughout the processing, which took place at three separate locations within the Central Public Health Laboratory. The barcode also served as the means to link the laboratory test results and the survey data file.

Eight data entry personnel participated in the processing of the 2015 EHIS survey data. During the data processing, questionnaires were entered twice and the entries were compared to detect and correct keying errors. The data processing staff completed the entry and editing of data by mid-May 2015.

### 1.3 SURVEY COVERAGE

Table 1.2 summarizes the outcome of the fieldwork for the 2015 EHIS by place of residence. The table shows that, during the main fieldwork and callback phases of the survey, out of the 7,813 households in the 2015 EHIS sample, 7,649 households were found. Among those households, 7,516 were successfully interviewed, which represents a response rate of 98.3 percent. The household response rate exceeded 96 percent in all residential categories.

Table 1.2 Interview results

Percent distribution of households and individuals by the result of survey interview and response rates, according to residence, 2015 Egypt Health Issues Survey

Result	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates <sup>1</sup>	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Households</b>											
Sampled	4,112	3,701	1,665	2,836	1,036	1,800	2,894	1,095	1,799	418	7,813
Found	3,989	3,660	1,620	2,778	1,000	1,778	2,833	1,053	1,780	418	7,649
Interviewed	3,877	3,639	1,582	2,728	965	1,763	2,788	1,014	1,774	418	7,516
Household response rate	97.2	99.4	97.7	98.2	96.5	99.2	98.4	96.3	99.7	100.0	98.3
<b>Children 1-14</b>											
Identified	4,763	6,134	1,633	3,806	1,162	2,644	4,703	1,401	3,302	755	10,897
Interviewed	4,744	6,134	1,630	3,800	1,156	2,644	4,693	1,391	3,302	755	10,878
Child response rate	99.6	100.0	99.8	99.8	99.5	100.0	99.8	99.3	100.0	100.0	99.8
<b>Female adults 15-59</b>											
Identified	4,499	4,816	1,647	3,459	1,189	2,270	3,664	1,260	2,404	545	9,315
Interviewed	4,430	4,779	1,618	3,409	1,165	2,244	3,637	1,243	2,394	545	9,209
Female adult response rate	98.5	99.2	98.2	98.6	98.0	98.9	99.3	98.7	99.6	100.0	98.9
<b>Male adults 15-59</b>											
Identified	3,993	3,874	1,480	2,911	1,005	1,906	2,988	1,142	1,846	488	7,867
Interviewed	3,766	3,696	1,389	2,761	933	1,828	2,833	1,083	1,750	479	7,462
Eligible men response rate <sup>2</sup>	94.3	95.4	93.9	94.8	92.8	95.9	94.8	94.8	94.8	98.2	94.9
<b>Total respondents 1-59</b>											
Identified	13,255	14,824	4,760	10,176	3,356	6,820	11,355	3,803	7,552	1,788	28,079
Interviewed	12,940	14,609	4,637	9,970	3,254	6,716	11,163	3,717	7,446	1,779	27,549
Total response rate	97.6	98.5	97.4	98.0	97.0	98.5	98.3	97.7	98.6	99.5	98.1

<sup>1</sup> Does not include North and South Sinai governorates

A total of 28,079 individuals age 15-59 were identified as eligible to be interviewed in the 2015 EHIS. Out of these 27,549 were successfully interviewed, which represents a response rate of 98.1 percent. The response rate for eligible individuals 1-59 exceeded 97 percent in all areas. Out of the individuals 15-59 years, a total of 9,315 females and 7,867 males were identified for the interview, and a total of 9,209 females and 7,462 males were successfully interviewed. The response rate for females (98.9 percent) was higher than the response rate for males (94.9 percent).

In the eligible households, a total of 10,897 children 1-14 years were identified, and among those, interviews with a parent or other adult caretaker (mainly the mother) were successfully completed for 10,878 children, a response rate of 99.8 percent.



## Key Findings

- Around two-fifths of adult respondents in the EHIS were under age 30 and around 15 percent were age 50 and above.
- The majority of adult respondents (around 63 percent) were living in rural areas.
- More than one-fifth of adult women never attended school, compared with only 8 percent among men.
- Almost all adults (99 percent) watched television at least once a week.
- Around one-quarter of adult women use a computer at least once a week and 21 percent use the internet, while 37 percent of adult men use a computer at least once a week and nearly the same percentage use the internet.
- Overall, 14 percent of adult women were engaged in some economic activity in the week prior to the survey, while 83 percent of adult men were engaged in some economic activity during the same period.
- Among employed respondents, more than half of women and a quarter of men worked in professional, technical, and managerial positions, while 4 percent of women and 16 percent of men worked in agriculture.

This chapter provides a profile of the men, women, and children for whom information was collected in the 2015 EHIS. The profile focuses on respondent characteristics that will facilitate understanding and interpretation of the findings presented in subsequent chapters. The chapter starts by presenting information on basic demographic and socio-economic characteristics for the entire 2015 EHIS survey population age 1-59 years. The chapter then explores in more depth the educational attainment of women and men age 15-59, their exposure to traditional mass media, use of computers and digital media, and their employment status.

## 2.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

All individuals age 1-59 that were usual residents or present in the EHIS sample households on the night before the EHIS interviewer's visit were eligible for a detailed interview on a range of health issues. Individuals age 15-59 years were interviewed directly. Information was obtained from the child's mother in the case of 92 percent of eligible children age 1-14 years. In the case of the remaining children, the information was obtained from another adult member of the household who was responsible for the child's care on the day of the EHIS team's visit.

Table 2.1 presents the distribution of women and men age 15-59 years interviewed in the 2015 EHIS by selected background characteristics. Looking at the age distribution of respondents presented in Table 2.1, slightly more than 4 in 10 women and men were under the age of 30. Around the same proportion of women and men were in the age group 30-49 years while 14 percent of women and 16 percent of men were age 50-59.

Table 2.1 Background characteristics of women and men age 15-59

Percent distribution of women and men age 15-59 by selected background characteristics, Egypt 2015

Background characteristic	Women 15-59			Men 15-59		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
<b>Age</b>						
15-19	15.5	1,425	1,407	17.3	1,288	1,252
20-24	12.9	1,185	1,176	11.5	859	882
25-29	16.0	1,471	1,472	12.9	962	985
30-34	13.0	1,195	1,228	12.4	923	938
35-39	11.5	1,061	1,052	11.5	856	875
40-44	8.8	814	802	9.9	736	722
45-49	8.2	754	766	9.0	670	657
50-54	7.7	707	723	9.4	702	685
55-59	6.5	596	583	6.3	467	466
<b>Marital status</b>						
Never married	20.0	1,839	1,944	34.0	2,536	2,644
Married	71.1	6,552	6,461	64.6	4,819	4,696
Divorced/separated	2.8	254	269	1.0	75	88
Widowed	6.1	564	535	0.4	31	34
<b>Urban-rural residence</b>						
Urban	36.5	3,359	4,430	38.2	2,847	3,766
Rural	63.5	5,850	4,779	61.8	4,615	3,696
<b>Place of residence</b>						
Urban Governorates	13.3	1,223	1,618	14.0	1,044	1,389
Lower Egypt	48.9	4,506	3,409	49.6	3,698	2,761
Urban	11.5	1,056	1,165	11.5	854	933
Rural	37.5	3,450	2,244	38.1	2,844	1,828
Upper Egypt	37.1	3,417	3,637	35.7	2,664	2,833
Urban	11.4	1,048	1,243	12.3	919	1,083
Rural	25.7	2,369	2,394	23.4	1,745	1,750
Frontier Governorates <sup>1</sup>	0.7	63	545	0.7	56	479
<b>Education</b>						
No education	22.1	2,031	1,889	8.3	621	579
Some primary	8.4	773	756	9.2	686	629
Primary complete/ some secondary	25.5	2,345	2,364	29.6	2,207	2,099
Secondary complete/ higher	44.1	4,060	4,200	52.9	3,948	4,155
<b>Wealth quintile</b>						
Lowest	19.6	1,806	1,913	19.6	1,462	1,515
Second	19.7	1,810	1,609	19.1	1,424	1,232
Middle	19.9	1,833	1,328	18.5	1,379	1,012
Fourth	20.3	1,865	1,962	21.1	1,571	1,667
Highest	20.6	1,895	2,397	21.8	1,626	2,036
Total 15-59	100.0	9,209	9,209	100.0	7,462	7,462

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

<sup>1</sup> Does not include North and South Sinai governorates

Seven in 10 women and just under two-thirds of men were currently married. Reflecting the fact that men marry later women in Egypt, men were much more likely to be never married than women (34 percent and 20 percent, respectively). On the other hand, the proportion divorced and separated and, especially, the proportion widowed were higher among women than men.

The majority of the respondents age 15-59 in the 2015 EHIS—more than 6 in 10 women and men—were living in rural areas. With regards to the place of residence, around half of women and men resided in Lower Egypt, and more than one-third lived in Upper Egypt. Around 1 in 8 respondents were from the Urban Governorates. Less than 1 percent were from the three Frontier Governorates covered in the survey.

The educational level of the 2015 EHIS respondents varied considerably between women and men. The largest differential between men and women was in the proportion with no education. Twenty-two percent of women age 15-59 never attended school compared with 8 percent of men. Among women, 7 in 10 had completed primary school and more than 4 in 10 had completed secondary school or higher. Among men, more than 8 in 10 completed primary school and more than half had completed secondary school or higher. Adult respondents in the EHIS were fairly evenly distributed across the wealth quintiles.<sup>1</sup>

Table 2.2 presents background characteristics of children age 1-14 who were eligible for the EHIS. The age distribution shows that around one-third of children were less than five years old, 4 in 10 were age 5-10 years, and 1 in 4 children were age 11-14 years. Around one-third of children resided in urban areas. The highest proportion of children age 1-14 was found in Lower Egypt (just under half of girls and of boys). As for the distribution by wealth quintiles, the highest percentage of children age 1-14 was found in the middle quintile (23 percent of girls and 22 percent of boys).

Table 2.2 Background characteristics of children age 1-14

Percent distribution of children age 1-14 by selected background characteristics, Egypt 2015

Background characteristic	Girls			Boys		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
<b>Age</b>						
1-2	16.1	849	873	16.2	905	917
3-4	16.5	873	852	18.3	1,023	1,012
5-6	15.9	837	842	15.5	868	857
7-8	13.8	729	707	12.9	724	752
9-10	12.9	682	691	12.7	712	721
11-12	12.1	639	636	12.2	682	657
13-14	12.7	671	671	12.2	684	690
<b>Urban-rural residence</b>						
Urban	31.5	1,662	2,290	31.9	1,788	2,454
Rural	68.5	3,619	2,982	68.1	3,809	3,152
<b>Place of residence</b>						
Urban Governorates	11.0	581	791	10.7	598	839
Lower Egypt	46.1	2,433	1,820	46.7	2,612	1,980
Urban	9.5	503	561	9.6	537	595
Rural	36.5	1,929	1,259	37.1	2,074	1,385
Upper Egypt	42.1	2,223	2,275	41.9	2,345	2,418
Urban	10.5	556	657	11.2	628	734
Rural	31.6	1,667	1,618	30.7	1,717	1,684
Frontier Governorates <sup>1</sup>	0.8	44	386	0.8	43	369
<b>Wealth quintile</b>						
Lowest	21.1	1,113	1,196	20.2	1,130	1,227
Second	20.0	1,055	990	20.8	1,162	1,066
Middle	23.2	1,224	856	21.7	1,217	889
Fourth	19.3	1,020	1,060	19.7	1,101	1,135
Highest	16.4	868	1,170	17.6	988	1,289
Total 1-14	100.0	5,280	5,272	100.0	5,598	5,606

<sup>1</sup> Does not include North and South Sinai governorates

<sup>1</sup> For further information on how the wealth quintiles were constructed, see the discussion in the second chapter of the 2014 Egypt DHS report (Ministry of Health and Population et al. 2015).

## 2.2 EDUCATIONAL ATTAINMENT

Table 2.3.1 and Table 2.3.2 provide information on the relationship between the educational attainment of the women and men age 15-59 interviewed in 2015 EHIS and selected other background characteristics.

Table 2.3.1 Educational attainment: Women

Percent distribution of women age 15-59 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Egypt 2015

Background characteristic	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary			
<b>Age</b>									
15-19	2.7	4.1	1.9	72.2	10.7	8.4	100.0	9.0	1,425
20-24	6.2	4.8	1.4	22.6	40.8	24.3	100.0	10.9	1,185
25-29	16.3	5.1	2.2	12.9	44.0	19.6	100.0	10.3	1,471
30-34	18.1	6.3	5.2	12.0	42.5	15.9	100.0	10.2	1,195
35-39	24.4	10.0	5.1	14.5	35.3	10.7	100.0	8.0	1,061
40-44	32.7	8.2	2.8	15.4	31.0	9.9	100.0	8.0	814
45-49	41.9	10.9	3.5	7.5	26.5	9.7	100.0	3.7	754
50-54	45.4	19.5	4.2	6.8	15.7	8.3	100.0	1.3	707
55-59	50.5	19.2	6.6	3.8	15.7	4.2	100.0	0.0	596
<b>Urban-rural residence</b>									
Urban	10.8	7.2	4.2	22.0	33.1	22.7	100.0	10.5	3,359
Rural	28.5	9.1	2.9	22.2	29.2	8.1	100.0	7.9	5,850
<b>Place of residence</b>									
Urban Governorates	11.0	6.5	6.2	23.4	31.1	21.8	100.0	10.4	1,223
Lower Egypt	20.0	8.3	3.0	20.8	33.5	14.3	100.0	10.0	4,506
Urban	8.2	7.2	3.4	19.5	34.1	27.6	100.0	10.9	1,056
Rural	23.7	8.6	2.9	21.3	33.3	10.2	100.0	8.9	3,450
Upper Egypt	28.7	9.2	2.8	23.3	26.7	9.3	100.0	7.7	3,417
Urban	13.2	8.0	2.6	22.7	34.4	19.0	100.0	10.3	1,048
Rural	35.6	9.7	2.9	23.5	23.3	5.0	100.0	6.0	2,369
Frontier Governorates <sup>3</sup>	21.2	5.6	4.2	23.6	30.3	15.1	100.0	9.9	63
<b>Wealth quintile</b>									
Lowest	40.5	10.1	3.3	21.7	20.0	4.3	100.0	4.4	1,806
Second	33.5	10.2	3.3	23.5	24.7	4.8	100.0	6.4	1,810
Middle	18.8	9.6	2.5	22.6	36.6	9.9	100.0	9.8	1,833
Fourth	13.5	8.0	4.9	22.9	36.2	14.6	100.0	10.1	1,865
Highest	5.1	4.3	2.8	19.8	35.2	32.8	100.0	11.3	1,895
Total 15-59	22.1	8.4	3.4	22.1	30.6	13.4	100.0	9.0	9,209

<sup>1</sup> Completed 5 years (22-36 years of age), all others 6 years at primary level

<sup>2</sup> Completed 6 years at the secondary level

<sup>3</sup> Does not include North and South Sinai governorates

The proportion with no education rises directly with age. For example, half of women age 55-59 had never attended school compared to only 3 percent of women age 15-19. Twenty-two percent of men age 55-59 had no education compared to less than one percent of men in the 15-19 age group. At the other extreme of the education distribution, the proportion with more than secondary education is highest in the 20-24 age group (24 percent and 32 percent for women and men, respectively). The median completed number of years of schooling is 9.0 among women and 10.3 among men.

Urban respondents are more highly educated than those from rural areas. Among urban women, for example, 56 percent had completed secondary education or higher, compared with 37 percent of rural women. Among urban men, 60 percent had completed secondary education or higher, compared with 48 percent of rural men. Considering the differentials by place of residence, educational levels were lowest in rural Upper Egypt, where 36 percent of women and 12 percent of men age 15-59 had never attended school. The highest educational levels were found in urban Lower Egypt; where only 8 percent of women and 4 percent of men had never attended school, and 62 percent of women and 62 percent of men had completed secondary school or more.

Table 2.3.2 Educational attainment: Men

Percent distribution of men age 15-59 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Egypt 2015

Background characteristic	Highest level of schooling						Total	Median years completed	Number of men
	No education	Some primary	Completed primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary			
<b>Age</b>									
15-19	0.5	4.3	2.1	76.2	9.2	7.7	100.0	9.2	1,288
20-24	1.6	5.0	1.8	17.6	41.8	32.4	100.0	11.3	859
25-29	5.2	3.6	5.7	16.5	46.6	22.4	100.0	10.4	962
30-34	6.9	9.3	6.0	13.8	47.8	16.2	100.0	10.3	923
35-39	7.7	9.3	6.4	13.7	43.5	19.4	100.0	10.5	856
40-44	8.9	14.2	5.0	19.0	33.6	19.3	100.0	11.1	736
45-49	16.4	12.4	5.2	10.2	42.7	13.1	100.0	11.2	670
50-54	20.5	13.6	6.0	10.3	30.7	18.9	100.0	10.7	702
55-59	21.8	22.2	6.5	8.5	25.1	16.0	100.0	5.9	467
<b>Urban-rural residence</b>									
Urban	4.8	7.5	4.2	23.1	33.9	26.5	100.0	10.9	2,847
Rural	10.5	10.3	5.0	26.0	35.5	12.8	100.0	10.1	4,615
<b>Place of residence</b>									
Urban Governorates	5.7	7.1	5.2	23.8	31.9	26.4	100.0	10.8	1,044
Lower Egypt	8.3	9.4	5.2	25.9	34.4	16.7	100.0	10.2	3,698
Urban	3.8	7.0	4.0	23.3	32.6	29.4	100.0	11.0	854
Rural	9.7	10.2	5.6	26.7	35.0	12.9	100.0	10.1	2,844
Upper Egypt	9.4	9.8	3.8	24.0	36.6	16.5	100.0	10.3	2,664
Urban	4.8	8.5	3.2	22.3	36.9	24.3	100.0	10.8	919
Rural	11.8	10.4	4.0	24.9	36.4	12.4	100.0	10.1	1,745
Frontier Governorates <sup>3</sup>	7.9	6.0	3.6	20.5	42.5	19.5	100.0	10.7	56
<b>Wealth quintile</b>									
Lowest	15.5	12.8	4.9	27.6	31.2	8.0	100.0	8.5	1,462
Second	13.1	10.0	4.6	27.3	36.2	8.8	100.0	9.7	1,424
Middle	6.0	9.8	6.5	25.0	36.2	16.5	100.0	10.3	1,379
Fourth	5.7	10.5	5.4	25.0	36.2	17.1	100.0	10.3	1,571
Highest	2.1	3.4	2.4	20.0	34.8	37.2	100.0	11.5	1,626
Total 15-59	8.3	9.2	4.7	24.9	34.9	18.0	100.0	10.3	7,462

<sup>1</sup> Completed 5 years (22-36 years of age), all others 6 years at primary level

<sup>2</sup> Completed 6 years at the secondary level

<sup>3</sup> Does not include North and South Sinai governorates

As expected, educational attainment rises with wealth quintile. More than two-thirds of women in the highest wealth quintile completed secondary education or higher, while 41 percent of women in the lowest quintile never attended school. More than 70 percent of men in the highest wealth quintile had completed secondary education or higher, while 28 percent of men in the lowest quintile had no education or had not completed primary school.

## 2.3 EXPOSURE TO MEDIA

The 2015 EHIS collected information on exposure of respondents to mass media. These data are important as they provide some indication of the extent to which Egyptians are regularly exposed to mass media that have been traditionally used to convey health messages to the population. In addition, a series of questions were asked to the 2015 EHIS respondents to assess exposure to digital media, which is an increasingly important channel for communication messages.

Tables 2.4.1 and 2.4.2 present information on the percentage of women and men age 15-59 watching television, listening to the radio, or reading a newspaper/magazine at least once per week by background characteristics. The table also includes information on the percentage of women and men accessing all three media at least once per week and the percentage not exposed to any media on a weekly basis.

Table 2.4.1 Exposure to mass media: Women

Percentage of women age 15-59 who are exposed to specific media on a weekly basis, by background characteristics, Egypt 2015

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of respondents
<b>Age</b>						
15-19	11.5	99.7	24.2	6.4	0.2	1,425
20-24	13.6	98.4	27.0	6.9	1.2	1,185
25-29	13.5	99.2	27.1	7.0	0.4	1,471
30-34	12.7	99.3	31.5	9.1	0.5	1,195
35-39	11.6	98.5	28.5	7.2	1.0	1,061
40-44	13.2	99.2	30.1	8.4	0.6	814
45-49	16.0	99.0	25.9	9.2	0.8	754
50-54	9.3	98.5	23.0	4.9	1.3	707
55-59	11.1	98.7	30.1	7.2	1.1	596
<b>Urban-rural residence</b>						
Urban	19.3	99.3	36.2	12.4	0.5	3,359
Rural	8.7	98.9	22.4	4.5	0.8	5,850
<b>Place of residence</b>						
Urban Governorates	22.2	98.8	46.4	16.5	0.9	1,223
Lower Egypt	12.1	99.2	29.7	7.2	0.6	4,506
Urban	18.5	99.3	32.9	11.6	0.5	1,056
Rural	10.2	99.2	28.8	5.8	0.7	3,450
Upper Egypt	9.7	98.8	17.6	4.3	0.8	3,417
Urban	16.9	99.7	27.9	8.5	0.1	1,048
Rural	6.5	98.4	13.0	2.4	1.1	2,369
Frontier Governorates <sup>1</sup>	13.2	99.2	28.3	6.7	0.4	63
<b>Education</b>						
No education	0.1	98.3	16.9	0.1	1.3	2,031
Some primary	2.4	98.3	25.5	1.2	1.6	773
Primary complete/ some secondary	8.3	99.2	26.8	5.0	0.6	2,345
Secondary complete/ higher	23.2	99.4	33.4	13.5	0.3	4,060
<b>Wealth quintile</b>						
Lowest	4.9	98.4	17.0	2.8	1.1	1,806
Second	6.4	98.6	21.1	3.0	1.2	1,810
Middle	8.6	99.3	25.4	4.7	0.5	1,833
Fourth	14.6	99.2	29.2	7.1	0.6	1,865
Highest	27.5	99.6	43.6	18.6	0.2	1,895
Total 15-59	12.6	99.0	27.4	7.3	0.7	9,209

<sup>1</sup> Does not include North and South Sinai governorates

Television is clearly the main media channel among both women and men. Virtually all women and men age 15-59 watch television (99 percent each). Men have somewhat greater exposure to radio and print media than women; however, even among men, only around a third listen to the radio and slightly more than one-fifth read a newspaper/magazine at least once a week. Seven percent of women and 13 percent of men report regular exposure to all three media.

Considering the differences in media exposure by background characteristics, there is almost no variation in the percentage of women and men age 15-59 who watch television. Looking at print media and radio, urban residents, especially those living in Urban Governorates and urban Lower Egypt, respondents with a secondary or higher education, and those in the highest wealth quintile were most likely to listen to the radio or read a newspaper/magazine on a weekly basis.

Table 2.4.2 Exposure to mass media: Men

Percentage of men age 15-59 who are exposed to specific media on a weekly basis, by background characteristics, Egypt 2015

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of respondents
<b>Age</b>						
15-19	12.6	99.6	26.6	7.3	0.0	1,288
20-24	20.7	98.8	30.6	11.9	0.5	859
25-29	22.2	98.8	34.1	12.9	0.7	962
30-34	22.3	98.2	34.9	12.4	0.9	923
35-39	24.8	99.0	41.7	15.8	0.5	856
40-44	22.0	98.5	35.0	10.6	0.6	736
45-49	22.7	97.5	36.7	14.1	1.6	670
50-54	32.3	98.8	40.0	20.9	1.0	702
55-59	28.2	99.0	40.1	19.5	1.0	467
<b>Urban-rural residence</b>						
Urban	30.9	99.2	42.7	20.3	0.5	2,847
Rural	16.5	98.5	29.7	8.7	0.8	4,615
<b>Place of residence</b>						
Urban Governorates	34.5	98.7	53.0	26.4	0.6	1,044
Lower Egypt	19.3	98.7	35.1	11.4	0.6	3,698
Urban	28.8	99.5	38.4	18.6	0.5	854
Rural	16.4	98.4	34.1	9.2	0.7	2,844
Upper Egypt	20.9	98.9	26.7	10.3	0.8	2,664
Urban	28.9	99.4	35.2	15.0	0.5	919
Rural	16.7	98.7	22.2	7.8	1.0	1,745
Frontier Governorates <sup>1</sup>	25.1	98.1	38.2	15.0	1.6	56
<b>Education</b>						
No education	0.6	96.4	23.9	0.3	3.4	621
Some primary	6.1	99.0	32.2	4.0	0.7	686
Primary complete/ some secondary	11.6	99.1	29.7	6.7	0.5	2,207
Secondary complete/ higher	34.0	98.9	39.5	20.3	0.4	3,948
<b>Wealth quintile</b>						
Lowest	14.6	98.1	24.4	7.0	1.3	1,462
Second	14.6	98.5	27.0	7.3	0.8	1,424
Middle	14.3	98.8	33.6	7.6	0.6	1,379
Fourth	22.4	98.9	37.3	13.3	0.6	1,571
Highest	41.5	99.4	48.9	28.2	0.3	1,626
Total 15-59	22.0	98.8	34.6	13.1	0.7	7,462

<sup>1</sup> Does not include North and South Sinai governorates

Tables 2.5.1 and 2.5.2 present information on the use of computers and digital media by women and men age 15-59. The results show that most women and men do not regularly use digital media. Only 37 percent of men and 25 percent of women report using a computer at least once per week. Around one-third of men and one-fifth of women report they access the internet or social media regularly.

Looking at the differentials in the tables, younger women and men are much more likely to use a computer and access the internet and social media regularly than older respondents. For example, the proportion accessing all three digital media at least once per week decreases with increasing age, from a high of 32 percent of women age 15-19 to 4 percent of women age 55-59. Men under age 25 are more than four times as likely to access all three types of digital media as men age 55-59.

Table 2.5.1 Use of computers and digital media: Women

Percentage of women age 15-59 who use a computer, the internet, and social media on a weekly basis, by background characteristics, Egypt 2015

Background characteristic	Uses a computer at least once a week	Uses internet at least once a week	Uses social media at least once a week	Uses all three digital media at least once a week	Uses none of the three digital media at least once a week	Number of respondents
<b>Age</b>						
15-19	42.3	37.5	34.6	32.0	55.0	1,425
20-24	35.3	31.9	29.8	27.7	62.2	1,185
25-29	27.3	22.0	20.1	18.4	70.8	1,471
30-34	24.3	18.5	16.3	15.5	74.7	1,195
35-39	20.9	14.9	12.2	11.4	77.7	1,061
40-44	17.2	13.1	11.1	10.2	81.8	814
45-49	15.4	11.3	8.2	7.8	83.9	754
50-54	12.1	7.2	5.6	5.4	87.7	707
55-59	8.9	5.9	4.4	4.1	90.7	596
<b>Urban-rural residence</b>						
Urban	40.8	34.8	31.3	29.4	57.0	3,359
Rural	16.4	12.4	10.9	9.9	82.5	5,850
<b>Place of residence</b>						
Urban Governorates	43.0	37.4	33.7	32.5	55.3	1,223
Lower Egypt	25.4	20.4	18.6	17.2	73.2	4,506
Urban	43.0	37.3	34.2	31.6	54.3	1,056
Rural	19.9	15.2	13.9	12.8	78.9	3,450
Upper Egypt	18.8	14.6	12.3	11.2	79.8	3,417
Urban	36.2	29.2	25.7	23.9	61.7	1,048
Rural	11.1	8.2	6.4	5.6	87.7	2,369
Frontier Governorates <sup>1</sup>	31.1	27.3	21.2	17.5	62.7	63
<b>Education</b>						
No education	1.8	0.4	0.3	0.2	98.0	2,031
Some primary	3.0	1.5	1.5	1.2	96.8	773
Primary complete/ some secondary	23.6	19.0	16.9	15.4	74.6	2,345
Secondary complete/ higher	42.3	35.2	31.4	29.3	55.4	4,060
<b>Wealth quintile</b>						
Lowest	8.5	5.7	4.2	3.7	90.7	1,806
Second	11.3	8.1	6.8	5.8	87.6	1,810
Middle	19.3	14.3	12.6	11.2	79.0	1,833
Fourth	30.0	24.0	21.6	20.2	68.6	1,865
Highest	55.8	49.3	45.0	42.9	41.5	1,895
Total 15-59	25.3	20.6	18.3	17.0	73.2	9,209

<sup>1</sup> Does not include North and South Sinai governorates

Urban residence, higher education, and greater wealth are also strongly associated with access to digital media among both women and men. Urban women are three times and urban men are more than twice as likely to access all three media compared to rural residents. Looking at the variation with education, the proportion of women accessing all three media varies from less than one percent among those with no education to 29 percent among those with secondary complete or higher education. Among men who completed the secondary level or higher, 41 percent access all three digital media at least once per week compared with 1 percent of men who never went to school.

Considering the variation by wealth quintile, 43 percent of women in the highest wealth quintile report using all three media at least once a week compared with only 4 percent among women in the lowest wealth quintile. Men in the highest wealth quintile have the highest level of access to digital media of any subgroup. More than 6 in 10 men in the highest wealth quintile access all three digital media at least once per week compared with 13 percent of men in the lowest wealth quintile.



Table 2.5.2 Use of computers and digital media: Men

Percentage of men age 15-59 who use a computer, the internet, and social media on a weekly basis, by background characteristics, Egypt 2015

Background characteristic	Uses a computer at least once a week	Uses internet at least once a week	Uses social media at least once a week	Uses all three digital media at least once a week	Uses none of the three digital media at least once a week	Number of respondents
<b>Age</b>						
15-19	52.9	52.1	49.9	45.6	42.9	1,288
20-24	51.7	53.2	52.0	47.6	44.0	859
25-29	40.8	40.8	39.7	35.4	54.9	962
30-34	31.6	29.9	27.3	25.1	65.6	923
35-39	34.5	30.8	28.8	26.9	63.6	856
40-44	25.9	23.2	20.2	18.9	72.3	736
45-49	25.7	21.4	19.1	18.0	73.2	670
50-54	24.6	19.9	16.4	16.0	75.0	702
55-59	18.0	14.0	10.5	10.4	81.8	467
<b>Urban-rural residence</b>						
Urban	53.9	51.1	48.6	45.9	43.3	2,847
Rural	25.8	24.3	22.2	19.7	71.6	4,615
<b>Place of residence</b>						
Urban Governorates	59.8	58.7	56.2	52.7	36.8	1,044
Lower Egypt	34.7	32.6	30.7	28.5	62.9	3,698
Urban	55.6	51.6	49.8	47.7	42.3	854
Rural	28.5	27.0	24.9	22.8	69.1	2,844
Upper Egypt	29.6	27.5	25.0	22.2	67.6	2,664
Urban	45.7	41.9	38.8	36.7	52.0	919
Rural	21.1	19.9	17.7	14.7	75.8	1,745
Frontier Governorates <sup>1</sup>	49.0	46.4	43.3	38.2	45.5	56
<b>Education</b>						
No education	3.5	1.1	1.0	1.0	96.5	621
Some primary	5.6	2.9	2.2	2.0	94.2	686
Primary complete/ some secondary	30.8	30.7	29.3	25.8	65.5	2,207
Secondary complete/ higher	50.2	47.5	44.1	41.3	46.8	3,948
<b>Wealth quintile</b>						
Lowest	18.0	16.3	15.2	12.9	79.7	1,462
Second	18.8	17.8	15.9	13.6	78.9	1,424
Middle	29.8	27.9	24.9	22.5	67.3	1,379
Fourth	40.2	37.7	35.1	32.1	56.7	1,571
Highest	70.8	68.2	65.5	62.9	26.6	1,626
Total 15-59	36.5	34.6	32.3	29.7	60.8	7,462

<sup>1</sup> Does not include North and South Sinai governorates

## 2.4 EMPLOYMENT STATUS

Information on employment status was collected in the 2015 EHIS for both women and men age 15-59. Several questions were asked of respondents to ensure complete coverage of employment in both the formal or informal sectors. For those who were currently employed, information was collected on their occupation.

### 2.4.1 Current Employment

Table 2.6.1 and Table 2.6.2 show the percent distribution of the women and men age 15-59 according to current employment.

**Table 2.6.1 Employment status: Women**

Percent distribution of women age 15-59 by employment status, according to background characteristics, Egypt 2015

Background characteristic	Currently employed <sup>1</sup>	Not currently employed	Total	Number of respondents
<b>Age</b>				
15-19	2.3	97.7	100.0	1,425
20-24	9.5	90.5	100.0	1,185
25-29	13.5	86.5	100.0	1,471
30-34	14.3	85.7	100.0	1,195
35-39	16.2	83.8	100.0	1,061
40-44	20.8	79.2	100.0	814
45-49	23.2	76.8	100.0	754
50-54	20.7	79.3	100.0	707
55-59	18.4	81.6	100.0	596
<b>Marital status</b>				
Married	14.3	85.7	100.0	6,552
Divorced/separated/ widowed	19.9	80.1	100.0	819
Never married	10.2	89.8	100.0	1,839
<b>Urban-rural residence</b>				
Urban	20.7	79.3	100.0	3,359
Rural	10.1	89.9	100.0	5,850
<b>Place of residence</b>				
Urban Governorates	18.7	81.3	100.0	1,223
Lower Egypt	14.3	85.7	100.0	4,506
Urban	22.7	77.3	100.0	1,056
Rural	11.8	88.2	100.0	3,450
Upper Egypt	11.7	88.3	100.0	3,417
Urban	21.0	79.0	100.0	1,048
Rural	7.6	92.4	100.0	2,369
Frontier Governorates <sup>2</sup>	19.3	80.7	100.0	63
<b>Education</b>				
No education	7.2	92.8	100.0	2,031
Some primary	9.3	90.7	100.0	773
Primary complete/ some secondary	4.3	95.7	100.0	2,345
Secondary complete/ higher	23.8	76.2	100.0	4,060
<b>Wealth quintile</b>				
Lowest	7.8	92.2	100.0	1,806
Second	9.3	90.7	100.0	1,810
Middle	11.5	88.5	100.0	1,833
Fourth	16.7	83.3	100.0	1,865
Highest	24.0	76.0	100.0	1,895
Total 15-59	14.0	86.0	100.0	9,209

<sup>1</sup> "Currently employed" is defined as having done work in the past seven days or the respondent reporting s/he has a job. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other reasons.

<sup>2</sup> Does not include North and South Sinai governorates

Overall, 14 percent of women age 15-59 are currently engaged in some economic activity. The proportion of women who are currently employed increased with age, peaking at 23 percent in the 45-49 age group. With regard to other differentials in Table 2.6.1, urban women are around twice as likely as rural women to be currently employed. The highest employment rates are found among women who had completed secondary education or higher and women in the highest wealth quintile (24 percent each).

**Table 2.6.2 Employment status: Men**

Percent distribution of men age 15-59 by employment status, according to background characteristics, Egypt 2015

Background characteristic	Currently employed <sup>1</sup>	Not currently employed	Total	Number of respondents
<b>Age</b>				
15-19	36.7	63.3	100.0	1,288
20-24	71.2	28.8	100.0	859
25-29	94.6	5.4	100.0	962
30-34	98.9	1.1	100.0	923
35-39	98.5	1.5	100.0	856
40-44	98.3	1.7	100.0	736
45-49	95.7	4.3	100.0	670
50-54	94.7	5.3	100.0	702
55-59	84.0	16.0	100.0	467
<b>Marital status</b>				
Married	96.6	3.4	100.0	4,819
Divorced/separated/ widowed	90.8	9.2	100.0	106
Never married	56.0	44.0	100.0	2,536
<b>Urban-rural residence</b>				
Urban	79.9	20.1	100.0	2,847
Rural	84.4	15.6	100.0	4,615
<b>Place of residence</b>				
Urban Governorates	76.3	23.7	100.0	1,044
Lower Egypt	83.9	16.1	100.0	3,698
Urban	80.7	19.3	100.0	854
Rural	84.8	15.2	100.0	2,844
Upper Egypt	83.5	16.5	100.0	2,664
Urban	83.0	17.0	100.0	919
Rural	83.8	16.2	100.0	1,745
Frontier Governorates <sup>2</sup>	86.2	13.8	100.0	56
<b>Education</b>				
No education	91.6	8.4	100.0	621
Some primary	94.8	5.2	100.0	686
Primary complete/ some secondary	66.3	33.7	100.0	2,207
Secondary complete/ higher	88.4	11.6	100.0	3,948
<b>Wealth quintile</b>				
Lowest	83.7	16.3	100.0	1,462
Second	84.8	15.2	100.0	1,424
Middle	85.1	14.9	100.0	1,379
Fourth	83.8	16.2	100.0	1,571
Highest	76.9	23.1	100.0	1,626
Total 15-59	82.7	17.3	100.0	7,462

<sup>1</sup> "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other reasons.

<sup>2</sup> Does not include North and South Sinai governorates

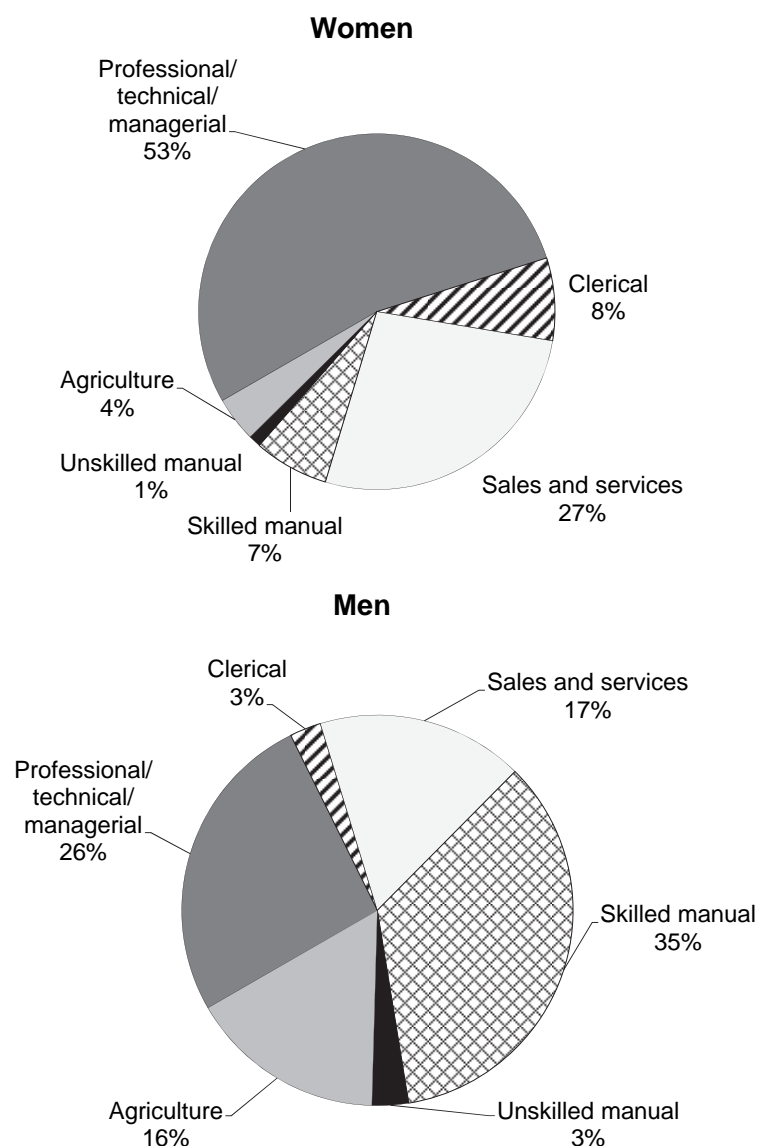
Table 2.6.2 shows that, as expected, men are much more likely to be employed than women; 83 percent of men age 15-59 were employed at the time of the survey. The proportion currently employed increases with age from 37 percent among men age 15-19 and 71 percent among men age 20-24 to more than 90 percent among men age 25-54. The lower current employment rates among men under age 25 reflect in part the fact that many young men are still attending school. Higher school attendance rates among young men may also in part explain the somewhat lower current employment rates found among urban men, men from the Urban Governorates, men with primary complete/some secondary education, and men in the highest wealth quintile.

## 2.4.2 Occupation

To obtain information on occupation, all respondents who were currently employed were asked about the type of work they mainly do. The answers respondents gave to this question were recorded exactly as they gave them and were the basis for the coding of occupations done in the office after the survey was completed.

Figure 2.1 shows that the majority of women who worked are employed in non-agricultural occupations. More than 60 percent of working women are employed in professional, technical, and managerial positions or in clerical occupations. An additional 27 percent are employed in sales and services, and 7 percent work in jobs categorized as skilled manual labor. Only 4 percent of working women are involved in some type of agricultural activity.

**Figure 2.1 Occupation among employed women and men age 15-59, Egypt 2015**



As expected, the occupational profile of men age 15-59 shown in Figure 2.1 differs from that among women. The majority of men who work are employed in skilled manual occupations (35 percent) followed by professional, technical, and managerial positions (26 percent). An additional 17 percent are employed in sales and services. Only 16 percent are involved in agricultural activities.

Tables 2.7.1 and 2.7.2 present the occupational profiles of women and men age 15-59 who are currently employed by background characteristics. As expected, the proportions in professional, technical and managerial occupations and in clerical positions are higher among urban women and men than rural women and men. The proportions in these occupations also rise rapidly with both education and wealth. Among both women and men, the highest proportions employed in agricultural occupations are observed among those with no education and those in the lowest wealth quintile.

Table 2.7.1 Occupation: Women

Percent distribution of women age 15-59 who are currently employed by occupation, according to background characteristics, Egypt 2015

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of respondents employed
<b>Age</b>									
15-19	(12.8)	(1.2)	(41.4)	(33.5)	(8.0)	(3.2)	(0.0)	100.0	33
20-24	39.9	2.8	40.5	13.4	0.0	3.5	0.0	100.0	112
25-29	70.0	5.7	17.4	5.2	0.0	1.8	0.0	100.0	199
30-34	53.8	8.1	30.8	6.1	0.0	1.1	0.0	100.0	171
35-39	57.2	9.4	18.1	8.3	0.3	6.6	0.0	100.0	172
40-44	56.6	1.4	28.9	5.5	2.6	5.1	0.0	100.0	169
45-49	52.8	7.5	24.6	6.4	1.8	6.9	0.0	100.0	175
50-54	48.5	10.2	33.6	1.5	1.8	4.5	0.0	100.0	146
55-59	45.8	19.4	26.5	3.2	1.2	3.9	0.0	100.0	110
<b>Marital status</b>									
Married	57.5	7.3	24.6	4.9	0.9	4.8	0.0	100.0	936
Divorced separated/ widowed	43.1	10.7	33.9	6.9	2.0	3.3	0.0	100.0	163
Never married	42.3	5.7	33.2	16.0	1.4	1.4	0.0	100.0	188
<b>Urban-rural residence</b>									
Urban	55.7	9.9	28.1	5.0	1.2	0.1	0.0	100.0	695
Rural	50.8	4.7	25.7	8.9	1.0	8.9	0.0	100.0	592
<b>Place of residence</b>									
Urban Governorates	57.2	4.5	29.3	5.3	3.7	0.0	0.0	100.0	228
Lower Egypt	51.7	6.4	26.3	8.3	0.7	6.5	0.0	100.0	646
Urban	56.7	8.9	27.7	6.7	0.0	0.0	0.0	100.0	239
Rural	48.8	4.8	25.4	9.3	1.2	10.4	0.0	100.0	406
Upper Egypt	53.8	11.1	26.9	5.1	0.3	2.8	0.0	100.0	401
Urban	52.9	16.8	27.4	2.7	0.0	0.3	0.0	100.0	221
Rural	54.9	4.1	26.4	8.2	0.7	5.8	0.0	100.0	180
Frontier Governorates <sup>1</sup>	61.4	8.2	25.7	4.7	0.0	0.0	0.0	100.0	12
<b>Education</b>									
No education	10.4	0.0	48.9	10.8	3.6	26.3	0.0	100.0	147
Some primary	13.8	0.0	50.3	19.8	5.6	10.6	0.0	100.0	72
Primary complete/ some secondary	16.5	0.8	44.3	30.5	2.6	5.3	0.0	100.0	101
Secondary complete/ higher	66.8	9.9	20.2	2.7	0.3	0.2	0.0	100.0	968
<b>Wealth quintile</b>									
Lowest	36.9	6.7	23.2	9.9	0.5	22.8	0.0	100.0	140
Second	44.3	2.9	31.5	11.6	1.4	8.3	0.0	100.0	168
Middle	55.3	4.0	29.7	6.4	1.5	3.1	0.0	100.0	211
Fourth	48.4	9.2	30.0	9.6	2.7	0.2	0.0	100.0	312
Highest	64.6	10.0	23.2	2.3	0.0	0.0	0.0	100.0	455
Total 15-59	53.4	7.5	27.0	6.8	1.1	4.1	0.0	100.0	1,287

<sup>1</sup> Does not include North and South Sinai governorates

Table 2.7.2 Occupation: Men

Percent distribution of men age 15-59 who are currently employed by occupation, according to background characteristics, Egypt 2015

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of respondents employed
<b>Age</b>									
15-19	4.1	0.5	16.0	54.8	3.2	21.4	0.0	100.0	473
20-24	16.9	1.4	17.9	46.6	4.6	12.6	0.0	100.0	612
25-29	25.3	1.8	16.5	40.2	3.5	12.6	0.0	100.0	910
30-34	22.9	2.6	16.3	42.0	2.3	13.7	0.3	100.0	912
35-39	27.6	1.9	18.6	34.2	2.2	15.5	0.1	100.0	843
40-44	32.6	2.1	17.5	27.4	2.8	17.6	0.0	100.0	723
45-49	31.3	4.2	15.4	25.9	3.9	19.2	0.1	100.0	641
50-54	34.8	4.4	17.7	22.6	2.0	18.3	0.2	100.0	665
55-59	35.9	5.0	18.6	16.7	2.7	20.7	0.4	100.0	392
<b>Marital status</b>									
Married	28.8	2.7	16.8	31.7	2.7	17.2	0.1	100.0	4,654
Divorced/separated/ widowed	26.6	2.9	22.0	37.5	4.3	6.9	0.0	100.0	97
Never married	16.7	2.1	17.8	45.9	3.7	13.8	0.0	100.0	1,421
<b>Urban-rural residence</b>									
Urban	36.0	3.3	18.4	36.2	3.1	2.9	0.0	100.0	2,274
Rural	20.1	2.2	16.4	34.3	2.9	24.0	0.1	100.0	3,897
<b>Place of residence</b>									
Urban Governorates	34.0	2.6	21.6	36.0	4.6	1.1	0.1	100.0	796
Lower Egypt	26.1	1.7	18.4	34.9	2.2	16.5	0.1	100.0	3,101
Urban	40.4	0.8	17.0	36.2	1.2	4.4	0.0	100.0	690
Rural	22.0	2.0	18.8	34.5	2.5	20.0	0.2	100.0	2,411
Upper Egypt	22.9	3.7	13.7	35.0	3.4	21.2	0.1	100.0	2,225
Urban	34.3	6.1	16.5	36.7	3.2	3.3	0.0	100.0	762
Rural	17.0	2.4	12.3	34.1	3.6	30.5	0.1	100.0	1,463
Frontier Governorates <sup>1</sup>	29.0	2.2	18.3	28.3	1.0	21.2	0.0	100.0	48
<b>Education</b>									
No education	6.4	0.4	12.6	28.5	6.0	46.0	0.0	100.0	569
Some primary	6.9	0.4	17.2	44.9	3.3	27.3	0.0	100.0	650
Primary complete/ some secondary	8.5	0.8	18.1	51.1	3.7	17.7	0.1	100.0	1,462
Secondary complete/ higher	40.0	4.1	17.5	27.5	2.1	8.7	0.1	100.0	3,490
<b>Wealth quintile</b>									
Lowest	10.1	2.2	13.4	24.7	3.8	45.5	0.3	100.0	1,223
Second	15.5	2.0	17.3	39.1	3.6	22.5	0.0	100.0	1,208
Middle	26.3	2.9	17.9	39.5	2.5	10.9	0.1	100.0	1,174
Fourth	28.9	1.7	19.3	43.5	3.8	2.8	0.0	100.0	1,316
Highest	48.2	4.2	17.7	28.2	1.1	0.7	0.0	100.0	1,251
Total 15-59	26.0	2.6	17.1	35.0	3.0	16.2	0.1	100.0	6,171

<sup>1</sup> Does not include North and South Sinai governorates

## Key Findings

- Around 9 in 10 women and men age 15-59 were aware of hepatitis C. In contrast, only one-third of women and 42 percent of men had heard about hepatitis B.
- One percent of the population age 1-59, or nearly 800,000 individuals, had an active hepatitis B infection.
- Four percent of the population age 1-59 years, or around 3.5 million Egyptians, had an active hepatitis C infection.
- HBV and HCV infection rates were higher among males than females.
- Rates of HCV infection increased sharply with age. Around 1 in 6 women and around 1 in 4 men age 50-59 had an active HCV infection at the time of the survey.
- The proportion of the population age 1-59 with an active HCV infection was slightly lower in urban areas than rural areas.
- Menoufia had the highest proportion of the population age 1-59 years with an active hepatitis C infection (8 percent). Other governorates in which the active hepatitis infection rate was 5 percent or higher included Sharkia, Menya, Gharbia, Dakhalia, Behera, Damietta, Fayoum, and Beni Suef.
- The rate of active hepatitis C infection declined from 6 percent in the lowest wealth quintile to 3 percent in the highest wealth quintile.
- Many Egyptians were infected with hepatitis C as a result of the use of inadequately sterilized needles during mass campaigns to treat schistosomiasis during the 1960s through the early 1980s. The rate of active hepatitis C infection is 11 percent among individuals who reported ever receiving an injection to treat schistosomiasis, compared to 3 percent among the population never receiving an injection.

Infection with the hepatitis C virus (HCV) is a major public health problem in Egypt. The high level of HCV infection has been attributed in part to the use of inadequately sterilized needles during mass campaigns undertaken to treat schistosomiasis during the 1960s through the early 1980s (Rao et al. 2002; Nafeh et al. 2000). Hepatitis B also is a significant public health challenge in Egypt, and co-infection with HBV and HCV is highly related to liver disease.

The 2015 EHIS collected information on the extent to which women and men age 15-59 knew about hepatitis C and B and, among those who had heard about both viruses, their understanding of the modes of transmission and prevention of these infections and the sources from which they had recently received information about hepatitis C and B. Respondents were also asked if they had ever diagnosed as having any form of hepatitis or liver disease and the treatments they had received if they had ever been with hepatitis B or C. In addition, respondents were asked to provide venous blood samples for laboratory testing to determine if they had been infected with hepatitis B and C. This chapter presents results from both the survey interviews and the testing.

### 3.1 KNOWLEDGE OF HEPATITIS C

Respondents age 15-59 were asked about their awareness of hepatitis C and the sources from which they have recently received information about the hepatitis C virus. Tables 3.1.1 and 3.1.2 show the results of those questions.

Table 3.1.1 Knowledge of hepatitis C by background characteristics: Women

Among women age 15-59, percentage knowing about hepatitis C; among women knowing about hepatitis C, percentage receiving information about hepatitis C during the six months prior to the survey; and, among women receiving information about hepatitis C recently, percentage who saw or heard about hepatitis C from various sources, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis C	Number of women	Percentage receiving information about hepatitis C	Number of women knowing about hepatitis C	Percentage who saw/heard about hepatitis C from:							Number of women receiving information about hepatitis C recently	
					TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/friends/neighbors	Community meeting/educational seminar/other		
<b>Age</b>													
15-19	77.8	1,425	43.0	1,109	85.1	1.6	2.2	0.4	1.8	59.7	5.6	478	
20-24	88.7	1,185	48.1	1,051	89.3	4.0	6.3	2.3	4.4	59.0	1.7	505	
25-29	89.1	1,471	45.5	1,310	87.3	4.1	6.0	1.7	4.8	54.1	3.0	596	
30-34	89.4	1,195	44.5	1,068	87.9	2.2	2.8	1.5	2.3	55.7	1.3	475	
35-39	89.0	1,061	47.1	944	88.8	4.9	6.7	1.4	5.2	57.3	0.8	445	
40-44	86.4	814	44.2	703	87.6	1.8	6.0	1.3	5.5	57.6	0.8	311	
45-49	88.0	754	47.0	664	87.9	1.2	5.3	0.2	5.3	59.9	3.5	312	
50-54	84.1	707	50.2	594	86.5	1.8	6.1	0.9	5.2	54.7	1.1	298	
55-59	79.5	596	40.0	474	91.9	3.5	7.7	2.0	5.7	59.1	0.0	190	
<b>Marital status</b>													
Ever married	87.0	7,370	45.5	6,411	87.9	2.3	5.3	1.4	4.3	56.5	1.6	2,916	
Never married	81.9	1,839	46.0	1,506	87.5	5.5	4.9	1.1	4.1	60.2	4.9	693	
<b>Urban-rural residence</b>													
Urban	91.4	3,359	50.5	3,069	90.6	4.0	6.5	1.8	5.3	54.4	2.0	1,550	
Rural	82.9	5,850	42.5	4,847	85.7	2.2	4.3	1.0	3.5	59.4	2.4	2,059	
<b>Place of residence</b>													
Urban Governorates	90.9	1,223	55.9	1,111	90.9	3.0	6.5	0.2	6.3	47.3	1.3	621	
Lower Egypt	87.3	4,506	40.9	3,933	89.2	2.5	4.1	1.7	3.1	63.0	1.4	1,610	
Urban	91.8	1,056	43.0	969	92.2	3.2	6.1	3.0	4.6	59.3	1.7	417	
Rural	85.9	3,450	40.2	2,964	88.1	2.2	3.4	1.2	2.6	64.3	1.4	1,193	
Upper Egypt	82.6	3,417	48.0	2,822	84.8	3.4	6.0	1.4	4.7	55.5	3.6	1,353	
Urban	91.8	1,048	51.9	962	88.9	5.6	6.9	2.7	4.5	59.4	3.0	499	
Rural	78.5	2,369	45.9	1,859	82.3	2.1	5.5	0.6	4.9	53.2	3.9	854	
Frontier Governorates <sup>2</sup>	80.6	63	49.4	51	87.6	5.9	4.5	1.4	3.1	31.4	1.8	25	
<b>Education</b>													
No education	70.8	2,031	41.8	1,438	78.4	0.3	3.5	0.9	2.6	57.5	1.5	601	
Some primary	83.6	773	39.9	646	84.8	1.5	4.2	0.7	3.7	55.4	0.0	257	
Primary complete/ some secondary	82.8	2,345	43.3	1,942	89.1	1.0	3.8	1.1	3.2	52.5	2.5	841	
Secondary complete/ higher	95.8	4,060	49.1	3,891	90.6	4.8	6.6	1.7	5.3	59.5	2.6	1,910	
<b>Work status</b>													
Working for cash	95.5	1,269	55.0	1,212	90.5	6.5	11.8	2.3	10.9	56.9	4.7	667	
Not working for cash	84.4	7,940	43.9	6,704	87.2	2.1	3.8	1.1	2.8	57.3	1.7	2,942	
<b>Wealth quintile</b>													
Lowest	76.6	1,806	46.9	1,383	83.1	2.8	3.0	0.3	2.7	53.9	2.0	648	
Second	80.5	1,810	43.9	1,457	84.8	1.8	5.3	1.8	3.9	62.2	3.0	639	
Middle	88.1	1,833	35.1	1,615	86.4	0.7	3.6	0.8	3.0	65.9	2.2	567	
Fourth	89.4	1,865	46.5	1,668	91.5	2.2	6.4	2.0	5.0	53.7	1.9	776	
Highest	94.7	1,895	54.6	1,794	90.7	5.7	6.7	1.4	5.7	54.1	2.1	979	
Total 15-59	86.0	9,209	45.6	7,917	87.8	2.9	5.2	1.3	4.3	57.3	2.2	3,609	

<sup>1</sup> Includes radio/newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates



Table 3.1.2 Knowledge of hepatitis C by background characteristics: Men

Among men age 15-59, percentage knowing about hepatitis C; among men knowing about hepatitis C, percentage receiving information about hepatitis C during the six months prior to the survey; and, among men receiving information about hepatitis C recently, percentage who saw or heard about hepatitis C from various sources, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis C	Number of men	Percentage receiving information recently about hepatitis C	Number of men knowing about hepatitis C	Percentage who saw/heard about hepatitis C from:							Number of men receiving information about hepatitis C recently
					TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/neighbors	Community meeting/educational seminar/other	
<b>Age</b>												
15-19	75.3	1,288	36.5	970	83.6	5.1	1.1	0.1	1.1	50.3	4.5	354
20-24	89.8	859	43.9	772	84.3	12.4	7.5	1.9	6.5	64.2	2.6	339
25-29	93.4	962	46.9	898	90.5	7.1	6.8	1.9	5.4	63.0	2.0	421
30-34	93.9	923	42.7	867	89.1	3.3	7.4	1.7	5.8	63.9	1.0	370
35-39	95.1	856	43.9	814	88.6	6.8	7.2	1.3	6.4	59.3	1.3	357
40-44	96.4	736	44.1	709	90.5	10.2	8.4	3.4	5.2	59.7	0.6	313
45-49	93.1	670	43.5	624	89.7	8.8	8.5	3.3	5.8	68.8	3.1	271
50-54	95.3	702	54.3	669	89.8	9.2	7.6	1.0	7.0	65.7	1.0	363
55-59	92.5	467	51.5	432	91.0	8.9	14.3	4.1	12.4	66.3	2.3	222
<b>Marital status</b>												
Ever married	94.1	4,926	46.1	4,636	89.8	6.9	8.5	2.3	6.7	64.1	1.5	2,139
Never married	83.5	2,536	41.1	2,119	85.4	10.0	4.3	1.1	3.9	57.0	3.3	871
<b>Urban-rural residence</b>												
Urban	92.7	2,847	50.0	2,639	91.2	9.9	6.9	1.8	5.9	58.7	2.0	1,319
Rural	89.2	4,615	41.1	4,115	86.3	6.2	7.6	2.0	6.0	64.6	2.0	1,691
<b>Place of residence</b>												
Urban Governorates	92.5	1,044	57.1	966	89.9	8.1	3.8	0.4	3.8	53.5	1.9	552
Lower Egypt	91.5	3,698	40.0	3,385	89.8	7.3	7.6	2.1	6.0	64.8	1.2	1,354
Urban	94.2	854	41.5	805	94.0	9.9	10.2	2.7	8.5	61.1	1.1	334
Rural	90.7	2,844	39.5	2,579	88.5	6.4	6.7	2.0	5.2	66.0	1.2	1,020
Upper Egypt	88.4	2,664	45.8	2,356	86.0	8.3	8.8	2.5	6.9	63.4	3.1	1,079
Urban	91.6	919	49.6	842	90.8	12.2	8.3	2.9	6.5	64.0	2.8	418
Rural	86.8	1,745	43.7	1,515	83.0	5.8	9.1	2.2	7.2	63.1	3.3	661
Frontier Governorates <sup>2</sup>	86.3	56	53.8	48	91.8	9.0	6.7	0.7	6.0	44.3	1.7	26
<b>Education</b>												
No education	81.7	621	46.3	507	86.3	1.9	6.5	2.8	5.0	62.6	0.0	235
Some primary	86.4	686	40.7	592	83.3	3.1	6.3	2.3	4.0	72.3	0.9	241
Primary complete/ some secondary	82.8	2,207	38.8	1,827	85.2	4.9	4.7	1.0	3.9	58.5	2.3	710
Secondary complete/ higher	97.0	3,948	47.7	3,828	90.7	10.3	8.5	2.1	7.1	62.0	2.3	1,825
<b>Work status</b>												
Working for cash	91.8	6,137	44.9	5,632	89.5	7.0	8.0	2.1	6.5	62.6	1.6	2,529
Not working for cash	84.7	1,325	42.8	1,123	83.4	12.1	3.6	1.1	3.1	59.4	4.4	481
<b>Wealth quintile</b>												
Lowest	83.2	1,462	44.6	1,216	82.9	5.5	5.6	1.5	5.1	64.8	2.8	543
Second	87.5	1,424	41.2	1,247	84.0	5.0	9.0	2.8	6.2	64.0	2.0	514
Middle	93.5	1,379	34.8	1,289	90.7	6.3	7.7	2.6	5.5	67.6	2.2	448
Fourth	91.7	1,571	44.6	1,441	90.0	7.2	7.5	1.4	6.8	60.4	1.3	643
Highest	96.0	1,626	55.2	1,562	92.4	12.2	7.0	1.7	5.8	57.5	1.9	862
Total 15-59	90.5	7,462	44.6	6,755	88.5	7.8	7.3	1.9	5.9	62.1	2.0	3,010

<sup>1</sup> Includes radio/newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

Eighty-six percent of women and 91 percent of men were aware of hepatitis C. Among respondents who had heard about hepatitis C, more than two-fifths had received information about the illness within the six-month period before the survey. Television was the most commonly reported channel through which both women and men received information about hepatitis C (88 percent and 89 percent, respectively), followed by spouse, relatives, and friends (57 percent and 62 percent, respectively). Relatively few women and men mentioned hearing about hepatitis C from a health provider in the six months prior to the survey (5 percent and 7 percent, respectively).

Better-educated respondents and those in the highest wealth quintile were most likely to be aware about hepatitis C. For example, 96 percent of women who had a secondary education or higher were aware of hepatitis C, compared with 71 percent among those who had never attended school.

Public awareness of the avenues through which the hepatitis C virus is contracted is important in reducing transmission of the disease. Tables 3.2.1 and 3.2.2 present information from the 2015 EHIS on the modes of transmission of the hepatitis C virus recognized by women and men who had heard about hepatitis C. Respondents were asked to name all of the ways they knew may lead to the spread of hepatitis C from one person to another, so the percentages naming the various modes of transmission add to more than 100.

Table 3.2.1 Knowledge of the ways a person can contract hepatitis C by background characteristics: Women

Among women age 15-59 knowing about hepatitis C, percentage who can name at least one way in which an individual can contract hepatitis C, and, among women knowing about a way hepatitis C can be contracted, percentage mentioning various ways hepatitis C virus can be transmitted, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis C who can name at least one way the illness can be contracted	Number of women knowing about hepatitis C	Percentage mentioning hepatitis C can be transmitted by:							Number of women knowing about a way hepatitis C can be contracted	
			Hetero-sexual relations	Homo-sexual relations	Blood transfusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Casual physical contact with infected person		Mosquito/ other insect bites/ other
<b>Age</b>											
15-19	44.2	1,109	2.8	0.2	67.8	40.9	49.1	2.5	23.1	7.1	490
20-24	60.4	1,051	3.3	0.0	77.0	43.6	52.0	0.8	22.0	5.2	635
25-29	57.5	1,310	3.7	0.0	78.0	42.9	55.8	0.5	21.8	5.0	753
30-34	65.0	1,068	4.7	0.0	78.5	49.5	55.6	0.5	19.9	2.7	694
35-39	61.5	944	5.7	0.0	85.6	47.9	57.5	0.9	15.8	4.7	581
40-44	63.4	703	3.6	0.4	81.9	52.9	54.2	0.4	19.9	2.4	446
45-49	61.5	664	4.6	0.0	83.6	52.4	56.9	0.0	14.0	3.0	408
50-54	55.3	594	5.1	0.1	80.8	42.3	57.7	0.1	22.1	4.4	329
55-59	56.3	474	4.4	0.4	77.0	47.5	60.9	0.7	22.5	2.2	267
<b>Marital status</b>											
Ever married	58.7	6,411	4.4	0.1	79.6	46.4	55.4	0.7	20.0	3.8	3,764
Never married	55.7	1,506	2.9	0.1	75.1	46.5	53.8	1.1	20.7	5.9	839
<b>Urban-rural residence</b>											
Urban	70.9	3,069	4.1	0.1	84.3	48.4	58.2	0.6	17.6	3.3	2,176
Rural	50.1	4,847	4.2	0.1	73.9	44.7	52.3	0.9	22.4	5.0	2,427
<b>Place of residence</b>											
Urban Governorates	71.8	1,111	3.4	0.0	83.1	43.2	54.0	0.6	12.3	2.5	797
Lower Egypt	57.0	3,933	4.1	0.1	80.2	49.9	56.5	1.2	20.0	3.5	2,240
Urban	73.5	969	5.0	0.1	86.5	53.6	61.6	1.1	19.3	3.2	712
Rural	51.5	2,964	3.7	0.1	77.2	48.2	54.1	1.3	20.3	3.6	1,528
Upper Egypt	54.5	2,822	4.5	0.1	74.8	43.3	53.8	0.2	24.4	6.1	1,537
Urban	67.5	962	4.1	0.0	83.6	49.5	59.8	0.1	22.1	4.6	650
Rural	47.7	1,859	4.8	0.1	68.4	38.8	49.4	0.3	26.1	7.2	887
Frontier Governorates <sup>1</sup>	55.6	51	7.0	0.0	67.7	33.2	48.6	0.0	21.8	9.3	28
<b>Education</b>											
No education	33.9	1,438	3.3	0.1	67.2	45.0	45.7	0.0	24.7	4.4	487
Some primary	41.3	646	6.0	0.2	69.0	37.6	49.0	0.0	27.0	3.9	267
Primary complete/ some secondary	47.6	1,942	4.6	0.1	76.0	42.5	46.4	1.6	19.0	6.2	925
Secondary complete/ higher	75.1	3,891	4.0	0.1	82.5	48.8	60.0	0.7	19.1	3.6	2,924
<b>Work status</b>											
Working for cash	78.9	1,212	5.1	0.2	86.6	50.7	63.3	0.3	19.1	4.5	956
Not working for cash	54.4	6,704	3.9	0.1	76.8	45.3	53.0	0.9	20.4	4.2	3,647
<b>Wealth quintile</b>											
Lowest	43.2	1,383	4.7	0.2	65.5	42.8	46.4	1.0	27.4	7.2	598
Second	49.4	1,457	4.3	0.2	74.9	46.0	51.8	0.9	22.6	5.2	720
Middle	50.7	1,615	4.3	0.0	77.6	48.5	54.4	0.6	19.6	3.8	819
Fourth	64.3	1,668	4.7	0.1	80.6	43.8	56.1	0.6	21.0	3.7	1,072
Highest	77.7	1,794	3.4	0.0	85.9	49.1	60.3	0.7	15.4	3.1	1,394
Total 15-59	58.1	7,917	4.1	0.1	78.8	46.5	55.1	0.7	20.1	4.2	4,603

<sup>1</sup> Does not include North and South Sinai governorates

Table 3.2.2 Knowledge of the ways a person can contract hepatitis C by background characteristics: Men

Among men age 15-59 knowing about hepatitis C, percentage who can name at least one way in which an individual can contract hepatitis C, and, among men knowing about a way hepatitis C can be contracted, percentage mentioning various ways hepatitis C can be transmitted, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis C who can name at least one way the illness can be contracted	Number of men knowing about hepatitis C	Percentage mentioning hepatitis C can be transmitted by:							Number of men knowing about a way hepatitis C can be contracted	
			Hetero-sexual relations	Homo-sexual relations	Blood transfusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Casual physical contact with infected person		Mosquito/other insect bites/other
<b>Age</b>											
15-19	47.7	970	1.2	0.1	69.5	40.6	63.3	0.4	19.9	5.6	463
20-24	62.2	772	1.8	0.6	79.2	50.9	67.5	0.5	19.8	4.3	480
25-29	65.2	898	2.2	0.7	76.7	55.2	66.5	0.1	13.9	3.4	585
30-34	64.7	867	2.5	0.0	83.7	47.2	60.6	1.3	15.0	3.6	561
35-39	69.1	814	3.7	0.4	84.6	52.2	64.5	1.2	11.9	1.6	563
40-44	73.7	709	3.4	0.1	89.3	53.6	65.7	1.0	12.4	3.1	523
45-49	75.2	624	5.1	1.2	83.3	58.5	70.4	0.3	12.6	2.5	469
50-54	75.7	669	5.2	0.4	81.1	57.6	67.8	2.4	14.0	1.9	507
55-59	75.3	432	3.6	0.5	84.8	58.2	69.8	0.1	12.5	4.3	325
<b>Marital status</b>											
Ever married	69.9	4,636	3.7	0.5	83.4	53.5	66.2	1.1	13.4	2.8	3,238
Never married	58.4	2,119	1.8	0.1	76.0	50.0	65.5	0.2	17.8	4.5	1,237
<b>Urban-rural residence</b>											
Urban	70.6	2,639	3.2	0.3	85.3	53.0	65.7	0.6	13.1	3.2	1,862
Rural	63.5	4,115	3.1	0.5	78.5	52.2	66.2	1.0	15.7	3.4	2,613
<b>Place of residence</b>											
Urban Governorates	71.2	966	3.2	0.0	84.7	51.1	61.6	0.4	11.2	3.8	687
Lower Egypt	66.2	3,385	3.2	0.3	80.5	53.6	66.2	1.0	14.4	2.7	2,240
Urban	73.8	805	3.7	0.2	85.9	55.2	66.9	0.5	12.7	2.6	594
Rural	63.8	2,579	3.0	0.4	78.6	53.0	65.9	1.2	15.1	2.8	1,646
Upper Egypt	64.5	2,356	3.1	0.8	81.1	51.8	67.7	0.7	16.4	3.9	1,519
Urban	67.0	842	2.8	0.7	85.7	53.1	69.4	0.8	15.9	3.0	564
Rural	63.1	1,515	3.3	0.9	78.3	51.0	66.8	0.7	16.7	4.4	955
Frontier Governorates <sup>1</sup>	60.5	48	5.1	0.0	80.8	43.8	63.2	0.0	16.9	5.3	29
<b>Education</b>											
No education	49.1	507	0.4	0.4	72.2	50.6	69.0	0.6	16.0	4.2	249
Some primary	49.0	592	3.2	0.4	72.2	50.6	62.5	1.2	15.6	3.5	290
Primary complete/ some secondary	52.2	1,827	1.9	0.4	75.4	43.4	60.6	0.6	17.4	4.6	953
Secondary complete/ higher	77.9	3,828	3.8	0.4	84.9	55.7	67.8	0.9	13.5	2.8	2,983
<b>Work status</b>											
Working for cash	67.2	5,632	3.5	0.5	81.8	53.2	66.0	0.9	14.1	3.0	3,785
Not working for cash	61.5	1,123	1.4	0.1	78.9	48.8	65.7	0.7	17.7	4.8	690
<b>Wealth quintile</b>											
Lowest	61.4	1,216	3.2	0.4	73.3	48.7	62.7	0.3	18.6	4.9	747
Second	60.3	1,247	3.0	0.6	77.9	54.9	66.5	1.3	16.1	3.8	752
Middle	64.3	1,289	2.8	0.3	82.1	51.7	67.9	1.8	12.5	2.6	829
Fourth	65.5	1,441	3.3	0.5	82.2	50.7	63.9	0.5	14.4	2.7	944
Highest	77.0	1,562	3.4	0.4	87.3	55.3	68.1	0.5	12.9	2.9	1,203
Total 15-59	66.3	6,755	3.2	0.4	81.3	52.5	66.0	0.8	14.6	3.3	4,475

<sup>1</sup> Does not include North and South Sinai governorates

Around 6 in 10 women who had heard about hepatitis C were able to name at least one way through which the illness is transmitted (Table 3.2.1). Of the women able to name an avenue of transmission for hepatitis C, the majority (79 percent) reported it could be contracted through blood transfusions, 55 percent said through other contact with the blood of an infected person, and 47 percent mentioned unclean needles. Men were somewhat more knowledgeable than women about

modes in which the hepatitis C virus can be transmitted. Around two-thirds of men who knew about hepatitis C were able to name at least one way in which the virus can be transmitted (Table 3.2.2). Similar to the pattern for women, the three modes of transmission most often mentioned by men were blood transfusions (81 percent), other contact with the blood of an infected person (66 percent), and use of unclean needles (53 percent).

The risks of transmission of hepatitis C during sexual relations or from a mother to her child at birth or when breastfeeding are low, and few EHIS respondents mentioned those as possible ways to contract hepatitis C. Around 1 in 5 women and 1 in 7 men thought incorrectly that casual physical contact with an infected person was a way in which hepatitis C is transmitted.

The results in Tables 3.2.1 and 3.2.2 indicate that knowledge about the routes of transmission of hepatitis C was more common among urban residents than rural residents, particularly among women. The percentages of women and men knowing about at least one way through which hepatitis C can be contracted rose with increasing education and wealth and were higher among those working for cash than those not working for cash.

### **3.2 KNOWLEDGE OF HEPATITIS B**

To obtain information about level of awareness of hepatitis B, EHIS respondents age 15-59 were asked a sequence of questions similar to the questions used to obtain information on knowledge of hepatitis C. Respondents were first asked if they had heard about hepatitis B. Those respondents who knew about the illness were asked about the sources from which they have recently received information about the hepatitis B virus. Tables 3.3.1 and 3.3.2 present the results for those questions.

Overall, the level of awareness about hepatitis B is lower than hepatitis C. Slightly more than one-third of women and 42 percent of men were aware of hepatitis B. Among women who had heard about hepatitis B, half of them had received information about the illness within the six-month period before the survey. This proportion was only slightly lower among men (48 percent). Television was the main channel through which both women and men received information about hepatitis B (91 percent and 90 percent, respectively), followed by personal contacts (spouse, other relatives, friends, or neighbors), at 52 percent and 61 percent, respectively. Only 6 percent of women and 7 percent of men heard about hepatitis B from a health worker in the six months prior to the survey.

The level of awareness of hepatitis B varies by background characteristics. For example, among both men and women, the level of awareness of the hepatitis B virus rises with increasing education as well as increasing wealth. In addition, awareness of hepatitis B is more common among urban residents than rural residents.

Table 3.3.1 Knowledge of hepatitis B by background characteristics: Women

Among women age 15-59, percentage knowing about hepatitis B; among women knowing about hepatitis B, percentage receiving information about hepatitis B during the six months prior to the survey; and, among women receiving information about hepatitis B recently, percentage who saw or heard about hepatitis B from various sources, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis B	Number of women	Percentage receiving information recently about hepatitis B	Number of women knowing about hepatitis B	Percentage who saw/heard about hepatitis B from:							Number of women receiving information about hepatitis B recently
					TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/neighbors	Community meeting/educational seminar/other	
<b>Age</b>												
15-19	22.2	1,425	42.0	316	85.2	2.7	2.9	0.0	2.9	58.1	10.6	133
20-24	37.3	1,185	51.5	442	91.0	6.0	7.2	1.3	6.3	52.7	1.5	228
25-29	36.1	1,471	50.3	530	90.3	4.6	7.5	3.1	5.1	49.1	0.8	267
30-34	35.8	1,195	47.4	428	86.9	3.5	2.5	0.0	2.5	48.0	1.6	203
35-39	37.5	1,061	53.4	398	93.7	3.9	4.2	1.0	3.2	55.0	3.7	213
40-44	37.8	814	48.5	307	95.7	2.2	8.1	3.8	6.7	46.3	0.2	149
45-49	39.9	754	54.0	301	91.3	3.3	7.2	3.0	5.4	51.8	5.7	162
50-54	33.2	707	50.3	234	92.9	3.1	6.1	0.7	5.3	46.2	2.9	118
55-59	34.1	596	50.7	203	90.8	4.2	5.8	0.0	5.8	65.8	0.0	103
<b>Marital status</b>												
Ever married	35.7	7,370	50.4	2,631	91.0	3.0	5.4	1.7	4.2	50.8	2.2	1,326
Never married	28.8	1,839	46.8	530	89.9	8.5	8.0	0.9	7.5	57.8	5.8	248
<b>Urban-rural residence</b>												
Urban	43.3	3,359	51.0	1,454	92.9	4.9	6.3	1.4	5.4	46.1	2.5	742
Rural	29.2	5,850	48.8	1,707	88.9	3.0	5.4	1.8	4.2	57.1	3.0	832
<b>Place of residence</b>												
Urban Governorates	44.1	1,223	52.0	539	91.0	4.6	7.4	1.6	6.2	31.8	3.1	281
Lower Egypt	34.4	4,506	46.5	1,550	94.4	3.8	4.4	1.5	3.8	60.7	1.5	720
Urban	43.6	1,056	44.0	461	98.1	4.7	4.6	1.8	3.9	59.6	1.6	203
Rural	31.6	3,450	47.5	1,090	93.0	3.4	4.3	1.4	3.8	61.1	1.5	517
Upper Egypt	30.8	3,417	53.9	1,053	86.2	3.7	6.7	1.6	5.2	51.0	4.2	567
Urban	42.2	1,048	57.6	442	90.9	5.4	6.2	0.7	5.5	51.4	2.5	255
Rural	25.8	2,369	51.2	611	82.4	2.4	7.1	2.4	4.9	50.7	5.5	313
Frontier Governorates <sup>2</sup>	29.4	63	35.0	18	87.4	2.3	10.6	0.0	10.6	31.3	4.9	6
<b>Education</b>												
No education	20.4	2,031	48.4	414	85.9	0.0	1.6	0.8	0.8	51.4	5.0	200
Some primary	24.8	773	48.8	192	84.7	1.3	1.8	0.8	1.0	56.8	0.0	94
Primary complete/ some secondary	26.7	2,345	45.2	627	92.4	0.7	4.2	1.8	3.2	52.7	4.0	283
Secondary complete/ higher	47.5	4,060	51.7	1,929	91.9	5.8	7.4	1.7	6.4	51.3	2.2	998
<b>Work status</b>												
Working for cash	55.3	1,269	57.1	702	91.8	8.3	15.2	3.7	13.7	47.4	3.5	401
Not working for cash	31.0	7,940	47.7	2,459	90.5	2.4	2.6	0.9	1.7	53.5	2.5	1,174
<b>Wealth quintile</b>												
Lowest	25.3	1,806	47.9	457	88.5	2.0	1.8	0.6	1.2	52.2	1.7	219
Second	31.2	1,810	51.6	564	84.9	2.1	6.8	2.6	5.0	60.2	4.4	291
Middle	26.7	1,833	45.0	490	90.4	3.6	4.8	0.0	4.8	61.9	2.8	221
Fourth	39.5	1,865	48.5	736	96.2	2.4	7.0	2.0	5.8	49.8	1.5	357
Highest	48.2	1,895	53.3	913	91.7	7.1	6.5	1.8	5.4	43.9	3.2	486
Total 15-59	34.3	9,209	49.8	3,161	90.8	3.9	5.8	1.6	4.8	51.9	2.8	1,575

<sup>1</sup> Includes radio/newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

Table 3.3.2 Knowledge of hepatitis B by background characteristics: Men

Among men age 15-59, percentage knowing about hepatitis B; among men knowing about hepatitis B, percentage receiving information about hepatitis B during the six months prior to the survey; and, among men receiving information about hepatitis B recently, percentage who saw or heard about hepatitis B from various sources, by background characteristics, Egypt 2015

Background characteristic	Percentage knowing about hepatitis B	Number of men	Percentage receiving information about hepatitis B recently	Number of men knowing about hepatitis B	Percentage who saw/heard about hepatitis B from:							Number of men receiving information about hepatitis B recently
					TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/neighbors	Community meeting/educational seminar/other	
<b>Age</b>												
15-19	20.8	1,288	33.7	268	79.4	5.1	2.2	0.0	2.2	58.5	7.2	90
20-24	37.5	859	49.8	322	85.6	10.5	11.6	0.3	11.6	59.5	1.7	160
25-29	44.6	962	51.0	429	89.7	8.7	5.5	2.9	3.0	55.9	4.6	219
30-34	41.0	923	48.8	378	86.1	5.7	7.1	2.6	4.5	67.5	0.8	184
35-39	46.4	856	42.1	397	91.4	9.5	8.2	2.2	7.1	62.2	0.7	167
40-44	50.5	736	48.7	371	91.8	6.1	8.3	1.7	6.6	56.2	0.4	181
45-49	48.7	670	50.9	326	94.7	8.2	4.5	1.2	3.3	63.2	0.4	166
50-54	54.2	702	50.9	381	96.0	7.5	6.5	0.7	6.5	62.9	0.2	194
55-59	50.1	467	55.6	234	87.1	11.3	9.2	2.9	8.9	66.4	2.0	130
<b>Marital status</b>												
Ever married	46.9	4,926	49.5	2,311	90.6	7.5	7.6	1.9	6.0	62.0	1.4	1,143
Never married	31.4	2,536	43.8	796	87.2	10.1	5.9	1.0	5.9	59.0	3.0	349
<b>Urban-rural residence</b>												
Urban	46.3	2,847	51.7	1,317	92.2	10.3	7.0	1.4	6.2	54.7	1.1	681
Rural	38.8	4,615	45.3	1,789	87.7	6.2	7.3	2.0	5.8	66.8	2.4	811
<b>Place of residence</b>												
Urban Governorates	45.1	1,044	56.2	470	91.6	6.6	6.4	0.8	6.4	37.5	0.3	264
Lower Egypt	41.9	3,698	41.2	1,551	92.4	9.4	6.1	2.1	4.7	69.0	1.9	639
Urban	51.0	854	37.8	435	94.2	16.8	8.5	1.8	7.4	70.4	0.0	165
Rural	39.2	2,844	42.5	1,115	91.8	6.9	5.2	2.2	3.7	68.5	2.5	474
Upper Egypt	40.1	2,664	54.4	1,067	86.0	7.3	8.7	1.7	7.2	64.0	2.4	581
Urban	43.5	919	61.5	400	91.8	10.0	6.6	1.7	5.2	63.0	2.7	246
Rural	38.2	1,745	50.2	668	81.8	5.3	10.3	1.6	8.7	64.7	2.1	335
Frontier Governorates <sup>2</sup>	31.9	56	46.9	18	91.3	9.7	7.9	2.2	5.7	32.5	0.4	8
<b>Education</b>												
No education	29.1	621	62.3	181	89.1	0.0	3.9	1.2	3.9	65.7	0.0	113
Some primary	32.4	686	44.5	222	89.6	2.4	2.7	0.0	2.7	60.3	0.0	99
Primary complete/ some secondary	29.7	2,207	42.1	655	88.7	5.1	4.3	0.7	3.8	61.4	2.8	276
Secondary complete/ higher	51.9	3,948	49.1	2,048	90.2	10.4	8.8	2.2	7.2	60.8	1.9	1,005
<b>Work status</b>												
Working for cash	43.9	6,137	48.1	2,697	90.0	7.4	7.5	1.9	6.2	62.3	1.5	1,296
Not working for cash	30.9	1,325	47.9	410	88.3	12.8	4.7	0.2	4.7	54.5	3.6	196
<b>Wealth quintile</b>												
Lowest	35.0	1,462	48.6	512	84.4	3.7	5.0	0.0	5.0	62.0	5.0	249
Second	39.5	1,424	45.5	563	85.4	3.9	9.2	2.5	7.5	69.2	1.1	256
Middle	37.6	1,379	40.5	519	90.3	7.6	5.7	3.2	2.5	66.8	2.1	210
Fourth	41.4	1,571	46.1	650	93.1	9.1	7.6	1.4	6.7	61.7	0.6	300
Highest	53.0	1,626	55.4	862	92.6	12.2	7.6	1.7	6.8	53.9	1.0	477
Total 15-59	41.6	7,462	48.0	3,106	89.8	8.1	7.2	1.7	6.0	61.3	1.8	1,492

<sup>1</sup> Includes radio/newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

During the 2015 EHIS, information also was obtained from respondents who had heard about hepatitis B regarding the modes through which the virus may be transmitted. Tables 3.4.1 and 3.4.2 present these results. Respondents were asked to name all of the ways they knew may lead to the spread of hepatitis B from one person to another, so the percentages naming the various modes of transmission add to more than 100 in the tables.

Table 3.4.1 Knowledge of the ways a person can contract hepatitis B by background characteristics: Women

Among women age 15-59 knowing about hepatitis B, percentage who can name at least one way in which an individual can contract hepatitis B, and, among women knowing about a way hepatitis B can be contracted, percentage mentioning various ways hepatitis B can be transmitted, by background characteristics, Egypt 2015

Background characteristic	Percentage of women knowing about hepatitis B who can name at least one way the illness can be contracted	Number of women knowing about hepatitis B	Percentage mentioning hepatitis B can be transmitted by:								Number of women knowing about a way hepatitis B can be contracted
			Hetero-sexual relations	Homo-sexual relations	Blood trans-fusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Casual physical contact with infected person	Mosquito/ other insect bites/ other	
<b>Age</b>											
15-19	37.1	316	5.6	1.0	69.3	41.9	49.2	2.5	29.9	2.2	117
20-24	49.1	442	8.5	0.0	79.4	42.0	57.9	0.4	25.1	3.5	217
25-29	48.6	530	8.9	0.1	77.3	42.9	55.0	0.5	18.1	4.7	258
30-34	54.0	428	5.9	0.2	80.2	45.4	54.2	1.9	22.3	4.9	231
35-39	57.7	398	9.9	0.0	79.5	42.9	56.2	1.1	23.4	2.2	230
40-44	63.9	307	5.7	0.4	78.5	50.4	59.2	0.0	21.6	1.5	196
45-49	54.6	301	6.5	0.0	84.4	41.2	56.8	0.4	23.7	0.7	164
50-54	53.4	234	6.7	0.6	79.3	45.5	58.9	2.1	28.8	4.8	125
55-59	62.1	203	4.0	0.0	79.6	56.6	59.6	1.3	21.4	1.1	126
<b>Marital status</b>											
Ever married	53.6	2,631	6.7	0.2	79.3	44.1	55.6	1.1	22.7	3.0	1,409
Never married	48.2	530	9.9	0.5	76.8	50.0	60.2	0.7	25.7	3.1	256
<b>Urban-rural residence</b>											
Urban	63.1	1,454	7.3	0.2	82.2	47.9	57.3	0.8	20.8	2.4	917
Rural	43.8	1,707	7.1	0.3	74.9	41.5	55.1	1.3	26.2	3.8	748
<b>Place of residence</b>											
Urban Governorates	68.1	539	6.5	0.0	84.9	42.4	58.2	0.9	14.6	0.7	368
Lower Egypt	45.8	1,550	8.0	0.2	77.8	51.7	57.7	1.2	25.0	2.7	710
Urban	57.0	461	9.0	0.2	79.3	60.9	59.9	0.5	22.6	4.3	263
Rural	41.0	1,090	7.4	0.3	77.0	46.3	56.4	1.6	26.4	1.7	447
Upper Egypt	55.0	1,053	6.7	0.3	76.7	38.5	53.5	0.8	26.3	4.8	579
Urban	63.6	442	6.8	0.3	81.7	43.1	53.9	0.9	26.9	2.7	281
Rural	48.7	611	6.6	0.4	71.9	34.2	53.0	0.8	25.9	6.7	297
Frontier Governorates <sup>1</sup>	49.2	18	4.8	0.0	63.1	42.4	58.0	0.0	25.4	12.1	9
<b>Education</b>											
No education	32.1	414	3.0	0.0	73.1	38.3	48.6	0.5	21.7	1.4	133
Some primary	41.2	192	5.9	0.4	68.9	31.4	48.3	0.0	32.6	3.9	79
Primary complete/ some secondary	40.4	627	6.7	0.7	74.5	37.9	50.7	0.5	27.2	3.3	253
Secondary complete/ higher	62.2	1,929	7.9	0.1	81.1	48.1	58.9	1.2	21.9	3.1	1,200
<b>Work status</b>											
Working for cash	70.1	702	9.1	0.2	81.4	50.4	58.7	0.4	24.6	3.6	492
Not working for cash	47.7	2,459	6.4	0.3	77.8	42.8	55.3	1.3	22.6	2.8	1,173
<b>Wealth quintile</b>											
Lowest	40.2	457	5.0	0.5	67.1	40.9	48.5	1.0	29.8	6.4	183
Second	42.6	564	4.9	0.1	77.7	38.5	50.1	1.7	21.6	3.7	241
Middle	46.6	490	7.3	0.2	76.9	48.8	58.3	1.7	29.7	2.9	229
Fourth	54.9	736	8.9	0.3	80.7	45.6	54.2	0.4	21.7	2.7	404
Highest	66.6	913	7.6	0.1	82.5	47.0	61.9	0.9	20.3	2.0	608
Total 15-59	52.7	3,161	7.2	0.2	78.9	45.0	56.3	1.0	23.2	3.0	1,665

<sup>1</sup> Does not include North and South Sinai governorates

Table 3.4.2 Knowledge of the ways a person can contract hepatitis B by background characteristics: Men

Among men age 15-59 knowing about hepatitis B, percentage who can name at least one way in which an individual can contract hepatitis B, and, among men knowing about a way hepatitis B can be contracted, percentage mentioning various ways hepatitis B can be transmitted, by background characteristics, Egypt 2015

Background characteristic	Percentage of men knowing about hepatitis B who can name at least one way the illness can be contracted	Number of men knowing about hepatitis B	Percentage mentioning hepatitis B can be transmitted by:								Number of men knowing about a way hepatitis B can be contracted
			Hetero-sexual relations	Homo-sexual relations	Blood transfusions	Unclean needle	Other contact with blood of infected person	Mother-to-child transmission	Casual physical contact with infected person	Mosquito/other insect bites/other	
<b>Age</b>											
15-19	36.4	268	3.3	0.0	80.3	33.0	61.1	0.0	24.0	3.6	98
20-24	54.3	322	3.7	0.0	76.4	55.7	66.7	0.9	29.1	2.4	175
25-29	52.8	429	2.6	1.4	76.5	50.1	69.5	0.1	22.8	1.7	226
30-34	53.6	378	2.8	0.1	85.5	46.8	62.8	0.1	18.6	1.8	203
35-39	61.0	397	6.1	0.2	84.7	45.9	66.5	1.2	15.5	0.7	242
40-44	69.8	371	5.0	0.1	84.7	56.1	69.4	0.1	20.6	3.5	259
45-49	66.7	326	5.4	1.7	84.1	53.1	65.5	0.3	18.0	2.2	217
50-54	66.4	381	6.8	0.4	80.9	59.5	70.6	0.1	14.9	2.3	253
55-59	71.0	234	3.8	0.1	84.5	53.9	70.0	0.6	19.0	3.1	166
<b>Marital status</b>											
Ever married	62.1	2,311	4.9	0.6	83.0	51.9	67.3	0.4	18.5	2.2	1,436
Never married	50.7	796	3.3	0.1	78.9	50.9	67.7	0.2	23.9	2.5	404
<b>Urban-rural residence</b>											
Urban	65.3	1,317	5.0	0.3	85.9	51.0	62.8	0.4	18.6	2.3	859
Rural	54.8	1,789	4.2	0.7	78.8	52.2	71.3	0.4	20.7	2.2	980
<b>Place of residence</b>											
Urban Governorates	66.0	470	3.4	0.0	88.1	47.0	55.1	0.4	16.7	0.0	311
Lower Egypt	57.2	1,551	4.7	0.3	80.9	56.8	71.6	0.4	18.0	1.9	887
Urban	63.8	435	5.0	0.1	85.0	56.6	64.4	0.4	16.9	3.4	278
Rural	54.6	1,115	4.6	0.4	79.1	56.9	74.9	0.4	18.5	1.2	609
Upper Egypt	59.2	1,067	4.9	1.0	80.9	46.6	67.7	0.4	23.7	3.9	632
Urban	66.2	400	6.8	0.9	84.5	49.5	70.4	0.3	22.9	3.8	265
Rural	55.0	668	3.5	1.0	78.2	44.5	65.7	0.4	24.3	4.0	367
Frontier Governorates <sup>1</sup>	57.5	18	4.9	0.0	79.4	53.1	57.0	0.0	16.4	2.9	10
<b>Education</b>											
No education	41.1	181	1.9	0.0	74.4	53.3	79.9	0.5	19.9	1.0	74
Some primary	46.7	222	4.0	0.0	71.9	43.6	66.8	0.0	20.6	0.0	104
Primary complete/ some secondary	46.0	655	2.1	1.0	79.3	45.0	64.9	0.1	18.0	4.4	301
Secondary complete/ higher	66.4	2,048	5.3	0.5	84.0	53.7	67.3	0.5	20.0	2.0	1,360
<b>Work status</b>											
Working for cash	60.1	2,697	4.6	0.6	81.7	51.9	67.5	0.4	19.3	2.2	1,621
Not working for cash	53.3	410	4.0	0.0	85.2	49.6	66.7	0.2	23.1	2.5	218
<b>Wealth quintile</b>											
Lowest	56.4	512	2.9	0.2	75.9	49.6	68.3	0.4	21.4	3.0	289
Second	52.3	563	4.4	0.3	77.0	52.8	71.4	0.0	21.9	3.0	294
Middle	51.0	519	5.0	1.0	81.8	50.7	71.2	1.1	18.4	1.5	264
Fourth	60.4	650	5.4	0.7	83.7	51.4	66.5	0.0	17.5	1.6	393
Highest	69.5	862	4.8	0.4	86.7	52.6	63.8	0.5	19.9	2.3	599
Total 15-59	59.2	3,106	4.6	0.5	82.1	51.7	67.4	0.4	19.7	2.3	1,839

<sup>1</sup> Does not include North and South Sinai governorates

As Table 3.4.1 shows, just over half of women who knew about hepatitis B named at least one way through which the illness can be transmitted. Among women who were able to name an avenue of transmission for hepatitis B, the majority (79 percent) reported it could be contracted through blood transfusions, 56 percent said through other contact with the blood of an infected person, and 45 percent mentioned unclean needles. As was the case with hepatitis C, men were somewhat



more knowledgeable than women about ways through which hepatitis B could be contracted. Table 3.4.2 shows that almost 6 in 10 men who knew about hepatitis B were able to name at least one mode of transmission. Similar to the pattern for women, the three modes of transmission most often mentioned by men were blood transfusions (82 percent), other contact with the blood of an infected person (67 percent), and use of unclean needles (52 percent).

Both sexual relations and mother-to-child transmission are common ways of contracting hepatitis B. Few EHIS respondents mentioned either of these modes of transmission. Around one-quarter of women and one-fifth men believed incorrectly that hepatitis B can be transmitted through casual physical contact.

### 3.3 HISTORY OF HEPATITIS B AND C AND LIVER DISEASE

In the 2015 EHIS, respondents age 15-59 were asked if they had ever been tested for and diagnosed with hepatitis C and B and/or if they had symptoms of or had been diagnosed with liver disease. Similar information was collected for children age 1-14 from the mother or other adult informant in the child's questionnaire.

Table 3.5 presents information on the history of hepatitis testing for the population age 1-59. Overall, the EHIS results indicate that 7 percent of Egyptians age 1-59 were ever tested for hepatitis C and 2 percent had ever had a hepatitis B test. Testing rates are very low among children. Less than 1 percent of children age 1-14 had ever been tested for hepatitis B (0.3 percent) or hepatitis C (0.5 percent). Among adults, testing rates were higher for men than women. Two percent of women and 6 percent of men age 15-59 had ever been tested for hepatitis B, and 6 percent of women and 18 percent of men had ever been tested for hepatitis C.

Table 3.5 History of testing for hepatitis B and C

Percent distribution of individuals age 1-59 by whether or not they were ever tested for the hepatitis B and hepatitis C viruses, according to sex and age, Egypt 2015

Hepatitis testing status	Children 1-14 <sup>1</sup>			Adults 15-59 <sup>2</sup>			Total population 1-59		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
<b>Ever tested for hepatitis B virus</b>									
Yes	0.1	0.4	0.3	1.7	5.8	3.5	1.1	3.5	2.2
No	99.8	99.6	99.7	32.6	35.7	33.9	57.1	63.1	59.9
Don't know	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1
Never heard about hepatitis B	0.0	0.0	0.0	65.7	58.4	62.4	41.7	33.4	37.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Ever tested for hepatitis C virus</b>									
Yes	0.3	0.8	0.5	6.1	17.9	11.4	4.0	10.6	7.1
No	99.7	99.2	99.4	79.8	72.5	76.5	87.0	84.0	85.6
Don't know	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Never heard about hepatitis C	0.0	0.0	0.0	14.0	9.5	12.0	8.9	5.4	7.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	5,280	5,598	10,878	9,209	7,462	16,671	14,489	13,060	27,549

<sup>1</sup> Children's status reported by child's parent or other adult caretaker

<sup>2</sup> Self-reported status

Table 3.6 summarizes information obtained in the EHIS for adults and children on their history of hepatitis infection, other liver disease, or symptoms of liver disease. Only a small proportion of adults or children had ever been diagnosed as having any form of hepatitis or other liver disease (4 percent and 2 percent, respectively). Adults most often reported having been told they had hepatitis C (1 percent of women and 4 percent of men), while children had most often been diagnosed

as having hepatitis A (1 percent of girls and 2 percent of boys). Ten percent of adults and 4 percent of children had experienced common symptoms of liver disease, most often dark urine (9 percent of adults and 4 percent of children).

**Table 3.6 History of hepatitis and other liver disease**

Percentage of individuals age 1-59 reported to have ever had hepatitis, other liver disease, or symptoms of liver disease, by sex and age, Egypt 2015

History of hepatitis and liver disease	Children 1-14 <sup>1</sup>			Adults 15-59 <sup>2</sup>			Total population 1-59		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
<b>Ever had any form of hepatitis or other liver disease</b>	1.1	1.9	1.5	2.3	5.8	3.9	1.9	4.1	2.9
<b>Ever had any form of hepatitis</b>	1.1	1.8	1.5	2.0	5.3	3.5	1.7	3.8	2.7
Hepatitis A	1.0	1.5	1.2	0.5	0.8	0.6	0.7	1.1	0.9
Hepatitis B	0.0	0.0	0.0	0.1	0.4	0.3	0.1	0.2	0.2
Hepatitis C	0.0	0.1	0.1	1.2	4.1	2.5	0.8	2.4	1.6
Don't know type	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
<b>Ever had other liver disease</b>	0.0	0.1	0.1	0.4	0.6	0.5	0.3	0.4	0.3
<b>Ever had symptoms of liver disease</b>	3.4	4.4	4.0	9.7	9.4	9.6	7.4	7.3	7.4
Ever had jaundice	1.5	2.3	1.9	1.3	1.6	1.4	1.4	1.9	1.6
Ever had dark urine	3.2	4.2	3.7	9.4	9.1	9.2	7.1	7.0	7.1
Number	5,280	5,598	10,878	9,209	7,462	16,671	14,489	13,060	27,549

<sup>1</sup> Children's status reported by child's parent or other adult caretaker

<sup>2</sup> Self-reported status

Table 3.7 shows the proportions of adults and children reported as having been told by a doctor or other health professional that they currently had hepatitis B or C. Only 2 percent of adults reported they currently had hepatitis C, and only a very few adults (0.1 percent) had hepatitis B. No children were reported as having been diagnosed with a current hepatitis B or C infection.

**Table 3.7 Current hepatitis B and/or hepatitis C infection**

Percentage of individuals age 1-59 reported as having been told by a doctor or other health professional that they currently have a hepatitis B and/or hepatitis C infection by sex and age, Egypt 2015

Current hepatitis B or C infection	Children 1-14 <sup>1</sup>			Adults 15-59 <sup>2</sup>			Total population 1-59		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Currently have hepatitis B infection	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.1
Currently have hepatitis C infection	0.0	0.0	0.0	1.1	3.2	2.1	0.7	1.9	1.3
Currently have either hepatitis B or hepatitis C infection	0.0	0.0	0.0	1.2	3.4	2.2	0.7	2.0	1.3
Currently have hepatitis B and hepatitis C infection	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number	5,280	5,598	10,878	9,209	7,462	16,671	14,489	13,060	27,549

<sup>1</sup> Children's status reported by child's parent or other adult caretaker

<sup>2</sup> Self-reported status

### 3.4 HISTORY OF TREATMENT FOR HEPATITIS C

Questions were included in the 2015 EHIS to obtain information on treatment status for respondents who had ever been diagnosed as having hepatitis B or C. The number of children reported as having had hepatitis B and C and the number of adults reported as having had hepatitis B were too small to provide reliable data on treatment status. Thus, Table 3.8 presents information on the treatment status among adults age 15-59 reported as ever having hepatitis C.

**Table 3.8 Treatment status and type of treatment received among adults age 15-59 ever infected with hepatitis C**

Among adults age 15-59 who had ever been told by a doctor or other health professional that they had hepatitis C infection, percent distribution by treatment status, and, among those ever treated for a hepatitis C infection, percentage mentioning receiving various treatments, by sex, Egypt 2015

Hepatitis C treatment status and type of treatment received	Adults 15-59		
	Women	Men	Total
<b>Treatment status</b>			
Received treatment	80.6	68.0	71.4
Did not receive treatment	19.4	32.0	28.6
Total	100.0	100.0	100.0
Number ever having hepatitis C infection	114	304	418
<b>Type of treatment</b>			
Interferon	23.7	37.4	33.2
Ribavirin	4.3	5.8	5.3
Legalon (Silymarin)	19.3	17.8	18.3
Sovaldi (Sofosbuvir)	1.8	1.5	1.6
Olysio (Simeprevir)	4.2	2.8	3.2
Herbal medicine	6.6	10.7	9.4
Vitamins	40.8	36.1	37.6
Other	30.1	12.6	18.0
Don't know	6.0	12.0	10.1
Number ever receiving treatment for hepatitis C infection	92	207	299

Seven in 10 adults who had ever been diagnosed as having hepatitis C reported being treated for the disease. Women were more likely than men to report having received treatment. The most frequently reported treatment was vitamins (38 percent). The drugs that ever-infected adults reported most often receiving were interferon (33 percent) and Legalon (18 percent). Only 2 percent of ever-infected adults reported that they received Sovaldi as a treatment. This is not surprising since Sovaldi has only very recently become available to treat hepatitis C.

### 3.5 HEPATITIS TESTING IN THE 2015 EHIS

In addition to responding to questions about hepatitis C and B, individuals age 1-59 were eligible to participate in the hepatitis testing component of the survey. The component involved the collection of venous blood samples from all individuals for whom informed consent was obtained during the survey. The testing of the blood samples obtained in the survey took place at the Central Public Health Laboratory (CPHL) in Cairo. The results of the hepatitis tests were returned to individuals in a separate field operation following the completion of the laboratory testing.

The following sections describe the coverage of hepatitis testing and the outcome of the operation to return results of the testing. More details on the procedures that were employed during the collection of the blood samples and the protocols for the hepatitis B and C testing at the CPHL are provided in Chapter 1 of this report.

#### 3.5.1 Coverage of Hepatitis Testing

Table 3.9 shows that the coverage rate for hepatitis testing was high. A total of 27,549 adults and children were eligible for hepatitis testing. Around 5 percent refused to provide a blood sample for the testing or were not at home when the EHIS team visited their households. Blood specimens could not be collected or tested for various other reasons (e.g., inadequate volume of blood) for less than 1 percent of the eligible adults or children. The difference in the coverage rates for females and males was minimal, with 95 percent of females and 94 percent of males providing a blood sample for testing.

Table 3.9 Coverage of hepatitis testing among the de facto interviewed population age 1-59

Percent distribution of the de facto interviewed population age 1-59 by testing status, according to background characteristics (unweighted), Egypt 2015

Background characteristic	Testing status				Total	Unweighted number
	Sample tested <sup>1</sup>	Refused to provide blood sample	Absent at time of blood collection	Other <sup>2</sup> /missing		
<b>Sex</b>						
Female	94.7	4.6	0.1	0.7	100.0	14,481
Male	94.4	4.9	0.1	0.6	100.0	13,068
<b>Age</b>						
1-4	89.8	6.6	0.1	3.5	100.0	3,654
5-9	93.2	6.2	0.1	0.5	100.0	3,863
10-14	94.0	5.1	0.4	0.5	100.0	3,361
15-19	96.6	3.2	0.1	0.2	100.0	2,659
20-24	96.0	3.9	0.0	0.0	100.0	2,058
25-29	96.0	4.0	0.0	0.0	100.0	2,457
30-34	95.8	4.1	0.0	0.0	100.0	2,166
35-39	96.1	3.7	0.0	0.2	100.0	1,927
40-44	96.3	3.7	0.0	0.0	100.0	1,524
45-49	97.0	2.9	0.0	0.1	100.0	1,423
50-54	94.7	5.0	0.1	0.2	100.0	1,408
55-59	94.4	5.6	0.0	0.0	100.0	1,049
<b>Urban-rural residence</b>						
Urban	92.4	6.8	0.1	0.7	100.0	12,940
Rural	96.5	2.9	0.1	0.6	100.0	14,609
<b>Place of residence</b>						
Urban Governorates	93.1	6.2	0.0	0.7	100.0	4,637
Lower Egypt	95.5	4.0	0.2	0.4	100.0	9,970
Urban	91.3	7.8	0.3	0.6	100.0	3,254
Rural	97.5	2.1	0.1	0.3	100.0	6,716
Upper Egypt	94.2	4.9	0.1	0.8	100.0	11,163
Urban	91.2	7.9	0.1	0.8	100.0	3,717
Rural	95.7	3.5	0.1	0.8	100.0	7,446
Frontier Governorates <sup>3</sup>	95.4	3.7	0.1	0.8	100.0	1,779
<b>Education<sup>4</sup></b>						
No education	97.1	2.8	0.0	0.2	100.0	2,468
Some primary	97.5	2.4	0.0	0.1	100.0	1,385
Primary complete/ some secondary	97.0	2.9	0.1	0.1	100.0	4,463
Secondary complete/ higher	94.9	5.0	0.0	0.1	100.0	8,355
<b>Wealth quintile</b>						
Lowest	96.8	2.5	0.1	0.6	100.0	5,851
Second	96.7	2.7	0.0	0.5	100.0	4,897
Middle	96.2	3.1	0.1	0.6	100.0	4,085
Fourth	93.7	5.3	0.2	0.9	100.0	5,824
Highest	90.8	8.5	0.1	0.6	100.0	6,892
Total 1-59	94.5	4.7	0.1	0.6	100.0	27,549

<sup>1</sup> Includes all serum samples undergoing testing at the laboratory and for which there is a final result

<sup>2</sup> Includes any cases where there were problems in the field collecting the sample or in completing the testing in the laboratory (e.g., not enough blood to complete confirmatory testing)

<sup>3</sup> Does not include North and South Sinai governorates

<sup>4</sup> Limited to respondents age 15-59

Considering the variation in coverage rates by age, Table 3.9 shows that the coverage rate was lowest among children age 1-4 (90 percent). The rate exceeded 95 percent in all other age groups except children age 5-14 and adults age 50-59. Testing coverage was slightly higher in rural areas (97 percent) than in urban areas (92 percent). By place of residence, the proportion with a sample tested was highest in rural Lower Egypt (98 percent) and lowest in urban Upper Egypt and urban Lower Egypt (91 percent). Coverage levels were 90 percent or higher in all governorates except Giza, where hepatitis tests were conducted for 88 percent of interviewed respondents (data not shown in table).

Coverage rates among individuals age 1-59 decreased with increasing wealth, from 97 percent in the lowest wealth quintile to 91 percent in the highest quintile. Among adults age 15-59, there was little variation in coverage rates by educational level.

### **3.5.2 Return of the Results of Hepatitis Testing**

After the testing of the blood samples was completed, a special field exercise was undertaken to return the test results to all respondents who had provided blood samples. Nine teams returned results to all but 53 respondents. At the time the results were returned, respondents who were found to be positive on the hepatitis B or hepatitis C tests were referred to special national liver centers or other health facilities for counseling and treatment, if needed.

## **3.6 PREVALENCE OF HEPATITIS B AND C**

### **3.6.1 Prevalence of Hepatitis B and C by Age**

Table 3.10 presents the results of the hepatitis B and C testing for the population age 1-59 by age. The first two columns in Table 3.10 show the outcome of the HBcAb and HBsAG tests. The HBcAb test was used to detect the presence of hepatitis B core antibodies in the EHIS blood samples. These antibodies are produced by the body at the time of the first exposure to the hepatitis B virus to fight the infection. The antibodies persist for life whether or not an individual recovers from the HBV infection. Thus, a positive HBcAb test result indicated that an EHIS respondent had ever been infected with the hepatitis B virus. The HBsAG test was conducted on all blood samples found to be positive on the HBcAb test to detect the presence of HB surface antigen, a marker which identifies a current or chronic hepatitis B infection. Individuals with a positive result on the HBsAG test had an active hepatitis B infection.

The third and fourth columns in Table 3.10 show the results of the tests for the hepatitis C virus. In the first step in the testing for the hepatitis C virus, an enzyme-linked immunosorbent assay (ELISA) test was carried out on the blood samples to detect antibodies to HCV. Because a significant number of false positives were expected on the ELISA test, a second test (Chemiluminescence) was used to confirm the presence of antibodies to the hepatitis C virus. A positive result on the Chemiluminescence test indicated that an individual had ever been infected with the hepatitis C virus. Polymerase chain reaction (PCR) was used to detect the presence of genetic material (RNA) from the hepatitis C virus in all of the blood samples that were positive on the HCV antibody test. A positive RNA test indicated an active (current or chronic) HCV infection.

With respect to the hepatitis B test results, Table 3.10 shows that 10 percent of individuals age 1-59 had antibodies to the hepatitis B virus in their blood, indicating that they had been exposed to the virus at some point. Males were slightly more likely to be infected than females. The proportion testing positive on the core antibody test increases sharply with age, from less than 1 percent among children age 1-14 to a peak of 43 percent among respondents age 55-59.

Overall, only 1 percent of individuals age 1-59 or nearly 800,000 persons<sup>1</sup>, had an active hepatitis B infection. The percentage of individuals with an active hepatitis B infection was very low among those under age 20 (0.2 percent or less). The rapid expansion of the coverage of hepatitis B vaccinations following their addition to the national immunization program in the 1990s likely means that the low hepatitis B infection rates observed among children and young adults will be the norm among older cohorts as well in the future.

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<sup>1</sup> The number of individuals with an active hepatitis B infection was estimated based on the projected population age 1-59 years as of July 1, 2014 (CAPMAS 2015).

**Table 3.10 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 1-59 by age**

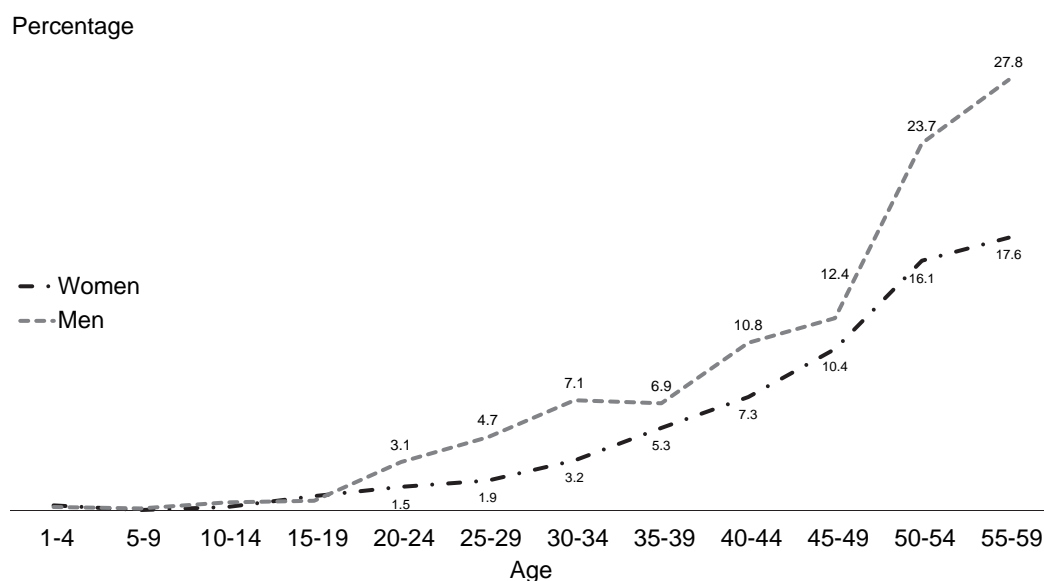
Percentage of the de facto population age 1-59 with a blood sample tested for HBV and for HCV for whom the test result was positive, by age and sex, Egypt 2015

Age	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 1-59</b>					
1-14	0.5	0.1	0.2	0.1	4,890
1-4	0.4	0.1	0.4	0.3	1,550
5-9	0.4	0.1	0.0	0.0	1,778
10-14	0.7	0.0	0.2	0.2	1,563
15-59	13.2	1.2	8.1	5.5	8,838
15-19	1.1	0.0	1.2	0.9	1,354
20-24	4.5	0.9	2.1	1.5	1,139
25-29	7.9	1.8	2.8	1.9	1,428
30-34	10.4	0.7	5.6	3.2	1,148
35-39	16.1	2.2	7.1	5.3	1,022
40-44	16.8	0.8	9.0	7.3	790
45-49	24.0	1.5	14.8	10.4	730
50-54	27.1	1.8	24.3	16.1	666
55-59	38.7	1.1	27.6	17.6	560
Total 1-59	8.7	0.8	5.3	3.6	13,728
<b>MALES 1-59</b>					
1-14	0.8	0.2	0.7	0.2	5,154
1-4	0.5	0.2	0.5	0.2	1,749
5-9	0.8	0.2	0.5	0.1	1,815
10-14	1.2	0.1	1.1	0.5	1,589
15-59	18.8	2.0	12.4	8.9	7,165
15-19	1.3	0.4	0.9	0.6	1,246
20-24	7.3	1.3	4.8	3.1	821
25-29	14.2	2.3	6.8	4.7	913
30-34	16.3	2.3	9.0	7.1	889
35-39	18.7	2.6	9.4	6.9	829
40-44	23.4	3.1	14.4	10.8	692
45-49	32.1	3.5	17.8	12.4	660
50-54	37.6	1.1	31.5	23.7	672
55-59	48.2	2.6	41.9	27.8	443
Total 1-59	11.3	1.2	7.5	5.3	12,319
<b>TOTAL 1-59</b>					
1-14	0.7	0.1	0.4	0.2	10,044
1-4	0.4	0.2	0.4	0.2	3,299
5-9	0.6	0.2	0.3	0.0	3,593
10-14	1.0	0.1	0.7	0.3	3,152
15-59	15.7	1.5	10.0	7.0	16,003
15-19	1.2	0.2	1.0	0.8	2,600
20-24	5.7	1.1	3.2	2.2	1,960
25-29	10.4	2.0	4.4	3.0	2,341
30-34	13.0	1.4	7.1	4.9	2,037
35-39	17.2	2.4	8.2	6.0	1,851
40-44	19.9	1.9	11.6	9.0	1,482
45-49	27.8	2.5	16.3	11.3	1,391
50-54	32.4	1.5	27.9	19.9	1,338
55-59	42.9	1.7	33.9	22.1	1,003
Total 1-59	9.9	1.0	6.3	4.4	26,047

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection.

With regard to the hepatitis C results, Table 3.10 shows that 6 percent of individuals age 1-59 had a positive result on the hepatitis C antibody test, indicating that they had ever been exposed to the virus. Four percent of the population age 1-59 years, or an estimated 3.5 million Egyptians<sup>2</sup>, were found to have an active infection. Age was strongly related to the rate of active infection. The proportion found to have an active hepatitis C infection varied from less than 1 percent among individuals under age 20 to 22 percent among those age 55-59. Figure 3.1 shows that the prevalence of hepatitis C was higher among men than women in most age groups, with the age differential especially marked among those age 50-59.

**Figure 3.1 Percentage of women and men with an active hepatitis C infection by age, Egypt 2015**



### 3.6.2 Prevalence of Hepatitis B and C by Socioeconomic Characteristics

Table 3.11 provides information on the variation in the prevalence of hepatitis B and hepatitis C infection among the population age 1-59 by urban-rural residence, place of residence, and wealth, according to the respondent's gender. Information on the variation in the rates of hepatitis infection among women and men age 15-59 by these characteristics and education is presented in Appendix C. The latter tables allow for comparison with the results of the 2008 Egypt DHS, where only adults age 15-59 were eligible for the hepatitis C testing.

Table 3.11 shows only minor variations by residence or wealth in the prevalence of hepatitis B infection. The largest differentials in the proportion with active hepatitis B infection were observed by place of residence; the rate was highest in the population age 1-59 in the Urban Governorates and urban Upper Egypt (2 percent each) and lowest in three Frontier Governorates surveyed in the EHIS (0.6 percent).

With regard to infection with the hepatitis C virus, Table 3.11 shows that the rate of active hepatitis C infection in the population age 1-59 was slightly lower in urban areas than in rural areas (3 percent and 5 percent, respectively). Considering the differences by place of residence, the highest prevalence of active HCV infections was found in rural Lower Egypt (6 percent) and the lowest in the three surveyed Frontier Governorates (2 percent). The rate of active infection declined from 6 percent in the lowest wealth quintile to 3 percent in the highest wealth quintile.

<sup>2</sup> The number of individuals with an active hepatitis C infection was estimated based on the projected population age 1-59 years as of July 1, 2014 (CAPMAS 2015).

Table 3.11 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 1-59 by socio-economic characteristics

Percentage of de facto population age 1-59 with blood sample tested for HBV and for HCV for whom the test result was positive, by sex and socio-economic characteristics, Egypt 2015

Background characteristic	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 1-59</b>					
<b>Urban-rural residence</b>					
Urban	8.8	0.9	4.1	2.5	4,762
Rural	8.6	0.7	5.9	4.2	8,966
<b>Place of residence</b>					
Urban Governorates	9.7	1.2	3.9	2.3	1,706
Lower Egypt	8.1	0.5	6.8	4.8	6,588
Urban	7.2	0.5	5.3	3.0	1,489
Rural	8.4	0.5	7.3	5.3	5,099
Upper Egypt	9.1	0.9	3.8	2.5	5,333
Urban	9.2	1.0	3.2	2.3	1,516
Rural	9.0	0.9	4.1	2.6	3,817
Frontier Governorates <sup>1</sup>	8.6	0.5	2.1	1.5	101
<b>Wealth quintile</b>					
Lowest	9.0	0.3	6.3	4.7	2,786
Second	10.4	0.9	5.6	4.0	2,747
Middle	7.8	1.0	5.2	3.6	2,858
Fourth	8.7	0.7	5.6	3.6	2,756
Highest	7.5	1.0	3.5	1.9	2,581
Total 1-59	8.7	0.8	5.3	3.6	13,728
<b>MALES 1-59</b>					
<b>Residence</b>					
Urban	12.1	1.8	5.5	3.8	4,381
Rural	10.8	0.9	8.5	6.1	7,937
<b>Place of residence</b>					
Urban Governorates	12.3	2.2	5.6	3.6	1,558
Lower Egypt	10.8	0.9	9.0	6.4	5,944
Urban	11.2	1.1	7.2	5.2	1,306
Rural	10.7	0.8	9.5	6.7	4,638
Upper Egypt	11.6	1.4	6.2	4.4	4,723
Urban	12.8	2.1	4.0	2.8	1,466
Rural	11.1	1.1	7.2	5.2	3,257
Frontier Governorates <sup>1</sup>	7.6	0.7	2.2	1.8	93
<b>Wealth quintile</b>					
Lowest	10.8	0.8	9.7	7.1	2,469
Second	11.7	0.9	9.0	6.0	2,449
Middle	10.3	1.0	6.9	4.9	2,440
Fourth	13.1	1.9	6.4	4.9	2,535
Highest	10.5	1.5	5.4	3.3	2,427
Total 1-59	11.3	1.2	7.5	5.3	12,319

Continued...



Table 3.11—Continued

Background characteristic	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
TOTAL 1-59					
<b>Residence</b>					
Urban	10.4	1.4	4.8	3.1	9,143
Rural	9.7	0.8	7.1	5.1	16,904
<b>Place of residence</b>					
Urban Governorates	10.9	1.7	4.7	3.0	3,264
Lower Egypt	9.4	0.7	7.9	5.6	12,532
Urban	9.1	0.8	6.2	4.0	2,795
Rural	9.5	0.7	8.4	6.0	9,738
Upper Egypt	10.2	1.2	4.9	3.4	10,056
Urban	10.9	1.6	3.6	2.5	2,982
Rural	10.0	1.0	5.5	3.8	7,074
Frontier Governorates <sup>1</sup>	8.1	0.6	2.2	1.6	194
<b>Wealth quintile</b>					
Lowest	9.8	0.6	7.9	5.8	5,255
Second	11.0	0.9	7.2	5.0	5,196
Middle	9.0	1.0	6.0	4.2	5,298
Fourth	10.8	1.3	6.0	4.2	5,290
Highest	8.9	1.2	4.4	2.6	5,007
Total 1-59	9.9	1.0	6.3	4.4	26,047

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG test (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV-antibody test identifies respondents ever infected with the HCV virus. The HCV-RNA test identifies those respondents with an active hepatitis C infection.

<sup>1</sup> Does not include North and South Sinai governorates

Table 3.12 presents the variation in hepatitis B and C infection levels among the population age 1-59 by governorate.<sup>3</sup> The proportion with a positive result on the HBV core antibody test was highest in Luxor (18 percent) and Aswan (15 percent) and lowest in Matroh and Kafr El-Sheikh (6 percent). The proportion of the population age 1-59 years found to have an active hepatitis B infection was below 2 percent in all of the governorates.

Looking at the variation in hepatitis C infection levels by governorate, the proportion of the population age 1-59 who were positive on the hepatitis C antibody test (i.e., who were ever infected with hepatitis C virus) was highest in Menoufia (11 percent) and lowest in Red Sea and New Valley (2 percent each). Not surprisingly, Menoufia also had the highest proportion of the population age 1-59 years found to have an active hepatitis C infection (8 percent). Other governorates in which the active hepatitis infection rate was 5 percent or higher included Sharkia, Menya, Gharbia, Dakhalia, Behera, Damietta, Fayoum, and Beni Suef. The lowest rates of HCV infection were again observed in Red Sea and New Valley, where only 1 percent of the population age 1-59 were found to have an active hepatitis C infection.

<sup>3</sup> Because the sample sizes are comparatively small at the governorate level, readers should use caution in interpreting differences in hepatitis infection between governorates.

**Table 3.12 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 1-59 by governorate**

Percentage of de facto population age 1-59 with blood sample tested for HBV and for HCV for whom the test result was positive, by governorate, Egypt 2015

Governorate	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
Cairo	11.7	1.9	5.1	3.2	2,311
Alexandria	9.2	1.3	3.6	2.4	850
Port Said	7.7	0.3	4.8	2.8	82
Suez	10.4	0.7	5.0	2.6	21
Damietta	7.5	0.3	9.0	5.2	500
Dakahlia	10.0	1.2	8.2	5.5	1,803
Sharkia	11.3	0.9	8.7	6.4	2,308
Kalyubia	10.2	1.0	5.9	3.7	1,219
Kafr El-Sheikh	6.2	0.5	6.1	3.4	1,034
Gharbia	7.8	0.2	7.7	6.2	1,741
Menoufia	13.5	1.1	10.5	7.7	1,252
Behera	7.5	0.2	7.4	5.4	2,462
Ismailia	10.4	0.8	5.4	2.8	213
Giza	9.8	1.2	3.4	2.6	2,395
Beni Suef	8.0	0.6	7.1	4.6	918
Fayoum	10.0	0.5	6.5	4.5	934
Menya	10.6	1.3	9.0	6.1	1,466
Assuit	8.9	1.3	3.5	2.4	1,528
Souhag	9.5	1.0	2.9	2.1	1,155
Qena	12.0	1.6	4.3	2.8	950
Aswan	14.8	1.6	4.4	3.7	434
Luxor	18.0	1.7	4.5	2.7	274
Red Sea	9.1	0.2	1.9	1.3	68
New Valley	9.9	1.0	1.6	1.4	57
Matroh	5.7	0.6	2.9	2.2	69
Total 1-59	9.9	1.0	6.3	4.4	26,047

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG test (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV-antibody test identifies respondents ever infected with the HCV virus. The HCV-RNA test identifies those respondents with an active hepatitis C infection.

### 3.6.3 Prevalence of Hepatitis B and C by Lifetime Exposure to Medical Procedures

Tables 3.13 and 3.14 show the variation in the rates of hepatitis B and C infection according to respondents' lifetime exposure to medical procedures recognized as associated with a risk of exposure to blood-borne pathogens. Caution must be used in interpreting the results in these tables since it is not possible to directly link an individual's infection with hepatitis to any particular procedure. Moreover, the interpretation of the findings is further complicated by the fact that individuals who contracted hepatitis may have an increased likelihood of being hospitalized or undergoing some of the procedures as part of the treatment they receive for the illness.

Table 3.13 looks at the results of hepatitis testing according to lifetime history of medical injections among the population age 1-59. The table shows a prior history of receiving injections to treat schistosomiasis was clearly associated with the proportion testing positive for antibodies to both the hepatitis B and hepatitis C virus. Moreover, the proportion of individuals found to have an active hepatitis C infection (i.e., who tested positive on the HCV RNA test) was 11 percent among those who reported that they received an injection to treat schistosomiasis, compared with 3 percent among those who had not had a schistosomiasis injection.

**Table 3.13 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 1-59 by lifetime history of medical injections**

Percentage of de facto population age 1-59 with blood sample tested for HBV and for HCV for whom the test result was positive, by lifetime history of medical injections, Egypt 2015

Medical injections	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 1-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	18.1	0.6	15.3	10.7	505
No	8.3	0.8	4.9	3.3	13,138
Don't know/missing	11.4	0.0	6.6	5.4	85
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	8.7	0.8	5.3	3.6	13,595
No	3.5	0.0	3.5	2.5	131
Don't know/missing	*	*	*	*	2
<b>Injection in which a needle and syringe reused</b>					
Yes	11.4	1.1	5.6	3.6	198
No/never received injection	8.6	0.8	5.3	3.6	13,525
Don't know/missing	*	*	*	*	4
Total	8.7	0.8	5.3	3.6	13,728
<b>MALES 1-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	26.8	1.5	24.1	16.9	885
No	10.0	1.1	6.2	4.4	11,350
Don't know/missing	22.6	10.4	7.9	2.1	84
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	11.3	1.2	7.5	5.3	12,223
No	6.8	0.8	3.1	1.3	96
Don't know/missing	*	*	*	*	1
<b>Injection in which a needle and syringe reused</b>					
Yes	19.4	0.7	11.8	8.6	259
No/never received injection	11.1	1.2	7.4	5.2	12,041
Don't know/missing	*	*	*	*	19
Total	11.3	1.2	7.5	5.3	12,319
<b>TOTAL 1-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	23.6	1.2	20.9	14.6	1,390
No	9.1	1.0	5.5	3.8	24,488
Don't know/missing	17.0	5.2	7.3	3.7	168
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	10.0	1.0	6.3	4.4	25,817
No	4.9	0.3	3.3	1.9	227
Don't know/missing	*	*	*	*	3
<b>Injection in which a needle and syringe reused</b>					
Yes	15.9	0.9	9.1	6.4	457
No/never received injection	9.8	1.0	6.3	4.3	25,566
Don't know/missing	(11.8)	(0.2)	(7.0)	(7.0)	23
Total	9.9	1.0	6.3	4.4	26,047

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

Table 3.14 shows the variation in the prevalence of HBV and HCV infection according to lifetime exposure of respondents to hospitalization and to medical procedures other than injections that may increase the risk of exposure to blood-borne pathogens. The results show that the proportions of individuals ever infected with HBV and HCV were higher among those who reported they had been hospitalized than those who had never been hospitalized. The proportions of individuals reporting they had ever been infected with HBV and HCV also tended to be somewhat higher among those reporting they had had the various medical procedures shown in the table than among those who had not had the procedures. The highest rates of infection with HBV and HCV were observed among individuals who had had a blood transfusion or endoscopy.

**Table 3.14 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 1-59 by lifetime history of hospitalization and medical procedures other than injection**

Percentage of de facto population age 1-59 with blood sample tested for HBV and for HCV for whom the test result was positive, by sex and lifetime history of hospitalization and medical procedures other than injection, Egypt 2015

Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 1-59</b>					
<b>Ever hospitalized</b>					
Yes	12.1	1.0	7.7	5.3	5,590
No	6.3	0.6	3.6	2.4	8,136
Don't know/missing	*	*	*	*	2
<b>Ever had surgery</b>					
Yes	13.0	1.1	7.9	5.4	5,321
No	5.9	0.5	3.6	2.4	8,406
<b>Ever had suture/stitches</b>					
Yes	12.8	1.2	7.2	5.0	5,765
No	5.7	0.5	3.9	2.6	7,958
Don't know/missing	*	*	*	*	4
<b>Ever had intravenous line</b>					
Yes	12.6	1.2	7.4	5.0	6,497
No	5.1	0.4	3.4	2.4	7,227
Don't know/missing	*	*	*	*	5
<b>Ever had urinary catheter</b>					
Yes	17.0	1.4	8.0	5.8	1,176
No	7.9	0.7	5.0	3.4	12,548
Don't know/missing	*	*	*	*	4
<b>Ever had blood transfusion</b>					
Yes	20.5	1.7	11.7	7.8	520
No	8.2	0.7	5.0	3.4	13,185
Don't know/missing	*	*	*	*	23
<b>Ever had endoscopy</b>					
Yes	19.1	2.5	16.1	10.8	355
No	8.4	0.7	5.0	3.4	13,369
Don't know/missing	*	*	*	*	4
<b>Ever had dental treatment</b>					
Yes	12.4	0.9	7.5	5.1	7,546
No	4.2	0.6	2.5	1.8	6,182
Total	8.7	0.8	5.3	3.6	13,728

Continued...

Table 3.14—Continued

Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemilumi- nescence) test	Percentage positive on HCV RNA test	
MALES 1-59					
<b>Ever hospitalized</b>					
Yes	15.1	1.5	11.1	7.9	4,385
No	9.2	1.1	5.5	3.8	7,933
Don't know/missing	*	*	*	*	1
<b>Ever had surgery</b>					
Yes	16.9	1.8	11.8	8.4	3,640
No	8.9	1.0	5.7	3.9	8,679
<b>Ever had suture/stitches</b>					
Yes	16.2	1.9	10.8	7.8	4,745
No	8.2	0.8	5.4	3.7	7,567
Don't know/missing	*	*	*	*	6
<b>Ever had intravenous line</b>					
Yes	14.9	1.5	10.9	8.1	4,648
No	9.1	1.1	5.4	3.6	7,660
Don't know/missing	*	*	*	*	10
<b>Ever had urinary catheter</b>					
Yes	24.3	1.2	22.4	15.5	360
No	10.9	1.2	7.0	4.9	11,955
Don't know/missing	*	*	*	*	4
<b>Ever had blood transfusion</b>					
Yes	20.3	2.9	23.9	18.6	426
No	11.0	1.2	6.9	4.8	11,871
Don't know/missing	(6.1)	(0.0)	(7.0)	(7.0)	22
<b>Ever had endoscopy</b>					
Yes	26.4	3.1	21.7	15.7	323
No	10.8	1.2	7.1	5.0	11,988
Don't know/missing	*	*	*	*	8
<b>Ever had dental treatment</b>					
Yes	16.7	1.8	10.7	7.6	6,247
No	5.7	0.6	4.1	2.8	6,070
Don't know/missing	*	*	*	*	1
Total	11.3	1.2	7.5	5.3	12,319

Continued...

Table 3.14—Continued

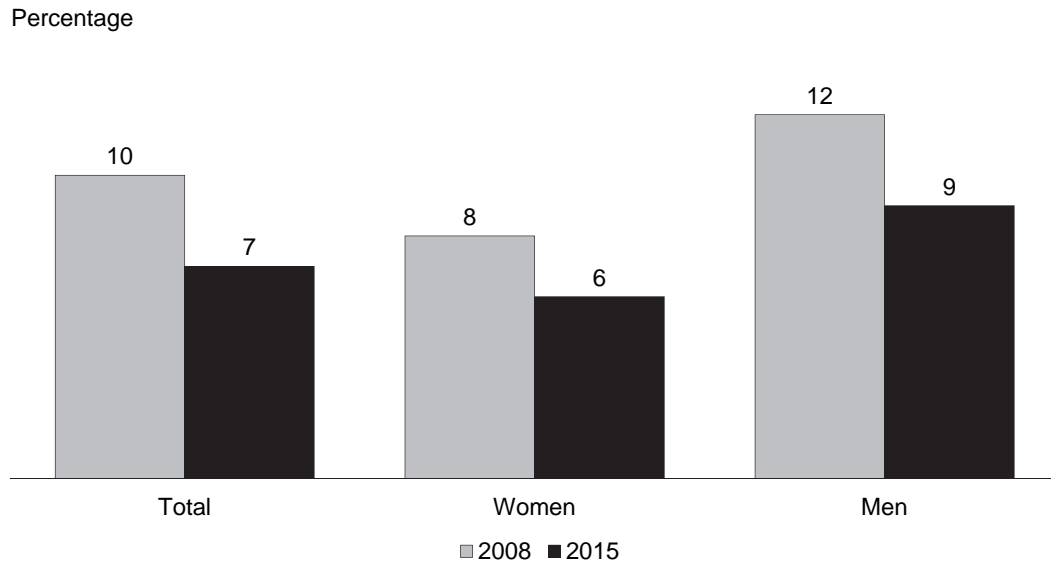
Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemilumi- nescence) test	Percentage positive on HCV RNA test	
TOTAL 1-59					
<b>Ever hospitalized</b>					
Yes	13.5	1.2	9.2	6.5	9,975
No	7.7	0.8	4.5	3.1	16,070
Don't know/missing	*	*	*	*	2
<b>Ever had surgery</b>					
Yes	14.6	1.4	9.5	6.6	8,961
No	7.5	0.8	4.7	3.2	17,086
<b>Ever had suture/stitches</b>					
Yes	14.3	1.5	8.8	6.2	10,510
No	6.9	0.7	4.6	3.1	15,526
Don't know/missing	*	*	*	*	11
<b>Ever had intravenous line</b>					
Yes	13.6	1.3	8.8	6.3	11,145
No	7.2	0.7	4.4	3.0	14,887
Don't know/missing	*	*	*	*	15
<b>Ever had urinary catheter</b>					
Yes	18.7	1.3	11.4	8.1	1,536
No	9.4	1.0	6.0	4.2	24,503
Don't know/missing	*	*	*	*	8
<b>Ever had blood transfusion</b>					
Yes	20.4	2.2	17.2	12.7	945
No	9.5	0.9	5.9	4.1	25,056
Don't know/missing	7.0	0.0	9.2	9.2	45
<b>Ever had endoscopy</b>					
Yes	22.6	2.8	18.8	13.1	678
No	9.6	0.9	6.0	4.1	25,357
Don't know/missing	*	*	*	*	12
<b>Ever had dental treatment</b>					
Yes	14.3	1.3	9.0	6.2	13,793
No	4.9	0.6	3.3	2.3	12,252
Don't know/missing	*	*	*	*	1
Total	9.9	1.0	6.3	4.4	26,047

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

### 3.7 TRENDS IN THE PREVALENCE OF HEPATITIS C

Figure 3.2 shows trends in the proportions of women and men age 15-59 testing positive on the HCV RNA test between the 2008 EDHS and 2015 EHIS. During the roughly seven-year period between the two surveys, the percentage of adults positive on the test (i.e., who had an active hepatitis C infection) decreased by 30 percent. In large part, the decline reflects the aging out of the population tested of individuals who were age 53-59 at the time of the 2008 EDHS. Individuals in that age group accounted for around 25 percent of the active hepatitis infections at the time of the 2008 EDHS.

**Figure 3.2 Trends in percentage of the population age 15-59 testing positive on the hepatitis C RNA test, Egypt 2008-2015**







## Key Findings

- More than 6 in 10 women age 15-49 and around 8 in 10 men in the same age group have heard of AIDS; however, only 1 in 17 women and 1 in 10 men age 15-49 have comprehensive correct knowledge about AIDS.
- Comprehensive AIDS knowledge is very limited among youth (4 percent of women and 7 percent of men age 15-24, respectively).
- Few women and men reported they had received information about AIDS recently, with television cited as the main source of information.

**A**cquired immunodeficiency syndrome (AIDS) is one of the most serious public health and development challenges facing the world today. The disease is caused by the human immunodeficiency virus (HIV). Although the HIV infection rate is low in Egypt, there is a need to educate Egyptians about AIDS. To assist in these efforts, the 2015 EHIS collected information to assess the prevalence of knowledge of modes of HIV transmission and prevention and attitudes toward persons living with AIDS.

The tables in this chapter present a number of indicators that have been used by UNAIDS and other international agencies for monitoring HIV/AIDS knowledge and attitudes in national populations (UNAIDS 2004; UNAIDS 2014; MEASURE Evaluation PRH 2015). Those indicators are generally reported for the population age 15-49. Thus, the tables in the chapter focus on this age group. However, information for the 50-59 age group and the total population age 15-59 is also shown in most tables.

## 4.1 KNOWLEDGE OF HIV/AIDS

To obtain information on the extent of HIV/AIDS knowledge, women and men interviewed in the 2015 EHIS were asked a general question about whether they had heard of the illness. Those who knew about HIV/AIDS were asked additional questions about modes of prevention, including whether it is possible to reduce the chance of getting the AIDS virus by having just one faithful sexual partner and by using a condom at every sexual encounter. To explore possible misconceptions, respondents were also asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can get AIDS from mosquito bites or sharing food with a person who has AIDS. The responses to these questions were used to assess the extent to which the 2015 EHIS respondents had comprehensive knowledge of HIV/AIDS. Comprehensive knowledge of HIV/AIDS is defined as (1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, (2) being aware that a healthy-looking person can have HIV, and (3) rejecting the two common local misconceptions, that HIV/AIDS can be transmitted through mosquito bites and by sharing food.

The 2015 EHIS found that 66 percent of women and 79 percent of men age 15-49 have heard about HIV/AIDS. Among both women and men, the proportions having heard of AIDS are lower than at the time of the 2008 EDHS (Figure 4.1).

**Figure 4.1 Trends in the percentages of women and men age 15-49 having heard of AIDS, Egypt 2008-2015**

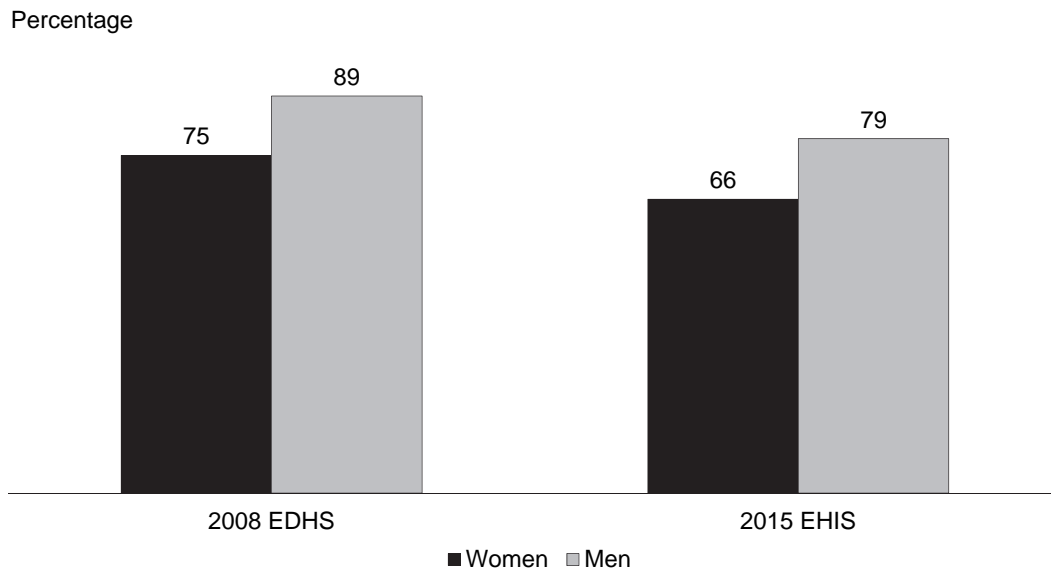


Table 4.1 shows that knowledge of AIDS is lowest among women and men in the 15-19 age group. Urban women and men are more likely than rural women and men to report hearing about HIV/AIDS. Considering place of residence, knowledge levels among both women and men age 15-49 are highest in urban Lower Egypt and lowest in rural Upper Egypt. Knowledge about AIDS is strongly associated with the educational level, work status, and wealth quintile of the respondents. For example, the proportion having heard of AIDS varies from 35 percent of women with no education to 86 percent among women with secondary complete or higher education. A similar pattern is observed among men, with more than 9 in 10 men who have completed secondary school or higher having heard of AIDS compared to slightly over half of men with no education.

**Table 4.1 Knowledge of AIDS**

Percentage of women and men age 15-49 who have heard of AIDS by background characteristics, and among women and men age 50-59 and all women and men 15-59, percentage who have heard of AIDS, Egypt 2015

Background characteristic	Women		Men	
	Have heard of AIDS	Number of respondents	Have heard of AIDS	Number of respondents
<b>Age</b>				
15-24	59.8	2,611	67.8	2,147
15-19	50.1	1,425	57.3	1,288
20-24	71.5	1,185	83.5	859
25-29	68.6	1,471	84.6	962
30-39	72.0	2,257	85.3	1,779
40-49	64.5	1,568	84.7	1,405
<b>Marital status</b>				
Never married	60.1	1,827	71.1	2,527
Married	68.0	5,664	84.5	3,708
Divorced/separated/ widowed	62.4	415	78.4	58
<b>Urban-rural residence</b>				
Urban	78.7	2,791	85.0	2,323
Rural	58.8	5,115	75.7	3,970
<b>Place of residence</b>				
Urban Governorates	77.5	996	84.3	840
Lower Egypt	67.4	3,841	78.8	3,078
Urban	81.0	869	87.1	678
Rural	63.5	2,973	76.4	2,400
Upper Egypt	60.0	3,011	77.7	2,324
Urban	78.1	897	83.9	777
Rural	52.3	2,114	74.5	1,547
Frontier Governorates <sup>1</sup>	64.8	58	79.1	51
<b>Education</b>				
No education	35.0	1,409	53.4	375
Some primary	43.5	520	61.7	487
Primary complete/ some secondary	56.3	2,205	67.3	2,023
Secondary complete/ higher	86.1	3,771	91.4	3,409
<b>Work status</b>				
Working for cash	82.1	1,015	81.4	5,080
Not working for cash	63.5	6,891	69.4	1,214
<b>Wealth quintile</b>				
Lowest	47.6	1,543	67.2	1,229
Second	55.9	1,556	73.0	1,219
Middle	66.4	1,643	82.2	1,199
Fourth	72.2	1,578	81.4	1,333
Highest	86.5	1,585	90.7	1,313
Total 15-49	65.9	7,906	79.1	6,293
Total 50-59	47.9	1,303	80.4	1,169
Total 15-59	63.3	9,209	79.3	7,462

<sup>1</sup> Does not include North and South Sinai governorates

Although many women and men had a basic knowledge of AIDS, Table 4.2 shows that knowledge of actions that can reduce the risk of getting the AIDS virus was less common, particularly among women. When prompted, 72 percent of men age 15-49 and 58 percent of women in that age group mentioned that limiting sex to one uninfected partner would prevent a person from getting AIDS and 42 percent of men and 28 percent of women saw using condoms as a means of reducing the risk of transmission. Urban women and men, especially those from urban Lower Egypt; those with secondary complete or higher education; and those who are working for cash were more likely than other women and men to recognize these ways of reducing the risk of transmission of AIDS.

Table 4.2 Knowledge of HIV preventive methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and who has no other partners, by background characteristics, and percentage of women and men age 50-59 and all women and men 15-59 with knowledge of AIDS prevention methods, Egypt 2015

Background characteristic	Women				Men			
	Using condoms <sup>1</sup>	Limiting sexual intercourse to one uninfected partner <sup>2</sup>	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Number of respondents	Using condoms <sup>1</sup>	Limiting sexual intercourse to one uninfected partner <sup>2</sup>	Using condoms and limiting sexual intercourse to one uninfected partner <sup>1,2</sup>	Number of respondents
<b>Age</b>								
15-24	22.5	50.6	21.5	2,611	32.5	59.1	31.1	2,147
15-19	16.6	40.1	15.7	1,425	25.9	48.3	25.1	1,288
20-24	29.6	63.3	28.4	1,185	42.4	75.2	40.1	859
25-29	30.2	60.4	29.0	1,471	44.9	78.5	44.0	962
30-39	34.1	64.8	32.6	2,257	47.6	79.4	45.6	1,779
40-49	27.1	58.0	26.1	1,568	48.4	79.4	47.0	1,405
<b>Marital status</b>								
Never married	19.8	49.3	18.8	1,827	34.7	63.1	33.3	2,527
Married	31.1	61.0	29.9	5,664	47.3	78.7	45.8	3,708
Divorced/separated/ widowed	24.4	54.1	22.6	415	47.7	66.0	42.8	58
<b>Urban-rural residence</b>								
Urban	33.3	69.2	31.9	2,791	44.8	77.2	42.8	2,323
Rural	25.3	51.8	24.3	5,115	40.7	69.5	39.5	3,970
<b>Place of residence</b>								
Urban Governorates	25.5	66.3	24.7	996	45.0	76.1	43.1	840
Lower Egypt	31.9	60.6	30.7	3,841	42.6	72.1	41.0	3,078
Urban	40.1	71.5	38.3	869	47.0	77.5	44.0	678
Rural	29.5	57.5	28.6	2,973	41.4	70.5	40.2	2,400
Upper Egypt	24.4	51.8	23.1	3,011	40.8	71.3	39.5	2,324
Urban	35.9	70.4	34.2	897	43.0	77.9	41.7	777
Rural	19.5	43.9	18.4	2,114	39.7	67.9	38.4	1,547
Frontier Governorates <sup>3</sup>	21.1	55.1	18.8	58	40.0	73.3	38.9	51
<b>Education</b>								
No education	11.0	28.0	10.1	1,409	27.2	49.4	27.0	375
Some primary	17.4	36.6	16.5	520	36.0	56.2	35.2	487
Primary complete/ some secondary	21.7	48.3	20.9	2,205	34.0	59.1	32.4	2,023
Secondary complete/ higher	39.8	77.7	38.3	3,771	49.6	85.0	48.0	3,409
<b>Work status</b>								
Working for cash	40.7	75.6	39.0	1,015	44.3	75.0	42.8	5,080
Not working for cash	26.3	55.4	25.2	6,891	33.4	60.9	32.2	1,214
<b>Wealth quintile</b>								
Lowest	17.9	39.5	16.2	1,543	34.0	60.7	32.9	1,229
Second	23.0	49.4	22.5	1,556	43.0	68.0	41.1	1,219
Middle	31.9	59.0	30.7	1,643	45.1	74.5	43.9	1,199
Fourth	31.8	65.3	30.8	1,578	43.7	75.1	42.4	1,333
Highest	35.7	76.0	34.2	1,585	45.1	82.3	43.1	1,313
Total 15-49	28.2	57.9	27.0	7,906	42.2	72.3	40.7	6,293
Total 50-59	21.6	41.9	20.9	1,303	40.9	74.3	39.2	1,169
Total 15-59	27.2	55.7	26.1	9,209	42.0	72.6	40.5	7,462

<sup>1</sup> Using condoms every time they have sexual intercourse

<sup>2</sup> Partner who has no other partners

<sup>3</sup> Does not include North and South Sinai governorates

Tables 4.3.1 and 4.3.2 look at several other components included in the assessment of AIDS knowledge among EHIS respondents. First was the recognition that a healthy-looking person can have AIDS. Women age 15-49 were less likely than men in the age group to be aware that a healthy-looking person can have the AIDS virus (37 percent and 46 percent, respectively). Women were also somewhat less likely than men to reject two common misconceptions about how the AIDS virus can be transmitted (i.e., through mosquito bites or sharing food with an infected person). Only around 1 in 8 women and 1 in 6 men were aware that a healthy-looking person can have the AIDS virus and also rejected two misconceptions about the modes of transmission. Overall, only 6 percent of women and

10 percent of men were classified as having comprehensive correct knowledge about AIDS, i.e., they were aware that use of a condom and limiting sex to one uninfected person were ways to prevent the transmission of the AIDS virus, they recognized that a healthy-looking person could be infected, and they rejected the common misconceptions that a person could be infected by a mosquito bite or by sharing food with an infected person.

**Table 4.3.1 Comprehensive knowledge about AIDS: Women**

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, and the percentage of women age 50-59 and all women 15-59 with comprehensive knowledge about AIDS, Egypt 2015

Background characteristic	Percentage of respondents who say that:			Percentage who say that a healthy-looking person can have the AIDS virus and who reject two common local misconceptions <sup>1</sup>	Percentage with comprehensive knowledge about AIDS <sup>2</sup>	Number of respondents
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS			
<b>Age</b>						
15-24	32.1	24.3	28.1	9.1	4.1	2,611
15-19	24.8	19.7	23.4	6.8	2.7	1,425
20-24	41.0	29.8	33.8	12.0	5.8	1,185
25-29	38.1	31.4	35.8	13.2	7.0	1,471
30-39	41.9	32.7	37.6	14.4	7.0	2,257
40-49	37.6	31.0	36.2	14.8	7.8	1,568
<b>Marital status</b>						
Never married	32.0	26.2	30.3	9.7	3.6	1,827
Married	39.0	30.3	35.0	13.6	7.1	5,664
Divorced/separated/ widowed	33.3	30.6	33.6	10.6	6.0	415
<b>Urban-rural residence</b>						
Urban	46.0	40.2	44.7	18.3	9.4	2,791
Rural	32.2	23.4	27.9	9.4	4.5	5,115
<b>Place of residence</b>						
Urban Governorates	46.5	34.3	39.7	18.5	8.3	996
Lower Egypt	37.3	28.8	34.3	11.6	5.5	3,841
Urban	46.1	41.7	47.3	16.5	8.2	869
Rural	34.7	25.0	30.5	10.1	4.7	2,973
Upper Egypt	33.7	28.5	31.4	11.9	6.5	3,011
Urban	45.5	45.6	48.2	20.1	12.0	897
Rural	28.8	21.3	24.3	8.4	4.2	2,114
Frontier Governorates <sup>3</sup>	37.4	24.5	29.3	8.2	4.1	58
<b>Education</b>						
No education	17.0	8.5	9.7	2.8	1.1	1,409
Some primary	21.5	15.1	15.5	5.4	2.9	520
Primary complete/ some secondary	29.4	21.4	24.2	8.0	4.3	2,205
Secondary complete/ higher	51.3	43.7	51.1	19.8	9.7	3,771
<b>Work status</b>						
Working for cash	52.5	47.9	53.8	26.3	15.1	1,015
Not working for cash	34.8	26.6	30.9	10.5	4.9	6,891
<b>Wealth quintile</b>						
Lowest	26.5	16.6	17.9	5.6	2.4	1,543
Second	31.0	22.9	26.2	8.9	4.2	1,556
Middle	36.1	28.0	33.6	11.4	6.3	1,643
Fourth	40.2	33.8	39.6	14.1	6.8	1,578
Highest	51.4	45.0	51.5	22.4	11.2	1,585
Total 15-49	37.1	29.3	33.9	12.5	6.2	7,906
Total 50-59	27.1	22.1	26.0	10.1	5.1	1,303
Total 15-59	35.7	28.3	32.7	12.2	6.1	9,209

<sup>1</sup> Two common local misconceptions: AIDS can be transmitted through mosquito bites or by sharing food with a person who has AIDS.

<sup>2</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting two common local misconceptions about transmission or prevention of the AIDS virus.

<sup>3</sup> Does not include North and South Sinai governorates

Tables 4.3.1 and 4.3.2 also show differentials in the levels of the various AIDS knowledge indicators by background characteristics among women and men. Comprehensive AIDS knowledge is low in all subgroups among both women and men. For example, while education is directly related to knowledge, only 10 percent of women and 13 percent of men with secondary complete or higher education have comprehensive correct knowledge about AIDS.

**Table 4.3.2 Comprehensive knowledge about AIDS: Men**

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with comprehensive knowledge about AIDS, by background characteristics, and the percentage of men age 50-59 and all men 15-59 with comprehensive knowledge about AIDS, Egypt 2015

Background characteristic	Percentage of respondents who say that:			Percentage who say that a healthy-looking person can have the AIDS virus and who reject two common local misconceptions <sup>1</sup>	Percentage with comprehensive knowledge about AIDS <sup>2</sup>	Number of respondents
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS			
<b>Age</b>						
15-24	36.3	31.3	35.7	12.4	6.6	2,147
15-19	28.6	23.3	26.9	9.0	4.7	1,288
20-24	47.8	43.3	48.9	17.4	9.3	859
25-29	48.3	42.6	50.2	19.0	10.3	962
30-39	49.4	42.4	51.0	19.4	11.2	1,779
40-49	53.1	44.1	52.7	20.1	11.6	1,405
<b>Marital status</b>						
Never married	38.4	34.4	39.1	13.9	7.2	2,527
Married	50.5	42.1	50.8	19.2	11.1	3,708
Divorced/separated/ widowed	45.2	44.1	50.1	22.3	14.1	58
<b>Urban-rural residence</b>						
Urban	51.4	45.7	53.1	22.2	11.8	2,323
Rural	42.2	35.1	41.9	14.1	8.3	3,970
<b>Place of residence</b>						
Urban Governorates	54.4	42.4	51.3	24.4	12.8	840
Lower Egypt	44.3	36.5	44.5	15.3	8.4	3,078
Urban	51.7	44.5	55.0	20.0	10.7	678
Rural	42.2	34.3	41.5	14.0	7.8	2,400
Upper Egypt	44.0	41.3	46.4	16.8	9.8	2,324
Urban	47.6	50.8	53.8	21.8	11.7	777
Rural	42.2	36.6	42.7	14.3	8.9	1,547
Frontier Governorates <sup>3</sup>	52.0	29.7	40.4	17.7	9.5	51
<b>Education</b>						
No education	33.2	17.1	19.9	5.6	3.2	375
Some primary	33.4	23.2	29.1	9.4	7.2	487
Primary complete/ some secondary	35.2	29.0	32.3	10.1	5.9	2,023
Secondary complete/ higher	54.9	49.6	59.5	23.6	12.8	3,409
<b>Work status</b>						
Working for cash	47.3	40.6	48.0	17.8	10.2	5,080
Not working for cash	38.6	32.5	38.1	14.2	6.9	1,214
<b>Wealth quintile</b>						
Lowest	40.5	26.0	30.0	11.0	6.4	1,229
Second	39.4	34.1	39.3	11.5	5.6	1,219
Middle	44.5	41.4	50.4	16.6	11.1	1,199
Fourth	46.8	43.1	49.8	19.1	10.7	1,333
Highest	55.9	49.5	59.5	26.4	13.7	1,313
Total 15-49	45.6	39.0	46.1	17.1	9.5	6,293
Total 50-59	48.8	42.8	52.1	19.6	10.6	1,169
Total 15-59	46.1	39.6	47.0	17.5	9.7	7,462

<sup>1</sup> Two common local misconceptions: AIDS can be transmitted through mosquito bites or by sharing food with a person who has AIDS.

<sup>2</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting two common local misconceptions about transmission or prevention of the AIDS virus.

<sup>3</sup> Does not include North and South Sinai governorates

Finally, one of the principal indicators for tracking progress toward the Millennium Development Goals is the extent to which youth and young adults age 15-24 have comprehensive correct knowledge of AIDS (United Nations Development Group 2003). Table 4.4 shows that such knowledge is very low among Egyptian youth. Only 4 percent of young women and around 7 percent of young men age 15-24 had comprehensive correct knowledge. The proportion with comprehensive knowledge was higher among older (20-24) than younger (15-19) youth. Urban youth, those with secondary complete or higher education, and those in the highest wealth quintile were most likely to have comprehensive knowledge.

**Table 4.4 Comprehensive knowledge about AIDS among youth**

Percentage of women and men age 15-24 who have comprehensive knowledge about AIDS, by background characteristics, Egypt 2015

Background characteristic	Women		Men	
	Percentage with comprehensive knowledge about AIDS <sup>1</sup>	Number of respondents	Percentage with comprehensive knowledge about AIDS <sup>1</sup>	Number of respondents
<b>Age</b>				
15-19	2.7	1,425	4.7	1,288
20-24	5.8	1,185	9.3	859
<b>Marital status</b>				
Never married	3.3	1,573	6.7	1,998
Married	5.1	1,003	4.9	146
Divorced/separated/ widowed	(14.2)	35	*	3
<b>Urban-rural residence</b>				
Urban	5.3	908	8.8	836
Rural	3.5	1,703	5.1	1,311
<b>Place of residence</b>				
Urban Governorates	1.5	305	8.0	317
Lower Egypt	4.1	1,240	6.1	1,017
Urban	6.5	301	10.3	250
Rural	3.3	940	4.8	767
Upper Egypt	5.0	1,048	6.6	800
Urban	8.2	293	8.7	263
Rural	3.8	755	5.6	537
Frontier Governorates <sup>2</sup>	1.7	18	3.7	14
<b>Education</b>				
No education	0.2	112	(4.0)	20
Some primary	0.4	115	1.6	99
Primary complete/ some secondary	3.3	1,339	4.3	1,174
Secondary complete/ higher	6.1	1,044	10.4	854
<b>Work status</b>				
Working for cash	7.0	144	6.5	1,057
Not working for cash	4.0	2,467	6.6	1,091
<b>Wealth quintile</b>				
Lowest	2.7	527	1.7	492
Second	4.7	504	5.0	433
Middle	3.1	549	8.3	336
Fourth	4.8	519	8.7	415
Highest	5.4	512	9.9	471
Total 15-24	4.1	2,611	6.6	2,147

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting two common local misconceptions about transmission or prevention of the AIDS virus.

<sup>2</sup> Does not include North and South Sinai governorates

## 4.2 KNOWLEDGE OF MOTHER-TO-CHILD TRANSMISSION

To assess awareness of the ways in which AIDS can be transmitted from a mother to her child, women and men were asked if the virus that causes AIDS can be transmitted by breastfeeding and if the risk of transmission from mother to child can be reduced by the mother taking special drugs during pregnancy. As Table 4.5 shows, 26 percent of women and 29 percent of men age 15-49 knew that the virus can be transmitted from mother to child by breastfeeding, and 11 percent of women and 13 percent of men were aware that the risk of mother-to-child transmission (MTCT) can be reduced by the mother taking special drugs during pregnancy. Overall, only 8 percent of women and 9 percent of men knew both that the HIV virus can be transmitted by breastfeeding and that the risk of transmission can be reduced by the mother taking special drugs during pregnancy.

Among women, knowledge of breastfeeding as a potential mode of transmission for the HIV virus was highest among those with secondary complete or higher education. Among men, those age 40-49 and those with secondary complete or higher education were most likely to be aware that AIDS can be transmitted by breastfeeding. The proportion who were aware that taking special drugs during pregnancy can reduce the risk of transmission from an infected mother to her baby was highest among women and men in the Frontier Governorates.



Table 4.5 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, and percentage of women and men age 50-59 and all women and men 15-59 with knowledge of modes of prevention of mother-to-child transmission of HIV, Egypt 2015

Background characteristic	Women				Men			
	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of respondents	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of respondents
<b>Age</b>								
15-24	22.1	10.3	7.5	2,611	21.8	9.9	7.1	2,147
15-19	16.6	7.7	5.5	1,425	18.7	8.1	6.8	1,288
20-24	28.6	13.6	9.8	1,185	26.6	12.5	7.6	859
25-29	28.4	14.0	10.1	1,471	29.2	10.6	6.7	962
30-39	29.8	11.3	8.6	2,257	31.9	13.8	9.8	1,779
40-49	25.6	11.1	7.7	1,568	36.4	16.3	12.5	1,405
<b>Marital status</b>								
Never married	20.6	8.8	6.5	1,827	23.4	9.6	7.1	2,527
Married	28.2	12.5	9.1	5,664	32.9	14.5	10.3	3,708
Divorced/separated/ widowed	23.7	8.0	6.3	415	30.5	11.6	7.2	58
<b>Pregnancy status</b>								
Currently pregnant	27.9	12.4	9.0	5,592	na	na	na	0
Not pregnant/not sure	22.0	9.1	6.7	2,314	na	na	na	0
<b>Urban-rural residence</b>								
Urban	29.2	12.9	9.0	2,791	30.0	11.4	7.6	2,323
Rural	24.5	10.6	8.0	5,115	28.5	13.2	9.8	3,970
<b>Place of residence</b>								
Urban Governorates	25.6	15.5	10.1	996	27.8	12.0	7.4	840
Lower Egypt	26.9	10.4	7.3	3,841	27.2	12.7	8.4	3,078
Urban	29.7	10.4	7.0	869	28.7	12.7	7.6	678
Rural	26.1	10.4	7.4	2,973	26.8	12.7	8.7	2,400
Upper Egypt	25.5	11.2	9.0	3,011	31.9	12.4	10.3	2,324
Urban	32.9	12.3	9.6	897	33.4	9.4	7.9	777
Rural	22.3	10.7	8.7	2,114	31.2	13.9	11.5	1,547
Frontier Governorates <sup>1</sup>	23.9	20.3	12.7	58	26.9	18.8	11.5	51
<b>Education</b>								
No education	13.6	6.9	5.2	1,409	21.8	10.7	10.1	375
Some primary	16.1	8.3	6.4	520	20.8	7.9	6.4	487
Primary complete/ some secondary	20.0	9.1	6.4	2,205	23.0	9.0	7.1	2,023
Secondary complete/ higher	35.9	14.9	10.9	3,771	34.6	15.5	10.4	3,409
<b>Work status</b>								
Working for cash	34.6	15.2	10.2	1,015	30.4	12.9	9.2	5,080
Not working for cash	24.9	10.9	8.1	6,891	23.5	11.2	8.0	1,214
<b>Wealth quintile</b>								
Lowest	20.6	11.0	7.4	1,543	28.5	12.3	9.2	1,229
Second	23.7	9.4	7.2	1,556	25.5	12.0	8.9	1,219
Middle	28.0	11.8	8.9	1,643	31.6	14.5	11.0	1,199
Fourth	29.6	10.2	7.7	1,578	29.7	12.9	9.0	1,333
Highest	28.7	14.7	10.4	1,585	29.9	11.2	7.0	1,313
Total 15-49	26.2	11.4	8.3	7,906	29.0	12.5	9.0	6,293
Total 50-59	21.4	9.9	7.8	1,303	33.4	12.3	9.7	1,169
Total 15-59	25.5	11.2	8.3	9,209	29.7	12.5	9.1	7,462

na = Not applicable

<sup>1</sup> Does not include North and South Sinai governorates

### 4.3 ACCEPTING ATTITUDES TOWARD PEOPLE LIVING WITH AIDS

Women and men age 15-59 who had heard of AIDS were asked questions in the 2015 EHIS to assess the extent of stigma associated with HIV/AIDS. The results shown in Tables 4.6.1 and 4.6.2 indicate that a relatively high proportion of women and men age 15-49 were willing to care for a relative with AIDS at home (84 percent of both women and men). On the other hand, comparatively few women and men would buy fresh vegetables from a shopkeeper with AIDS (10 percent and 11 percent, respectively) or allow a female teacher with AIDS to keep teaching (11 and 10 percent, respectively). Only around 1 in 5 women and men said that they would be open about having an HIV-positive family member. Accepting attitudes were expressed on all four indicators by less than 1 percent of women and men, indicating that some degree of stigma is almost universally associated with HIV/AIDS within Egyptian society.

Table 4.6.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, and percentage of women age 50-59 and all women 15-59 with accepting attitudes toward those living with HIV/AIDS, Egypt 2015

Background characteristic	Percentage of women who:						Number of women who have heard of AIDS
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators		
<b>Age</b>							
15-24	82.1	8.0	10.8	20.6	0.8	1,561	
15-19	78.2	8.4	10.2	21.4	0.6	714	
20-24	85.4	7.7	11.3	19.9	1.1	847	
25-29	85.3	10.0	12.4	17.9	0.2	1,009	
30-39	85.9	9.7	11.0	20.9	0.4	1,624	
40-49	83.2	11.3	10.6	19.8	0.2	1,012	
<b>Marital status</b>							
Never married	79.4	8.9	13.0	20.7	0.8	1,098	
Married	85.6	9.9	10.9	19.7	0.3	3,850	
Divorced/separated/ widowed	82.7	7.5	6.7	21.3	0.7	259	
<b>Urban-rural residence</b>							
Urban	81.7	10.4	12.9	21.4	0.3	2,197	
Rural	85.9	8.9	9.8	19.0	0.5	3,009	
<b>Place of residence</b>							
Urban Governorates	76.8	10.1	15.0	23.1	0.9	773	
Lower Egypt	86.6	7.8	10.4	16.5	0.2	2,590	
Urban	87.0	9.0	14.0	16.7	0.1	703	
Rural	86.4	7.4	9.1	16.5	0.2	1,886	
Upper Egypt	83.6	11.8	10.4	23.7	0.7	1,806	
Urban	81.4	12.2	9.3	24.2	0.0	700	
Rural	85.0	11.6	11.0	23.3	1.1	1,106	
Frontier Governorates <sup>1</sup>	87.0	8.2	14.9	18.2	0.2	37	
<b>Education</b>							
No education	90.1	6.7	5.7	19.1	0.5	493	
Some primary	84.7	7.3	8.6	21.4	0.5	226	
Primary complete/ some secondary	81.2	8.4	8.9	21.3	0.3	1,241	
Secondary complete/ higher	84.3	10.6	13.0	19.5	0.5	3,246	
<b>Work status</b>							
Working for cash	86.3	13.8	16.6	20.2	0.7	834	
Not working for cash	83.7	8.7	10.1	20.0	0.4	4,372	
<b>Wealth quintile</b>							
Lowest	85.2	10.9	9.3	16.5	0.7	734	
Second	85.0	8.7	10.8	17.7	0.4	870	
Middle	86.1	8.5	8.7	22.5	0.4	1,090	
Fourth	83.6	8.9	12.0	20.9	0.2	1,140	
Highest	81.9	10.7	13.5	20.5	0.5	1,371	
Total 15-49	84.1	9.5	11.1	20.0	0.4	5,206	
Total 50-59	80.9	9.4	10.5	21.6	0.2	624	
Total 15-59	83.8	9.5	11.1	20.2	0.4	5,830	

<sup>1</sup> Does not include North and South Sinai governorates

Table 4.6.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, and percentage of men age 50-59 and all men 15-59 with accepting attitudes toward those living with HIV/AIDS, Egypt 2015

Background characteristic	Percentage of men who:					Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus			
<b>Age</b>							
15-24	82.0	8.9	8.5	23.1	0.7	1,456	
15-19	81.9	6.9	7.9	24.4	1.1	738	
20-24	82.1	10.9	9.0	21.8	0.3	718	
25-29	84.3	11.6	10.4	15.5	0.3	814	
30-39	84.1	12.5	11.3	18.5	0.2	1,517	
40-49	85.2	9.7	11.6	18.0	0.5	1,190	
<b>Marital status</b>							
Never married	81.3	10.0	9.5	21.6	0.5	1,798	
Married	85.2	11.0	10.9	17.8	0.4	3,134	
Divorced/separated/ widowed	87.5	8.5	15.4	23.8	0.0	45	
<b>Urban-rural residence</b>							
Urban	81.8	11.1	11.6	19.8	0.2	1,974	
Rural	85.1	10.3	9.7	18.8	0.6	3,003	
<b>Place of residence</b>							
Urban Governorates	78.9	8.3	12.4	22.0	0.0	708	
Lower Egypt	85.6	9.4	9.0	16.2	0.2	2,424	
Urban	86.3	8.7	9.5	16.1	0.4	590	
Rural	85.4	9.7	8.8	16.3	0.2	1,834	
Upper Egypt	83.3	13.0	11.4	22.3	0.8	1,805	
Urban	80.7	15.9	12.2	21.0	0.1	652	
Rural	84.7	11.3	10.9	23.0	1.2	1,153	
Frontier Governorates <sup>1</sup>	84.6	17.7	18.5	14.4	0.9	41	
<b>Education</b>							
No education	85.5	9.5	10.9	18.4	0.0	201	
Some primary	82.4	10.4	5.7	20.2	1.1	300	
Primary complete/ some secondary	82.7	8.1	6.3	19.7	0.5	1,361	
Secondary complete/ higher	84.3	11.8	12.6	19.0	0.3	3,116	
<b>Work status</b>							
Working for cash	84.2	10.7	10.4	18.2	0.3	4,136	
Not working for cash	81.9	10.1	10.6	24.0	0.9	842	
<b>Wealth quintile</b>							
Lowest	85.8	11.3	8.2	13.3	1.2	826	
Second	83.5	9.7	9.3	16.8	0.2	891	
Middle	85.3	9.7	10.7	24.8	0.5	986	
Fourth	81.4	12.0	10.3	22.4	0.1	1,085	
Highest	83.6	10.4	12.6	17.7	0.3	1,190	
Total 15-49	83.8	10.6	10.4	19.2	0.4	4,978	
Total 50-59	85.9	11.3	12.3	17.0	0.3	939	
Total 15-59	84.1	10.7	10.7	18.9	0.4	5,917	

<sup>1</sup> Does not include North and South Sinai governorates

In general, differences in attitudes toward those living with HIV/AIDS across background characteristics are not large.

#### 4.4 KNOWLEDGE OF A SOURCE FOR HIV TESTING

Another important aspect of AIDS awareness which was assessed in the 2015 EHIS was the level of knowledge of a place where HIV testing is available. Table 4.7 shows that only 7 percent of women and 10 percent of men age 15-49 knew where to go for an HIV test. Among women age 15-

49, knowledge of a source where HIV testing is available was highest among those working for cash (18 percent) and those in the highest wealth quintile (14 percent). Among men, knowledge was highest among those in the highest wealth quintile (16 percent), those with secondary complete or higher education (14 percent), and those from the Frontier Governorates (14 percent).

**Table 4.7 Knowledge of a place where HIV testing is available**

Percentage of women and men age 15-49 who know a place where HIV testing is available, by background characteristics, and percentage of women and men age 50-59 and all women and men 15-59 with knowledge of a place where HIV testing is available, Egypt 2015

Background characteristic	Women		Men	
	Percentage knowing a place where HIV testing is available	Number of respondents	Percentage knowing a place where HIV testing is available	Number of respondents
<b>Age</b>				
15-24	5.7	2,611	7.6	2,147
15-19	3.4	1,425	5.2	1,288
20-24	8.4	1,185	11.2	859
25-29	7.3	1,471	9.3	962
30-39	8.0	2,257	10.5	1,779
40-49	8.0	1,568	12.2	1,405
<b>Marital status</b>				
Never married	5.7	1,827	8.2	2,527
Married	7.7	5,664	10.7	3,708
Divorced/separated/ widowed	5.6	415	11.8	58
<b>Pregnancy status</b>				
Currently pregnant	7.5	5,592	na	0
Not pregnant/not sure	6.1	2,314	na	0
<b>Urban-rural residence</b>				
Urban	10.6	2,791	12.3	2,323
Rural	5.2	5,115	8.1	3,970
<b>Place of residence</b>				
Urban Governorates	8.9	996	12.4	840
Lower Egypt	5.1	3,841	6.9	3,078
Urban	10.5	869	11.7	678
Rural	3.6	2,973	5.6	2,400
Upper Egypt	9.0	3,011	12.3	2,324
Urban	12.4	897	12.6	777
Rural	7.5	2,114	12.1	1,547
Frontier Governorates <sup>1</sup>	10.2	58	14.1	51
<b>Education</b>				
No education	2.3	1,409	2.9	375
Some primary	3.1	520	4.4	487
Primary complete/ some secondary	3.5	2,205	4.8	2,023
Secondary complete/ higher	11.5	3,771	14.1	3,409
<b>Work status</b>				
Working for cash	17.8	1,015	9.9	5,080
Not working for cash	5.5	6,891	9.0	1,214
<b>Wealth quintile</b>				
Lowest	5.2	1,543	7.3	1,229
Second	5.2	1,556	7.5	1,219
Middle	4.4	1,643	7.4	1,199
Fourth	7.4	1,578	10.2	1,333
Highest	13.5	1,585	15.5	1,313
Total 15-49	7.1	7,906	9.7	6,293
Total 50-59	5.0	1,303	14.2	1,169
Total 15-59	6.8	9,209	10.4	7,462

na = Not applicable

<sup>1</sup> Does not include North and South Sinai governorates

## 4.5 SOURCES OF INFORMATION ABOUT AIDS

EHIS respondents reporting that they had heard about AIDS were asked whether they had received any information about AIDS during the six months prior to the 2015 EHIS. Table 4.8.1 and Table 4.8.2 show that only 11 percent of women and 12 percent of men age 15-49 had received information about AIDS during the six months prior to the survey. When asked about the source(s) from which they had obtained information during this period, virtually all of the women and men cited television broadcasts (95 percent and 96 percent, respectively). Six percent of women and men mentioned spouse/other relatives/friends as a source of information. A health worker was reported by very few women and men as a source of information about HIV/AIDS (4 percent and 1 percent).

Table 4.8.1 Sources of information about AIDS by background characteristics: Women

Percentage of women age 15-49 knowing about AIDS who heard, saw, or received any information about AIDS in the six months prior to the survey and percentage of women receiving information about AIDS within the last six months who named various sources of information, according to background characteristics, and among women age 50-59 and all women age 15-59, percentage receiving information about AIDS recently, Egypt 2015

Background characteristic	Percentage of respondents knowing about AIDS saying they had received information about AIDS recently	Number of respondents knowing about AIDS	Percentage of respondents who saw/heard/received information about AIDS from:							Number of respondents receiving information about AIDS recently
			Television	Other media <sup>1</sup>	Any contact with health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/friends/neighbors	Community meeting/educational seminar/other	
<b>Age</b>										
15-19	12.6	714	89.3	1.5	2.6	0.9	2.5	9.1	5.7	90
20-24	12.1	847	97.3	6.0	5.0	0.0	5.0	1.8	0.9	102
25-29	10.5	1,009	95.0	6.0	1.3	0.7	0.6	6.8	2.6	106
30-34	8.7	851	98.1	0.1	3.9	0.0	3.9	5.8	1.0	74
35-39	11.5	774	95.5	2.0	1.8	1.0	0.8	3.9	0.8	89
40-44	12.0	546	93.5	5.8	8.7	5.5	6.8	4.6	0.0	65
45-49	14.8	465	95.1	2.9	7.5	4.8	4.8	8.1	2.1	69
<b>Marital status</b>										
Ever married	14.0	1,098	92.7	6.5	4.6	0.5	4.5	6.4	4.1	154
Never married	10.7	4,108	95.6	2.6	3.9	2.0	2.8	5.4	1.2	442
<b>Urban-rural residence</b>										
Urban	12.5	2,197	94.0	3.9	4.3	1.5	2.8	5.3	2.5	274
Rural	10.7	3,009	95.6	3.4	3.9	1.7	3.6	5.9	1.5	321
<b>Place of residence</b>										
Urban Governorates	9.0	773	88.8	9.5	7.4	1.8	5.6	7.1	6.2	69
Lower Egypt	10.0	2,590	97.1	2.6	3.8	2.2	3.1	4.4	0.6	258
Urban	9.8	703	97.4	2.0	5.0	2.7	2.3	3.6	0.0	69
Rural	10.0	1,886	97.0	2.9	3.4	2.0	3.4	4.7	0.8	189
Upper Egypt	14.7	1,806	94.5	2.9	3.5	0.9	2.9	6.3	2.2	265
Urban	19.0	700	95.5	1.7	2.4	0.7	1.6	4.9	1.8	133
Rural	11.9	1,106	93.6	4.1	4.7	1.2	4.1	7.8	2.7	132
Frontier Governorates <sup>2</sup>	9.3	37	(76.0)	(10.8)	(0.0)	(0.0)	(0.0)	(19.4)	(2.4)	3
<b>Education</b>										
No education	9.1	493	(95.5)	(0.0)	(0.0)	(0.0)	(0.0)	(6.5)	(0.0)	45
Some primary	9.8	226	(100.0)	(5.4)	(0.0)	(0.0)	(0.0)	(4.5)	(0.0)	22
Primary complete/ some secondary	10.1	1,241	89.6	0.2	3.4	2.5	3.4	10.1	3.1	126
Secondary complete/ higher	12.4	3,246	96.1	5.0	4.9	1.6	3.7	4.2	2.0	403
<b>Work status</b>										
Working for cash	14.0	834	91.1	7.1	15.9	6.7	12.4	4.5	5.3	117
Not working for cash	11.0	4,372	95.8	2.8	1.2	0.3	1.0	5.9	1.2	479
<b>Wealth quintile</b>										
Lowest	9.2	734	91.4	2.1	0.9	0.0	0.9	12.6	2.1	68
Second	11.8	870	93.0	0.8	4.6	3.0	4.6	7.7	2.7	102
Middle	10.3	1,090	98.8	4.5	4.9	0.7	4.2	4.5	0.0	112
Fourth	12.4	1,140	96.9	3.5	2.5	1.1	2.5	3.2	2.9	142
Highest	12.5	1,371	93.0	5.3	5.8	2.3	3.4	4.4	2.0	172
Total 15-49	11.4	5,206	94.8	3.6	4.1	1.6	3.3	5.6	2.0	596
Total 50-59	10.8	624	91.7	6.6	4.9	3.6	2.1	5.6	8.1	67
Total 15-59	11.4	5,830	94.5	3.9	4.2	1.8	3.1	5.6	2.6	663

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes radio, newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

Table 4.8.2 Sources of information about AIDS by background characteristics: Men

Percentage of all men age 15-49 knowing about AIDS who heard, saw, or received any information about AIDS in the six months prior to the survey and percentage of men receiving information about AIDS within the last six months who named various sources of information, according to background characteristics, and among men age 50-59 and all men age 15-59, percentage receiving information about AIDS recently, Egypt 2015

Background characteristic	Percentage of respondents knowing about AIDS saying they had received information about AIDS recently	Number of respondents knowing about AIDS	Percentage of respondents who saw/heard/received information about AIDS from:							Number of respondents receiving information about AIDS recently
			Television	Other media <sup>1</sup>	Any contact with health worker	Home visit from health worker	Facility visit with health worker	Spouse/other relatives/friends/neighbors	Community meeting/educational seminar/other	
<b>Age</b>										
15-19	11.6	738	91.0	5.8	0.0	0.0	0.0	4.0	6.0	86
20-24	11.4	718	94.5	10.9	0.0	0.0	0.0	11.3	0.4	82
25-29	15.2	814	95.5	7.6	2.5	0.3	2.2	6.2	3.7	124
30-34	11.1	785	98.5	6.5	0.3	0.0	0.3	7.2	0.8	87
35-39	12.7	732	95.7	10.9	2.5	0.0	2.5	4.8	2.0	93
40-44	13.5	640	99.1	3.4	0.0	0.0	0.0	6.0	0.0	86
45-49	10.8	550	(94.8)	(6.3)	(3.1)	(0.0)	(3.1)	(5.9)	(4.1)	59
<b>Marital status</b>										
Ever married	12.2	1,798	95.2	10.5	0.5	0.0	0.5	5.8	3.5	220
Never married	12.5	3,180	95.9	5.7	1.6	0.1	1.5	6.8	1.8	397
<b>Urban-rural residence</b>										
Urban	12.4	1,974	95.2	8.3	2.2	0.0	2.2	7.6	2.5	244
Rural	12.4	3,003	95.9	6.9	0.6	0.1	0.5	5.7	2.4	374
<b>Place of residence</b>										
Urban Governorates	7.4	708	92.6	12.8	0.0	0.0	0.0	0.8	4.2	52
Lower Egypt	11.9	2,424	96.8	6.8	1.4	0.0	1.4	4.2	1.1	289
Urban	11.4	590	(93.5)	(10.2)	(3.5)	(0.0)	(3.5)	(11.0)	(0.1)	67
Rural	12.1	1,834	97.8	5.8	0.7	0.0	0.7	2.1	1.4	222
Upper Egypt	15.1	1,805	95.3	7.0	1.2	0.2	1.1	9.8	3.4	273
Urban	18.9	652	97.2	5.3	2.4	0.0	2.4	8.7	3.1	123
Rural	13.0	1,153	93.7	8.4	0.3	0.3	0.0	10.7	3.7	150
Frontier Governorates <sup>2</sup>	7.2	41	*	*	*	*	*	*	*	3
<b>Education</b>										
No education	18.4	201	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(6.2)	(0.0)	37
Some primary	7.6	300	*	*	*	*	*	*	*	23
Primary complete/ some secondary	12.0	1,361	95.2	5.4	0.0	0.0	0.0	5.0	2.7	163
Secondary complete/ higher	12.7	3,116	95.1	9.4	1.9	0.1	1.8	7.4	2.7	395
<b>Work status</b>										
Working for cash	12.4	4,136	96.3	6.9	1.5	0.1	1.4	6.9	1.9	513
Not working for cash	12.4	842	92.4	10.0	0.0	0.0	0.0	4.3	4.9	104
<b>Wealth quintile</b>										
Lowest	12.0	826	89.9	7.1	0.7	0.4	0.2	9.8	4.0	99
Second	11.1	891	96.4	8.1	0.0	0.0	0.0	7.1	2.8	99
Middle	13.1	986	98.0	4.0	0.0	0.0	0.0	5.1	0.4	130
Fourth	11.3	1,085	95.8	7.5	1.3	0.0	1.3	4.4	3.0	123
Highest	14.0	1,190	96.6	9.9	3.2	0.0	3.2	6.6	2.4	167
Total 15-49	12.4	4,978	95.6	7.4	1.2	0.1	1.2	6.4	2.4	618
Total 50-59	15.7	939	98.5	11.0	0.6	0.1	0.6	7.8	0.1	148
Total 15-59	12.9	5,917	96.2	8.1	1.1	0.1	1.1	6.7	2.0	766

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Includes radio, newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

In general, there were only minor variations in the level of recent exposure to information about AIDS. The likelihood of exposure was highest among women and men residing in urban Upper Egypt (19 percent each).

**Key Findings**

- Just under half of men age 15-59 but very few women age 15-59 currently smoke tobacco products.
- Around 3 in 4 women and 6 in 10 men age 15-59 are overweight or obese.
- Around 1 in 6 women and men age 15-59 were classified as hypertensive.
- Age was directly associated with the proportion who were hypertensive; more than half of women and more than 2 in 5 men in the 55-59 age group were hypertensive, and 11 percent of women and 10 percent of men in this age group had a moderately or severely elevated blood pressure.
- Women who were obese were five times and men who were obese were three times as likely to be hypertensive as women and men in the normal range for the body mass index.
- Many Egyptians are unaware they have high blood pressure; among those classified as hypertensive in the EHIS, 73 percent of men and 47 percent of women were not ever told previously that their blood pressure was too high.

**N**oncommunicable diseases, particularly cardiovascular disease, are major causes of adult morbidity and mortality in Egypt. This chapter reviews information obtained in the 2015 EHIS from respondents age 15-59 on their history of diabetes, hypertension, and heart attack or stroke. The survey also obtained data on factors linked to these diseases including the use of tobacco products and the extent to which adults are overweight or obese. Finally, the survey collected blood pressure measurements to obtain further insight into the prevalence of hypertension.

### 5.1 SELF-REPORTED HISTORY OF DIABETES, HYPERTENSION, AND HEART ATTACK OR STROKE

Women and men age 15-59 were asked in the 2015 EHIS if they had ever been diagnosed as having diabetes, hypertension (high blood pressure), or a heart attack or stroke. Unfortunately, many individuals who are diabetic or hypertensive are unaware that they have these conditions. Thus, the self-reported prevalence of these conditions in the 2015 EHIS is recognized to substantially underestimate the extent of these illnesses in the Egyptian population. However, the results are useful in tracking the actions individuals diagnosed with diseases are taking to address the conditions including controlling their weight, eating a healthy diet, exercising, or stopping smoking.

Diabetes is characterized by high levels of glucose (sugar) in the blood. It is caused by problems in the production and/or use of insulin, a hormone produced by the pancreas that is necessary to process glucose so it can be used by cells in the body. Elevated blood glucose levels are associated with serious health conditions including cardiovascular and kidney disease and blindness. Table 5.1 shows 5 percent of EHIS respondents reported that they had been told that they had

diabetes, with little variation in the proportions of women<sup>1</sup> and men reporting they were diabetic. Again it should be recognized that the figure is an underestimate of the actual proportion of adult Egyptians suffering from diabetes since many individuals with diabetes go undiagnosed. The 2011-2012 Egypt STEPS survey<sup>2</sup> which included fasting blood glucose testing found that 17 percent of Egyptians age 15-65 years had elevated blood glucose readings at the time of the survey and/or were receiving treatment medication because of high blood glucose levels (WHO nd). The fact that many Egyptians appear to be unaware that they have diabetes is of concern, given the serious health consequences of not treating the disease.

Questions also were included in the EHIS to identify respondents who had had a heart attack or stroke. Overall, as Table 5.1 shows, only one percent of respondents had a history of a heart attack or stroke.

Hypertension, or high blood pressure, is associated with a variety of serious health conditions including heart disease, stroke and kidney disease. Overall, 8 percent of EHIS respondents were told by a health care provider on one or more occasions that they had high blood pressure. Women were around twice as likely as men to have been told they had high blood pressure. As will be discussed later in this chapter in presenting the results of the blood pressure measurements taken in the EHIS, many Egyptians who are hypertensive are not aware of their condition.

**Table 5.1 History of diabetes, heart attack, stroke, and hypertension**

Percent distribution of women and men, age 15-59, by history of diabetes, heart attack, stroke, and high blood pressure, Egypt 2015

History	Women	Men	Total
<b>History of diabetes</b>			
Told had diabetes by medical practitioner <sup>1</sup>	5.0	4.5	4.8
Receiving treatment <sup>2</sup>	4.7	4.3	4.5
Not receiving treatment	0.3	0.2	0.3
Never told had diabetes	93.9	94.5	94.2
Don't know/never heard of diabetes/missing	1.1	1.1	1.1
<b>History of heart attack</b>			
Told had heart attack by medical practitioner	0.4	1.0	0.7
Never told	99.6	99.0	99.3
<b>History of stroke</b>			
Told had stroke by medical practitioner	0.3	0.2	0.2
Never told	99.7	99.8	99.8
<b>History of high blood pressure</b>			
Told blood pressure was high	10.5	5.4	8.2
On one occasion	0.2	0.2	0.2
On two or more occasions	10.3	5.2	8.0
Never told	89.5	94.6	91.8
Total percent	100.0	100.0	100.0
Number	9,209	7,462	16,671

<sup>1</sup> Among women, other than during pregnancy

<sup>2</sup> Insulin/pills

<sup>1</sup> Women who may have been told they had had high glucose levels during pregnancy are not included in this figure since blood sugar levels usually return to normal after delivery.

<sup>2</sup> The survey followed the WHO STEPwise approach to noncommunicable disease risk factor surveillance (STEPS) (WHO 2015b).



EHIS respondents reporting they had a history of diabetes, high blood pressure, or a heart attack or stroke were asked questions about actions they were taking to address the condition. Table 5.2 shows that more than 9 in 10 women and men diagnosed as diabetic were taking medication prescribed by their medical provider to treat the disease. Around 4 in 10 of the individuals who had diabetes were eating a healthy diet, 13 percent of women and 15 percent of men were trying to lose weight or control their weight, and 2 percent of women and 7 percent of men were exercising. Only 2 percent of individuals who were diabetic (mainly men) said that they had stopped smoking in response to their condition.

Table 5.2 also shows that taking prescribed medications was the most common action taken among EHIS respondents who had been told they had high blood pressure or who had had a heart attack or stroke. Overall, around 3 in 4 individuals told they had these conditions were taking prescribed medications. Twenty-two percent of individuals who were told they had high blood pressure were eating a healthy diet to address the condition, and 11 percent said they were controlling or losing weight. Slightly higher percentages of individuals who had had a heart attack or stroke were eating a healthy diet or trying to control or lose weight (30 percent and 14 percent, respectively). Comparatively few individuals who had high blood pressure or a heart attack or stroke were exercising in an effort to address their condition (2 percent and 6 percent, respectively) or had stopped smoking (1 percent and 5 percent, respectively).

**Table 5.2 Actions taken in response to diagnosis of diabetes or high blood pressure, heart attack, or stroke**

Percentage of women and men age 15-59 told by a medical practitioner they had diabetes, high blood pressure, or a heart attack and/or a stroke who took various actions in response to the diagnosis, Egypt 2015

Actions taken in response to diagnosis	Told had diabetes			Told had high blood pressure			Told had heart attack and/or stroke		
	Women	Men	Total	Women	Men	Total	Women	Men	Total
Took prescribed medication	93.2	95.5	94.2	80.1	75.4	78.8	73.6	77.2	75.6
Made effort to control/lose weight	13.1	14.5	13.7	11.3	10.7	11.1	10.9	16.8	14.3
Ate a healthy diet	40.7	39.8	40.3	22.5	21.8	22.3	26.1	32.8	29.9
Exercised	1.5	7.4	3.9	0.8	4.4	1.9	1.3	9.9	6.1
Stopped smoking	0.0	4.6	1.9	0.0	3.1	0.9	0.0	9.0	5.1
Number	464	333	797	963	400	1,363	64	84	148

## 5.2 USE OF TOBACCO

The 2015 EHIS included questions on the current and past use of cigarettes and other tobacco products. Smoking cigarettes and other tobacco products has been linked to a wide range of non-communicable diseases including cardiovascular disease, respiratory illnesses, cancer, and diabetes (Eriksen et al. 2015).

Table 5.3 summarizes the information obtained from respondents on their current and past smoking behavior. The results suggest that smoking is largely confined to males. Forty-six

percent of men age 15-59 report that they currently smoke cigarettes or other tobacco products, with most saying they smoke on a daily basis. In contrast, very few women report they currently smoke (0.2 percent). Among men, there is also a substantial group who say they are former smokers; 8 percent of men age 15-59 say they smoked in the past but are not currently using tobacco products.

**Table 5.3 Use of tobacco**

Percent distribution of women and men age 15-59 by smoking behavior, Egypt 2015

Tobacco use	Women	Men	Total
Currently smoke cigarettes/ other tobacco products	0.2	46.4	20.9
Every day	0.1	44.5	20.0
Some days	0.0	1.9	0.9
Smoked sometime in past but not currently	0.1	8.0	3.6
Never smoked	99.8	45.6	75.5
Total percent	100.0	100.0	100.0
Number	9,209	7,462	16,671

Table 5.4 presents differentials in smoking behavior by background characteristics. The percentage of men age 20-24 who currently smoke tobacco products is more than double the percentage among men age 15-19 (41 percent and 16 percent). The proportion who smoke continues to rise with age, peaking at 59 percent in the 50-54 age group. A comparison of the percentage who are currently smoking with the percentage who have ever smoked suggests that there is a tendency for men to stop smoking as they grow older. The gap is particularly notable among men age 55-59, where 19 percent of men are former smokers.

Table 5.4 Smoking behavior by background characteristics

Among women and men age 15-59, percentage who have ever smoked cigarettes or other tobacco products and percentage who are currently smoking, cigarettes or other tobacco products, by background characteristics, Egypt 2015

Background characteristic	Women			Men		
	Percentage who ever smoke cigarettes or other tobacco products	Percentage who currently smoke cigarettes or other tobacco products <sup>1</sup>	Number of respondents	Percentage who ever smoke cigarettes or other tobacco products	Percentage who currently smoke cigarettes or other tobacco products <sup>1</sup>	Number of respondents
<b>Age</b>						
15-24	0.3	0.2	2,611	28.7	25.9	2,147
15-19	0.3	0.3	1,425	18.7	16.1	1,288
20-24	0.2	0.0	1,185	43.7	40.5	859
25-29	0.1	0.1	1,471	57.7	53.3	962
30-39	0.3	0.1	2,257	63.9	55.4	1,779
40-49	0.2	0.2	1,568	66.1	54.6	1,405
50-54	0.3	0.3	707	70.9	58.7	702
55-59	0.2	0.2	596	69.2	49.8	467
<b>Marital status</b>						
Never married	0.3	0.2	1,839	33.9	30.6	2,536
Ever married	0.2	0.2	7,370	65.0	54.6	4,926
<b>Urban-rural residence</b>						
Urban	0.4	0.3	3,359	56.4	48.8	2,847
Rural	0.1	0.1	5,850	53.2	45.0	4,615
<b>Place of residence</b>						
Urban Governorates	0.7	0.6	1,223	57.4	51.2	1,044
Lower Egypt	0.1	0.1	4,506	52.9	44.3	3,698
Urban	0.2	0.2	1,056	54.1	45.5	854
Rural	0.1	0.0	3,450	52.6	44.0	2,844
Upper Egypt	0.2	0.1	3,417	55.3	47.5	2,664
Urban	0.2	0.1	1,048	57.2	49.3	919
Rural	0.2	0.1	2,369	54.2	46.6	1,745
Frontier Governorates <sup>2</sup>	0.1	0.0	63	56.4	44.4	56
<b>Education</b>						
No education	0.2	0.1	2,031	73.7	64.5	621
Some primary	0.1	0.1	773	75.9	65.5	686
Primary complete/ some secondary	0.4	0.3	2,345	46.5	41.3	2,207
Secondary complete/ higher	0.2	0.1	4,060	52.1	43.1	3,948
<b>Work status</b>						
Working for cash	0.5	0.4	1,269	61.3	52.5	6,137
Not working for cash	0.2	0.1	7,940	22.2	18.4	1,325
<b>Wealth quintile</b>						
Lowest	0.4	0.2	1,806	53.1	45.0	1,462
Second	0.0	0.0	1,810	56.7	48.2	1,424
Middle	0.1	0.0	1,833	52.3	44.7	1,379
Fourth	0.3	0.3	1,865	57.3	48.9	1,571
Highest	0.3	0.3	1,895	52.6	45.2	1,626
Total 15-59	0.2	0.2	9,209	54.4	46.4	7,462

<sup>1</sup> Includes persons reporting they currently smoke every day or on some days

<sup>2</sup> Does not include North and South Sinai governorates

In general, differences in the percentages of men who smoke by residence and wealth are not large. Men with no or only some primary education are more likely to report smoking tobacco products than better-educated men.

The harmful effects of tobacco are not limited to smokers themselves but may affect other individuals who are exposed to second-hand tobacco or “environmental” tobacco smoke (ETS). ETS has been shown to contribute to a number of adverse health effects including increased risk of respiratory and cardiovascular illnesses (U.S. Centers for Disease Control and Prevention, 2015). The EHIS household interview included a question on the frequency of smoking in the household. The results of that question can be used to assess the extent to which household members, regardless of their own smoking behavior, are exposed to second-hand smoke in the dwelling. Table 5.5 shows that half of the household population is exposed regularly to second-hand smoke within the dwelling. The largest variation in exposure is by age, with the proportion exposed to second-hand smoke much lower among the population age 60 and older than among the other age groups.

### 5.3 NUTRITIONAL STATUS

Unhealthy diets associated with overweight and obesity are one of the key risk factors associated with non-communicable disease, particularly cardiovascular disease and diabetes. Height and weight data collected by the health staff in the 2015

EHIS allow for an assessment of the extent to which adults in Egypt are overweight and obese. All women and men 15-59 were eligible for the anthropometric measurement.<sup>3</sup> The results were used to produce the body mass index (BMI) for each respondent. BMI was calculated by dividing an individual’s weight in kilograms by their height in meters squared (kg/m<sup>2</sup>). BMI measures are used to assess both undernutrition and overnutrition in the adult population. Individuals with a BMI of less than 18.5 are considered to be thin or acutely undernourished. Individuals with a BMI of 25 or above are classified as overweight, and those with a BMI of 30 and above are categorized as obese.

Height and weight measures were obtained for 97 percent or more of women and men age 15-59. The measures were excluded for only a very few respondents (0.1 percent or less) because they were out of the plausible range. Seven percent of women were excluded from indicators involving the weight measures because the women were pregnant or had a child age 0-1 month. Because of the inclusion of never-married women and women age 50-59 in the 2015 EHIS, the anthropometric data presented for women are not comparable to nutritional status indicators reported for ever-married women age 15-49 in prior DHS surveys in Egypt.

<sup>3</sup> The measuring boards used for the collection of the height data are specially produced by Shorr Productions for use in survey settings. Weight was obtained using lightweight scales with a digital screen produced by SECA.

Table 5.5 Household members’ exposure to smoking

Percentage of the de jure household population regularly exposed to smoking inside the dwelling, by background characteristics, Egypt 2015

Background characteristic	Percentage regularly exposed to smoking inside the dwelling <sup>1</sup>	Total de jure household population
<b>Age</b>		
0-4	50.3	4,372
5-9	48.3	3,671
10-14	49.0	3,359
15-19	52.2	2,733
20-29	52.9	4,453
30-39	52.2	4,002
40-49	52.9	2,951
50-59	54.4	2,432
60 and older	38.7	2,482
<b>Urban-rural residence</b>		
Urban	51.5	10,880
Rural	49.7	19,574
<b>Place of residence</b>		
Urban Governorates	53.0	4,085
Lower Egypt	48.1	14,533
Urban	48.2	3,245
Rural	48.0	11,288
Upper Egypt	52.3	11,614
Urban	53.1	3,435
Rural	51.9	8,179
Frontier Governorates <sup>2</sup>	49.9	222
<b>Wealth quintile</b>		
Lowest	54.8	6,095
Second	53.6	6,083
Middle	45.8	6,091
Fourth	49.2	6,093
Highest	48.3	6,092
<b>Total</b>	<b>50.3</b>	<b>30,454</b>

Note: The de jure household population refers to all persons who usually live in the household.

<sup>1</sup> Includes households in which someone smokes on a daily, weekly or monthly basis

<sup>2</sup> Does not include North and South Sinai governorates

Table 5.6 shows the distribution of the women and men age 15-59 according to height, weight, and body mass (BMI) along with the means for these indicators. The mean height for women was 158.4 centimeters. Only 1 percent were shorter than 145 centimeters; the latter cutoff identifies women at greater risk of pregnancy complications because their short stature is frequently associated with small pelvis size. The mean weight for women was 77.1 kilograms. Considering the BMI distribution, half the women age 15-59 were obese, and an additional 26 percent were overweight. Among the remaining women, most fell within the normal range; only 1 percent of women 15-59 were classified as thin, i.e., they had a BMI of less than 18.5.

The mean height for men age 15-59 was 171 centimeters, around 13 centimeters taller than women in the same age group. The mean weight for men was 79.1 kilograms, about 2 kilograms more than women. The majority of men had a BMI of 25.0 or higher and were considered overweight (34 percent) or obese (26 percent). Two percent of men were classified as thin.

Differentials in nutritional status are shown in Table 5.7.1 for women and Table 5.7.2 for men. There is little variation in women's and men's mean height with background characteristics. The proportion of women who were less than 145 centimeters is two percent or below in all of the population subgroups.

As expected, the relationship between age and BMI is marked. Among women, for example, the proportion overweight or obese increases from 42 percent in the 15-19 age group to more than 90 percent among women age 40 and older. Among men, the proportion overweight or obese is lower at every age than among women. Nevertheless, the majority of men age 25 and older are overweight or obese, and the proportion overweight or obese peaks at 79 percent among men age 50-54 years.

Women and men in rural Upper Egypt and in the Frontier Governorates are somewhat less likely to be overweight or obese than women and men from other areas; however, even in these areas, around two-thirds of women and around half of men are overweight or obese. The somewhat lower proportions of women and men overweight or obese among those with primary complete or some secondary education compared to less and better educated individuals likely reflects in large part the concentration of younger respondents who are less likely to be overweight or obese in the category. The lower proportion of overweight and obese individuals among those not working for cash compared to those who are working for cash again is likely related in part to the greater numbers of young individuals in the not working category. Finally, the proportions overweight and obese tend to increase with the wealth quintile, with the differences between quintiles more evident among men than women.

**Table 5.6 Anthropometric indicators of nutritional status**

Percent distribution of the de facto interviewed women and men, age 15-59, by selected anthropometric indicators, Egypt 2015

Anthropometric indicators	Women	Men
<b>Height in centimeters</b>		
130.0-134.9	0.0	0.0
135.0-139.9	0.0	0.0
140.0-144.9	1.0	0.1
145.0-149.9	6.4	0.2
150.0-154.9	20.6	1.2
155.0-159.9	32.3	3.8
160.0-164.9	25.9	12.0
165.0-169.9	10.5	25.9
170.0-174.9	2.6	28.8
175.0-179.9	0.3	18.8
180.0-220.0	0.1	9.2
Total percent	100.0	100.0
Number of respondents	8,969	7,221
Mean	158.4	171.0
<b>Weight in kilograms</b>		
35.0-39.9	0.1	0.1
40.0-49.9	4.4	1.5
50.0-59.9	14.8	10.0
60.0-69.9	19.5	20.3
70.0-79.9	20.2	24.7
≥80.0	41.0	43.4
Total percent	100.0	100.0
Number of respondents	8,390	7,233
Mean	77.1	79.1
<b>BMI<sup>1</sup></b>		
Thin	1.2	2.2
12.0-15.9	0.1	0.1
16.0-16.9	0.1	0.4
17.0-18.4	1.0	1.8
Normal	22.8	37.1
18.5-20.4	4.1	7.7
20.5-22.9	9.0	14.4
23.0-24.9	9.7	15.0
Overweight	25.7	34.3
25.0-26.9	10.2	15.3
27.0-28.9	10.3	13.8
29.0-29.9	5.2	5.2
Obese	50.3	26.4
≥30.0	50.3	26.4
Total percent	100.0	100.0
Number of respondents	8,379	7,223
Mean	30.7	27.0

Note: Anthropometric data for women from the 2015 EHIS are not comparable to information presented in the 2014 EDHS or earlier surveys because (a) the age range includes women 15-59; (b) never-married women are included; and (c) women who gave birth to a child who died within two months of the survey are not excluded from the calculation of the BMI measure.

<sup>1</sup> For women, the BMI calculations exclude those who are pregnant or have a child age 0-1 months.

Table 5.7.1 Nutritional status by background characteristics: Women

Mean height and percentage under 145 centimeters (cm) among women 15-59 and mean body mass index (BMI), and percentage with specific BMI levels among women age 15-59, by background characteristics, Egypt 2015

Background characteristic	Height			Mean Body Mass Index (BMI) <sup>1</sup>	Body Mass Index								Number of women
	Mean height in cm	Percent-age below 145 cm	Number of women		18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	16.0-16.9 (moderately thin)	<16 (severely thin)	≥25.0 (total over-weight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	
<b>Age</b>													
15-19	159.1	0.7	1,393	24.9	53.8	4.7	3.8	0.4	0.4	41.5	26.4	15.1	1,318
20-24	159.1	1.4	1,157	27.0	37.9	1.9	1.9	0.0	0.0	60.2	35.9	24.3	976
25-29	158.7	1.2	1,451	29.1	25.8	0.8	0.6	0.1	0.0	73.4	33.0	40.4	1,284
30-34	158.9	0.3	1,161	31.1	16.7	0.3	0.1	0.2	0.0	83.1	28.1	54.9	1,053
35-39	158.7	0.5	1,037	32.5	14.5	0.6	0.5	0.1	0.0	84.9	21.0	63.9	994
40-44	158.4	1.6	792	34.3	6.2	0.1	0.0	0.1	0.0	93.7	20.9	72.8	781
45-49	158.0	1.2	736	34.8	6.5	0.0	0.0	0.0	0.0	93.5	19.0	74.5	736
50-54	156.5	2.0	677	35.3	5.8	0.0	0.0	0.0	0.0	94.4	18.7	75.5	674
55-59	155.9	2.0	564	34.7	7.8	0.2	0.2	0.0	0.0	92.2	17.5	74.5	564
<b>Marital status</b>													
Never married	158.7	1.8	1,781	25.3	50.3	4.5	3.7	0.5	0.3	45.3	28.9	16.4	1,783
Ever married	158.3	0.9	7,188	32.2	15.4	0.3	0.3	0.0	0.0	84.3	24.9	59.4	6,596
<b>Urban-rural residence</b>													
Urban	158.9	0.9	3,182	31.3	20.1	1.6	1.5	0.0	0.1	78.3	23.9	54.4	3,020
Rural	158.2	1.2	5,787	30.4	24.3	1.0	0.7	0.2	0.1	74.7	26.8	48.0	5,359
<b>Place of residence</b>													
Urban Governorates	159.6	0.6	1,149	31.2	19.3	2.1	2.1	0.0	0.0	78.5	22.1	56.5	1,104
Lower Egypt	159.2	0.8	4,410	31.7	19.4	0.9	0.8	0.1	0.0	79.7	24.2	55.4	4,135
Urban	159.3	1.1	1,001	31.7	20.7	0.9	0.8	0.0	0.1	78.4	24.5	53.9	944
Rural	159.2	0.8	3,409	31.7	19.1	0.9	0.8	0.1	0.0	80.0	24.1	55.8	3,191
Upper Egypt	157.0	1.6	3,348	29.3	28.4	1.3	0.9	0.2	0.2	70.4	29.0	41.4	3,084
Urban	157.6	1.0	1,001	31.1	20.2	1.6	1.4	0.0	0.2	78.3	25.3	52.8	942
Rural	156.7	1.9	2,347	28.5	32.0	1.1	0.7	0.3	0.2	67.0	30.6	36.3	2,141
Frontier Governorates <sup>2</sup>	157.8	0.5	61	28.8	29.9	1.4	1.1	0.3	0.0	68.6	29.2	39.4	56
<b>Education</b>													
No education	156.8	1.5	1,992	32.2	16.5	0.4	0.3	0.1	0.0	83.1	23.8	59.2	1,924
Some primary	157.2	1.4	768	32.9	15.3	0.5	0.5	0.0	0.0	84.3	21.6	62.7	719
Primary complete/ some secondary	158.7	0.6	2,292	28.8	32.4	2.8	2.3	0.3	0.2	64.8	26.8	38.0	2,146
Secondary complete/ higher	159.3	1.1	3,917	30.6	21.9	0.8	0.7	0.1	0.0	77.3	26.9	50.4	3,590
<b>Work status</b>													
Working for cash	158.2	2.2	1,204	31.9	16.2	0.7	0.6	0.0	0.1	83.3	24.1	59.1	1,146
Not working for cash	158.5	0.9	7,765	30.5	23.8	1.3	1.1	0.1	0.1	74.9	26.0	48.9	7,234
<b>Wealth quintile</b>													
Lowest	157.3	1.6	1,787	29.6	28.0	1.2	0.7	0.3	0.2	70.9	26.9	43.9	1,678
Second	158.0	1.1	1,797	30.4	23.6	0.9	0.8	0.1	0.0	75.5	29.1	46.3	1,667
Middle	158.7	1.2	1,807	30.9	22.7	1.2	1.0	0.2	0.0	76.1	25.9	50.2	1,674
Fourth	158.5	0.9	1,799	31.4	19.9	0.8	0.7	0.0	0.0	79.3	23.5	55.8	1,657
Highest	159.6	0.6	1,779	31.4	19.6	1.9	1.8	0.0	0.1	78.4	23.3	55.1	1,703
Total 15-59	158.4	1.1	8,969	30.7	22.8	1.2	1.0	0.1	0.1	76.0	25.7	50.3	8,379

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m<sup>2</sup>). Anthropometric data for women from the 2015 EHIS are not comparable to information presented in the 2014 EDHS or earlier surveys because (a) the age range includes women 15-59; (b) never-married women are included; and (c) women who gave birth to a child who died within two months of the survey are not excluded from the calculation of the BMI measure.

<sup>1</sup> The BMI calculations exclude pregnant women and women who have a child age 0-1 months.

<sup>2</sup> Does not include North and South Sinai governorates

Table 5.7.2 Nutritional status by background characteristics: Men

Mean height and percentage under 145 centimeters (cm) among men 15-59 and mean body mass index (BMI), and percentage with specific BMI levels among men age 15-59, by background characteristics, Egypt 2015

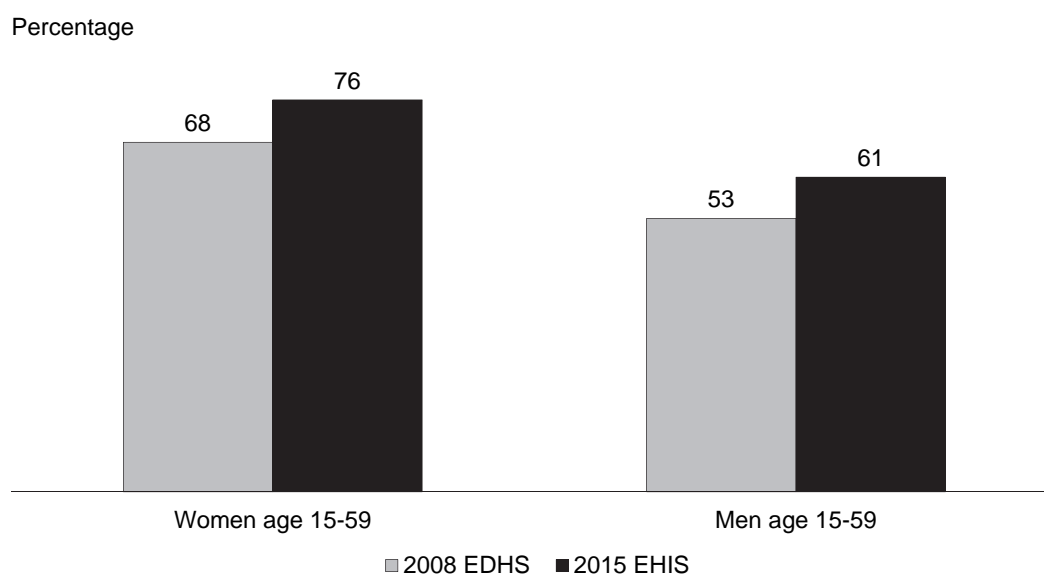
Background characteristic	Height			Mean Body Mass Index (BMI) <sup>1</sup>	Body Mass Index								Number of men
	Mean height in cm	Percentage below 145 cm	Number of men		18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	16.0-16.9 (moderately thin)	<16 (severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	
<b>Age</b>													
15-19	170.0	0.5	1,257	23.5	62.5	8.0	6.1	1.8	0.2	29.5	21.6	7.9	1,257
20-24	172.4	0.0	833	25.1	52.9	2.0	1.9	0.2	0.0	45.1	32.1	12.9	833
25-29	171.9	0.0	926	26.5	41.9	1.4	1.2	0.1	0.1	56.7	36.8	19.9	927
30-34	172.0	0.0	895	27.4	33.6	0.9	0.9	0.1	0.0	65.4	38.5	27.0	895
35-39	171.9	0.1	829	28.1	26.7	0.8	0.6	0.0	0.2	72.5	39.7	32.7	829
40-44	171.4	0.1	702	28.8	22.6	0.6	0.6	0.0	0.0	76.8	36.7	40.1	702
45-49	170.6	0.3	651	28.8	23.5	0.1	0.1	0.0	0.0	76.4	39.9	36.5	649
50-54	169.5	0.0	681	29.3	19.3	1.3	1.1	0.2	0.0	79.4	37.9	41.5	683
55-59	168.3	0.5	448	29.6	21.9	0.3	0.2	0.0	0.0	77.8	33.0	44.8	448
<b>Marital status</b>													
Never married	171.1	0.3	2,451	24.4	56.8	5.1	3.9	1.0	0.1	38.2	27.3	10.9	2,451
Ever married	171.0	0.1	4,771	28.3	27.0	0.8	0.7	0.0	0.0	72.3	37.9	34.4	4,771
<b>Urban-rural Residence</b>													
Urban	171.5	0.1	2,714	27.3	34.4	2.6	2.1	0.4	0.1	63.0	34.4	28.6	2,714
Rural	170.7	0.2	4,507	26.8	38.7	2.0	1.6	0.3	0.1	59.3	34.2	25.1	4,509
<b>Place of residence</b>													
Urban Governorates	171.7	0.0	1,004	27.3	34.4	3.0	2.7	0.1	0.1	62.6	35.7	26.9	1,004
Lower Egypt	171.6	0.2	3,583	27.5	33.4	1.6	1.2	0.4	0.1	65.0	34.5	30.5	3,584
Urban	172.4	0.0	812	27.9	32.6	1.6	0.9	0.7	0.0	65.8	31.2	34.6	812
Rural	171.3	0.2	2,771	27.4	33.6	1.6	1.3	0.3	0.1	64.8	35.5	29.3	2,772
Upper Egypt	170.0	0.2	2,579	26.2	43.1	2.8	2.3	0.5	0.1	54.1	33.4	20.6	2,579
Urban	170.4	0.3	869	26.9	36.0	3.1	2.5	0.4	0.2	61.0	35.9	25.0	869
Rural	169.8	0.1	1,710	25.8	46.7	2.7	2.2	0.5	0.0	50.6	32.2	18.4	1,711
Frontier Governorates <sup>2</sup>	170.8	0.0	55	25.6	45.2	2.8	1.9	0.9	0.0	52.0	32.1	19.9	55
<b>Education</b>													
No education	168.4	0.5	597	27.0	37.2	1.8	1.6	0.2	0.0	60.9	34.5	26.4	597
Some primary	170.2	0.1	671	27.5	34.8	1.0	1.0	0.0	0.0	64.1	37.0	27.1	671
Primary complete/ some secondary	170.2	0.3	2,156	25.3	48.8	4.8	3.6	1.1	0.1	46.4	28.9	17.5	2,156
Secondary complete/ higher	172.1	0.0	3,796	27.8	30.8	1.1	0.9	0.1	0.1	68.2	36.9	31.3	3,798
<b>Work status</b>													
Working for cash	171.0	0.1	5,954	27.5	33.5	1.3	1.1	0.1	0.1	65.2	36.2	29.0	5,955
Not working for cash	170.9	0.5	1,268	24.8	53.7	6.5	5.0	1.4	0.1	39.7	25.4	14.4	1,268
<b>Wealth quintile</b>													
Lowest	169.8	0.3	1,434	26.0	45.6	2.5	1.8	0.5	0.2	51.9	31.7	20.2	1,434
Second	170.3	0.0	1,388	26.3	41.7	2.3	1.9	0.3	0.0	56.0	35.1	20.9	1,388
Middle	171.4	0.1	1,347	27.6	33.3	1.2	0.9	0.1	0.1	65.5	35.3	30.2	1,348
Fourth	171.4	0.3	1,518	27.1	35.5	2.6	2.2	0.4	0.0	61.8	33.6	28.3	1,517
Highest	172.2	0.0	1,535	28.0	29.8	2.5	2.0	0.4	0.0	67.8	35.8	31.9	1,535
Total 15-59	171.0	0.2	7,221	27.0	37.1	2.2	1.8	0.4	0.1	60.7	34.3	26.4	7,223

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m<sup>2</sup>).

<sup>1</sup> Does not include North and South Sinai governorates

Figure 5.1 shows the trend in the proportions of women and men age 15-59 overweight and obese between the 2008 Egypt DHS and the 2015 Egypt Health Issues Survey. Among women age 15-59, the proportion overweight and obese increased from 68 percent in 2008 to 76 percent in 2015. Among men age 15-59, the proportion overweight and obese increased from 53 percent to 61 percent.

**Figure 5.1 Trends in the percentage overweight or obese among women and men age 15-59, Egypt 2008-2015**



#### 5.4 HIGH BLOOD PRESSURE

High blood pressure (hypertension) is associated with a range of serious medical conditions including heart and kidney disease and stroke. In the 2015 EHIS, blood pressure measurements were collected for the women and men age 15-59 interviewed in the survey. The blood pressure measurements provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EHIS interviews and do not constitute a medical diagnosis of hypertension.<sup>4</sup> However, the 2015 EHIS results are useful in providing insight into the size and characteristics of the population at risk for hypertension.

Blood pressure readings were taken by the EHIS interviewers using fully automatic digital blood pressure monitors with upper arm automatic inflation cuffs (Life Source Digital Blood Pressure Monitors Models UA-767V and Model UA-789 for individuals with large arms). Interviewers were trained to use the monitors according to manufacturer's instructions. Blood pressure is defined in terms of the force exerted by blood inside arteries. This force varies with each beat of the heart. Blood pressure is highest at the point the heart contracts and forces blood into the arterial system, and it is lowest when the heart muscle relaxes and allows blood to flow into the heart. The point at which pressure is highest is termed the systolic pressure and the point where the pressure is lowest is termed the diastolic pressure. The blood pressure measurements taken during the EHIS survey provided information on both systolic and diastolic blood pressure.

Three blood pressure readings (systolic and diastolic pressure) were taken during the survey interview, at approximately 10-minute intervals. Prior to taking the first blood pressure reading, the interviewers measured the respondent's arm circumference in order to determine the appropriate cuff size and monitor to use. Respondents were also asked for information about recent intake of food and caffeinated beverages as those factors can influence blood pressure readings. Virtually all eligible EHIS respondents participated in the blood pressure measurement. Measurements were not available due to refusal or technical problems during measurements for less than 1 percent of women and men (Tables 5.8.1 and 5.8.2). Respondents were given information on their blood pressure measures at the end of the interview and referred to a health provider for additional screening whenever appropriate.

<sup>4</sup> The Egypt Hypertension Society recommends that blood pressure measurements should be taken multiple times during several visits before an individual is diagnosed as hypertensive (Ibrahim 2014).

The average of the second and third blood pressure measurements was used to assign EHIS respondents into the following categories:

Category	Systolic pressure	Diastolic pressure
Optimal	<120	<80
Normal	120-129	80-84
High normal	130-139	85-89
Mildly elevated (stage 1)	140-159	90-99
Moderately elevated (stage 2)	160-179	100-109
Severely elevated (stage 3)	≥180	≥110

When the respondent's systolic and diastolic pressures fell into different categories, the higher category was used for classifying the respondent's pressure. Respondents with average systolic and diastolic measurements greater than or equal to 140/90 were considered to be hypertensive.<sup>5</sup> In addition, respondents were considered to be hypertensive if they had a normal or optimal blood pressure reading but were taking medication to lower their blood pressure.

Tables 5.8.1 and 5.8.2 present the prevalence of hypertension among EHIS respondents at the time of the survey according to selected socioeconomic characteristics. Overall, 17 percent of women and men were classified as hypertensive. For most of these individuals, blood pressure was only mildly elevated (140-159/90-99); only 3 percent of women and men age 15-59 were found to have moderately or severely elevated blood pressure. Finally, 4 percent of women and 2 percent of men were classified as hypertensive even though their blood pressure was in the normal range because they were taking prescribed blood pressure medication.

Hypertension levels for both women and men increased steadily with age. Overall, nearly 1 in 3 women and around 1 in 4 men age 35-59 were hypertensive. More than half of women and more than 2 in 5 men in the 55-59 age group were hypertensive, and 11 percent of women and 10 percent of men in this age group had a moderately or severely elevated blood pressure.

Among both women and men, urban residents were slightly more likely to be hypertensive than rural residents. Considering place of residence, the lowest hypertension rates were observed in the three the Frontier Governorates surveyed in the EHIS (12 percent for women and 14 percent for men). Hypertension rates were lower among women and men who had completed at least primary school compared with those with less or no education, with lowest rates observed among those in the primary complete/some secondary category. In large part, this may be an effect of the concentration in this educational category of younger respondents who have a very low likelihood of being hypertensive. The higher level of hypertension among women and men who were working for cash compared to those not working for cash is also likely in part related to the fact that the not working category includes a disproportionate number of younger respondents. Differences in the prevalence of hypertension across wealth quintiles are generally small and show no uniform pattern among both women and men.

<sup>5</sup> The cutoff for high blood pressure reflects the classification currently used by WHO (2014a) in its global reporting. In its most recent recommendations, the Egypt Hypertension Society suggests a more 'realistic' cutoff would be >150/95 mmHg (Ibrahim 2014). In the United States, the Eighth Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure also recently recommended a set of cutoffs for various population groups that are higher than the previous standard (James et al. 2014). However, the new cutoffs have not yet been officially adopted as guidelines for care by the United States National Heart, Lung and Blood Institute (NHLBI). The NHLBI cutoff for hypertension continues to be ≥140/≥90 (NHLBI 2015).



Table 5.8.1 Levels of hypertension by socioeconomic characteristics: Women

Prevalence of hypertension among women age 15-59 and percent distribution of women by blood pressure status according to socioeconomic characteristics and percentage hypertensive among women 35-59, Egypt 2015

Background characteristic	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (stage 1) 140-159/90-99 mmHg	Moderately elevated (stage 2) 160-179/100-109 mmHg	Severely elevated (stage 3) 180+/110+ mmHg	Normal and taking medication			
<b>Age</b>											
15-19	3.3	58.2	28.3	7.8	3.0	0.1	0.1	0.1	2.3	100.0	1,425
20-24	3.9	55.4	29.6	10.3	2.9	0.1	0.0	0.8	0.9	100.0	1,185
25-29	7.4	52.3	28.5	11.0	5.5	1.0	0.1	0.7	0.9	100.0	1,471
30-34	10.3	43.2	33.7	12.2	6.9	0.6	0.0	2.8	0.6	100.0	1,195
35-39	14.7	38.8	30.4	15.6	9.2	1.6	0.5	3.2	0.8	100.0	1,061
40-44	24.7	28.7	30.6	15.1	15.4	4.5	0.6	4.0	1.1	100.0	814
45-49	33.4	20.7	29.5	16.1	17.3	5.3	1.0	9.9	0.3	100.0	754
50-54	46.8	17.7	20.2	14.2	25.2	5.7	3.2	12.7	1.0	100.0	707
55-59	53.5	12.7	19.5	13.2	25.5	8.5	2.5	16.7	1.4	100.0	596
<b>Marital status</b>											
Never married	4.9	55.2	27.5	10.3	3.5	0.8	0.1	0.6	2.0	100.0	1,839
Ever married	20.3	37.4	28.8	12.7	11.7	2.6	0.8	5.1	0.9	100.0	7,370
<b>Urban-rural residence</b>											
Urban	19.4	41.5	27.2	10.9	10.3	2.7	0.5	5.9	1.0	100.0	3,359
Rural	15.9	40.7	29.3	13.0	9.9	2.0	0.7	3.2	1.1	100.0	5,850
<b>Place of residence</b>											
Urban Governorates	18.1	45.4	27.0	9.2	7.9	2.6	0.5	7.1	0.2	100.0	1,223
Lower Egypt	18.0	38.8	29.7	12.8	10.5	2.4	0.5	4.5	0.8	100.0	4,506
Urban	22.0	38.1	28.1	11.3	13.0	2.6	0.6	5.8	0.6	100.0	1,056
Rural	16.8	39.0	30.2	13.3	9.8	2.3	0.5	4.1	0.8	100.0	3,450
Upper Egypt	15.8	42.1	27.7	12.7	10.2	2.0	0.8	2.7	1.8	100.0	3,417
Urban	18.7	40.1	26.6	12.7	10.5	2.8	0.4	4.7	2.3	100.0	1,048
Rural	14.6	43.0	28.1	12.7	10.1	1.6	0.9	1.9	1.6	100.0	2,369
Frontier Governorates <sup>2</sup>	12.4	51.7	26.4	8.2	6.7	1.6	0.8	3.3	1.3	100.0	63
<b>Education</b>											
No education	27.4	30.1	27.2	14.2	15.3	4.3	1.5	6.0	1.4	100.0	2,031
Some primary	27.5	32.4	24.8	14.3	15.6	3.7	0.7	7.3	1.1	100.0	773
Primary complete/ some secondary	11.1	48.2	28.7	10.5	6.9	1.4	0.4	2.4	1.5	100.0	2,345
Secondary complete/ higher	13.7	43.9	29.8	11.9	8.1	1.5	0.3	3.7	0.7	100.0	4,060
<b>Work status</b>											
Working for cash	22.4	35.3	27.0	14.2	12.5	3.5	0.4	6.1	1.0	100.0	1,269
Not working for cash	16.4	41.9	28.8	11.9	9.6	2.1	0.7	3.9	1.1	100.0	7,940
<b>Wealth quintile</b>											
Lowest	15.5	42.3	28.4	12.6	10.1	2.6	0.9	1.8	1.3	100.0	1,806
Second	19.3	39.0	29.3	11.6	11.7	2.8	0.6	4.1	0.9	100.0	1,810
Middle	13.8	38.5	31.0	15.3	8.3	1.4	0.3	3.7	1.5	100.0	1,833
Fourth	18.0	41.5	27.0	12.9	10.6	1.7	0.8	4.8	0.9	100.0	1,865
Highest	19.3	43.6	27.2	9.1	9.5	2.9	0.5	6.4	0.9	100.0	1,895
Total 15-59	17.2	41.0	28.5	12.3	10.0	2.3	0.6	4.2	1.1	100.0	9,209
Total 35-59	32.0	25.5	26.8	15.0	17.4	4.7	1.4	8.4	0.9	100.0	3,932

Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EHIS interviews and do not represent a medical diagnosis of hypertension. The final blood pressure value for each respondent was an average of the second and third measurements taken during the survey.

<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

<sup>2</sup> Does not include North and South Sinai governorates

Table 5.8.2 Levels of hypertension by socioeconomic characteristics: Men

Prevalence of hypertension among men age 15-59 and percent distribution of men by blood pressure status according to socioeconomic characteristics and percentage hypertensive among men 35-59, Egypt 2015

Background characteristic	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (stage 1) 140-159/90-99 mmHg	Moderately elevated (stage 2) 160-179/100-109 mmHg	Severely elevated (stage 3) 180+/110+ mmHg	Normal and taking medication			
<b>Age</b>											
15-19	5.5	42.2	36.8	14.0	4.9	0.2	0.1	0.3	1.4	100.0	1,288
20-24	9.7	33.1	40.9	15.5	9.0	0.4	0.1	0.1	0.7	100.0	859
25-29	8.2	33.7	40.3	17.1	6.9	0.8	0.2	0.4	0.7	100.0	962
30-34	10.4	31.2	41.2	16.6	8.9	0.6	0.2	0.8	0.6	100.0	923
35-39	12.7	28.6	39.3	18.2	10.4	1.0	0.5	0.9	1.1	100.0	856
40-44	20.7	22.5	36.5	19.5	14.9	3.1	0.8	1.9	0.7	100.0	736
45-49	28.0	25.2	29.7	16.0	18.3	3.6	1.7	4.0	1.5	100.0	670
50-54	37.6	15.7	25.5	21.1	24.0	6.6	1.6	5.3	0.1	100.0	702
55-59	44.0	12.7	27.4	15.5	24.1	7.7	2.5	9.8	0.4	100.0	467
<b>Marital status</b>											
Never married	7.0	38.5	39.0	14.3	6.3	0.3	0.3	0.2	1.1	100.0	2,536
Ever married	21.7	24.6	34.8	18.2	14.9	3.0	0.9	2.9	0.7	100.0	4,926
<b>Urban-rural residence</b>											
Urban	17.2	30.8	35.6	15.6	10.4	2.6	1.0	3.0	0.9	100.0	2,847
Rural	16.4	28.4	36.6	17.7	12.9	1.8	0.5	1.3	0.8	100.0	4,615
<b>Place of residence</b>											
Urban Governorates	17.1	33.2	35.7	13.7	9.8	2.6	0.5	3.9	0.5	100.0	1,044
Lower Egypt	16.7	27.8	39.3	15.6	12.6	1.7	0.5	2.0	0.6	100.0	3,698
Urban	17.1	27.6	39.3	15.0	10.2	2.4	1.2	3.2	1.0	100.0	854
Rural	16.6	27.9	39.3	15.7	13.3	1.5	0.2	1.6	0.5	100.0	2,844
Upper Egypt	16.7	29.7	32.3	20.1	11.9	2.5	1.1	1.2	1.3	100.0	2,664
Urban	17.6	30.9	32.0	18.4	11.4	2.9	1.4	1.8	1.2	100.0	919
Rural	16.2	29.0	32.5	21.0	12.2	2.3	0.8	0.8	1.3	100.0	1,745
Frontier Governorates <sup>2</sup>	14.0	41.4	32.0	11.0	12.1	0.8	0.5	0.6	1.7	100.0	56
<b>Education</b>											
No education	22.1	23.9	34.2	18.8	14.4	4.0	1.3	2.4	1.1	100.0	621
Some primary	21.6	28.2	30.4	18.4	15.2	3.0	1.1	2.2	1.3	100.0	686
Primary complete/ some secondary	10.8	35.3	38.0	15.0	8.0	1.0	0.3	1.5	0.8	100.0	2,207
Secondary complete/ higher	18.4	27.0	36.6	17.4	13.2	2.2	0.7	2.1	0.8	100.0	3,948
<b>Working status</b>											
Working for cash	17.8	27.5	36.4	17.6	12.8	2.3	0.8	1.9	0.7	100.0	6,137
Not working for cash	11.7	37.9	35.4	13.4	8.2	1.1	0.1	2.3	1.6	100.0	1,325
<b>Wealth quintile</b>											
Lowest	14.1	30.6	37.8	16.7	10.5	1.9	0.6	1.0	0.8	100.0	1,462
Second	18.3	27.0	37.4	16.5	14.2	1.7	0.8	1.6	0.8	100.0	1,424
Middle	17.7	27.5	34.6	19.3	14.7	1.2	0.3	1.4	1.0	100.0	1,379
Fourth	15.9	30.8	34.8	17.8	10.5	2.2	0.9	2.3	0.8	100.0	1,571
Highest	17.8	30.4	36.7	14.5	10.4	3.2	0.8	3.2	0.9	100.0	1,626
Total 15-59	16.7	29.3	36.2	16.9	11.9	2.1	0.7	2.0	0.9	100.0	7,462
Total 35-59	26.8	21.8	32.4	18.3	17.6	4.0	1.3	3.8	0.8	100.0	3,430

Note: The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EHIS interviews and do not represent a medical diagnosis of hypertension.

The final blood pressure value for each respondent was an average of the second and third measurements taken during the survey.

<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

<sup>2</sup> Does not include North and South Sinai governorates

Tables 5.9.1 and 5.9.2 present the prevalence of hypertension among EHIS respondents at the time of the survey according to selected health status measures. As expected, a prior history of hypertension was related strongly to the rate of hypertension found in the survey as was a history of diabetes or of heart attack or stroke. Among men, the hypertension rate was highest among those who had ever smoked cigarettes or other tobacco products in the past but were not smoking tobacco products at the time of the survey (31 percent).

Table 5.9.1 Levels of hypertension by health status measures: Women

Prevalence of hypertension among women age 15-59 and percent distribution of women by blood pressure status according to health status measures, Egypt 2015

Health status measures	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (stage 1) 140-159/90-99 mmHg	Moderately elevated (stage 2) 160-179/100-109 mmHg	Severely elevated (stage 3) 180+/110+ mmHg	Normal and taking medication			
<b>Use of tobacco products</b>											
Currently smoking tobacco products	*	*	*	*	*	*	*	*	*	100.0	15
Ever smoked tobacco products but not currently	*	*	*	*	*	*	*	*	*	100.0	6
Never smoked tobacco products	17.2	41.0	28.5	12.3	10.1	2.3	0.6	4.2	1.1	100.0	9,188
<b>History of hypertension</b>											
Told blood pressure was high	86.9	3.6	5.9	3.6	32.7	9.1	4.3	40.0	0.8	100.0	963
On one occasion	(27.5)	(29.8)	(28.1)	(14.7)	(9.9)	(0.9)	(2.4)	(14.3)	(0.0)	100.0	18
On two or more occasions	88.0	3.1	5.4	3.4	33.1	9.2	4.4	40.5	0.9	100.0	945
Never told	9.1	45.4	31.2	13.3	7.4	1.5	0.2	0.0	1.1	100.0	8,244
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	2
<b>History of diabetes</b>											
Told had diabetes by medical practitioner	60.0	12.9	17.1	10.0	28.5	5.7	2.0	23.2	0.7	100.0	464
Never told had diabetes	14.8	42.5	29.2	12.4	9.0	2.0	0.6	3.1	1.1	100.0	8,646
Don't know/never heard of diabetes/missing	*	*	*	*	*	*	*	*	*	100.0	1
<b>History of heart attack/ stroke</b>											
Told had heart attack/ stroke by medical practitioner	51.0	23.5	10.1	13.8	16.9	0.2	2.0	31.9	1.5	100.0	41
Never told	17.0	41.1	28.6	12.2	10.0	2.3	0.6	4.1	1.1	100.0	9,168
<b>Nutritional status</b>											
Thin	2.1	63.7	23.3	4.2	2.1	0.0	0.0	0.0	6.6	100.0	101
Normal	5.7	56.7	27.6	8.0	4.2	0.3	0.2	0.9	2.0	100.0	1,910
Overweight	10.4	44.9	30.9	13.2	5.9	2.0	0.5	2.0	0.7	100.0	2,155
Obese	27.8	29.0	28.7	13.9	15.8	3.6	1.0	7.2	0.8	100.0	4,213
Not eligible (pregnant or recent birth)	5.8	59.6	25.2	9.1	4.2	0.2	0.0	1.4	0.3	100.0	586
Out of range/missing	19.1	36.5	22.6	20.2	9.9	2.3	1.1	5.3	2.2	100.0	244
<b>Total 15-59</b>	<b>17.2</b>	<b>41.0</b>	<b>28.5</b>	<b>12.3</b>	<b>10.0</b>	<b>2.3</b>	<b>0.6</b>	<b>4.2</b>	<b>1.1</b>	<b>100.0</b>	<b>9,209</b>

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed. The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EHIS interviews and do not represent a medical diagnosis of hypertension.

<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

Table 5.9.2 Levels of hypertension by health status measures: Men

Prevalence of hypertension among men age 15-59 and percent distribution of men by blood pressure status according to health status measures, Egypt 2015

Health status measures	Prevalence of hypertension <sup>1</sup>	Classification of blood pressure (WHO)							Missing final BP level	Total percent	Number age 15-59
		Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (stage 1) 140-159/90-99 mmHg	Moderately elevated (stage 2) 160-179/100-109 mmHg	Severely elevated (stage 3) 180+/110+ mmHg	Normal and taking medication			
<b>Use of tobacco products</b>											
Currently smoking tobacco products	16.6	28.6	35.5	18.8	12.2	1.9	0.6	1.9	0.6	100.0	3,464
Ever smoked tobacco products but not currently	31.3	23.2	31.7	13.6	19.6	5.0	1.3	5.1	0.4	100.0	595
Never smoked tobacco products	14.3	31.2	37.8	15.5	10.4	1.8	0.6	1.5	1.2	100.0	3,403
<b>History of hypertension</b>											
Told blood pressure was high	84.9	3.9	5.0	5.8	30.4	12.2	4.7	36.5	1.4	100.0	400
On one occasion	*	*	*	*	*	*	*	*	*	100.0	13
On two or more occasions	85.7	3.8	4.9	5.2	30.7	12.4	4.4	37.3	1.4	100.0	387
Never told	12.9	30.8	38.0	17.5	10.9	1.5	0.4	0.0	0.8	100.0	7,061
Don't know/missing	*	*	*	*	*	*	*	*	*	100.0	1
<b>History of diabetes</b>											
Told had diabetes by medical practitioner	50.1	10.3	23.6	15.1	29.4	6.7	1.3	12.6	0.9	100.0	333
Never told had diabetes	15.2	30.1	37.0	17.0	11.2	1.9	0.6	1.4	0.8	100.0	7,050
<b>History of heart attack/stroke</b>											
Told had heart attack/stroke by medical practitioner	64.5	8.9	17.8	8.7	31.5	4.3	2.7	26.0	0.0	100.0	74
Never told	16.2	29.5	36.4	17.0	11.7	2.1	0.7	1.7	0.9	100.0	7,388
<b>Nutritional status</b>											
Thin	2.0	52.3	27.0	15.5	1.7	0.0	0.3	0.0	3.3	100.0	161
Normal	9.0	38.3	37.4	14.5	7.4	0.7	0.3	0.5	0.8	100.0	2,678
Overweight	15.7	27.2	37.9	18.6	11.7	1.4	0.6	2.0	0.7	100.0	2,477
Obese	30.0	18.5	32.8	18.3	19.5	5.4	1.3	3.7	0.4	100.0	1,906
Out of range/missing	18.3	22.1	39.7	15.4	12.4	0.0	0.4	5.2	4.9	100.0	239
Total 15-59	16.7	29.3	36.2	16.9	11.9	2.1	0.7	2.0	0.9	100.0	7,462

Note: An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed. The blood pressure measurements taken in the survey provide a cross-sectional assessment of the prevalence of high blood pressure readings in the surveyed population at the time of the EHIS interviews and do not represent a medical diagnosis of hypertension.

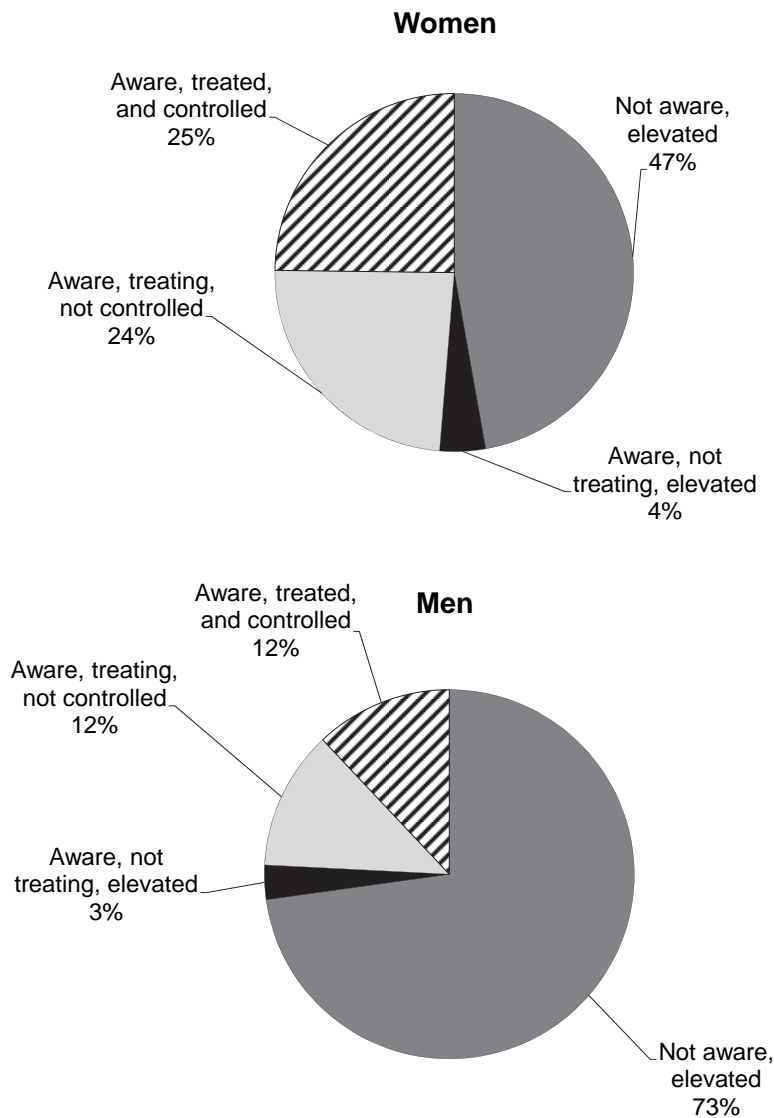
<sup>1</sup> Blood pressure  $\geq 140/90$  mmHg or currently taking antihypertensive medication

Nutritional status was strongly related to the rate of hypertension for both women and men. Women classified as obese were nearly five times as likely (28 percent) as women with a BMI within the normal range (6 percent) to be classified as hypertensive, while women classified as overweight (10 percent) were almost twice as likely as those of normal weight to be hypertensive. Among men, 30 percent of those who were obese and 16 percent of those who were overweight were hypertensive compared to only 9 percent of men whose BMI fell within the normal range.

The first step in addressing hypertension obviously is for the hypertensive individual to be aware of his or her condition. The EHIS results allow an assessment of the extent to which individuals with elevated blood pressure measurements at the time of the survey were aware of their condition and successfully treating it. Figure 5.2 shows that many EHIS respondents who had an elevated blood pressure reading at the time of the survey had not been told in the past that their pressure was high; 73 percent of men and 47 percent of women who were classified as hypertensive had never been told previously by a health provider that they had high blood pressure.

Among those who had been informed their blood pressure was elevated before the survey, most were taking medication to control their blood pressure. Despite taking medication, however, many of these individuals still had elevated blood pressure at the time of the survey. Overall, only 1 in 4 women and 1 in 8 men classified as hypertensive in the EHIS had been previously told they had high blood, were treating the condition, and had a normal blood pressure reading at the time of the survey.

**Figure 5.2 Awareness of condition and treatment status among hypertensive women and men age 15-59**





**Key Findings**

- While around 9 in 10 women and men approve of the use of family planning after the first birth, only 8 percent of women and 10 percent of men believe it appropriate for a couple to use family planning before they have their first child.
- Around 4 in 10 women and men think it is ideal for children to be born two years or less apart; children born at such closely spaced intervals have a much higher risk of dying in early childhood than children born at longer intervals after a prior birth.
- The mean ideal number of children among men is 10 percent higher than women's ideal number (3.4 and 3.1 children, respectively).
- The average preferred family size among men in rural Upper Egypt and in the three surveyed Frontier Governorates is 3.9 children.
- Three in four women and men think it is best for a girl to marry by age 20, while only 13 percent of women and 19 percent of men think a man should marry by that age.

This chapter reviews 2015 EHIS results related to several topics of importance in understanding current fertility behavior in Egypt, including family planning knowledge and attitudes with regard to the timing of use of contraception and the ideal family size, birth interval, and age at marriage. The information is presented for all women and men age 15-49. This hopefully will provide insights into these issues for men and never-married individuals who have not typically been included in prior Egypt DHS surveys, which have largely focused on ever-married women.

## 6.1 KNOWLEDGE OF FAMILY PLANNING METHODS

Knowledge of family planning methods is basic to making informed decisions on whether to use contraception and which method to adopt. To assess contraceptive knowledge, all respondents age 15-49, regardless of marital status, were asked separately if they had ever heard about each of 12 contraceptive methods. These methods included nine modern methods (pill, IUD, injectables, implant, vaginal methods [diaphragm and contraceptive foam or jelly], condom, female sterilization, male sterilization, and emergency contraception) and three traditional methods (periodic abstinence, withdrawal, and prolonged breastfeeding). If a respondent did not recognize a method, the interviewer would describe the method and ask again whether the respondent had heard about it. Methods recognized by the respondent either by name or after the description was read were recorded as known. In addition, provision was made in the questionnaire to record other methods that respondents mentioned spontaneously. No questions were asked to elicit information on depth of knowledge of the methods (e.g., on the respondent's understanding of how to use a specific method). Therefore, in the analysis that follows, knowledge of a family planning method is defined simply as having heard of the method.

Table 6.1 presents information for all women and men age 15-49 on the knowledge of family planning methods. The results are presented separately for respondents age 15-24 and those age 25-49 to allow for comparisons of knowledge levels among youth and older respondents. Overall, the results in Table 6.1 indicate that most women and men know at least one family planning method and at least

one modern method (99 percent of women and 96 percent of men). Women are somewhat more likely than men to know at least one traditional family planning method (77 percent and 66 percent, respectively). The most widely known methods are the pill, injectables, and the IUD; more than 9 in 10 women and men recognize these methods. Except for the condom male sterilization, and withdrawal, women are more likely than men to know about each of the specific methods included in Table 6.1.

Table 6.1 Knowledge of family planning methods

Percentage of women and men age 15-49 who know a family planning method, by specific method according to age, Egypt 2015

Method	Percentage of women knowing method			Percentage of men knowing method		
	15-24	25-49	Total 15-49	15-24	25-49	Total 15-49
<b>Any method</b>	<b>96.6</b>	<b>99.9</b>	<b>98.8</b>	<b>89.4</b>	<b>99.3</b>	<b>95.9</b>
<b>Any modern method</b>	<b>96.6</b>	<b>99.9</b>	<b>98.8</b>	<b>89.4</b>	<b>99.3</b>	<b>95.9</b>
Pill	95.3	99.7	98.2	86.3	98.2	94.1
IUD	91.9	99.4	96.9	78.7	98.0	91.4
Injectables	94.9	99.7	98.2	85.4	98.4	94.0
Implants	66.7	87.8	80.8	47.7	73.9	64.9
Diaphragm/foam/jelly	16.2	34.8	28.6	10.7	28.7	22.5
Condom	34.0	62.6	53.2	45.0	74.4	64.4
Female sterilization	54.1	74.4	67.7	42.5	63.7	56.5
Male sterilization	10.2	15.5	13.8	10.8	19.0	16.2
Emergency contraception	8.5	17.8	14.7	3.3	15.8	11.5
<b>Any traditional method</b>	<b>60.6</b>	<b>85.6</b>	<b>77.4</b>	<b>46.9</b>	<b>75.6</b>	<b>65.8</b>
Periodic abstinence	23.2	44.5	37.5	12.8	36.6	28.4
Withdrawal	24.3	51.9	42.8	30.6	59.9	49.9
Prolonged breastfeeding	57.2	81.2	73.3	34.8	63.7	53.9
Other	0.0	0.2	0.1	0.0	0.0	0.0
Number	2,611	5,295	7,906	2,147	4,146	6,293

Considering the age differentials shown in Table 6.1, female respondents age 15-24 are almost as knowledgeable about any family planning method as older respondents; there is only a three percentage point difference between women age 15-24 and those age 25-49 in the level of knowledge of any method (97 percent and almost 100 percent, respectively). Among men, the gap in the knowledge of any method is wider (10 percentage points), with only 89 percent of men age 15-24 knowing at least one family planning method compared to 99 percent of men age 25-49. Knowledge of specific methods is consistently lower among both women and men age 15-24 than among older adults.

## 6.2 ATTITUDES TOWARD THE TIMING OF USE OF FAMILY PLANNING

The EHIS included questions about the appropriateness of a couple's use of family planning before the first pregnancy and after the first birth. Tables 6.2.1 and 6.2.2 show that 90 percent of women and 87 percent of men age 15-49 consider it appropriate for a couple to begin using family planning after the first birth. In contrast, only 8 percent of women and 10 percent of men regard use before the first pregnancy as appropriate. Young women and men under age 25 are no more likely to approve of family planning use by a couple before they have their first birth than older women and men.

Considering other differences in the tables, the highest proportions of both women and men age 15-49 approving family planning use before the first birth were observed in urban Lower Egypt (12 percent each) and the lowest proportions were found in the Frontier Governorates (2 percent among women and 3 percent among men). Women in the lowest wealth quintile and men from the three Frontier Governorates surveyed in the EHIS were least likely to approve of family planning use after the first birth (83 percent and 75 percent, respectively).



Table 6.2.1 Attitude about timing of use of family planning among newly married couples by background characteristics: Women

Percentage of women age 15-49 approving of a couple's using family planning before the first pregnancy and after the first birth, by age and background characteristics, Egypt 2015

Background characteristic	Women 15-24			Women 25-49			Women 15-49		
	Use FP before first pregnancy	Use FP after first birth	Number	Use FP before first pregnancy	Use FP after first birth	Number	Use FP before first pregnancy	Use FP after first birth	Number
<b>Marital status</b>									
Never married	6.5	85.8	1,573	6.9	88.1	254	6.5	86.1	1,827
Married	7.7	91.3	1,003	7.8	91.8	4,660	7.8	91.7	5,664
Widowed/divorced/ separated	(12.0)	(96.3)	35	7.5	89.4	380	7.9	90.0	415
<b>Residence</b>									
Urban	6.8	88.8	908	6.2	94.4	1,883	6.4	92.6	2,791
Rural	7.1	87.6	1,703	8.6	89.8	3,412	8.1	89.0	5,115
<b>Place of residence</b>									
Urban Governorates	3.2	88.8	305	2.7	94.5	691	2.9	92.8	996
Lower Egypt	9.4	90.1	1,240	10.2	92.4	2,601	9.9	91.7	3,841
Urban	12.1	89.7	301	11.2	94.2	568	11.5	92.7	869
Rural	8.6	90.3	940	9.9	91.9	2,033	9.5	91.4	2,973
Upper Egypt	5.3	85.3	1,048	6.5	89.2	1,963	6.1	87.8	3,011
Urban	5.1	87.7	293	5.6	94.7	604	5.5	92.5	897
Rural	5.3	84.3	755	6.9	86.7	1,359	6.4	85.9	2,114
Frontier Governorates <sup>1</sup>	4.2	86.5	18	1.4	85.6	40	2.3	85.9	58
<b>Education</b>									
No education	5.1	67.9	112	7.9	86.1	1,297	7.7	84.6	1,409
Some primary	5.5	89.6	115	5.0	88.9	405	5.1	89.0	520
Primary complete/ some secondary	6.2	86.8	1,339	8.2	91.8	866	7.0	88.8	2,205
Secondary complete/ higher	8.3	91.6	1,044	8.0	94.2	2,727	8.1	93.5	3,771
<b>Work status</b>									
Working for cash	7.3	92.6	144	8.3	93.4	871	8.2	93.3	1,015
Not working for cash	7.0	87.8	2,467	7.7	91.0	4,424	7.4	89.9	6,891
<b>Wealth quintile</b>									
Lowest	6.2	78.7	527	9.4	84.5	1,017	8.3	82.6	1,543
Second	7.1	89.3	504	6.4	89.6	1,052	6.6	89.5	1,556
Middle	5.6	92.2	549	9.9	92.7	1,095	8.5	92.5	1,643
Fourth	8.5	89.7	519	6.4	93.9	1,059	7.1	92.6	1,578
Highest	7.7	90.1	512	6.7	96.0	1,073	7.0	94.1	1,585
Total	7.0	88.0	2,611	7.8	91.4	5,295	7.5	90.3	7,906

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Does not include North and South Sinai governorates

Table 6.2.2 Attitude about timing of use of family planning among newly married couples by background characteristics: Men

Percentage of men age 15-49 approving of a couple's using family planning before the first pregnancy and after the first birth, by background characteristics, Egypt 2015

Background characteristic	Men 15-24			Men 25-49			Men 15-49		
	Use FP before first pregnancy	Use FP after first birth	Number	Use FP before first pregnancy	Use FP after first birth	Number	Use FP before first pregnancy	Use FP after first birth	Number
<b>Marital status</b>									
Never married	8.7	83.1	1,998	7.8	89.9	529	8.5	84.5	2,527
Married	9.3	83.0	146	10.2	89.3	3,562	10.2	89.1	3,708
Widowed/divorced/separated	*	*	3	10.2	79.0	55	9.7	76.1	58
<b>Residence</b>									
Urban	7.8	85.1	836	8.7	90.9	1,487	8.4	88.8	2,323
Rural	9.3	81.6	1,311	10.6	88.3	2,659	10.2	86.1	3,970
<b>Place of residence</b>									
Urban Governorates	7.0	87.2	317	3.4	90.1	523	4.7	89.0	840
Lower Egypt	10.3	86.9	1,017	12.0	91.0	2,061	11.5	89.6	3,078
Urban	10.0	89.1	250	13.3	92.9	428	12.1	91.5	678
Rural	10.5	86.2	767	11.7	90.5	1,633	11.3	89.1	2,400
Upper Egypt	7.4	76.5	800	9.5	87.0	1,524	8.8	83.4	2,324
Urban	6.9	79.3	263	10.5	90.7	514	9.3	86.8	777
Rural	7.7	75.2	537	9.0	85.0	1,010	8.5	81.6	1,547
Frontier Governorates <sup>1</sup>	5.0	73.9	14	2.0	75.0	38	2.8	74.7	51
<b>Education</b>									
No education	(9.6)	(76.4)	20	8.5	80.1	355	8.6	79.9	375
Some primary	17.1	79.6	99	9.8	89.9	388	11.3	87.8	487
Primary complete/some secondary	8.3	80.6	1,174	8.7	88.5	848	8.5	83.9	2,023
Secondary complete/higher	8.3	86.7	854	10.5	90.7	2,554	10.0	89.7	3,409
<b>Work status</b>									
Working for cash	9.7	84.1	1,057	10.0	89.4	4,023	9.9	88.3	5,080
Not working for cash	7.8	81.9	1,091	6.7	85.1	123	7.6	82.2	1,214
<b>Wealth quintile</b>									
Lowest	10.0	75.3	492	11.2	85.7	737	10.7	81.5	1,229
Second	6.9	82.3	433	12.0	87.0	786	10.2	85.3	1,219
Middle	11.4	89.4	336	9.6	89.7	863	10.1	89.6	1,199
Fourth	6.5	82.0	415	9.2	90.0	918	8.3	87.5	1,333
Highest	9.1	88.0	471	7.9	93.0	842	8.3	91.2	1,313
Total	8.7	83.0	2,147	9.9	89.2	4,146	9.5	87.1	6,293

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Does not include North and South Sinai governorates

### 6.3 EXPOSURE TO FAMILY PLANNING MESSAGES

Messages communicated through the mass media and other channels are important in promoting family planning awareness and use. The 2015 EHIS included questions to determine if women and men had heard family planning messages during the six months before the survey through broadcast media (television or radio), print materials (newspaper/magazines and poster/billboard/sign), at community meetings, or from religious leaders. Tables 6.3.1 and 6.3.2 show that, as expected, television is the primary source of family planning information; around 1 in 4 currently married women and 1 in 5 currently married men age 15-49 had viewed a family planning message on television in the six months before the survey. Seventeen percent of married women and 6 percent of married men saw messages on posters, billboards, or signs. Very few married women and men—2 percent or less—obtained information on family planning from other sources. Overall, 67 percent of married women and 77 percent of married men were not exposed to family planning messages through any of the sources in the six-month period prior to the survey.

Table 6.3.1 Exposure to family planning messages by background characteristics: Women

Percentage of currently married women age 15-49 who heard or saw a family planning message on various media in the six months prior to the interview, according to background characteristics, Egypt 2015

Background characteristic	Radio	Television	Newspaper/ magazine	Poster/ billboard/ sign	Community meeting	Religious leader	No exposure to family planning messages	Number
<b>Age</b>								
15-19	1.4	21.8	1.7	21.2	0.0	0.0	66.9	227
20-24	2.7	24.6	0.6	19.0	1.5	0.7	64.9	776
25-29	1.6	26.1	1.5	19.1	1.9	0.2	64.9	1,294
30-34	1.6	25.9	0.8	17.4	1.5	0.3	65.6	1,088
35-39	1.9	24.4	0.8	15.7	1.0	0.2	67.3	961
40-44	1.0	26.1	0.6	13.1	1.3	0.7	68.0	711
45-49	1.4	25.2	1.9	9.2	1.4	0.1	70.2	607
<b>Urban-rural residence</b>								
Urban	1.3	25.4	1.6	13.3	1.2	0.2	68.1	1,848
Rural	1.9	25.2	0.8	18.0	1.5	0.4	65.7	3,816
<b>Place of residence</b>								
Urban Governorates	0.8	17.9	1.9	10.1	0.5	0.0	77.3	656
Lower Egypt	1.4	20.8	0.8	15.6	1.3	0.1	69.6	2,852
Urban	1.5	25.6	0.9	12.9	2.1	0.0	66.3	576
Rural	1.3	19.6	0.8	16.2	1.1	0.1	70.4	2,276
Upper Egypt	2.4	33.4	1.2	19.6	1.8	0.7	59.2	2,112
Urban	1.7	33.3	2.0	16.9	1.3	0.5	60.4	595
Rural	2.6	33.5	0.8	20.6	2.0	0.8	58.7	1,517
Frontier Governorates <sup>1</sup>	1.6	35.1	2.8	23.6	4.4	0.7	56.0	44
<b>Education</b>								
No education	1.2	19.3	0.2	10.1	0.4	0.2	73.8	1,170
Some primary	1.1	20.6	0.4	11.9	0.1	0.4	71.7	428
Primary complete/ some secondary	1.3	23.7	0.8	17.3	0.4	0.5	67.6	1,116
Secondary complete/ higher	2.1	29.0	1.6	19.3	2.4	0.3	62.4	2,949
<b>Work status</b>								
Working for cash	2.4	29.6	3.2	19.6	5.4	0.4	62.5	733
Not working for cash	1.6	24.7	0.7	16.0	0.8	0.3	67.1	4,930
<b>Wealth quintile</b>								
Lowest	2.0	29.5	0.8	19.7	1.2	0.8	60.5	1,086
Second	2.1	24.5	0.8	18.9	1.3	0.3	64.3	1,122
Middle	1.2	19.8	0.5	14.4	1.5	0.3	72.4	1,264
Fourth	1.8	26.3	0.9	16.3	1.8	0.2	66.9	1,157
Highest	1.3	27.3	2.5	13.0	1.1	0.0	67.4	1,035
Total	1.7	25.3	1.1	16.5	1.4	0.3	66.5	5,664

<sup>1</sup> Does not include North and South Sinai governorates

Table 6.3.2 Exposure to family planning messages by background characteristics: Men

Percentage of currently married men age 15-49 who heard or saw a family planning message on various media in the six months prior to the interview, according to background characteristics Egypt 2015

Background characteristic	Radio	Television	Newspaper/ magazine	Poster/ billboard/ sign	Community meeting	Religious leader	No exposure to family planning messages	Number
<b>Age</b>								
15-19	*	*	*	*	*	*	*	3
20-24	1.3	19.7	0.0	6.1	2.1	1.2	78.8	143
25-29	0.8	19.6	2.1	6.7	1.4	0.8	78.3	570
30-34	0.9	19.1	0.6	6.0	0.6	0.7	78.1	803
35-39	1.6	24.4	1.2	6.4	0.6	0.4	74.2	818
40-44	0.8	20.7	1.1	6.9	0.6	1.3	76.6	717
45-49	1.5	19.5	2.6	6.5	0.4	1.1	78.1	654
<b>Residence</b>								
Urban	1.4	21.7	1.7	6.0	0.7	0.6	76.3	1,210
Rural	1.0	20.3	1.2	6.7	0.7	1.0	77.3	2,498
<b>Place of residence</b>								
Urban Governorates	2.2	17.5	2.5	7.0	0.7	0.5	78.4	412
Lower Egypt	0.7	15.8	0.9	5.1	0.4	0.6	82.0	1,911
Urban	0.7	19.4	1.5	4.7	0.3	0.0	79.6	361
Rural	0.7	15.0	0.8	5.2	0.4	0.7	82.6	1,550
Upper Egypt	1.4	28.3	1.7	8.0	1.1	1.3	69.9	1,351
Urban	1.2	27.1	1.0	6.1	1.0	1.2	72.2	418
Rural	1.5	28.8	2.0	8.8	1.2	1.3	68.9	933
Frontier Governorates <sup>1</sup>	4.5	42.3	2.6	15.8	3.9	2.8	55.0	34
<b>Education</b>								
No education	0.2	15.9	0.5	2.0	0.0	0.7	82.6	341
Some primary	1.2	12.4	0.3	2.8	0.5	0.5	86.2	368
Primary complete/ some secondary	0.7	17.8	0.3	5.3	0.7	1.0	79.6	787
Secondary complete/ higher	1.4	24.0	2.1	8.2	0.9	0.9	73.7	2,212
<b>Work status</b>								
Working for cash	1.1	20.8	1.4	6.5	0.8	0.8	76.9	3,644
Not working for cash	2.5	20.6	0.4	5.1	0.0	3.8	79.0	64
<b>Wealth quintile</b>								
Lowest	1.4	23.4	1.0	6.6	1.0	0.8	74.1	654
Second	0.9	19.3	1.4	8.1	0.4	1.4	77.8	728
Middle	0.6	17.0	0.9	5.3	0.8	1.1	80.6	830
Fourth	1.1	18.8	1.2	5.2	0.9	0.4	79.6	822
Highest	1.9	26.9	2.7	7.5	0.5	0.5	71.3	675
Total	1.1	20.8	1.4	6.4	0.7	0.8	77.0	3,708

Note: An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

<sup>1</sup> Does not include North and South Sinai governorates

In general, the differentials in the proportions of married women and men who had heard about family planning through any of the channels shown in the tables are not large. The proportion with no exposure to family planning messages was lowest in the Frontier Governorates for both women and men (56 percent and 55 percent, respectively). Among women, the highest proportion not exposed to any family planning messages was observed in the Urban Governorates (77 percent). Among men, the proportion not exposed to any family planning messages exceeded 80 percent among those residing in rural Lower Egypt, those with no or only some primary education, and those in the middle wealth quintile.

## 6.4 IDEAL NUMBER AND SPACING OF BIRTHS

Family planning provides couples with the means to limit their family size to their desired number of children. Family planning also allows couples to optimally space wanted births in order to reduce health risks for mothers and children associated with births that are too closely spaced. The

2015 EHIS collected information from women and men age 15-49 about their ideal number of children and the interval between births they considered ideal; these results are expected to be useful in targeting messages within Egypt's family planning program.

#### 6.4.1 Ideal Number of Children

One of the major findings of the 2014 EDHS was the rise in the fertility rate in Egypt. The total fertility rate in the three-year period prior to the 2014 EDHS was 3.5 births, 17 percent higher than the rate at the time of the 2008 EDHS and more than one child higher than the target fertility rate of 2.4 births set for 2012 in the country's 2002-2017 National Population Strategy (Sayed, 2011).

To better understand the childbearing preferences that may be contributing to the rise in fertility, the 2015 EHIS included a question to ascertain a respondent's ideal number of children. The question required respondents to perform the difficult task of considering the number of children they would choose to have in their lifetime regardless of the number (if any) they had already. Table 6.4 shows the distribution of women and men age 15-49 by their ideal number of children. The results indicate that women are somewhat more likely than men to prefer two or fewer children (36 percent and 31 percent, respectively) and somewhat less likely to want four or more children (32 percent and 37 percent, respectively). Overall, the mean ideal number of children among men is about 10 percent higher than women's ideal number (3.4 children and 3.1 children, respectively).

Table 6.4 Ideal number of children

Percent distribution of women and men age 15-49 by ideal number of children, and mean ideal number of children, Egypt 2015

Ideal number of children	Women	Men
0	0.3	0.3
1	1.6	0.9
2	34.1	29.4
3	30.5	30.8
4	23.7	23.4
5	5.0	6.3
6+	3.5	7.3
Non-numeric responses	1.4	1.6
Total	100.0	100.0
Mean ideal number of children <sup>1</sup>	3.1	3.4
Number of respondents	7,906	6,293

<sup>1</sup> Means are calculated excluding respondents who gave non-numeric responses.

Table 6.5 presents differentials in the mean ideal number of children by age and background characteristics. The mean ideal number of children is lower among both women and men under age 25 than among older women and men (Figure 6.1). The higher mean among older adults is likely in part a reflection of the tendency for individuals' preferred family size to reflect the number of children they have.

Looking at the variation in the ideal family size by other background characteristics, a preference for at least a three-child family is shared by many subgroups. Among women, the mean ideal family size is highest among those with no education (3.5 children) and those residing in rural Upper Egypt (3.4 children). Among men, the ideal family size is highest among those in rural Upper Egypt and the three Frontier Governorates included in the survey (3.9 children each).

It is encouraging that, in most subgroups, women and men age 15-24 tend to prefer smaller families than older women and men. Nevertheless, among young men, the average preferred family size is less than three children only among those from urban areas, those residing in the Urban Governorates and Lower Egypt, those not working for cash, and those in the two highest wealth quintiles. On the other hand, among young women, the mean ideal number is less than three in all subgroups except married women, women from rural Upper Egypt, and those with no education.

Table 6.5 Mean ideal number of children among women and men by age and background characteristics

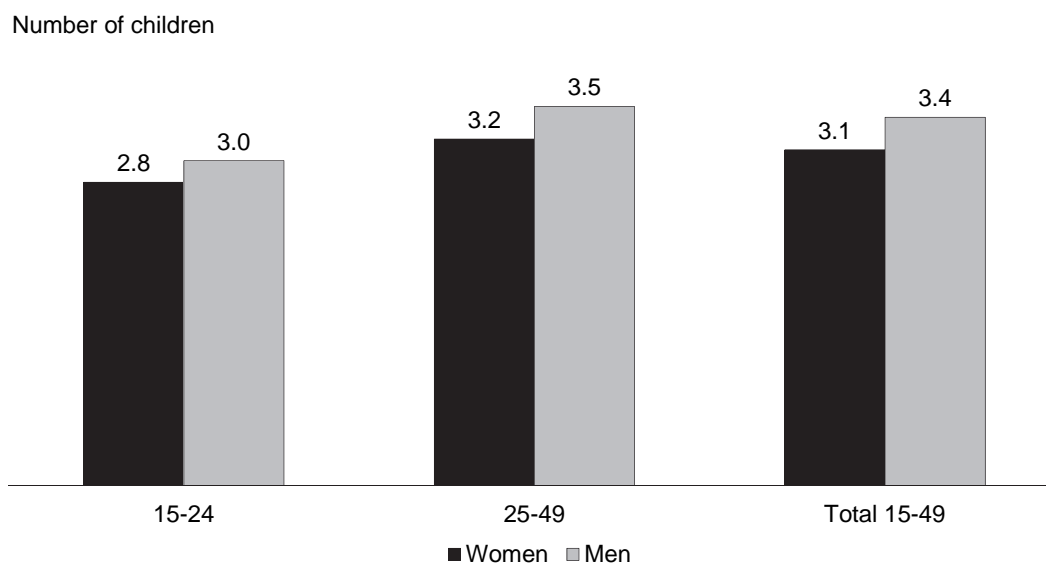
Mean ideal number of children among women and men age 15-49, by age and background characteristics, Egypt 2015

Background characteristic	Women						Men					
	15-24	Number	25-49	Number	Total 15-49	Number	15-24	Number	25-49	Number	Total 15-49	Number
<b>Marital status</b>												
Never married	2.6	1,573	2.7	254	2.7	1,827	3.0	1,998	3.1	529	3.0	2,527
Married	3.0	1,003	3.2	4,660	3.2	5,664	3.3	146	3.6	3,562	3.6	3,708
Widowed/divorced/separated	2.7	35	3.1	380	3.0	415	(2.6)	3	(3.1)	55	3.1	58
<b>Urban-rural residence</b>												
Urban	2.6	908	2.9	1,883	2.8	2,791	2.8	836	3.4	1,487	3.2	2,323
Rural	2.8	1,703	3.4	3,412	3.2	5,115	3.2	1,311	3.6	2,659	3.5	3,970
<b>Place of residence</b>												
Urban Governorates	2.6	305	2.9	691	2.8	996	2.7	317	3.2	523	3.0	840
Lower Egypt	2.7	1,240	3.1	2,601	3.0	3,841	2.9	1,017	3.4	2,061	3.2	3,078
Urban	2.6	301	2.8	568	2.8	869	2.8	250	3.3	428	3.1	678
Rural	2.7	940	3.2	2,033	3.0	2,973	2.9	767	3.4	1,633	3.2	2,400
Upper Egypt	2.9	1,048	3.5	1,963	3.3	3,011	3.4	800	3.9	1,524	3.7	2,324
Urban	2.7	293	3.1	604	3.0	897	3.0	263	3.7	514	3.5	777
Rural	3.1	755	3.6	1,359	3.4	2,114	3.6	537	4.0	1,010	3.9	1,547
Frontier Governorates <sup>1</sup>	2.9	18	3.3	40	3.2	58	3.9	14	3.9	38	3.9	51
<b>Education</b>												
No education	3.0	112	3.5	1,297	3.5	1,409	3.0	20	3.7	355	3.7	375
Some primary	2.9	115	3.4	405	3.3	520	3.3	99	3.9	388	3.7	487
Primary complete/some secondary	2.7	1,339	3.2	866	2.9	2,205	3.0	1,174	3.5	848	3.2	2,023
Secondary complete/higher	2.8	1,044	3.0	2,727	3.0	3,771	3.1	854	3.5	2,554	3.4	3,409
<b>Work status</b>												
Working for cash	2.7	144	3.1	871	3.0	1,015	3.2	1,057	3.6	4,023	3.5	5,080
Not working for cash	2.8	2,467	3.2	4,424	3.1	6,891	2.9	1,091	3.0	123	2.9	1,214
<b>Wealth quintile</b>												
Lowest	2.9	527	3.5	1,017	3.3	1,543	3.4	492	3.8	737	3.7	1,229
Second	2.9	504	3.4	1,052	3.2	1,556	3.2	433	3.7	786	3.5	1,219
Middle	2.8	549	3.2	1,095	3.1	1,643	3.0	336	3.5	863	3.4	1,199
Fourth	2.7	519	3.1	1,059	2.9	1,578	2.8	415	3.4	918	3.3	1,333
Highest	2.6	512	2.9	1,073	2.8	1,585	2.7	471	3.3	842	3.1	1,313
Total	2.8	2,611	3.2	5,295	3.1	7,906	3.0	2,147	3.5	4,146	3.4	6,293

Note: Means are calculated based on respondents who gave numeric responses. Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Does not include North and South Sinai governorates

Figure 6.1 Mean ideal number of children among all women and men age 15-49, Egypt 2015



## 6.4.2 Ideal Interval between Births

The results of the 2014 Egypt DHS showed that under-5 mortality is markedly higher among children born less than 2 years after a previous birth. Unfortunately, as Table 6.6 shows, many women and men prefer closely spaced births; 39 percent of women age 15-49 reported an interval of two years or less as ideal compared with 42 percent of men in that age group. Age makes little difference in attitudes about the ideal birth interval, with younger women and men actually slightly more likely to prefer an interval of two years or less than older women and men.

**Table 6.6** Ideal interval between births

Percent distribution of women and men age 15-49 by ideal interval between births, according to age, Egypt 2015

Birth interval	Women			Men		
	15-24	25-49	Total 15-49	15-24	25-49	Total 15-49
2 years or less	41.0	37.6	38.7	42.0	41.4	41.6
3 years	44.2	48.9	47.4	40.8	46.8	44.8
4 years	8.0	8.6	8.4	7.4	7.1	7.2
5 or more years	3.3	4.6	4.2	2.4	2.8	2.7
Don't know	3.6	0.3	1.4	7.3	1.8	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,611	5,295	7,906	2,147	4,146	6,293

Table 6.7 shows how the percentage of respondents preferring a birth interval of two years or less varied by background characteristics. The highest proportion of women and men considering a birth interval of two years or less as ideal is observed in rural Upper Egypt; 48 percent of women and 53 percent of men in rural Upper Egypt prefer an interval of two years or less between births. Women and men in the Urban Governorates are least likely to say an interval of two years or less is optimal (27 percent and 28 percent, respectively).

Table 6.7 Preference for closely spaced births

Percentage of women and men age 15-49 who consider a birth interval of two years or less to be ideal, by background characteristics, Egypt 2015

Background characteristic	Women		Men	
	Percentage considering a birth interval of two years or less ideal	Number	Percentage considering a birth interval of two years or less ideal	Number
<b>Marital status</b>				
Never married	38.8	1,827	40.9	2,527
Married	38.3	5,664	42.1	3,708
Widowed/divorced/separated	44.5	415	43.0	58
<b>Residence</b>				
Urban	34.5	2,791	38.9	2,323
Rural	41.0	5,115	43.2	3,970
<b>Place of residence</b>				
Urban Governorates	26.9	996	28.1	840
Lower Egypt	37.0	3,841	37.8	3,078
Urban	39.9	869	39.9	678
Rural	36.1	2,973	37.2	2,400
Upper Egypt	44.8	3,011	51.5	2,324
Urban	37.8	897	49.2	777
Rural	47.8	2,114	52.6	1,547
Frontier Governorates <sup>1</sup>	39.1	58	45.8	51
<b>Education</b>				
No education	45.2	1,409	42.9	375
Some primary	44.4	520	50.9	487
Primary complete/ some secondary	38.5	2,205	43.6	2,023
Secondary complete/ higher	35.6	3,771	39.0	3,409
<b>Work status</b>				
Working for cash	38.3	1,015	42.1	5,080
Not working for cash	38.8	6,891	39.8	1,214
<b>Wealth quintile</b>				
Lowest	44.5	1,543	45.7	1,229
Second	42.8	1,556	45.3	1,219
Middle	38.6	1,643	43.6	1,199
Fourth	37.8	1,578	40.7	1,333
Highest	30.1	1,585	33.5	1,313
Total	38.7	7,906	41.6	6,293

<sup>1</sup> Does not include North and South Sinai governorates

## 6.5 IDEAL AGE AT MARRIAGE

The government of Egypt has recently adopted a strategy to reduce early marriage, particularly among young women (Youssef et al., 2014). Early age at first marriage for women is of special concern as childbearing at young ages may adversely affect women's and children's health. In addition, it limits the level of education a girl may attain. Early marriage for women is also associated with higher lifetime fertility. To obtain insights into women's and men's attitudes about the ideal age at marriage, the 2015 EHIS included questions for both women and men on the age they considered it best for a girl or a boy to marry.

Table 6.8 presents the distributions of women and men age 15-49 by the age they consider best for a girl to marry. Overall, 3 in 4 women and a similar proportion of men think that a girl should marry by age 20. Comparatively few women and men favor very early marriage. Only 4 percent of women and 5 percent of men consider it best for a girl to marry before her 18th birthday, which is the legal age at marriage in Egypt. Groups in which higher than average percentages of women and men



think it is best for a girl to marry before age 18 include those with less than a primary education, those residing in rural Upper Egypt and the three Frontier Governorates surveyed in the EHIS, and those in the lowest two wealth quintiles. Looking at Table 6.8, it is also clear that the proportions who think a girl should delay marriage past her 20th birthday vary considerably across subgroups. For example, urban women are more than twice as likely as rural women to consider it best for a girl to delay marriage until she is age 21 or older (41 percent and 17 percent, respectively).

Table 6.8 Ideal age for a girl to marry

Percent distribution of women and men age 15-49 by age considered best for a girl to marry, according to background characteristics, Egypt 2015

Background characteristic	Women							Men							Number of men	
	<18 years	18 years	19 years	20 years	21 years+	Does not matter/ don't know	Total	Number of women	<18 years	18 years	19 years	20 years	21 years+	Does not matter/ don't know		Total
<b>Age</b>																
15-24	2.5	21.7	7.4	37.6	28.8	2.1	100.0	2,611	4.6	20.6	6.2	40.2	25.5	2.9	100.0	2,147
15-19	3.1	22.3	6.5	36.5	27.9	3.7	100.0	1,425	4.5	19.0	6.1	41.8	24.2	4.4	100.0	1,288
20-24	1.7	20.9	8.4	39.0	29.8	0.3	100.0	1,185	4.8	23.0	6.5	37.8	27.3	0.6	100.0	859
25-49	4.1	20.8	7.0	43.9	23.9	0.3	100.0	5,295	5.4	25.5	5.8	41.0	22.0	0.2	100.0	4,146
25-29	4.4	19.0	6.5	44.9	24.9	0.2	100.0	1,471	3.8	26.0	5.0	42.6	22.6	0.0	100.0	962
30-34	3.9	20.4	7.5	44.0	24.0	0.2	100.0	1,195	6.6	22.7	5.2	42.6	22.4	0.5	100.0	923
35-39	4.1	23.5	6.2	44.5	21.1	0.6	100.0	1,061	7.4	26.7	7.1	40.2	18.7	0.0	100.0	856
40-44	4.0	20.4	6.1	45.1	24.3	0.1	100.0	814	4.9	25.6	6.6	39.4	23.5	0.0	100.0	736
45-49	3.9	21.5	9.2	39.5	25.5	0.4	100.0	754	4.2	27.0	5.5	39.5	23.3	0.5	100.0	670
<b>Marital status</b>																
Never married	1.3	14.9	5.4	37.5	37.6	3.3	100.0	1,827	4.1	18.9	5.8	40.4	28.4	2.5	100.0	2,527
Married	4.2	23.3	7.5	42.8	22.0	0.2	100.0	5,664	5.9	27.2	6.1	41.0	19.7	0.1	100.0	3,708
Widowed/divorced/ separated	4.1	18.4	8.9	48.0	20.6	0.0	100.0	415	1.9	24.7	6.0	39.7	21.8	5.9	100.0	58
<b>Urban-rural residence</b>																
Urban	1.7	11.8	4.9	40.0	40.5	1.2	100.0	2,791	2.5	15.2	5.0	39.3	37.2	0.9	100.0	2,323
Rural	4.6	26.2	8.3	42.8	17.4	0.7	100.0	5,115	6.7	28.9	6.6	41.6	15.0	1.3	100.0	3,970
<b>Place of residence</b>																
Urban Governorates	2.0	8.6	4.3	32.7	51.5	0.9	100.0	996	2.7	12.7	5.2	34.1	44.6	0.7	100.0	840
Lower Egypt	2.8	19.4	8.3	43.9	24.9	0.7	100.0	3,841	4.5	22.6	6.4	44.0	21.4	1.0	100.0	3,078
Urban	1.5	10.2	5.8	42.6	38.8	1.2	100.0	869	1.4	14.5	5.3	42.7	35.4	0.6	100.0	678
Rural	3.2	22.1	9.0	44.3	20.8	0.5	100.0	2,973	5.3	24.9	6.8	44.4	17.4	1.1	100.0	2,400
Upper Egypt	4.9	27.4	6.6	42.1	17.8	1.2	100.0	3,011	6.8	29.5	5.6	39.1	17.6	1.5	100.0	2,324
Urban	1.4	16.8	4.6	45.7	30.0	1.6	100.0	897	3.1	18.4	4.3	42.2	30.8	1.3	100.0	777
Rural	6.4	31.9	7.4	40.6	12.6	1.1	100.0	2,114	8.6	35.1	6.3	37.5	11.0	1.5	100.0	1,547
Frontier Governorates <sup>1</sup>	7.0	16.9	6.5	42.1	27.3	0.2	100.0	58	11.9	20.8	6.8	28.2	32.0	0.3	100.0	51
<b>Education</b>																
No education	9.7	32.8	11.4	36.7	8.4	1.0	100.0	1,409	8.8	38.2	8.1	33.9	10.6	0.3	100.0	375
Some primary	6.4	32.0	8.9	39.8	12.6	0.4	100.0	520	8.2	37.0	6.5	34.4	12.1	1.8	100.0	487
Primary complete/ some secondary	2.9	24.4	5.7	41.4	23.6	2.0	100.0	2,205	6.1	23.6	6.3	41.7	20.4	1.9	100.0	2,023
Secondary complete/ higher	1.3	13.3	6.1	44.2	34.9	0.3	100.0	3,771	3.7	20.5	5.5	41.9	27.8	0.6	100.0	3,409
<b>Working status</b>																
Working for cash	1.7	15.4	4.3	42.1	36.3	0.2	100.0	1,015	5.6	25.8	6.0	41.4	20.6	0.5	100.0	5,080
Not working for cash	3.8	21.9	7.5	41.8	23.9	1.0	100.0	6,891	3.0	15.5	5.8	38.0	34.1	3.5	100.0	1,214
<b>Wealth quintile</b>																
Lowest	7.2	32.4	8.6	38.8	12.0	1.0	100.0	1,543	8.4	35.0	6.4	36.6	12.0	1.6	100.0	1,229
Second	5.3	26.3	8.2	43.3	16.2	0.6	100.0	1,556	7.6	30.0	6.7	41.8	12.6	1.3	100.0	1,219
Middle	2.8	21.9	9.0	45.5	19.8	0.9	100.0	1,643	5.3	24.7	7.3	45.6	16.2	0.9	100.0	1,199
Fourth	1.6	18.3	5.7	44.2	28.7	1.5	100.0	1,578	2.9	20.2	5.5	44.0	25.9	1.4	100.0	1,333
Highest	1.0	6.9	3.9	37.1	50.6	0.5	100.0	1,585	1.9	10.5	4.2	35.8	47.1	0.4	100.0	1,313
Total	3.6	21.1	7.1	41.8	25.5	0.9	100.0	7,906	5.1	23.8	6.0	40.7	23.2	1.1	100.0	6,293

<sup>1</sup> Does not include North and South Sinai governorates

Table 6.9 presents the information from the EHIS on the attitudes of women and men with respect to the best age for a boy to marry. As expected, the preference is for boys to marry at a much older age than girls. Around 7 in 10 women and 6 in 10 men consider it best for a boy to marry after his 25th birthday. Almost no women (0.2 percent) and only 1 percent of men say a boy should marry before age 18. Only 13 percent of women and 19 percent of men think it is best for a boy to marry at age 20 or younger. Notably, more than 4 in 10 women and men from the Urban Governorates and from the highest wealth quintile think a boy should delay marriage until he is age 26 or older.

Table 6.9 Ideal age for a boy to marry

Percent distribution of women and men age 15-49 by age considered best for a boy to marry, according to background characteristics, Egypt 2015

Background characteristic	Women										Men					Does not matter/ don't know	Total	Number
	<18 years	18 years	19-20 years	21-24 years	25 years	26 years+	Does not matter/ don't know	Total	Number	<18 years	18 years	19-20 years	21-24 years	25 years	26 years+			
<b>Age</b>																		
15-24	0.3	0.3	12.3	18.6	38.2	27.2	3.1	100.0	2,611	0.5	1.7	16.4	21.6	34.0	22.9	3.0	100.0	2,147
15-19	0.3	0.4	13.7	18.9	36.8	25.3	4.6	100.0	1,425	0.2	1.9	17.4	21.1	34.0	20.8	4.6	100.0	1,288
20-24	0.2	0.1	10.5	18.3	40.0	29.5	1.4	100.0	1,185	1.0	1.3	14.8	22.5	33.9	25.9	0.7	100.0	859
25-49	0.1	0.4	12.0	16.4	39.9	30.0	1.2	100.0	5,295	1.4	1.7	15.6	17.8	35.5	27.1	0.9	100.0	4,146
25-29	0.1	0.2	11.9	15.9	40.6	30.5	0.9	100.0	1,471	1.4	1.3	15.0	20.7	35.0	25.9	0.6	100.0	962
30-34	0.2	0.8	12.0	14.3	41.1	30.7	0.9	100.0	1,195	1.8	2.3	16.6	16.6	35.3	26.4	1.0	100.0	923
35-39	0.2	0.3	10.9	18.0	41.7	27.4	1.5	100.0	1,061	1.4	2.1	17.5	18.9	33.2	26.1	0.8	100.0	856
40-44	0.0	0.1	10.8	18.9	38.7	30.2	1.2	100.0	814	0.5	1.6	14.2	16.4	36.6	29.8	0.9	100.0	736
45-49	0.2	0.2	14.8	16.1	35.6	31.6	1.5	100.0	754	1.5	1.3	14.3	15.7	38.4	27.9	1.0	100.0	670
<b>Marital status</b>																		
Never married	0.1	0.4	9.2	15.1	37.3	33.8	4.1	100.0	1,827	0.5	1.4	13.8	19.4	34.8	27.4	2.8	100.0	2,527
Married	0.2	0.3	12.8	17.6	40.3	27.7	1.1	100.0	5,664	1.5	1.9	17.4	19.1	35.1	24.3	0.7	100.0	3,708
Widowed/divorced/separated	0.4	0.1	14.2	20.6	35.5	27.5	1.7	100.0	415	0.0	3.0	10.7	14.7	36.3	29.4	5.9	100.0	58
<b>Urban-rural residence</b>																		
Urban	0.1	0.2	6.5	13.2	40.4	37.9	1.7	100.0	2,791	0.5	1.1	10.3	16.8	35.3	34.8	1.2	100.0	2,323
Rural	0.2	0.4	15.1	19.4	38.8	24.3	1.9	100.0	5,115	1.4	2.0	19.1	20.5	34.8	20.2	1.8	100.0	3,970
<b>Place of residence</b>																		
Urban Governorates	0.0	0.3	6.3	12.0	36.5	44.0	0.9	100.0	996	0.0	1.3	11.4	15.6	29.6	41.1	0.9	100.0	840
Lower Egypt	0.0	0.3	11.2	17.6	39.6	29.1	2.3	100.0	3,841	1.3	1.4	15.2	20.9	33.8	25.4	2.0	100.0	3,078
Urban	0.0	0.2	5.8	13.5	41.0	36.6	3.0	100.0	869	1.1	0.9	7.9	20.2	35.5	32.9	1.4	100.0	678
Rural	0.0	0.3	12.8	18.8	39.1	26.8	2.0	100.0	2,973	1.4	1.5	17.3	21.1	33.3	23.2	2.1	100.0	2,400
Upper Egypt	0.4	0.4	14.9	18.3	40.0	24.3	1.6	100.0	3,011	1.1	2.3	18.3	17.9	38.5	20.5	1.4	100.0	2,324
Urban	0.2	0.3	7.4	14.1	43.9	32.6	1.6	100.0	897	0.5	1.2	10.8	14.9	41.0	30.3	1.3	100.0	777
Rural	0.6	0.5	18.1	20.1	38.3	20.7	1.6	100.0	2,114	1.5	2.8	22.0	19.5	37.2	15.6	1.4	100.0	1,547
Frontier Governorates <sup>1</sup>	0.1	0.0	15.0	16.6	42.5	25.5	0.4	100.0	58	0.4	1.6	18.4	24.0	34.0	20.7	0.8	100.0	51
<b>Education</b>																		
No education	0.6	0.4	24.9	21.0	34.5	15.8	2.7	100.0	1,409	1.2	1.5	30.1	19.7	31.3	15.9	0.3	100.0	375
Some primary	0.2	0.3	20.5	21.3	37.6	19.3	0.8	100.0	520	1.4	2.3	19.8	24.0	31.5	18.9	2.1	100.0	487
Primary complete/ some secondary	0.0	0.5	12.4	19.9	39.4	24.5	3.3	100.0	2,205	1.4	1.9	18.1	21.9	33.8	20.3	2.6	100.0	2,023
Secondary complete/ higher	0.1	0.2	5.9	13.5	41.4	38.1	0.8	100.0	3,771	0.8	1.5	12.4	16.7	36.6	30.8	1.1	100.0	3,409
<b>Work status</b>																		
Working for cash	0.4	0.2	8.8	14.5	37.3	37.9	0.9	100.0	1,015	1.3	1.8	16.4	19.2	35.3	24.8	1.1	100.0	5,080
Not working for cash	0.1	0.3	12.5	17.6	39.7	27.8	2.0	100.0	6,891	0.2	1.1	13.6	19.0	33.4	29.0	3.6	100.0	1,214
<b>Wealth quintile</b>																		
Lowest	0.5	0.9	20.1	19.4	36.4	20.4	2.3	100.0	1,543	1.2	2.2	23.2	21.0	33.9	17.1	1.3	100.0	1,229
Second	0.3	0.3	15.4	18.9	40.3	23.2	1.6	100.0	1,556	2.1	1.8	20.5	20.4	33.8	19.4	1.9	100.0	1,219
Middle	0.1	0.1	12.2	19.2	39.8	26.6	2.0	100.0	1,643	1.2	2.7	15.4	19.0	36.9	22.6	2.1	100.0	1,199
Fourth	0.0	0.2	9.1	17.0	41.0	30.9	1.9	100.0	1,578	0.5	1.6	13.1	18.8	38.9	24.9	2.2	100.0	1,333
Highest	0.0	0.2	3.7	11.3	39.2	44.2	1.4	100.0	1,585	0.5	0.4	7.9	16.6	31.4	42.8	0.4	100.0	1,313
Total	0.2	0.3	12.1	17.2	39.4	29.1	1.8	100.0	7,906	1.1	1.7	15.9	19.1	35.0	25.6	1.6	100.0	6,293

<sup>1</sup> Does not include North and South Sinai governorates



**Key Findings**

- Few women age 15-59 have ever been screened for breast cancer; only 6 percent did a breast self-examination in the previous 12 months; only 2 percent had ever had any type of clinical screening.
- Only 7 percent of women age 15-59 have heard about a pap smear to detect cervical cancer, and very few (0.3 percent) have ever had a pap smear.
- Among ever-married women who have ever given birth, 4 in 10 have had at least one caesarian delivery, and just under one-quarter have had two or more caesarian births.
- The decision to have a caesarian delivery is most often made during pregnancy; only 1 in 6 women report that the decision to have their most recent caesarian delivery was made after they went into labor.
- Eight in 10 ever-married women knowing about caesarian deliveries believe that doctors prefer them.
- Less than half of ever-married women (44 percent) who know about caesarian deliveries are aware that it is possible for a woman who has had a caesarian delivery to deliver future babies vaginally.

The 2015 EHIS collected information on several health issues of concern for women. First, the survey obtained information on the extent to which women are being screened for breast and cervical cancer. The 2014 EDHS documented a rapidly increasing rate of caesarean deliveries in Egypt. The EHIS included a number of questions to investigate the factors that may underlie this trend.

### 7.1 BREAST CANCER AND CERVICAL CANCER SCREENING

Breast cancer is the most common cancer among women in Egypt and is estimated to be the cause of 22 percent all cancer-related female deaths (WHO 2014b). Although it affects many fewer women, cervical cancer is the 13<sup>th</sup> most common cancer among women in Egypt (Bruni et al. 2015). Early detection is critically important in reducing deaths from both breast and cervical cancer. The 2015 EHIS included a number of questions to assess the extent to which Egyptian women are relying on methods for screening and early detection of breast and cervical cancer.

Modes of detecting breast cancer include breast self-examination (BSE), breast examination by health providers, and screening by mammography, ultra sound, or other clinical procedures. Breast self-examination is not considered to be an effective detection method on a population basis but is encouraged as it raises awareness among women of breast cancer risks and may contribute to the detection of some breast cancers on an individual basis (WHO 2015a). Women are typically encouraged to begin regular breast self-examinations in their 20s. Breast examinations by a health provider are a more effective mode of detection than breast self-exams (Sankaranarayanan et al. 2011 and WHO, 2015). Women are encouraged to have clinical breast examinations every two to three years, beginning in their 20s and annual screening beginning in their 40s. Clinical screening procedures like mammography which are the most effective screening approach are not considered by WHO to be useful on a population-wide basis until women are in their 40s or 50s (WHO 2014b).

Table 7.1 presents information on the extent to which Egyptian women have ever employed various breast screening procedures. Only 11 percent of women age 15-59 are aware of how to conduct a self-examination to look for signs of breast cancer. Only 6 percent actually had performed breast self-examination in the 12 months prior to the survey. Clinical screening, whether it involved a provider examining the breast or mammography or other clinical screening approaches, is rare. Overall, 2 percent of women age 15-59 said they had ever had any form of clinical screening.

The 2015 EHIS also included questions to determine the extent to which women knew about and had had a pap smear to screen for cervical cancer. In a pap smear, cells are scraped from the cervix and examined under a microscope to detect cell changes that suggest the presence of cancer. Table 7.2 shows that only 7 percent of women age 15-59 had ever heard about a pap smear, and very few (0.3 percent) had ever had a pap smear.

<b>Table 7.2 Pap smear awareness and experience</b>	
Percent distribution of women age 15-59 by awareness of pap smears to detect cervical cancer and experience with pap smear, Egypt 2015	
Pap smear awareness and experience	Total
<b>Knowledge of pap smears</b>	
Knows	6.9
Does not know/missing	93.1
Total percent	100.0
<b>Ever had pap smear</b>	
Had pap smear	0.3
Did not have pap smear	6.6
Does not know about pap smear	93.1
Total percent	100.0
Number	9,209

<b>Table 7.1 Breast examination awareness and experience</b>	
Percent distribution of women age 15-59 by awareness of how to examine breasts to look for signs of cancer and experience with breast self-examination or breast examination by a health provider, Egypt 2015	
Breast examination awareness and experience	Total
<b>Knowledge of how to conduct breast self-examination</b>	
Knows	11.1
Does not know/missing	88.9
Total percent	100.0
<b>Performed self-examination in last 12 months</b>	
Performed examination	6.2
Did not perform examination	4.9
Does not know how to conduct breast self-examination	88.9
Total percent	100.0
<b>Ever screened for breast cancer by health provider</b>	
Provider examined breast for signs of cancer only	0.6
Had mammogram, ultrasound, or other clinical examination only	0.7
Had both breast exam by provider and any form of other clinical examination	0.8
Did not have examination by provider	97.7
Not sure if had examination	0.3
Total percent	100.0
Number	9,209

Table 7.3 presents differences by background characteristics in knowledge and utilization of breast cancer screening procedures and pap smears. Levels of knowledge of the procedure to follow for breast self-examination are generally low in all subgroups. Looking at the age differentials, the proportions who know how to conduct breast self-examination is highest among women 40-44 (17 percent). Women age 40-54 are most likely to have ever had any type of breast examination (11-12 percent). Overall, the highest proportions saying they are aware of how to perform a breast exam were found among women who were working for cash (28 percent), women in the highest wealth category (23 percent), and women with secondary complete or higher education (20 percent). Women in these groups were also most likely to report that they had ever had any type of breast examination (self or clinical). However, even in these groups, the proportion of women who had ever been screened for breast cancer by a health care provider did not exceed 5 percent.

Table 7.3 Awareness and experience with breast and cervical cancer screening

Among women age 15-59, percentage who are aware of how to conduct breast self-examination and have ever had any type of breast examination and percentage who know about pap smears and who have ever had a pap smear, by background characteristics, Egypt 2015

Background characteristic	Breast cancer awareness and screening				Cervical cancer awareness and screening		Number of women
	Knows how to conduct breast self-examination	Ever had any breast examination <sup>1</sup>	Ever conducted breast self-examination	Ever had any clinical breast examination <sup>2</sup>	Knows about pap smear	Ever had pap smear	
<b>Age</b>							
15-19	3.4	1.1	1.1	0.0	2.7	0.0	1,425
20-24	9.9	5.7	5.0	1.2	6.3	0.0	1,185
25-29	13.3	8.0	7.3	1.1	8.1	0.2	1,471
30-34	14.0	9.4	7.9	3.1	9.1	0.3	1,195
35-39	11.9	8.2	6.7	2.3	7.7	0.3	1,061
40-44	16.8	11.6	9.8	3.2	8.0	0.2	814
45-49	12.9	10.6	9.0	2.4	6.0	0.1	754
50-54	11.7	10.5	7.0	4.8	9.8	1.2	707
55-59	8.1	7.1	5.2	3.3	5.2	0.8	596
<b>Marital status</b>							
Currently married	12.5	8.8	7.3	2.5	7.5	0.3	6,552
Divorced/separated/ widowed	7.8	6.3	4.5	2.8	6.8	1.0	819
Never married	7.3	3.4	3.2	0.3	4.8	0.0	1,839
<b>Urban-rural residence</b>							
Urban	16.4	11.7	9.5	3.6	10.0	0.4	3,359
Rural	8.0	5.1	4.4	1.2	5.1	0.2	5,850
<b>Place of residence</b>							
Urban Governorates	16.4	12.8	9.8	4.5	13.5	0.0	1,223
Lower Egypt	11.8	7.9	6.8	2.0	7.1	0.4	4,506
Urban	17.2	11.9	10.4	3.3	8.9	0.9	1,056
Rural	10.1	6.6	5.6	1.6	6.6	0.2	3,450
Upper Egypt	8.1	5.0	4.2	1.2	4.2	0.2	3,417
Urban	15.6	10.3	8.4	2.9	7.2	0.4	1,048
Rural	4.8	2.7	2.4	0.4	2.9	0.1	2,369
Frontier Governorates <sup>3</sup>	18.9	11.3	8.2	4.0	7.6	0.0	63
<b>Education</b>							
No education	2.1	1.4	0.7	0.8	3.2	0.4	2,031
Some primary	4.5	4.0	2.5	1.7	5.8	0.3	773
Primary complete/ some secondary	5.0	2.7	1.9	1.1	6.1	0.1	2,345
Secondary complete/ higher	20.4	13.9	12.2	3.3	9.4	0.4	4,060
<b>Work status</b>							
Working for cash	27.7	20.2	17.9	4.8	13.1	0.7	1,269
Not working for cash	8.4	5.5	4.4	1.6	5.9	0.2	7,940
<b>Wealth quintile</b>							
Lowest	5.0	2.5	2.3	0.6	4.4	0.2	1,806
Second	5.8	3.3	2.5	1.0	5.8	0.2	1,810
Middle	9.3	6.2	5.3	1.4	5.0	0.0	1,833
Fourth	11.9	8.8	7.4	2.3	8.5	0.5	1,865
Highest	22.9	16.1	13.4	4.8	10.7	0.5	1,895
Total	11.1	7.5	6.2	2.1	6.9	0.3	9,209

<sup>1</sup> Includes self-examination and any clinical examination

<sup>2</sup> Includes breast examination by a health provider and/or mammography and ultra-sound procedures

<sup>3</sup> Does not include North and South Sinai governorates

With respect to pap smears, Table 7.3 shows that the proportion of women knowing about pap smears was greater than 10 percent only among women from the Urban Governorates (14 percent), women working for cash (13 percent), and women in the highest wealth quintile (11 percent). One percent or less of women in all subgroups reported that they had ever had a pap smear.

## 7.2 CAESAREAN DELIVERIES

The 2014 Egypt Demographic and Health Survey found that 52 percent of babies born in the five years prior to the survey had been delivered by caesarean section. This was almost double the proportion of caesarean deliveries compared to the level reported at the time of the 2008 Egypt DHS (28 percent) and more than five times the level observed at the time of the 2000 Egypt DHS (10 percent). Research indicates that caesarean deliveries involve greater risks of morbidity and mortality for both a woman and her baby (American College of Obstetricians and Gynecologists, 2014) so the marked increase in caesarean deliveries over time in Egypt is of considerable concern.

To obtain some additional information on the reasons for the increased caesarean deliveries, a number of questions were included in the 2015 EHIS. Ever-married women age 15-49 who had ever given birth were asked if they had ever had a caesarean delivery. If they reported having a caesarean delivery, they were asked about the number of births they had had that were delivered by a caesarean section and about aspects of the decision-making process prior to the most recent caesarean delivery including when the decision was made to have a caesarean section and the reasons for having the caesarean delivery. Finally, to obtain insights into beliefs that may be contributing to the rise in the rates of caesarean sections, all ever-married women age 15-49 who knew about caesarean deliveries were asked to agree or disagree with statements that are considered common rationales for caesarean deliveries.

Table 7.4 shows that, among ever-married women age 15-49 who had ever given birth, more than 4 in 10 had at least one of their births delivered by caesarean section. Figure 7.1, which presents information on the number of caesarean deliveries among women ever giving birth, shows that just under one-quarter of the women had two or more caesarean deliveries.<sup>1</sup>

**Table 7.4 Caesarean deliveries by background characteristics**

Among ever-married women age 15-49 who ever gave birth, percentage having had at least one caesarean delivery, Egypt 2015

Background characteristic	Percentage ever having had a caesarean delivery	Number of women
<b>Age</b>		
15-19	46.1	128
20-24	54.4	681
25-29	55.8	1,275
30-34	48.5	1,111
35-39	41.0	1,003
40-44	30.9	768
45-49	22.2	718
<b>Urban-rural residence</b>		
Urban	51.3	1,871
Rural	40.1	3,814
<b>Place of residence</b>		
Urban Governorates	49.8	676
Lower Egypt	47.8	2,836
Urban	58.8	575
Rural	45.0	2,261
Upper Egypt	36.5	2,131
Urban	46.1	599
Rural	32.8	1,531
Frontier Governorates <sup>1</sup>	42.4	43
<b>Education</b>		
No education	26.6	1,267
Some primary	38.0	433
Primary complete/ some secondary	40.8	1,092
Secondary complete/ higher	53.3	2,893
<b>Work status</b>		
Working for cash	47.8	795
Not working for cash	43.1	4,890
<b>Wealth quintile</b>		
Lowest	30.3	1,074
Second	39.2	1,149
Middle	44.2	1,267
Fourth	48.8	1,143
Highest	56.7	1,052
Total 15-49	43.8	5,685

<sup>1</sup> Does not include North and South Sinai governorates

<sup>1</sup> The results in Table 7.4 represent women's lifetime experience with caesarian deliveries. As a result, they cannot be directly compared to the caesarian delivery rate reported in the 2014 Egypt DHS, which is based on births delivered by caesarian section in the period 0-4 years prior to the survey.



**Figure 7.1 Number of caesarean deliveries among ever-married women age 15-49 ever giving birth**

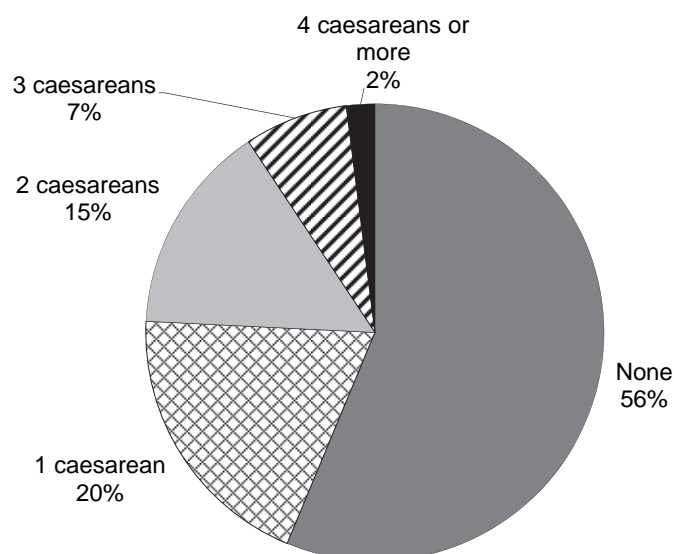


Table 7.4 presents the variation in prevalence of caesarean delivery among ever-married women age 15-49 who had ever given birth by age, residence, and other background characteristics. Looking at the age differentials, the proportion who ever had a caesarean was higher among women age 20-29 compared with older and younger women. The lowest proportion was observed among women age 45-49 (22 percent). Women in urban areas were more likely to have had a caesarean section than rural women, with the highest rate found in urban Lower Egypt (59 percent). The caesarean delivery level was markedly higher among women in rural Lower Egypt compared with those living in rural Upper Egypt (45 percent and 33 percent, respectively). The proportion ever having a caesarean delivery increased directly with the woman's educational level and the wealth quintile and was higher among women who worked for cash than women not working for cash.

Table 7.5 shows that most caesarean sections were planned before the woman went into labor. Around 3 in 10 women who had had a caesarean delivery indicated that the decision was made early in the pregnancy (1-6 months), half said the decision was made later in the pregnancy (7-9 months), while 17 percent indicated the decision was made when the woman was in labor. Not unexpectedly, women who had more than one caesarean delivery were about five times as likely to report the decision to perform a caesarean section was made early in the pregnancy than women who had had only one caesarean section.

**Table 7.5 Timing of decision about most recent caesarean delivery**

Among ever-married women age 15-49 who ever had a caesarean delivery, percent distribution by the timing of the decision to have the most recent caesarean section rather than a vaginal delivery, according to the number of lifetime caesarean deliveries the woman had, Egypt 2015

Timing of decision	Number of caesarean deliveries		Total
	One	More than one	
Early in pregnancy <sup>1</sup>	10.5	47.6	31.1
Later in pregnancy <sup>2</sup>	59.8	44.6	51.4
After labor began	29.4	7.8	17.4
Other	0.2	0.0	0.1
Total	100.0	100.0	100.0
Number of women	1,108	1,381	2,489

<sup>1</sup> During the first two trimesters (1-6 months)

<sup>2</sup> During the last trimester (7-9 months)

Table 7.6 presents information that women provided on the reasons for having the most recent caesarean delivery. Overall, around 4 in 10 women said they delivered by caesarean section because they had previously had one or more caesarean deliveries. Over one-third of women who had a caesarean delivery cited problems they experienced during pregnancy as the reason for having the caesarean section. Thirty percent of women mentioned problems during labor while 3 percent said they had a caesarean delivery because of a multiple birth. Finally, a small percentage (3 percent) mentioned that they had requested the caesarean delivery.

**Table 7.6 Reasons for most recent caesarean delivery**

Among ever-married women age 15-49 who ever had a caesarean delivery, percentage reporting various reasons for having the most recent caesarean delivery, by the lifetime number of caesarean deliveries the woman had, Egypt 2015

Reason for most recent caesarean delivery	Number of caesarean deliveries		
	One	More than one	Total
Had previous caesarean delivery <sup>1</sup>	0.5	74.6	41.7
Had problems during pregnancy	46.7	29.5	37.2
Had problems during labor	47.3	16.7	30.3
Had multiple birth	4.6	1.0	2.6
Woman herself requested	4.3	1.6	2.8
Don't know	0.5	0.0	0.2
Number of women	1,108	1,381	2,489

Note: Percentages add to more than 100 because some women gave more than one reason.

<sup>1</sup> Includes four women who reported only one caesarean delivery but gave "had previous caesarean delivery" as reason for having the most recent caesarean section

Table 7.7 looks at the extent to which ever-married women age 15-49 who had heard about caesarean delivery agreed with a series of statements related to factors that may motivate women to have a caesarean delivery. The results show that almost two-thirds of women agreed with the statement that caesarean deliveries are more risky for the mother than vaginal births. Women are more evenly divided about whether caesarean deliveries are safer for the baby; 38 percent agreed that caesarean delivery is safer, 44 percent disagreed, and 18 percent were uncertain. Three in 10 women agreed that caesarean deliveries are less painful for a woman than vaginal births, but more than half disagreed with that statement. Women clearly see medical providers as favoring caesarean deliveries; 8 in 10 women agreed with the statement that doctors prefer to have women deliver by caesarean section.

Table 7.7 Attitude toward caesarean deliveries

Among ever-married women age 15-49 who have heard of caesarean delivery, percent distribution by agreement with various statements regarding caesarean deliveries, according to background characteristics, Egypt 2015

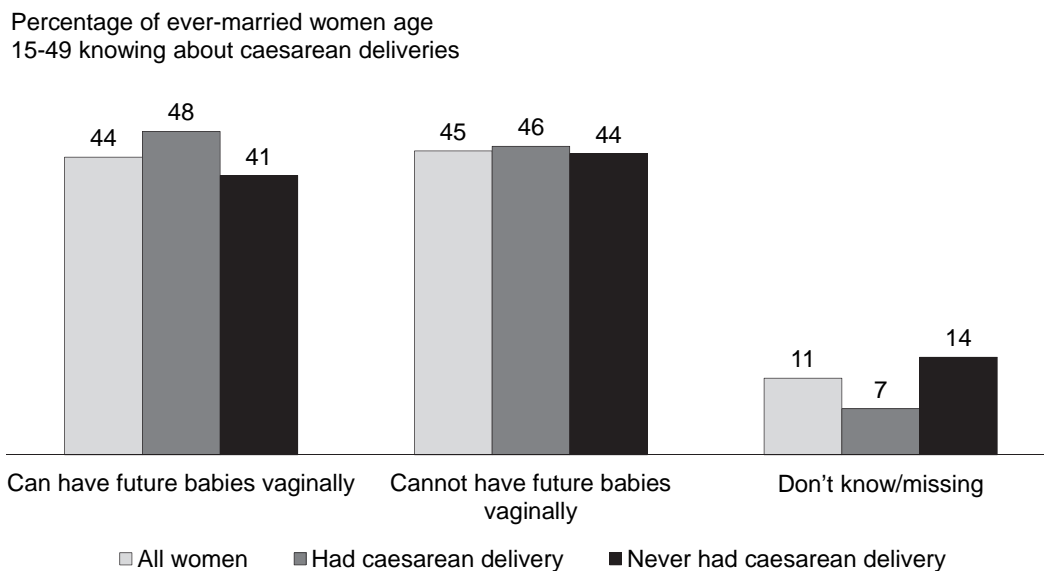
Background characteristic	Less painful than vaginal delivery			Safer for the baby			More risky for mother			Doctors prefer			Number of women
	Agree	Dis-agree	Don't know/missing	Agree	Dis-agree	Don't know/missing	Agree	Dis-agree	Don't know/missing	Agree	Dis-agree	Don't know/missing	
<b>Age</b>													
15-19	33.9	44.3	21.8	37.2	38.9	23.9	60.5	16.7	22.8	79.3	6.1	14.6	233
20-24	30.8	50.0	19.2	39.0	39.5	21.4	64.8	20.8	14.4	79.3	10.5	10.1	799
25-29	32.2	51.8	16.0	38.6	43.0	18.4	63.1	21.9	15.0	80.8	9.9	9.3	1,334
30-34	30.1	53.6	16.3	40.3	42.5	17.2	66.6	17.9	15.5	81.1	8.0	11.0	1,146
35-39	32.1	53.6	14.3	38.2	46.3	15.6	65.6	21.4	13.0	81.3	10.4	8.3	1,022
40-44	30.5	50.4	19.1	36.9	44.2	18.9	66.9	18.6	14.5	79.3	10.1	10.6	790
45-49	28.5	54.0	17.5	36.2	47.4	16.4	65.5	19.2	15.4	80.1	9.6	10.3	738
<b>Caesarean delivery</b>													
Had caesarean delivery	38.7	52.0	9.3	50.6	37.9	11.5	67.3	24.7	8.0	86.8	8.9	4.2	2,489
Did not have caesarean delivery	25.7	52.0	22.4	29.8	47.5	22.8	63.5	16.7	19.8	75.9	10.0	14.1	3,573
<b>Urban-rural residence</b>													
Urban	35.6	50.1	14.4	44.4	39.8	15.8	64.2	22.5	13.3	82.6	8.8	8.6	1,987
Rural	28.8	52.9	18.3	35.4	45.4	19.3	65.5	18.8	15.7	79.3	9.9	10.8	4,076
<b>Place of residence</b>													
Urban Governorates	45.9	41.8	12.4	54.5	29.8	15.7	65.1	21.8	13.2	83.1	9.2	7.7	703
Lower Egypt	32.0	50.5	17.5	38.0	43.0	19.0	67.7	17.2	15.1	80.3	9.5	10.2	3,019
Urban	34.2	50.3	15.5	41.3	40.8	18.0	62.8	22.5	14.7	80.9	8.1	10.9	619
Rural	31.4	50.5	18.1	37.2	43.5	19.3	68.9	15.8	15.3	80.2	9.8	10.0	2,400
Upper Egypt	25.1	57.3	17.6	33.6	48.8	17.6	61.8	23.1	15.1	79.8	9.7	10.5	2,296
Urban	25.6	59.2	15.2	36.1	50.3	13.7	64.6	23.3	12.1	83.8	8.9	7.3	643
Rural	24.9	56.6	18.5	32.6	48.3	19.1	60.7	23.0	16.3	78.2	10.0	11.7	1,653
Frontier Governorates <sup>1</sup>	34.2	41.6	24.2	47.3	27.5	25.2	58.2	19.2	22.6	73.2	9.2	17.7	45
<b>Education</b>													
No education	25.1	54.2	20.7	32.8	46.9	20.3	64.5	15.5	20.0	75.4	9.4	15.2	1,312
Some primary	23.2	56.9	20.0	29.9	48.3	21.8	68.6	14.2	17.2	75.4	9.7	14.8	467
Primary complete/ some secondary	32.2	52.0	15.8	37.7	43.1	19.2	66.6	19.6	13.8	83.1	8.6	8.4	1,203
Secondary complete/ higher	34.3	50.3	15.4	42.2	41.5	16.2	64.2	22.9	12.9	82.2	10.0	7.8	3,081
<b>Work status</b>													
Working for cash	32.3	52.7	14.9	40.6	44.4	15.0	62.4	23.6	14.0	82.4	9.1	8.5	829
Not working for cash	30.8	51.9	17.3	38.0	43.4	18.6	65.5	19.4	15.1	80.1	9.6	10.3	5,233
<b>Wealth quintile</b>													
Lowest	29.2	51.8	19.1	37.2	42.6	20.2	65.1	15.7	19.2	80.6	7.0	12.4	1,152
Second	29.4	53.9	16.7	35.8	47.1	17.1	64.8	22.3	13.0	76.0	11.6	12.4	1,228
Middle	29.5	51.6	18.8	31.4	48.0	20.6	65.4	18.7	16.0	79.1	11.1	9.8	1,340
Fourth	27.7	56.2	16.1	38.9	43.2	17.9	64.2	20.5	15.3	80.4	10.0	9.6	1,239
Highest	40.2	45.8	14.1	50.0	35.6	14.4	66.0	22.9	11.1	86.7	7.5	5.9	1,104
Total 15-49	31.0	52.0	17.0	38.3	43.5	18.1	65.1	20.0	15.0	80.4	9.5	10.1	6,062

<sup>1</sup> Does not include North and South Sinai governorates

Looking at the results in Table 7.7, the differences across subgroups are generally not large or consistent. However, the results show that, not unexpectedly, groups that have higher caesarean section rates tend to hold attitudes that are more favorable toward the practice. For example, women in the highest wealth quintile were more likely than other women to consider caesarean deliveries to be less painful than vaginal births. Women in the highest wealth quintile and urban women, especially those in the Urban Governorates, were also among the most likely to believe that caesarean deliveries are safer for the baby. It is also clear that women who have had a caesarean section tend to be more positive about caesarean deliveries than women who had never had a caesarean section. The differential between the two groups in the proportion who consider caesarean delivery to be safer for the baby is particularly marked; 51 percent of those who have ever had a caesarean delivery agreed that a caesarean section was safer than a vaginal delivery for a baby compared to 30 percent of women who had not had a caesarean delivery.

Finally, as noted above, many women in Egypt have had more than one caesarean delivery. To reduce the overall caesarean delivery rate, therefore, it will be necessary not only to reduce the number of first-time caesarean deliveries but also to increase the number of women who go on to have a vaginal delivery following a prior caesarean delivery. Research indicates that it is possible for the majority of women who have had a caesarean section to have a safe vaginal delivery in a subsequent pregnancy (Guise et al. 2010). The EHIS included a question to ascertain the extent to which Egyptian women were aware that it is possible to have a vaginal delivery after a caesarean birth if a woman wants. Figure 7.2 shows that women were evenly divided on this question. Overall, 44 percent agreed a vaginal delivery after a prior caesarean section was possible while 45 percent believed that it was not. Prior experience with a caesarean delivery made little difference in the women's opinions. In fact, among women who had had at least one caesarean delivery, the proportion who agreed that it was possible to have a vaginal delivery after a caesarean section was slightly higher (48 percent) than the proportion who thought it was not possible (46 percent).

**Figure 7.2 Attitude about having future babies vaginally after a caesarean delivery according to women's prior history with caesarean births**



**Key Findings**

- Around 9 in 10 women age 15-49 are circumcised.
- Only 7 in 10 women age 15-19 and 8 in 10 women age 20-24 are circumcised compared to 89-97 percent of older women.
- Although the practice is expected to continue to decline, more than half of girls age 1-14 are expected to be circumcised in the future. This takes into account those already circumcised (14 percent) and those planned to be circumcised when they are older.
- Men are slightly more likely than women to support continuation of the practice (59 percent and 54 percent, respectively).
- Half of men and 46 percent of women believe circumcison is required by religion.

**A**lthough the government has banned the practice, female circumcision (also referred to as female genital cutting) has been a tradition in Egypt since the Pharaonic period, and adherence to the custom remains widespread. The 2015 EHIS obtained information with respect to the circumcision status of all females age 1-49.<sup>1</sup> For women age 15-49, the information was obtained directly from the women themselves. A parent or other caretaker provided the information on the circumcision status of girls age 1-14 in the Child Questionnaire. The survey also collected information on attitudes toward the practice among both women and men.

## 8.1 FEMALE CIRCUMCISION

Because questions on female circumcision were asked of women regardless of marital status, the 2015 EHIS provides only the second estimate ever obtained in an EDHS survey of the prevalence of female circumcision among all Egyptian women age 15-49. Except for the results in the 2008 Egypt DHS, prior estimates of the prevalence of circumcision have been based on information from ever-married women age 15-49.

### 8.1.1 Prevalence of Circumcision among Women Age 15-49

Table 8.1 confirms that the practice of female circumcision is widespread in Egypt; 87 percent of all women age 15-49 have been circumcised. However, the results also suggest that adherence to the practice may be declining among younger women. For example, while exceeding 70 percent, female circumcision rates among women under age 25 are lower than rates in the 25-49 age groups, where 89-97 percent of women have been circumcised. The rate also is lower among never-married than ever-married women (68 percent and 93 percent, respectively).

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<sup>1</sup> The EHIS obtained information on the circumcision status of women age 50-59 but those results are not presented in this chapter in order to facilitate comparisons with prior EDHS surveys that only obtained information on the practice and attitudes toward circumcision for women through age 49.

Moreover, Figure 8.1, which compares female circumcision rates from the 2015 EHIS with the rates observed in the 2008 EDHS, shows both a modest decline in the overall rate for women age 15-49 (87 percent versus 91 percent) and more substantial declines in the two youngest age groups. The rate in the 15-19 age group at the time of the EHIS is particularly noteworthy; it is 11 percentage points lower than the rate in the same age group at the time of the 2008 EDHS. Some women in this cohort who are not yet circumcised may be circumcised in the future. However, as discussed below, few Egyptian women are circumcised after age 15.

Table 8.1 also presents differences in the percentage circumcised among women age 15-49 by marital status, residence, and other socio-economic characteristics. Never-married women are concentrated in the 15-24 age groups, and thus, it is not surprising that the circumcision rate among never-married women is lower than among ever-married women (68 percent and 93 percent, respectively).<sup>2</sup> Fewer than 8 in 10 urban women are circumcised compared with more than 9 in 10 rural women. Seventy-five percent of women in the Urban Governorates and the three Frontier Governorates surveyed in the 2015 EHIS are circumcised compared with 87 percent in Lower Egypt and 92 percent in Upper Egypt. Overall, women with no education are the most likely to have been circumcised (98 percent) while the lowest circumcision rate is observed among women in the highest wealth quintile (70 percent).

Table 8.1 Prevalence of female circumcision

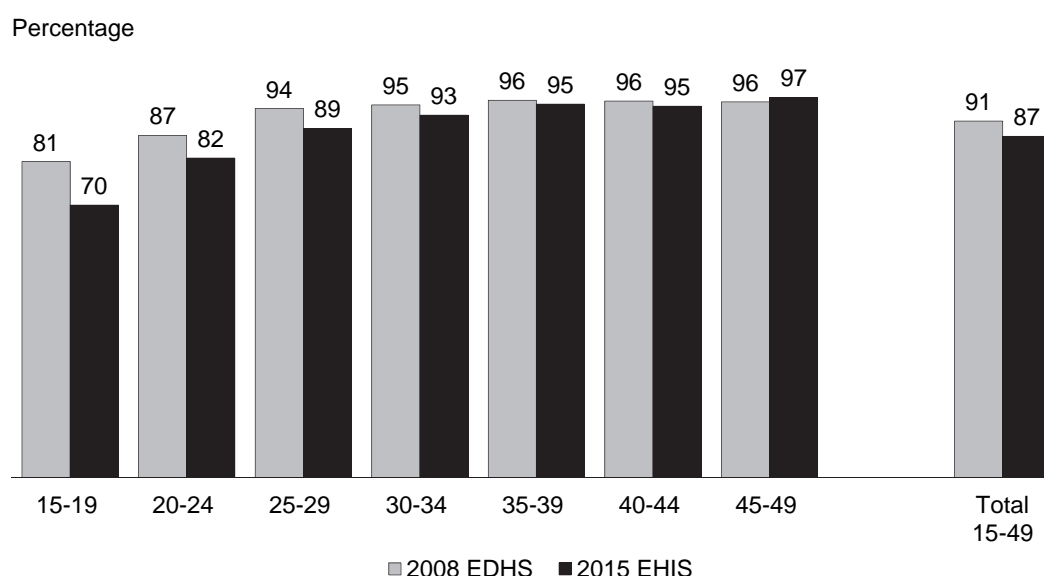
Percentage of women age 15-49 who are circumcised, by background characteristics, Egypt 2015

Background characteristic	Percentage circumcised	Number of women age 15-49
<b>Age</b>		
15-19	69.6	1,425
20-24	81.6	1,185
25-29	89.2	1,471
30-34	92.6	1,195
35-39	95.4	1,061
40-44	94.9	814
45-49	97.1	754
<b>Marital status</b>		
Ever married	93.1	6,078
Never married	67.6	1,827
<b>Urban-rural residence</b>		
Urban	77.4	2,791
Rural	92.6	5,115
<b>Place of residence</b>		
Urban Governorates	74.5	996
Lower Egypt	86.9	3,841
Urban	71.9	869
Rural	91.2	2,973
Upper Egypt	92.1	3,011
Urban	85.9	897
Rural	94.7	2,114
Frontier Governorates <sup>1</sup>	74.7	58
<b>Education</b>		
No education	97.6	1,409
Some primary	97.0	520
Primary complete/ some secondary	81.9	2,205
Secondary complete/ higher	85.1	3,771
<b>Work status</b>		
Working for cash	84.7	1,015
Not working for cash	87.6	6,891
<b>Wealth quintile</b>		
Lowest	94.4	1,543
Second	92.6	1,556
Middle	92.2	1,643
Fourth	87.2	1,578
Highest	69.8	1,585
Total	87.2	7,906

<sup>1</sup> Does not include North and South Sinai governorates

<sup>2</sup> The female circumcision rate among ever-married women age 15-49 in the 2015 EHIS is consistent with the rate reported among ever-married women age 15-49 in the 2014 EDHS (92.3 percent).

**Figure 8.1 Trends in percentage circumcised among all women age 15-49 by age, Egypt 2008-2015**



### 8.1.2 Women's Circumcision Experience

Women who were circumcised were asked how old they were when they were circumcised and about the type of person who performed the circumcision. Table 8.2 presents the distribution of circumcised women age 15-49 according to the age at circumcision. Half of the women age 15-49 were between seven and ten years of age at the time of circumcision, and virtually all of the women were circumcised before age 15. This reflects the fact that, in Egypt, girls are traditionally circumcised slightly before or at puberty (El-Gibaly et al. 2002).

**Table 8.2 Age at circumcision among women age 15-49 by residence**

Percent distribution of women age 15-49 who are circumcised by age at circumcision, according to urban-rural residence and place of residence, Egypt 2015

Age at circumcision	Urban		Rural		Urban Governorates		Lower Egypt		Upper Egypt		Frontier Governorates <sup>1</sup>		Total
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
<3	0.5	1.0	0.0	0.1	0.1	0.0	1.9	1.1	2.2	4.4	0.8		
3-4	1.2	1.0	0.5	0.1	0.5	0.1	2.3	2.3	2.2	2.9	1.0		
5-6	4.3	3.5	2.3	2.1	3.1	1.9	6.0	6.8	5.7	10.5	3.8		
7-8	9.2	9.5	7.5	8.0	8.5	7.9	11.5	11.2	11.6	13.1	9.4		
9-10	42.3	40.9	49.0	41.5	39.8	41.9	39.3	38.2	39.7	30.4	41.4		
11-12	29.6	31.0	23.0	36.7	37.6	36.5	25.4	30.0	23.6	16.3	30.6		
13-14	6.9	8.0	8.3	7.1	6.5	7.2	8.2	6.1	9.1	5.5	7.7		
15-17	0.8	1.6	0.7	0.9	0.6	0.9	2.0	1.0	2.4	2.8	1.3		
18-19	0.0	0.2	0.0	0.1	0.0	0.1	0.2	0.1	0.2	0.2	0.1		
20 or older	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Don't know/missing	5.2	3.4	8.7	3.5	3.3	3.5	3.2	3.1	3.2	13.9	4.0		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Number	2,159	4,736	743	3,337	624	2,712	2,772	770	2,003	43	6,895		
Median age	9.7	9.7	9.6	9.9	9.9	9.9	9.5	9.6	9.5	9.0	9.7		

<sup>1</sup> Does not include North and South Sinai governorates

Regarding the person performing the circumcision, Table 8.3 shows that just over half of circumcised women (52 percent) report that *dayas* (traditional birth attendants) were responsible for the procedure. Trained medical personnel (primarily doctors) performed most of the remaining circumcisions (42 percent). The highest proportions circumcised by a medical provider were found in urban Lower Egypt (54 percent) and the lowest in rural Upper Egypt (37 percent).

Table 8.3 Person performing circumcisions among women age 15-49 by residence

Percent distribution of women age 15-49 who are circumcised by person performing the circumcision, according to urban-rural residence and place of residence, Egypt 2015

Person performing circumcision	Urban Governorates				Lower Egypt				Frontier Governorates <sup>1</sup>		Total
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
Doctor	38.8	31.1	31.7	34.1	42.6	32.1	33.2	42.4	29.7	36.3	33.5
Nurse/other health worker	10.3	8.3	10.8	9.8	10.9	9.5	7.5	9.3	6.8	6.6	8.9
Daya	45.5	54.9	48.4	48.9	40.2	51.0	56.5	47.0	60.1	49.1	51.9
Barber	2.3	2.6	3.8	3.5	2.5	3.7	0.9	0.6	1.1	0.8	2.5
Ghagaria (Gypsies)	1.6	1.6	3.3	2.1	1.7	2.2	0.6	0.0	0.9	3.8	1.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Don't know/missing	1.5	1.5	1.9	1.6	2.2	1.5	1.1	0.7	1.3	3.5	1.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,159	4,736	743	3,337	624	2,712	2,772	770	2,003	43	6,895

<sup>1</sup> Does not include North and South Sinai governorates

## 8.2 CIRCUMCISION AMONG YOUNG GIRLS

In addition to asking about a woman's own circumcision status, the 2015 EHIS obtained information in the Child Questionnaire on the circumcision status of girls age 1-14. The information was provided primarily by the girl's mother; other relatives or caretakers provided the information for 8 percent of the girl (not shown in table).

### 8.2.1 Prevalence of Circumcision among Girls Age 1-14

Table 8.4 indicates that only 14 percent of girls age 1-14 had been circumcised at the time of the survey. This comparatively low proportion reflects the fact that very few girls under age 9 are circumcised. At that point, the proportion circumcised rises rapidly with age from 1 in 7 girls age 9-10 to more than half of girls age 13-14. Girls from rural areas, especially in Upper Egypt, are more likely than girls from other areas to have been circumcised. Looking at the place of residence, the lowest rates are observed in urban Lower Egypt (6 percent) and the Urban Governorates (8 percent). The likelihood a young girl is currently circumcised declines as the wealth quintile increases, from 23 percent in the lowest quintile to 5 percent among girls in the highest quintile.

Table 8.4 Prevalence of circumcision among girls 1-14 years by background characteristics

Percentage of all girls age 1-14 years who are circumcised, according to background characteristics, Egypt 2015

Background characteristic	Percentage circumcised	Number of girls
<b>Age</b>		
1-2	0.4	849
3-4	0.8	873
5-6	3.0	837
7-8	3.8	729
9-10	14.3	682
11-12	33.7	639
13-14	55.2	671
<b>Residence</b>		
Urban	10.4	1,662
Rural	15.9	3,619
<b>Place of residence</b>		
Urban Governorates	8.0	581
Lower Egypt	10.3	2,433
Urban	5.7	503
Rural	11.5	1,929
Upper Egypt	19.9	2,223
Urban	16.6	556
Rural	21.0	1,667
Frontier Governorates <sup>1</sup>	15.0	44
<b>Mother's education</b>		
No education	14.7	749
Some primary	12.1	421
Primary complete/ some secondary	15.2	1,244
Secondary complete/ higher	13.4	2,724
Mother deceased/ education level unknown	22.7	142
<b>Wealth quintile</b>		
Lowest	22.8	1,113
Second	16.3	1,055
Middle	12.9	1,224
Fourth	11.3	1,020
Highest	5.4	868
Total	14.1	5,280

<sup>1</sup> Does not include North and South Sinai governorates.



## 8.2.2 Girls' Circumcision Experience

A number of questions were asked about the experience of girls who were circumcised including how old the girl was when she was circumcised and about the type of person who performed the circumcision. Table 8.5 presents the distribution of the circumcised girls age 1-14 according to the age at circumcision. The age pattern suggests that it remains the norm for most girls to be circumcised around puberty. Overall, the median age at circumcision among girls is 9.1 years.

**Table 8.5 Age at circumcision among girls age 1-14 by residence**

Percent distribution of girls age 1-14 who are reported to be circumcised by age at circumcision, according to urban-rural residence and place of residence, Egypt 2015

Age at circumcision	Urban		Rural		Urban Governorates		Lower Egypt		Upper Egypt		Frontier Governorates <sup>1</sup>		Total
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
<3	4.4	4.3	0.1	0.4	(0.0)	0.5	6.5	6.5	6.5	39.4	4.3		
3-4	4.0	5.7	0.0	0.4	(1.3)	0.3	8.6	6.3	9.2	10.6	5.3		
5-6	10.0	9.9	0.1	3.2	(4.1)	3.0	14.7	16.2	14.2	15.3	9.9		
7-8	13.7	14.3	12.4	7.8	(2.5)	8.5	18.0	17.9	18.1	8.6	14.2		
9-10	35.4	37.1	35.6	41.4	(42.1)	41.3	34.6	34.7	34.5	13.3	36.7		
11-12	28.2	25.1	45.5	40.6	(50.0)	39.3	15.7	13.8	16.2	7.3	25.8		
13-14	4.2	3.4	6.3	5.9	(0.0)	6.6	1.9	4.6	1.2	5.5	3.6		
Don't know/missing	0.0	0.2	0.0	0.4	(0.0)	0.4	0.0	0.0	0.0	0.0	0.1		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Number	172	574	47	251	29	222	443	93	350	7	747		
Median age	9.3	9.0	10.1	9.9	(10.0)	9.8	8.2	8.3	8.1	4.0	9.1		

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Does not include North and South Sinai governorates

Regarding the person performing the circumcision, Table 8.6 indicates that trained medical personnel (primarily doctors) have largely replaced *dayas* and other traditional providers. Doctors or other health care providers performed the majority of the circumcisions among young girls (78 percent), with 20 percent performed by *dayas*.

**Table 8.6 Person performing circumcisions among girls age 1-14 by residence**

Percent distribution of girls age 1-14 who are reported to be circumcised by persons performing the circumcision, according to urban-rural residence and place of residence, Egypt 2015

Person performing circumcision	Urban		Rural		Urban Governorates		Lower Egypt		Upper Egypt		Frontier Governorates <sup>1</sup>		Total
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	
Doctor	63.2	67.9	64.8	75.6	(75.2)	75.7	62.1	58.4	63.0	61.8	66.8		
Nurse/other health worker	13.3	11.2	4.1	11.3	(24.1)	9.6	12.8	14.9	12.2	3.3	11.6		
Daya	23.5	19.4	31.1	10.5	(0.7)	11.8	24.6	26.6	24.0	34.9	20.4		
Barber	0.1	1.2	0.0	2.5	(0.0)	2.9	0.1	0.1	0.2	0.0	0.9		
Ghagaria	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0		
Other	0.0	0.2	0.0	0.0	(0.0)	0.0	0.2	0.0	0.3	0.0	0.1		
Don't know/missing	0.0	0.2	0.0	0.1	(0.0)	0.1	0.2	0.0	0.3	0.0	0.2		
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Number	172	574	47	251	29	222	443	93	350	7	747		

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Does not include North and South Sinai governorates

### 8.2.3 Intention to Circumcise

If a girl age 1-14 had not yet been circumcised, the mother or other caretaker who responded to the EHIS Child Questionnaire was asked if it was intended that the girl would be circumcised in the future. Table 8.7 combines information on the girls already circumcised with the response to the question on the intention to circumcise to obtain an estimate of the total percentage of girls who may eventually be circumcised. The results suggest that, overall, more than half of all girls age 1-14 years will eventually be circumcised. This is lower than the current circumcision rate among girls age 15-19 (70 percent). However, it indicates that, without further information, education and communication efforts, the majority of girls will continue to be circumcised over the next 15 years.

**Table 8.7** Expected future prevalence of female circumcision among young girls

Among girls age 1-14 years, percentage who are circumcised, percentage who are not yet circumcised but are planned to be circumcised according to the girl's mother's or caretaker, and total percentage who are expected to be circumcised eventually based on current circumcision status or the plan to circumcise, Egypt 2015

Current age	Percentage circumcised	Percentage planned to be circumcised in the future	Total percentage expected to be circumcised eventually	Number of girls
1-2	0.4	45.6	45.9	849
3-4	0.8	53.7	54.4	873
5-6	3.0	49.4	52.4	837
7-8	3.8	53.1	56.9	729
9-10	14.3	42.6	56.9	682
11-12	33.7	23.9	57.6	639
13-14	55.2	8.1	63.3	671
Total	14.1	40.8	54.9	5,280

Table 8.8, which presents the variation in the expected prevalence of female circumcision among girls age 1-14 years by background characteristics, suggests that changes in the prevalence of the practice will occur most rapidly in urban areas, particularly in the Urban Governorates and urban Lower Egypt, and in the Frontier Governorates. Rural Upper Egypt will continue to have the highest rate of circumcision among young girls (73 percent). Overall, the lowest percentage of girls expected to be circumcised is found in the highest wealth quintile; however, even among girls age 1-14 years in this quintile, around one-quarter are expected to be circumcised eventually.

**Table 8.8 Current and expected prevalence of circumcision among girls by background characteristics**

Among girls age 1-14 years, percentage who are circumcised, percentage who are not yet circumcised but are planned to be circumcised according to the girl's mother or caretaker, and total percentage who are expected to be circumcised eventually based on current circumcision status or the plan to circumcise, according to background characteristics, Egypt 2015

Background characteristic	Percentage circumcised	Percentage planned to be circumcised in the future	Total percentage expected to be circumcised eventually	Number of girls
<b>Urban-rural residence</b>				
Urban	10.4	28.1	38.5	1,662
Rural	15.9	46.6	62.5	3,619
<b>Place of residence</b>				
Urban Governorates	8.0	26.5	34.5	581
Lower Egypt	10.3	38.7	49.0	2,433
Urban	5.7	23.6	29.4	503
Rural	11.5	42.6	54.1	1,929
Upper Egypt	19.9	47.2	67.1	2,223
Urban	16.6	34.0	50.6	556
Rural	21.0	51.6	72.6	1,667
Frontier Governorates <sup>1</sup>	15.0	21.4	36.4	44
<b>Mother's education</b>				
No education	14.7	38.9	53.6	749
Some primary	12.1	38.7	50.8	421
Primary complete/ some secondary	15.2	38.7	53.9	1,244
Secondary complete/ higher	13.4	42.5	55.9	2,724
Mother deceased/ education level unknown	22.7	41.8	64.5	142
<b>Wealth quintile</b>				
Lowest	22.8	45.9	68.7	1,113
Second	16.3	48.8	65.1	1,055
Middle	12.9	47.2	60.1	1,224
Fourth	11.3	36.3	47.6	1,020
Highest	5.4	20.8	26.2	868
Total	14.1	40.8	54.9	5,280

<sup>1</sup> Does not include North and South Sinai governorates

For girls who had been circumcised or were expected to be circumcised eventually, information was collected from the mother or other caretaker responding to the Child Questionnaire on the reason(s) for circumcising the girl. The desire to adhere to a traditional practice was cited most often as the reason (92 percent), followed by the belief that it is required by religion (62 percent) and the belief that it will preserve the girl's virginity (12 percent) (not shown in table).

### 8.3 SUPPORT FOR FEMALE CIRCUMCISION AMONG WOMEN AND MEN

The 2015 EHIS obtained information from both women and men on several indicators of support for female circumcision including whether they believe that female circumcision is required by religious precepts and their opinion as to whether or not the practice should continue or be stopped. In addition, women were asked if they thought men supported continuation of the practice while men were asked about what they perceived to be women's attitude with regard to the continuation of the practice.

Tables 8.9.1 and 8.9.2 present information about beliefs and opinions about female circumcision among women and men, respectively. The results indicate that men are slightly more likely than women to have beliefs and attitudes supportive of female circumcision. For example, half of men age 15-49 believe female circumcision is required by religion compared to 46 percent of

women. Fifty-nine percent of men agree that the practice should continue compared to 54 percent of women. With regard to the level of support for female circumcision among the opposite sex, both men and women are largely correct in their perceptions, with men somewhat more likely to accurately predict women's attitudes. Fifty-three percent of women think that men want the practice to continue, which is 6 percentage points lower than the expressed level of support among men. On the other hand, half of men think women want female circumcision to continue, which is 4 percentage points lower than the level of support women actually express.

Table 8.9.1 Attitudes about continuation of female circumcision by background characteristics: Women

Percentage of women age 15-49 who believe circumcision is required by religious precepts and percent distribution of women age 15-49 by own attitude and by perception about men's attitude toward the continuation of the practice of female circumcision, according to selected background characteristics, Egypt 2015

Background characteristic	Percentage saying circumcision is required by religious precepts	Woman's attitude about practice				Woman's perception about men's attitudes				Number of women
		Continue	stopped	Not sure	Total percent	Continue	stopped	Not sure	Total percent	
<b>Age</b>										
15-19	35.2	37.9	45.6	16.5	100.0	37.4	27.9	34.6	100.0	1,425
20-24	40.4	46.8	45.3	7.9	100.0	49.1	29.5	21.3	100.0	1,185
25-29	49.2	56.4	36.9	6.7	100.0	54.8	23.9	21.3	100.0	1,471
30-34	51.4	58.6	34.8	6.5	100.0	56.6	26.1	17.2	100.0	1,195
35-39	52.7	62.2	31.5	6.2	100.0	58.3	25.1	16.6	100.0	1,061
40-44	46.3	60.2	32.5	7.3	100.0	57.2	26.7	16.1	100.0	814
45-49	53.0	64.8	28.7	6.5	100.0	63.1	20.9	16.0	100.0	754
<b>Marital status</b>										
Ever married	50.4	60.0	33.4	6.7	100.0	57.9	24.7	17.4	100.0	6,078
Never married	32.2	33.9	51.0	15.1	100.0	35.0	30.4	34.6	100.0	1,827
<b>Urban-rural residence</b>										
Urban	30.9	37.3	54.5	8.2	100.0	35.9	39.6	24.5	100.0	2,791
Rural	54.6	63.0	28.1	8.8	100.0	61.7	18.5	19.7	100.0	5,115
<b>Place of residence</b>										
Urban Governorates	22.5	28.2	60.5	11.3	100.0	24.6	42.2	33.2	100.0	996
Lower Egypt	48.5	54.5	36.9	8.6	100.0	54.7	26.4	18.8	100.0	3,841
Urban	31.8	36.9	56.9	6.2	100.0	37.7	43.2	19.1	100.0	869
Rural	53.4	59.6	31.1	9.3	100.0	59.7	21.5	18.7	100.0	2,973
Upper Egypt	51.4	61.9	30.3	7.8	100.0	59.7	19.9	20.4	100.0	3,011
Urban	39.3	47.3	45.8	6.9	100.0	46.8	33.6	19.6	100.0	897
Rural	56.5	68.2	23.7	8.1	100.0	65.2	14.1	20.8	100.0	2,114
Frontier Governorates <sup>1</sup>	34.2	41.8	50.3	7.9	100.0	25.5	31.8	42.7	100.0	58
<b>Education</b>										
No education	57.5	74.1	19.0	6.8	100.0	71.0	11.9	17.1	100.0	1,409
Some primary	58.2	71.8	20.0	8.2	100.0	67.0	11.8	21.2	100.0	520
Primary complete/ some secondary	42.0	48.7	38.2	13.2	100.0	47.4	24.9	27.8	100.0	2,205
Secondary complete/ higher	42.8	47.0	46.3	6.7	100.0	46.8	33.9	19.3	100.0	3,771
<b>Work status</b>										
Working for cash	42.8	47.5	46.3	6.2	100.0	46.3	34.8	18.9	100.0	1,015
Not working for cash	46.7	54.9	36.2	9.0	100.0	53.5	24.7	21.8	100.0	6,891
<b>Wealth quintile</b>										
Lowest	53.6	65.3	24.5	10.2	100.0	60.6	14.6	24.8	100.0	1,543
Second	53.4	62.5	29.4	8.0	100.0	63.1	18.2	18.7	100.0	1,556
Middle	59.5	65.6	26.5	7.9	100.0	64.7	19.1	16.3	100.0	1,643
Fourth	39.8	47.9	43.5	8.6	100.0	47.0	32.5	20.5	100.0	1,578
Highest	24.5	28.3	63.2	8.5	100.0	27.7	45.3	27.0	100.0	1,585
Total	46.2	53.9	37.5	8.6	100.0	52.6	26.0	21.4	100.0	7,906

<sup>1</sup> Does not include North and South Sinai governorates

Table 8.9.2 Attitudes about continuation of female circumcision by background characteristics: Men

Percentage of men age 15-49 who believe circumcision is required by religious precepts and percent distribution of men age 15-49 by own attitude and by perception about women's attitude toward the continuation of the practice of female circumcision, according to selected background characteristics, Egypt 2015

Background characteristic	Percentage saying circumcision is required by religious precepts	Man's attitude about practice				Man's perception about women's attitudes				Number of men
		Continue	Be stopped	Not sure	Total percent	Continue	Be stopped	Not sure	Total percent	
<b>Age</b>										
15-19	33.9	41.7	24.3	34.1	100.0	31.8	19.8	48.4	100.0	1,288
20-24	44.9	54.3	33.6	12.1	100.0	45.0	27.8	27.2	100.0	859
25-29	50.4	62.3	28.4	9.2	100.0	49.9	25.2	25.0	100.0	962
30-34	52.5	60.6	30.6	8.8	100.0	53.7	27.6	18.7	100.0	923
35-39	58.2	65.8	27.0	7.3	100.0	56.6	23.7	19.6	100.0	856
40-44	65.2	69.2	25.1	5.7	100.0	63.9	22.9	13.2	100.0	736
45-49	56.9	66.7	27.6	5.7	100.0	59.0	26.9	14.1	100.0	670
<b>Marital status</b>										
Ever married	58.3	66.5	26.8	6.7	100.0	58.7	24.7	16.6	100.0	3,766
Never married	37.9	46.5	29.6	23.8	100.0	36.0	24.1	39.8	100.0	2,527
<b>Urban-rural residence</b>										
Urban	38.8	47.0	39.0	14.0	100.0	36.7	33.7	29.5	100.0	2,323
Rural	56.7	65.2	21.4	13.4	100.0	57.1	19.1	23.8	100.0	3,970
<b>Place of residence</b>										
Urban Governorates	27.2	38.4	44.2	17.5	100.0	26.5	35.1	38.4	100.0	840
Lower Egypt	51.5	59.7	26.3	14.1	100.0	51.9	24.5	23.6	100.0	3,078
Urban	40.6	47.2	39.4	13.4	100.0	38.1	37.2	24.8	100.0	678
Rural	54.6	63.2	22.6	14.3	100.0	55.8	20.9	23.3	100.0	2,400
Upper Egypt	56.8	64.6	23.8	11.6	100.0	55.4	20.4	24.2	100.0	2,324
Urban	49.9	56.1	33.1	10.8	100.0	46.9	29.3	23.9	100.0	777
Rural	60.2	68.8	19.2	12.0	100.0	59.7	15.9	24.4	100.0	1,547
Frontier Governorates <sup>1</sup>	32.5	40.2	46.6	13.1	100.0	25.6	39.2	35.2	100.0	51
<b>Education</b>										
No education	57.2	67.3	20.9	11.7	100.0	63.2	15.8	21.0	100.0	375
Some primary	55.7	66.3	17.5	16.2	100.0	60.2	12.9	26.9	100.0	487
Primary complete/ some secondary	44.7	55.3	22.5	22.3	100.0	45.3	19.2	35.5	100.0	2,023
Secondary complete/ higher	51.7	58.3	33.4	8.3	100.0	49.1	30.3	20.6	100.0	3,409
<b>Work status</b>										
Working for cash	53.9	62.7	27.0	10.3	100.0	53.8	24.1	22.1	100.0	5,080
Not working for cash	33.9	40.8	31.7	27.5	100.0	32.2	26.1	41.6	100.0	1,214
<b>Wealth quintile</b>										
Lowest	53.2	64.4	18.8	16.8	100.0	55.6	15.0	29.4	100.0	1,229
Second	58.5	66.6	20.8	12.7	100.0	59.0	19.3	21.7	100.0	1,219
Middle	60.2	67.3	21.7	11.0	100.0	58.2	19.6	22.2	100.0	1,199
Fourth	48.2	56.8	29.0	14.3	100.0	49.3	26.0	24.7	100.0	1,333
Highest	31.9	39.0	47.8	13.2	100.0	27.6	41.3	31.1	100.0	1,313
Total	50.1	58.5	27.9	13.6	100.0	49.6	24.5	25.9	100.0	6,293

<sup>1</sup> Does not include North and South Sinai governorates

Marked differences in the measures of the level of support for female circumcision are evident across population subgroups among both women and men. As Table 8.9.1 shows, women under age 25 are less likely than older women to see circumcision as a religious requirement, want the practice to continue or believe that men want female circumcision to continue. In large part reflecting these age differences, never-married women are much less likely than ever-married women to believe circumcision is mandated by religion, support continuation of the practice themselves, or feel that men continue to support the practice.

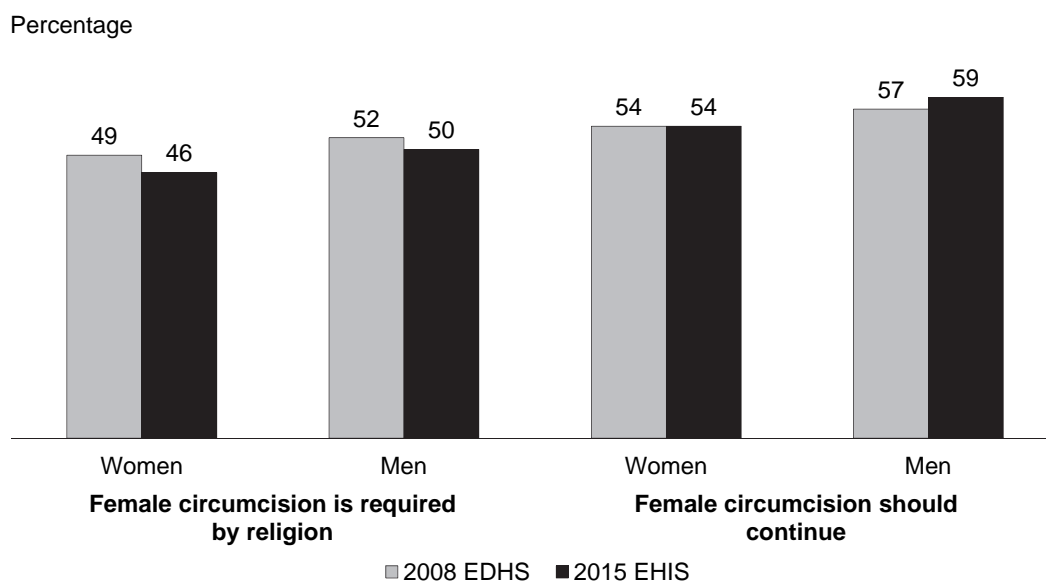
Support for the practice is more widespread among rural than urban women. Women in the Urban Governorates are least supportive of the practice; for example only 28 percent of women in the

Urban Governorates think female circumcision should continue compared to more than 42 percent of women in the three Frontier Governorates included in the 2015 EHIS, 55 percent of women in Lower Egypt, and 62 percent of women in Upper Egypt. The proportion of women who felt that circumcision is mandated by religion generally decreases with both increased education and wealth. These characteristics are also negatively related to the likelihood that a woman supports the continuation of the practice of circumcision or believes that men want the practice to be continued. Women working for cash are somewhat less likely than those not working for cash to have attitudes supportive of the continuation of female circumcision.

Looking at the differentials in Table 8.9.2 for men, the pattern of variation in men’s beliefs and opinions toward the practice of circumcision across population is generally similar to that found among women. A comparison of men’s and women’s beliefs and attitudes for various subgroups also indicates that men are somewhat more supportive of female circumcision than women in most subgroups.

Finally, information obtained 2015 EHIS on beliefs and attitudes among women and men can be compared to similar information obtained in the 2008 Egypt DHS in order to assess if there was any change in these indicators over the seven-year period between the surveys. The comparisons shown in Figure 8.2 indicate that there has been very little change in the belief that female circumcision is required by religion among either women or men during the period. Moreover, the proportions of women and men supporting continuation of the practice were virtually identical in the two surveys.

**Figure 8.2 Trends in percentages of women and men age 15-49 who believe female circumcision is required by religion and who support continuation of the practice, Egypt 2008 and 2015**



#### 8.4 BELIEFS ABOUT FEMALE CIRCUMCISION

The 2015 EHIS included several statements about female circumcision with which women and men were asked to agree or disagree. Two of the statements addressed factors that are often cited as primary rationales for the practice: “A husband will prefer his wife to be circumcised” and “Circumcision prevents adultery.” The other statements were related to health concerns associated with the practice that might lead to individuals to call for the abolition of the practice: “Childbirth is

more difficult for a woman who has been circumcised” and “Circumcision can cause serious consequences that can lead to a girl’s death.”

Tables 8.10.1 and 8.10.2 present differentials in the proportions of all women and men age 15-49 agreeing with the various statements. Men were more likely than women to think that a husband would prefer the wife to be circumcised (58 percent and 53 percent, respectively) and to agree that circumcision prevents adultery (49 percent and 43 percent, respectively). The results also show that, while close to 60 percent of women agreed that circumcision can cause severe complications which may lead to a girl’s death, less than half of men recognized the potentially adverse consequences of circumcision. Few women (8 percent) and men (5 percent) believed that childbirth is more difficult for circumcised women than for other women.

**Table 8.10.1 Beliefs about female circumcision by background characteristics: Women**

Percentage of women age 15-49 who agree with various statements about female circumcision, according to selected background characteristics, Egypt 2015

Background characteristic	Husbands prefer	Prevents adultery	Can lead to girl's death	Makes childbirth difficult	Number of respondents
<b>Age</b>					
15-19	32.9	27.8	58.1	5.8	1,425
20-24	48.2	36.0	61.1	8.4	1,185
25-29	59.0	45.8	60.4	8.7	1,471
30-34	57.8	44.8	59.1	6.8	1,195
35-39	59.9	49.5	57.7	9.1	1,061
40-44	58.5	51.2	54.6	8.1	814
45-49	63.8	57.9	52.5	8.5	754
<b>Marital status</b>					
Ever married	60.3	48.8	58.0	8.2	6,078
Never married	28.8	24.2	58.8	6.5	1,827
<b>Urban-rural residence</b>					
Urban	35.7	29.3	65.3	9.0	2,791
Rural	62.5	50.7	54.3	7.2	5,115
<b>Place of residence</b>					
Urban Governorates	23.9	23.0	72.8	12.1	996
Lower Egypt	56.2	47.2	58.3	7.4	3,841
Urban	37.4	31.2	64.9	7.4	869
Rural	61.8	51.9	56.4	7.4	2,973
Upper Egypt	58.9	44.9	53.2	6.9	3,011
Urban	47.0	34.4	57.8	7.0	897
Rural	63.9	49.4	51.2	6.9	2,114
Frontier governorates <sup>1</sup>	34.8	26.7	59.6	5.6	58
<b>Education</b>					
No education	71.3	58.4	46.8	7.8	1,409
Some primary	70.7	57.3	49.4	6.5	520
Primary complete/ some secondary	45.7	37.4	57.4	7.3	2,205
Secondary complete/ higher	48.0	38.8	64.2	8.3	3,771
<b>Work status</b>					
Working for cash	46.1	38.4	64.5	8.0	1,015
Not working for cash	54.0	43.8	57.3	7.8	6,891
<b>Wealth quintile</b>					
Lowest	60.6	50.6	52.3	7.9	1,543
Second	65.7	54.2	54.2	7.2	1,556
Middle	63.8	51.7	56.4	7.5	1,643
Fourth	48.2	38.9	57.9	7.2	1,578
Highest	26.7	20.5	69.9	9.3	1,585
Total	53.0	43.1	58.2	7.8	7,906

<sup>1</sup> Does not include North and South Sinai governorates

**Table 8.10.2 Beliefs about female circumcision by background characteristics: Men**

Percentage of men age 15-49 who agree with various statements about female circumcision, according to selected background characteristics, Egypt 2015

Background characteristic	Husbands prefer	Prevents adultery	Can lead to girl's death	Makes childbirth difficult	Number of respondents
<b>Age</b>					
15-19	37.0	28.4	37.6	2.2	1,288
20-24	49.0	43.5	48.0	4.4	859
25-29	62.3	52.3	44.7	4.0	962
30-34	62.4	53.9	49.0	7.2	923
35-39	65.6	57.1	46.8	5.0	856
40-44	70.7	60.3	52.6	5.8	736
45-49	68.8	58.3	52.0	8.0	670
<b>Marital status</b>					
Ever-married	67.9	58.2	49.1	6.3	3,766
Never married	41.8	34.4	42.1	2.8	2,527
<b>Urban-rural residence</b>					
Urban	44.1	36.6	51.5	5.6	2,323
Rural	65.3	55.7	43.2	4.6	3,970
<b>Place of residence</b>					
Urban Governorates	30.1	25.6	58.7	6.9	840
Lower Egypt	60.1	52.4	45.4	4.6	3,078
Urban	47.2	40.5	51.4	4.8	678
Rural	63.8	55.8	43.8	4.6	2,400
Upper Egypt	64.3	52.3	43.1	4.6	2,324
Urban	56.5	44.9	44.3	4.9	777
Rural	68.1	56.1	42.5	4.5	1,547
Frontier Governorates <sup>1</sup>	38.7	34.0	42.8	4.3	51
<b>Education</b>					
No education	68.8	55.8	42.7	5.4	375
Some primary	66.9	57.8	37.4	3.4	487
Primary complete/ some secondary	52.1	45.2	40.1	3.7	2,023
Secondary complete/ higher	58.0	48.6	51.6	5.8	3,409
<b>Work status</b>					
Working for cash	63.0	53.6	47.2	5.5	5,080
Not working for cash	34.3	27.8	42.6	2.4	1,214
<b>Wealth quintile</b>					
Lowest	64.0	52.5	44.6	4.7	1,229
Second	67.5	60.1	41.1	5.1	1,219
Middle	67.0	57.0	44.5	4.6	1,199
Fourth	55.5	47.4	42.8	3.4	1,333
Highest	35.2	28.1	58.0	6.8	1,313
Total	57.5	48.7	46.3	4.9	6,293

<sup>1</sup> Does not include North and South Sinai governorates

The differentials in the tables indicate that women and men who were living in rural areas, those with less than a primary education, and those in the bottom three wealth quintiles were more likely than other women and men to believe that a husband would prefer his wife to be circumcised or to believe that circumcision prevents adultery. These same groups were generally less likely than other groups to believe that circumcision may have potentially fatal health consequences for a girl.

## 8.5 EXPOSURE TO INFORMATION ABOUT FEMALE CIRCUMCISION

Tables 8.11.1 and 8.11.2 summarize findings from the 2015 EHIS concerning women's and men's involvement in discussions about female circumcision in the year before the survey. They also present information collected in the survey on recent exposure of women and men to information about female circumcision and the channels through which they were exposed to information about female circumcision.



Table 8.11.1 Exposure to information regarding female circumcision by background characteristics: Women

Percentage of women age 15-49 discussing female circumcision with relatives, friends or neighbors and receiving information about female circumcision during the year prior to the survey, and among women receiving information during the year prior to the survey, percentage naming various sources of information, according to selected background characteristics, Egypt 2015

Background characteristic	Percentage who have discussed female circumcision with relatives, friends, neighbors	Percentage receiving information recently about female circumcision	Number of respondents	Source from which respondent last saw/heard about female circumcision								Number of respondents receiving information about female circumcision recently
				TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/ other relatives/ friends/ neighbors	Community meeting/ educational seminar/ other		
<b>Age</b>												
15-19	14.3	20.5	1,425	81.6	2.4	0.1	0.0	0.1	44.6	2.5	293	
20-24	16.9	27.2	1,185	77.2	5.2	1.6	0.0	1.6	46.5	1.2	322	
25-29	22.6	26.7	1,471	78.5	6.5	5.1	2.4	3.2	53.6	1.6	393	
30-34	21.3	26.8	1,195	86.0	2.7	4.3	0.4	3.9	48.8	3.1	320	
35-39	19.6	26.9	1,061	80.8	4.4	3.8	1.0	2.7	50.1	1.3	286	
40-44	21.4	27.0	814	80.0	1.7	7.2	2.3	5.9	49.7	2.4	220	
45-49	20.8	29.6	754	80.0	1.2	4.0	1.5	3.2	50.2	1.6	223	
<b>Marital status</b>												
Ever married	20.7	27.1	6,078	80.2	3.0	4.2	1.3	3.2	50.7	1.8	1,647	
Never married	14.9	22.4	1,827	81.8	6.6	1.3	0.0	1.3	43.0	2.6	409	
<b>Urban-rural residence</b>												
Urban	17.7	26.7	2,791	80.1	3.2	3.3	0.4	2.9	41.6	0.7	745	
Rural	20.2	25.6	5,115	80.8	4.1	3.8	1.5	2.8	53.5	2.6	1,311	
<b>Place of residence</b>												
Urban Governorates	15.0	30.2	996	72.0	0.5	2.1	0.0	2.1	33.5	0.0	301	
Lower Egypt	16.8	20.4	3,841	82.3	4.6	4.0	1.1	3.4	53.7	1.9	784	
Urban	16.3	20.0	869	83.3	4.0	4.1	1.1	3.0	50.8	2.0	174	
Rural	17.0	20.5	2,973	82.0	4.8	3.9	1.1	3.4	54.5	1.9	610	
Upper Egypt	24.0	31.8	3,011	82.0	4.0	3.8	1.4	2.6	50.5	2.5	956	
Urban	22.0	29.4	897	87.7	5.8	4.0	0.3	3.8	44.3	0.6	264	
Rural	24.9	32.8	2,114	79.8	3.4	3.7	1.8	2.1	52.8	3.2	693	
Frontier Governorates <sup>2</sup>	20.3	25.9	58	73.3	5.7	6.7	0.2	6.7	46.6	5.2	15	
<b>Education</b>												
No education	19.3	24.3	1,409	78.9	0.3	2.6	1.0	1.6	52.8	0.0	342	
Some primary	19.1	25.0	520	78.6	0.3	3.8	2.4	1.4	55.9	0.0	130	
Primary complete/ some secondary	17.5	22.7	2,205	78.3	1.3	1.7	0.6	1.5	53.1	1.5	500	
Secondary complete/ higher	20.5	28.7	3,771	82.3	6.4	4.8	1.2	4.0	45.4	3.0	1,084	
<b>Work status</b>												
Working for cash	25.7	34.0	1,015	82.1	8.4	9.5	2.5	8.8	51.7	5.7	346	
Not working for cash	18.4	24.8	6,891	80.2	2.8	2.4	0.8	1.7	48.7	1.2	1,711	
<b>Wealth quintile</b>												
Lowest	23.4	30.3	1,543	77.1	3.0	3.9	2.4	1.9	52.2	3.8	468	
Second	22.6	26.1	1,556	78.1	3.4	3.7	1.7	2.6	59.0	1.1	407	
Middle	15.3	20.1	1,643	86.4	3.3	3.1	0.0	3.1	48.0	2.0	331	
Fourth	19.3	27.4	1,578	84.4	4.5	3.5	0.3	3.5	47.1	2.0	433	
Highest	16.4	26.4	1,585	78.2	4.5	3.9	0.6	3.3	39.3	0.5	418	
Total	19.4	26.0	7,906	80.6	3.8	3.6	1.1	2.8	49.2	1.9	2,056	

<sup>1</sup> Includes radio, newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

Table 8.11.2 Exposure to information regarding female circumcision by background characteristics: Men

Percentage of men age 15-49 discussing female circumcision with relatives, friends or neighbors and receiving information about female circumcision during the year prior to the survey, and among men receiving information during the year prior to the survey, percentage naming various sources of information, according to selected background characteristics, Egypt 2015

Background characteristic	Percentage who have discussed female circumcision with relatives, friends, neighbors	Percentage receiving information recently about female circumcision	Number of respondents	Source from which respondent last saw/heard about female circumcision							Number of respondents receiving information about female circumcision recently
				TV	Other media <sup>1</sup>	Contact with any health worker	Home visit from health worker	Facility visit with health worker	Spouse/ other relatives/ friends/ neighbors	Com-munity meeting/ educa-tional seminar/ other	
<b>Age</b>											
15-19	6.3	10.8	1,288	91.8	8.1	0.0	0.0	0.0	23.4	1.2	139
20-24	9.3	18.5	859	92.6	12.8	0.2	0.0	0.2	24.1	0.4	159
25-29	12.4	18.9	962	92.7	12.7	1.0	0.6	0.4	33.0	1.7	182
30-34	12.9	21.1	923	85.8	7.6	2.3	2.1	1.8	38.2	0.8	194
35-39	13.2	20.2	856	88.6	11.4	3.2	0.0	3.2	34.9	0.0	173
40-44	14.2	21.1	736	92.6	15.6	1.8	0.0	1.8	38.3	2.6	155
45-49	12.9	20.6	670	88.8	15.5	1.9	0.0	1.9	34.5	0.9	138
<b>Marital status</b>											
Ever married	13.8	20.1	3,766	89.2	11.6	2.2	0.7	1.9	37.7	1.0	756
Never married	7.3	15.2	2,527	92.4	12.3	0.2	0.0	0.2	22.7	1.2	384
<b>Urban-rural residence</b>											
Urban	8.9	18.6	2,323	89.3	14.5	1.1	0.5	0.6	24.5	1.2	432
Rural	12.5	17.8	3,970	90.9	10.2	1.8	0.4	1.8	37.7	1.0	708
<b>Place of residence</b>											
Urban Governorates	8.4	21.4	840	83.2	3.2	0.1	0.0	0.1	17.0	1.0	180
Lower Egypt	10.2	14.5	3,078	94.8	15.0	2.1	0.9	1.8	36.4	0.3	445
Urban	8.5	14.3	678	95.9	22.2	2.3	1.2	1.1	35.6	1.2	97
Rural	10.7	14.5	2,400	94.5	13.0	2.0	0.9	2.0	36.6	0.0	348
Upper Egypt	13.4	21.8	2,324	89.0	12.1	1.5	0.2	1.3	34.9	1.8	506
Urban	9.9	19.6	777	92.5	22.9	1.4	0.7	0.8	25.8	1.5	152
Rural	15.2	22.8	1,547	87.5	7.4	1.5	0.0	1.5	38.8	2.0	353
Frontier Governorates <sup>2</sup>	10.7	17.9	51	80.9	9.6	6.9	0.0	6.9	37.3	3.6	9
<b>Education</b>											
No education	6.5	14.7	375	91.5	6.9	0.0	0.0	0.0	21.9	0.0	55
Some primary	12.8	16.6	487	87.3	2.5	1.1	1.1	0.0	40.4	0.0	81
Primary complete/ some secondary	8.0	12.5	2,023	89.5	7.8	2.3	1.2	2.3	29.1	0.7	253
Secondary complete/ higher	13.3	22.0	3,409	90.8	14.5	1.4	0.2	1.2	33.8	1.4	751
<b>Work status</b>											
Working for cash	12.3	19.0	5,080	89.5	11.3	1.8	0.5	1.6	34.9	1.0	964
Not working for cash	6.6	14.5	1,214	94.4	14.5	0.0	0.0	0.0	20.4	1.3	176
<b>Wealth quintile</b>											
Lowest	12.3	17.8	1,229	85.6	7.0	1.6	0.0	1.6	38.7	2.3	219
Second	13.3	17.2	1,219	89.5	6.5	3.0	1.5	3.0	42.5	0.6	209
Middle	10.5	15.7	1,199	95.5	17.5	1.1	0.0	1.1	34.6	0.1	188
Fourth	10.7	16.5	1,333	90.8	7.8	1.2	0.1	1.2	35.0	0.8	220
Highest	9.3	23.1	1,313	90.5	18.2	0.9	0.7	0.2	18.6	1.4	304
Total	11.2	18.1	6,293	90.3	11.8	1.5	0.5	1.3	32.7	1.1	1,140

<sup>1</sup> Includes radio, newspaper/magazine, pamphlet/brochure, or poster

<sup>2</sup> Does not include North and South Sinai governorates

The results indicate that only a minority of women and men had discussed female circumcision with relatives, friends, and neighbors in the year prior to the survey (19 percent and 11 percent, respectively). Somewhat higher proportions of women and men said they received information about female circumcision from the mass media or other source in the year before the survey (26 percent and 18 percent, respectively). Among those individuals who said they had received information from any source, the majority cited television as the source for the information (81 percent of women and 90 percent of men). Spouses, other relatives, friends and neighbors were cited as the source by about half of the women and one-third of men who had recently received

information. Very few respondents who received information cited other sources including health providers and community meetings.

Differentials in the indicators in the tables are generally not large. The lowest proportions discussing female circumcision among women and men were observed in the 15-19 age group (14 percent and 6 percent respectively). Among women, the highest proportion reporting discussion of female circumcision was found among those working for cash (26 percent) and those from rural Upper Egypt (25 percent). Among men, the highest proportion discussing female circumcision was found in rural Upper Egypt (15 percent). With respect to exposure to information about female circumcision through mass media and other channels, the proportion of women reporting recent exposure from any source was lowest in urban Lower Egypt (20 percent) and highest among those working for cash (34 percent) and those from rural Upper Egypt (33 percent). Among men, the proportion reporting recent exposure was lowest in the 15-19 age group (11 percent) and highest among men from rural Upper Egypt and men in the highest wealth quintile (23 percent each).



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## A.1 INTRODUCTION

The 2015 Egypt Health Issues Survey (EHIS) was undertaken as part of the Ministry of Health's commitment to obtain data on a number of Egypt's key health concerns, particularly the prevalence of hepatitis B and C and of hypertension, smoking, and obesity, which are major risk factors for non-communicable diseases (NCDs) such as diabetes and cardiovascular disease. The data on the prevalence of hepatitis C was intended to allow an assessment of the trend in the proportion of adults infected with hepatitis C since the 2008 Egypt DHS, which was the first national survey to provide estimates of the prevalence of hepatitis C in the population age 15-59. The population tested for hepatitis C in the EHIS was expanded to include all individuals age 1-59 and the testing protocol expanded to include testing for the hepatitis B virus. The 2015 EHIS also collected information on several reproductive health care issues including the extent to which women are being screened for breast and cervical cancer and factors that may be contributing to the recent rapid expansion in the rate of Caesarean deliveries. Finally, the survey took advantage of the fact that men were being interviewed to obtain information on male attitudes toward family planning use and ideal family size and their beliefs concerning the practice of female circumcision.

## A.2 SAMPLE SELECTION

The 2015 EHIS involved a systematic random selection of a subsample of 614 shiakh/villages out of the 884 shiakh/villages that had been chosen as Primary Sampling Units in the 2014 Egypt Demographic and Health Survey.<sup>1</sup> A full description of the 2014 Egypt DHS sample design is included in the final report for the survey (Ministry of Health and Population et al. 2015). The first three columns in Table A.1 show the allocation of EHIS clusters by governorate and urban-rural residence.

The household listings prepared during the 2014 EDHS were used to select the household sample for the EHIS. A total of 7,656 households were chosen from the EDHS listings in such manner the EHIS household sample was totally independent of the household sample selected for the EDHS, i.e., there were no households included in both surveys. The last three columns in Table A.1 show the distribution of the households selected for the 2015 EHIS by governorate and urban-rural residence. During the fieldwork, the EHIS teams found two rather than one household when they visited 175 of the originally selected households. As is DHS policy, the additional households were interviewed and added to the EHIS sample. In the Red Sea governorate, three clusters were dropped from the EHIS sample because the distance that the field teams needed to travel to the clusters (300 kilometers) made it problematic for the teams to preserve the venous blood samples. The exclusion of the 18 households in these governorates had no effect on the overall EHIS estimates.

The 2015 EHIS was designed to provide estimates of the key health indicators including the prevalence of hepatitis B and C for the country as a whole and for six major subdivisions (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt, and Frontier Governorates). Because the household sample for the 2015 EHIS is much smaller than the household sample for the 2014 EDHS, which included more than 29,000 households, the EHIS sample allows for estimates of only key indicators at the governorate level.

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<sup>1</sup> A total of 926 PSUs were originally selected for the 2014 EDHS. However, 42 PSUs selected in North and South Sinai governorates were not included due to security reasons.

**Table A.1 Allocation of primary sampling units and household sample**

Allocation of primary sampling units and household sample by governorate and urban-rural residence, Egypt Health Issues Survey 2015

Governorate	Primary sampling units			Household sample		
	Urban	Rural	Total	Urban	Rural	Total
<b>Urban Governorates</b>						
Cairo	46	0	46	636	0	636
Alexandria	29	1	30	390	12	402
Port Said	27	0	27	324	0	324
Suez	25	0	25	300	0	300
<b>Lower Egypt</b>						
Damietta	10	14	24	120	168	288
Dakahlia	9	17	26	132	204	336
Sharkia	8	19	27	96	228	324
Kalyubia	14	14	28	210	168	378
Kafr El-Sheikh	6	17	23	72	204	276
Gharbia	9	16	25	108	192	300
Menoufia	7	17	24	84	204	288
Behera	6	20	26	78	240	318
Ismailia	11	12	23	132	144	276
<b>Upper Egypt</b>						
Giza	23	9	32	348	108	456
Beni Suef	7	17	24	84	204	288
Fayoum	6	18	24	72	216	288
Menya	6	19	25	78	228	306
Assuit	7	16	23	84	192	276
Souhag	7	18	25	96	216	312
Qena	5	19	24	60	228	288
Aswan	11	13	24	132	156	288
Luxor	11	12	23	132	144	276
<b>Frontier Governorates</b>						
Red Sea	11	2	12	132	24	138
New Valley	7	4	11	84	48	132
Matroh	9	3	12	108	36	144
North Sinai	na	na	na	na	na	na
South Sinai	na	na	na	na	na	na
<b>Total</b>	<b>317</b>	<b>297</b>	<b>614</b>	<b>4,092</b>	<b>3,564</b>	<b>7,656</b>

na = Not applicable

During the EHIS, usual household members and visitors who were present in the household during the night before the survey visit were identified and listed in the household questionnaire. All individuals 1-59 included in that list were eligible for the individual survey interview and for the hepatitis B and C testing. In addition, children 6-59 months were eligible for the special study on aflatoxin.

### A.3 SAMPLE IMPLEMENTATION

Table A.2 presents the outcome of the survey interviews by residence. Regardless of residence, response rates were high for both the households selected for 2015 EHIS sample and for eligible respondents found in those households.



Table A.2 Sample implementation by residence

Percent distribution of households and eligible individuals by results of the household and individual adult women, adult men, and child interviews; household, eligible women, men, and child response rates, and overall women, men, and child response rates, according to urban-rural residence and place of residence (unweighted), Egypt Health Issues Survey 2015

Result	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Frontier Governorates <sup>4</sup>	Total
				Total	Urban	Rural	Total	Urban	Rural		
<b>Selected households</b>											
Completed (C)	94.3	98.3	95.0	96.2	93.1	97.9	96.3	92.6	98.6	100.0	96.2
Household present but no competent respondent at home (HP)	0.5	0.1	0.0	0.5	1.0	0.2	0.4	0.9	0.1	0.0	0.3
Postponed (P)	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Refused (R)	2.2	0.4	2.2	1.3	2.4	0.6	1.1	2.6	0.3	0.0	1.3
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Household absent (HA)	0.7	0.2	0.5	0.4	0.7	0.2	0.7	1.3	0.3	0.0	0.5
Dwelling vacant/address not a dwelling (DV)	2.0	0.8	1.8	1.5	2.5	0.9	1.3	2.3	0.7	0.0	1.4
Dwelling destroyed (DD)	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Other (O)	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	4,112	3,701	1,665	2,836	1,036	1,800	2,894	1,095	1,799	418	7,813
Household response rate (HRR) <sup>1</sup>	97.2	99.4	97.7	98.2	96.5	99.2	98.4	96.3	99.7	100.0	98.3
<b>Eligible women</b>											
Completed (EWC)	98.5	99.2	98.2	98.6	98.0	98.9	99.3	98.7	99.6	100.0	98.9
Not at home (EWNH)	0.3	0.1	0.2	0.3	0.4	0.2	0.2	0.4	0.1	0.0	0.2
Postponed (EWP)	0.5	0.1	0.5	0.4	0.8	0.2	0.2	0.3	0.1	0.0	0.3
Refused (EWR)	0.6	0.2	0.9	0.3	0.4	0.3	0.2	0.5	0.0	0.0	0.4
Incapacitated (EWI)	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.1	0.2	0.0	0.2
Other (EWO)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	4,499	4,816	1,647	3,459	1,189	2,270	3,664	1,260	2,404	545	9,315
Eligible women response rate (EWRR) <sup>2</sup>	98.5	99.2	98.2	98.6	98.0	98.9	99.3	98.7	99.6	100.0	98.9
Overall women response rate (OWRR) <sup>3</sup>	95.7	98.7	95.9	96.8	94.6	98.0	97.7	95.0	99.2	100.0	97.1
<b>Eligible men</b>											
Completed (EMC)	94.3	95.4	93.9	94.8	92.8	95.9	94.8	94.8	94.8	98.2	94.9
Not at home (EMNH)	1.7	1.4	0.7	1.5	2.5	1.0	2.1	2.4	2.0	0.6	1.6
Postponed (EMP)	1.6	1.6	2.2	1.7	2.0	1.6	1.5	1.1	1.7	0.2	1.6
Refused (EMR)	1.8	0.7	2.6	1.5	2.5	1.0	0.4	0.6	0.3	0.6	1.3
Incapacitated (EMI)	0.5	0.4	0.6	0.3	0.1	0.4	0.5	0.6	0.4	0.4	0.4
Other (EMO)	0.2	0.4	0.0	0.1	0.1	0.1	0.6	0.5	0.7	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	3,993	3,874	1,480	2,911	1,005	1,906	2,988	1,142	1,846	488	7,867
Eligible men response rate (EMRR) <sup>2</sup>	94.3	95.4	93.9	94.8	92.8	95.9	94.8	94.8	94.8	98.2	94.9
Overall men response rate (OMRR) <sup>3</sup>	91.7	94.9	91.6	93.1	89.6	95.1	93.3	91.3	94.5	98.2	93.2
<b>Eligible child</b>											
Completed (ECC)	99.6	100.0	99.8	99.8	99.4	100.0	99.8	99.3	100.0	100.0	99.8
Not at home (ECNH)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Postponed (ECP)	0.2	0.0	0.1	0.1	0.3	0.0	0.1	0.3	0.0	0.0	0.1
Refused (ECR)	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.4	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of children	4,764	6,135	1,633	3,808	1,163	2,645	4,703	1,401	3,302	755	10,899
Eligible child response rate (ECRR) <sup>2</sup>	99.6	100.0	99.8	99.8	99.4	100.0	99.8	99.3	100.0	100.0	99.8
Overall child response rate (OCRR) <sup>3</sup>	96.8	99.4	97.5	98.0	95.9	99.1	98.2	95.6	99.7	100.0	98.1

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

<sup>2</sup> The eligible women, men, and child response rate (EW(M/C)RR) is equivalent to the percentage of interviews completed (EW(M/C)C)

<sup>3</sup> The overall women, men, and child response rate (OW(M/C)RR) is calculated as: OW(M/C)RR = HRR \* EW(M/C)RR/100

<sup>4</sup> Does not include North and South Sinai governorates

## A.4 SAMPLING WEIGHTS

Due to the non-proportional allocation of the sample to different residential areas as well as to the differences in response rates, sampling weights are required for any analysis using the survey data to ensure the actual representativeness of the survey results at national level as well as at the domain level. Like the 2014 EDHS sample from which it was derived, the 2015 EHIS sample is a four-stage stratified cluster sample; The sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster (segment). The following details the procedure for calculating weights.

Let  $a_h$  be the number of PSUs selected in stratum  $h$ ,  $M_{hi}$  the number of households according to the sampling frame in PSU  $i$ , and  $\sum M_{hi}$  the total number of households in the stratum. The probability of selecting PSU  $i$  in the 2015 EHIS sample is calculated as follows:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}}$$

Let  $b_{hi}$  be the number of parts selected from PSU  $i$  in stratum  $h$ , and  $B_{hi}$  the total number of parts in PSU  $i$ . The probability of selecting part  $j$  from the PSU  $i$  in the 2014 EDHS sample is calculated as:

$$P_{2hij} = \frac{b_{hi}}{B_{hi}}$$

Let  $c_{hij}$  be the number of segments selected from part  $j$  in PSU  $i$  in stratum  $h$ ,  $Q_{hijk}$  the number of households in segment  $k$  according to the quick count operation, and  $\sum_k Q_{hijk}$  the total number of households in part  $j$ . The probability of selecting segment  $k$  in the 2014 EDHS sample is calculated as follows:

$$P_{3hijk} = \frac{c_{hij} Q_{hijk}}{\sum_k Q_{hijk}}$$

Where  $g_{hijk}$ , the number of households selected in the segment  $k$ , is determined as explained earlier, the fourth-stage selection probability for all segments selected in stratum  $h$  should equal the stratum sampling fraction,  $P_{4hijk} = f_h$ . The last stage's selection probability for each household in the segment is calculated as follows:

$$P_{4hijk} = \frac{g_{hijk}}{L_{hijk}}$$

The overall selection probability of each household in segment  $k$  selected from part  $j$  in PSU  $i$  in stratum  $h$  is therefore the production of the four stages selection probabilities:

$$P_{hijk} = P_{1hi} \times P_{2hij} \times P_{3hijk} \times P_{4hijk}$$

Therefore the sampling weight for each household in segment  $k$  selected from part  $j$  in PSU  $i$  in stratum  $h$  is the inverse of its overall selection probability:

$$W_{hijk} = 1 / P_{hijk}$$

A spreadsheet containing all sampling parameters and selection probabilities was prepared to facilitate the calculation of the design weight. The design weights were further adjusted for household non-response as well as for individual non-response to get the sampling weights for households and individual respondents.

The final sampling weights were normalized so that the total number of weighted cases at national level, for both household and individual respondents, respectively, is equal to the number of unweighted cases. The normalized weights are relative weights which are valid for estimating means, proportions and ratios, but not valid for estimating population totals and for pooled data.



The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling errors are the result of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2015 Egypt Health Issues Survey (2015 EHIS) to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2015 EHIS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability in estimates between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the *standard error* for the statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2015 EHIS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. Sampling errors were computed in SAS, using programs developed by The DHS Program. These programs use the Taylor linearization method of variance estimation for survey estimates that are means, proportions, or ratios.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration. The variance of  $r$  is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2} \sum_{h=1}^H \left[ \frac{m_h}{m_h-1} \left( \sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}, \text{ and } z_h = y_h - rx_h$$

where  $h$  represents the stratum which varies from 1 to  $H$ ,  
 $m_h$  is the total number of clusters selected in the  $h^{\text{th}}$  stratum,  
 $y_{hi}$  is the sum of the weighted values of variable  $y$  in the  $i^{\text{th}}$  cluster in the  $h^{\text{th}}$  stratum,  
 $x_{hi}$  is the sum of the weighted number of cases in the  $i^{\text{th}}$  cluster in the  $h^{\text{th}}$  stratum, and  
 $f$  is the overall sampling fraction, which is so small that it is ignored.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated. The design effect is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

This appendix presents sampling errors for selected variables from the 2015 EHIS that were considered to be of primary interest. The sampling errors are presented for Egypt as a whole and for urban-rural residence and place of residence. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.12 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ( $R \pm 2SE$ ), for each variable. The DEFT is considered undefined when the standard error considering a simple random sample is zero (i.e., when the estimate is close to 0 or 1). For the total 2015 EHIS sample, the value of the DEFT, averaged over all variables, is 1.46. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.46 over that in an equivalent simple random sample.

Confidence limits are found for all variables in the table. Using the variable *the proportion of men age 15-59 positive on the HCV RNA* as an example, the confidence limits are obtained and interpreted as follows. The overall proportion for the national sample is 0.089 and its standard error is 0.005. To obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate. As Table B.2 shows, there is a high probability (95 percent) that the true proportion of men positive on the HCV RNA lies between 0.079 and 0.098.

A review of the sampling error tables shows that standard errors for indicators are larger for subpopulations than for the national population. For example, the standard error for the proportion of men age 15-59 positive on the HCV RNA test in the Frontier Governorates is twice the SE for the indicator for the country as a whole (0.010 versus 0.005). Thus, the confidence limits in which there is a 95 probability that the true proportion of men positive on the HCV RNA test in the Frontier Governorates lies is between 0.006 and 0.047, which is considerably wider than the limits for the indicator at the national level.

Table B.1 List of selected variables for sampling errors, Egypt Health Issues Survey 2015

Variable	Estimate	Base population
Urban residence	Proportion	Population age 1-59 years
No education (Women)	Proportion	Women age 15-59
No education (Men)	Proportion	Men age 15-59
Secondary complete or higher education (Women)	Proportion	Women age 15-59
Secondary complete or higher education (Men)	Proportion	Men age 15-59
Currently married (Women)	Proportion	Women age 15-59
Currently married (Men)	Proportion	Men age 15-59
Not exposed to family planning information in 6 months before survey (Women)	Proportion	Women age 15-49
Not exposed to family planning information in 6 months before survey (Men)	Proportion	Men age 15-49
Ideal number of children (Women)	Mean	Women age 15-49
Ideal number of children (Men)	Mean	Men age 15-49
Ever circumcised (Women)	Proportion	Women age 15-49
Ever circumcised (Girls)	Proportion	Girls age 1-14 years
Female circumcision should continue (Women)	Proportion	Women age 15-49
Female circumcision should continue (Men)	Proportion	Men age 15-49
Knows about hepatitis C (Women)	Proportion	Women age 15-59
Knows about hepatitis C (Men)	Proportion	Men age 15-59
Knows a way hepatitis C is contracted (Women)	Proportion	Women age 15-59 knowing about hepatitis C
Knows a way hepatitis C is contracted (Men)	Proportion	Men age 15-59 knowing about hepatitis C
Positive on HCV RNA test (Total population)	Proportion	Population age 1-59 years
Positive on HCV RNA test (Women)	Proportion	Women age 15-59
Positive on HCV RNA test (Men)	Proportion	Men age 15-59
Knows about hepatitis B (Women)	Proportion	Women age 15-59
Knows about hepatitis B (Men)	Proportion	Men age 15-59
Knows a way hepatitis B is contracted (Women)	Proportion	Women age 15-59 knowing about hepatitis B
Knows a way hepatitis B is contracted (Men)	Proportion	Men age 15-59 knowing about hepatitis B
Positive on HBsAG test (Total population)	Proportion	Population age 1-59 years
Positive on HBsAG test (Women)	Proportion	Women age 15-59
Positive on HBsAG test (Men)	Proportion	Men age 15-59
Knows about HIV/AIDS (Women)	Proportion	Women age 15-49
Knows about HIV/AIDS (Men)	Proportion	Men age 15-49
Currently smoking cigarettes or other tobacco products (Men)	Proportion	Men age 15-59
Overweight BMI $\geq 25.0$ (Women)	Proportion	Women age 15-59 who were measured
Overweight BMI $\geq 25.0$ (Men)	Proportion	Men age 15-59 who were measured
Hypertensive (Women)	Proportion	Women age 15-59
Hypertensive (Men)	Proportion	Men age 15-59
Knows about how to conduct breast self-examination (Women)	Proportion	Women age 15-59
Knows about Pap smear (Women)	Proportion	Women age 15-59
Had any cesarean delivery	Proportion	Ever-married women age 15-49 who have ever given birth
Believe woman who had a cesarean delivery can have a normal delivery later	Proportion	Ever-married women age 15-49

Table B.2 Sampling errors: Total sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.351	0.008	27,549	27,549	2.783	0.023	0.335	0.367
No education (Women)	0.221	0.006	9,209	9,209	1.310	0.026	0.209	0.232
No education (Men)	0.083	0.005	7,462	7,462	1.415	0.054	0.074	0.092
Secondary complete/higher education (Women)	0.441	0.008	9,209	9,209	1.542	0.018	0.425	0.457
Secondary complete/higher education (Men)	0.529	0.009	7,462	7,462	1.591	0.017	0.511	0.548
Currently married (Women)	0.711	0.006	9,209	9,209	1.244	0.008	0.700	0.723
Currently married (Men)	0.646	0.007	7,462	7,462	1.299	0.011	0.631	0.660
Not exposed to family planning information in six months before survey (Women)	0.703	0.007	7,905	7,906	1.379	0.010	0.689	0.717
Not exposed to family planning information in six months before survey (Men)	0.804	0.006	6,315	6,297	1.297	0.008	0.791	0.817
Ideal number of children (Women)	3.103	0.018	7,783	7,800	1.268	0.006	3.066	3.139
Ideal number of children (Men)	3.428	0.031	6,208	6,197	1.298	0.009	3.366	3.490
Ever circumcised (Women)	0.872	0.006	7,905	7,906	1.526	0.007	0.861	0.884
Ever circumcised (Girls)	0.141	0.006	5,272	5,280	1.314	0.045	0.129	0.154
Female circumcision should continue (Women)	0.539	0.009	7,905	7,906	1.589	0.017	0.521	0.557
Female circumcision should continue (Men)	0.585	0.009	6,315	6,297	1.467	0.016	0.567	0.603
Knows about hepatitis C (Women)	0.860	0.005	9,209	9,209	1.484	0.006	0.849	0.870
Knows about hepatitis C (Men)	0.905	0.005	7,462	7,462	1.424	0.005	0.896	0.915
Knows a way hepatitis C is contracted (Women)	0.581	0.008	7,968	7,917	1.522	0.014	0.565	0.598
Knows a way hepatitis C is contracted (Men)	0.663	0.009	6,772	6,755	1.511	0.013	0.645	0.680
Positive on HCV RNA test (Total population)	0.044	0.002	26,049	26,049	1.496	0.043	0.040	0.048
Positive on HCV RNA test (Women)	0.055	0.003	8,838	8,838	1.286	0.057	0.049	0.061
Positive on HCV RNA test (Men)	0.089	0.005	7,167	7,167	1.429	0.054	0.079	0.098
Knows about hepatitis B (Women)	0.343	0.007	9,209	9,209	1.457	0.021	0.329	0.358
Knows about hepatitis B (Men)	0.416	0.008	7,462	7,462	1.398	0.019	0.400	0.432
Knows a way hepatitis B is contracted (Women)	0.527	0.013	3,516	3,161	1.502	0.024	0.501	0.552
Knows a way hepatitis B is contracted (Men)	0.592	0.012	3,320	3,106	1.410	0.020	0.568	0.616
Positive on HBsAG test (Total population)	0.010	0.001	26,049	26,049	1.838	0.114	0.008	0.012
Positive on HBsAG test (Women)	0.012	0.002	8,838	8,838	1.620	0.160	0.008	0.015
Positive on HBsAG test (Men)	0.020	0.003	7,167	7,167	1.535	0.128	0.015	0.025
Knows about HIV/AIDS (Women)	0.659	0.008	7,905	7,906	1.454	0.012	0.643	0.674
Knows about HIV/AIDS (Men)	0.791	0.008	6,315	6,297	1.531	0.010	0.775	0.807
Currently smoking cigarettes or other tobacco products (Men)	0.464	0.009	7,462	7,462	1.502	0.019	0.447	0.482
Overweight BMI $\geq 25.0$ (Women)	0.760	0.006	8,358	8,379	1.224	0.008	0.749	0.771
Overweight BMI $\geq 25.0$ (Men)	0.607	0.008	7,231	7,223	1.408	0.013	0.591	0.623
Hypertensive (Women)	0.172	0.005	9,192	9,194	1.333	0.031	0.162	0.183
Hypertensive (Men)	0.168	0.005	7,449	7,446	1.262	0.033	0.157	0.178
Knows about how to conduct breast self-examination (Women)	0.111	0.005	9,209	9,209	1.450	0.043	0.101	0.120
Knows about Pap smear (Women)	0.069	0.003	9,209	9,209	1.302	0.050	0.062	0.076
Had any cesarean delivery	0.322	0.008	5,551	5,682	1.260	0.025	0.306	0.338
Believe woman who had a cesarean delivery can have a normal delivery later	0.439	0.009	5,961	6,062	1.349	0.020	0.421	0.456



Table B.3 Sampling errors: Urban sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	12,940	9,656	na	0.000	1.000	1.000
No education (Women)	0.108	0.007	4,430	3,359	1.536	0.066	0.094	0.122
No education (Men)	0.048	0.005	3,766	2,847	1.304	0.094	0.039	0.057
Secondary complete/higher education (Women)	0.558	0.014	4,430	3,359	1.912	0.026	0.529	0.587
Secondary complete/higher education (Men)	0.604	0.015	3,766	2,847	1.924	0.025	0.574	0.635
Currently married (Women)	0.663	0.009	4,430	3,359	1.317	0.014	0.644	0.682
Currently married (Men)	0.594	0.012	3,766	2,847	1.471	0.020	0.570	0.617
Not exposed to family planning information in six months before survey (Women)	0.716	0.011	3,734	2,791	1.475	0.015	0.695	0.738
Not exposed to family planning information in six months before survey (Men)	0.796	0.010	3,131	2,325	1.418	0.013	0.775	0.816
Ideal number of children (Women)	2.887	0.027	3,675	2,745	1.462	0.009	2.832	2.941
Ideal number of children (Men)	3.247	0.046	3,091	2,294	1.450	0.014	3.154	3.340
Ever circumcised (Women)	0.774	0.012	3,734	2,791	1.796	0.016	0.749	0.798
Ever circumcised (Girls)	0.104	0.009	2,290	1,662	1.366	0.084	0.086	0.121
Female circumcision should continue (Women)	0.373	0.013	3,734	2,791	1.677	0.036	0.346	0.399
Female circumcision should continue (Men)	0.470	0.014	3,131	2,325	1.572	0.030	0.442	0.498
Knows about hepatitis C (Women)	0.914	0.008	4,430	3,359	1.932	0.009	0.897	0.930
Knows about hepatitis C (Men)	0.927	0.007	3,766	2,847	1.693	0.008	0.913	0.941
Knows a way hepatitis C is contracted (Women)	0.709	0.011	4,063	3,069	1.513	0.015	0.687	0.730
Knows a way hepatitis C is contracted (Men)	0.706	0.013	3,495	2,639	1.644	0.018	0.680	0.731
Positive on HCV RNA test (Total population)	0.031	0.003	11,956	9,144	1.701	0.087	0.026	0.037
Positive on HCV RNA test (Women)	0.037	0.004	4,164	3,224	1.427	0.114	0.028	0.045
Positive on HCV RNA test (Men)	0.059	0.006	3,546	2,734	1.552	0.104	0.047	0.072
Knows about hepatitis B (Women)	0.433	0.012	4,430	3,359	1.642	0.028	0.408	0.457
Knows about hepatitis B (Men)	0.463	0.013	3,766	2,847	1.589	0.028	0.437	0.488
Knows a way hepatitis B is contracted (Women)	0.631	0.017	1,992	1,454	1.527	0.026	0.598	0.664
Knows a way hepatitis B is contracted (Men)	0.653	0.018	1,795	1,317	1.613	0.028	0.616	0.689
Positive on HBsAG test (Total population)	0.014	0.003	11,956	9,144	2.466	0.192	0.008	0.019
Positive on HBsAG test (Women)	0.013	0.004	4,164	3,224	2.095	0.281	0.006	0.021
Positive on HBsAG test (Men)	0.027	0.005	3,546	2,734	1.876	0.190	0.017	0.037
Knows about HIV/AIDS (Women)	0.787	0.010	3,734	2,791	1.524	0.013	0.767	0.808
Knows about HIV/AIDS (Men)	0.850	0.011	3,131	2,325	1.749	0.013	0.828	0.872
Currently smoking cigarettes or other tobacco products (Men)	0.488	0.013	3,766	2,847	1.552	0.026	0.463	0.513
Overweight BMI $\geq 25.0$ (Women)	0.783	0.010	4,011	3,020	1.480	0.012	0.764	0.802
Overweight BMI $\geq 25.0$ (Men)	0.630	0.013	3,613	2,714	1.601	0.020	0.604	0.656
Hypertensive (Women)	0.195	0.009	4,420	3,351	1.494	0.046	0.177	0.212
Hypertensive (Men)	0.172	0.009	3,759	2,840	1.441	0.052	0.155	0.190
Knows about how to conduct breast self-examination (Women)	0.164	0.009	4,430	3,359	1.614	0.055	0.146	0.182
Knows about Pap smear (Women)	0.100	0.007	4,430	3,359	1.458	0.066	0.087	0.113
Had any cesarean delivery	0.347	0.013	2,511	1,871	1.326	0.036	0.322	0.372
Believe woman who had a cesarean delivery can have a normal delivery later	0.449	0.013	2,681	1,987	1.353	0.029	0.423	0.475

na = Not applicable

Table B.4 Sampling errors: Rural sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.000	0.000	14,609	17,893	na	na	0.000	0.000
No education (Women)	0.285	0.008	4,779	5,850	1.174	0.027	0.270	0.301
No education (Men)	0.105	0.007	3,696	4,615	1.325	0.064	0.091	0.118
Secondary complete/higher education (Women)	0.374	0.009	4,779	5,850	1.339	0.025	0.355	0.392
Secondary complete/higher education (Men)	0.483	0.011	3,696	4,615	1.393	0.024	0.460	0.506
Currently married (Women)	0.739	0.007	4,779	5,850	1.178	0.010	0.724	0.754
Currently married (Men)	0.678	0.009	3,696	4,615	1.154	0.013	0.660	0.696
Not exposed to family planning information in six months before survey (Women)	0.696	0.009	4,171	5,115	1.295	0.013	0.677	0.714
Not exposed to family planning information in six months before survey (Men)	0.808	0.008	3,184	3,972	1.194	0.010	0.791	0.825
Ideal number of children (Women)	3.220	0.024	4,108	5,054	1.141	0.007	3.172	3.267
Ideal number of children (Men)	3.534	0.040	3,117	3,903	1.178	0.011	3.454	3.615
Ever circumcised (Women)	0.926	0.006	4,171	5,115	1.374	0.006	0.915	0.937
Ever circumcised (Girls)	0.159	0.008	2,982	3,619	1.236	0.052	0.142	0.175
Female circumcision should continue (Women)	0.630	0.011	4,171	5,115	1.504	0.018	0.608	0.653
Female circumcision should continue (Men)	0.652	0.011	3,184	3,972	1.356	0.018	0.629	0.675
Knows about hepatitis C (Women)	0.829	0.007	4,779	5,850	1.309	0.009	0.814	0.843
Knows about hepatitis C (Men)	0.892	0.006	3,696	4,615	1.258	0.007	0.879	0.905
Knows a way hepatitis C is contracted (Women)	0.501	0.011	3,905	4,847	1.409	0.023	0.478	0.523
Knows a way hepatitis C is contracted (Men)	0.635	0.012	3,277	4,115	1.386	0.018	0.612	0.658
Positive on HCV RNA test (Total population)	0.051	0.003	14,093	16,905	1.366	0.050	0.046	0.056
Positive on HCV RNA test (Women)	0.066	0.004	4,674	5,614	1.177	0.065	0.057	0.074
Positive on HCV RNA test (Men)	0.107	0.007	3,621	4,433	1.307	0.063	0.093	0.120
Knows about hepatitis B (Women)	0.292	0.009	4,779	5,850	1.327	0.030	0.274	0.309
Knows about hepatitis B (Men)	0.388	0.010	3,696	4,615	1.255	0.026	0.368	0.408
Knows a way hepatitis B is contracted (Women)	0.438	0.018	1,524	1,707	1.422	0.041	0.402	0.474
Knows a way hepatitis B is contracted (Men)	0.548	0.016	1,525	1,789	1.246	0.029	0.516	0.579
Positive on HBsAG test (Total population)	0.008	0.001	14,093	16,905	1.314	0.124	0.006	0.010
Positive on HBsAG test (Women)	0.011	0.002	4,674	5,614	1.307	0.186	0.007	0.014
Positive on HBsAG test (Men)	0.015	0.003	3,621	4,433	1.247	0.166	0.010	0.021
Knows about HIV/AIDS (Women)	0.588	0.010	4,171	5,115	1.330	0.017	0.568	0.609
Knows about HIV/AIDS (Men)	0.757	0.010	3,184	3,972	1.375	0.014	0.736	0.778
Currently smoking cigarettes or other tobacco products (Men)	0.450	0.012	3,696	4,615	1.428	0.026	0.426	0.473
Overweight BMI $\geq 25.0$ (Women)	0.747	0.007	4,347	5,359	1.078	0.010	0.733	0.761
Overweight BMI $\geq 25.0$ (Men)	0.593	0.010	3,618	4,509	1.275	0.018	0.572	0.614
Hypertensive (Women)	0.159	0.006	4,772	5,843	1.224	0.041	0.146	0.172
Hypertensive (Men)	0.165	0.007	3,690	4,606	1.136	0.042	0.151	0.178
Knows about how to conduct breast self-examination (Women)	0.080	0.005	4,779	5,850	1.390	0.068	0.069	0.091
Knows about Pap smear (Women)	0.051	0.004	4,779	5,850	1.217	0.076	0.044	0.059
Had any cesarean delivery	0.309	0.010	3,040	3,812	1.192	0.032	0.289	0.329
Believe woman who had a cesarean delivery can have a normal delivery later	0.434	0.011	3,280	4,076	1.298	0.026	0.412	0.457

na = Not applicable

Table B.5 Sampling errors: Urban Governorates sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.998	0.000	4,637	3,445	0.227	0.000	0.998	0.999
No education (Women)	0.110	0.014	1,618	1,223	1.767	0.125	0.082	0.137
No education (Men)	0.057	0.009	1,389	1,044	1.382	0.151	0.040	0.074
Secondary complete/higher education (Women)	0.529	0.029	1,618	1,223	2.319	0.054	0.472	0.587
Secondary complete/higher education (Men)	0.583	0.025	1,389	1,044	1.886	0.043	0.533	0.633
Currently married (Women)	0.658	0.016	1,618	1,223	1.359	0.024	0.626	0.690
Currently married (Men)	0.571	0.022	1,389	1,044	1.671	0.039	0.526	0.615
Not exposed to family planning information in six months before survey (Women)	0.782	0.020	1,339	996	1.760	0.025	0.742	0.821
Not exposed to family planning information in six months before survey (Men)	0.810	0.016	1,133	840	1.344	0.019	0.779	0.841
Ideal number of children (Women)	2.832	0.052	1,329	978	1.668	0.019	2.727	2.937
Ideal number of children (Men)	3.061	0.071	1,125	824	1.512	0.023	2.920	3.202
Ever circumcised (Women)	0.745	0.023	1,339	996	1.898	0.030	0.700	0.791
Ever circumcised (Girls)	0.080	0.013	791	581	1.339	0.161	0.054	0.106
Female circumcision should continue (Women)	0.282	0.020	1,339	996	1.629	0.071	0.242	0.322
Female circumcision should continue (Men)	0.384	0.023	1,133	840	1.581	0.060	0.338	0.429
Knows about hepatitis C (Women)	0.909	0.017	1,618	1,223	2.349	0.019	0.875	0.942
Knows about hepatitis C (Men)	0.925	0.010	1,389	1,044	1.437	0.011	0.905	0.945
Knows a way hepatitis C is contracted (Women)	0.718	0.018	1,498	1,111	1.568	0.025	0.681	0.754
Knows a way hepatitis C is contracted (Men)	0.712	0.021	1,297	966	1.694	0.030	0.669	0.755
Positive on HCV RNA test (Total population)	0.030	0.004	4,317	3,264	1.465	0.128	0.022	0.037
Positive on HCV RNA test (Women)	0.034	0.006	1,523	1,173	1.393	0.190	0.021	0.047
Positive on HCV RNA test (Men)	0.057	0.009	1,316	1,003	1.436	0.162	0.038	0.075
Knows about hepatitis B (Women)	0.441	0.023	1,618	1,223	1.847	0.052	0.395	0.487
Knows about hepatitis B (Men)	0.451	0.023	1,389	1,044	1.749	0.052	0.404	0.497
Knows a way hepatitis B is contracted (Women)	0.681	0.030	768	539	1.772	0.044	0.622	0.741
Knows a way hepatitis B is contracted (Men)	0.660	0.034	667	470	1.867	0.052	0.592	0.729
Positive on HBsAG test (Total population)	0.017	0.006	4,317	3,264	3.230	0.377	0.004	0.029
Positive on HBsAG test (Women)	0.016	0.009	1,523	1,173	2.780	0.553	0.000	0.035
Positive on HBsAG test (Men)	0.034	0.011	1,316	1,003	2.219	0.327	0.012	0.056
Knows about HIV/AIDS (Women)	0.775	0.015	1,339	996	1.325	0.019	0.745	0.806
Knows about HIV/AIDS (Men)	0.843	0.019	1,133	840	1.787	0.023	0.804	0.881
Currently smoking cigarettes or other tobacco products (Men)	0.512	0.022	1,389	1,044	1.613	0.042	0.469	0.556
Overweight BMI $\geq 25.0$ (Women)	0.785	0.018	1,474	1,104	1.652	0.023	0.750	0.821
Overweight BMI $\geq 25.0$ (Men)	0.626	0.025	1,344	1,004	1.877	0.040	0.577	0.676
Hypertensive (Women)	0.181	0.014	1,618	1,223	1.414	0.075	0.154	0.208
Hypertensive (Men)	0.171	0.018	1,388	1,042	1.738	0.103	0.136	0.206
Knows about how to conduct breast self-examination (Women)	0.164	0.016	1,618	1,223	1.771	0.099	0.131	0.197
Knows about Pap smear (Women)	0.135	0.013	1,618	1,223	1.486	0.094	0.110	0.160
Had any cesarean delivery	0.299	0.021	918	676	1.393	0.070	0.257	0.341
Believe woman who had a cesarean delivery can have a normal delivery later	0.496	0.021	966	703	1.278	0.042	0.454	0.537

Table B.6 Sampling errors: Lower Egypt Total sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R-2SE
Urban residence	0.223	0.009	9,970	13,249	2.098	0.039	0.205	0.240
No education (Women)	0.200	0.008	3,409	4,506	1.220	0.042	0.184	0.217
No education (Men)	0.083	0.007	2,761	3,698	1.341	0.085	0.069	0.097
Secondary complete/higher education (Women)	0.478	0.011	3,409	4,506	1.327	0.024	0.455	0.501
Secondary complete/higher education (Men)	0.511	0.014	2,761	3,698	1.432	0.027	0.484	0.538
Currently married (Women)	0.736	0.009	3,409	4,506	1.135	0.012	0.719	0.753
Currently married (Men)	0.678	0.010	2,761	3,698	1.141	0.015	0.658	0.698
Not exposed to family planning information in six months before survey (Women)	0.730	0.010	2,887	3,842	1.251	0.014	0.710	0.751
Not exposed to family planning information in six months before survey (Men)	0.848	0.009	2,292	3,081	1.192	0.011	0.830	0.865
Ideal number of children (Women)	2.976	0.025	2,856	3,817	1.170	0.008	2.926	3.026
Ideal number of children (Men)	3.236	0.041	2,265	3,049	1.247	0.013	3.153	3.319
Ever circumcised (Women)	0.869	0.008	2,887	3,842	1.330	0.010	0.852	0.885
Ever circumcised (Girls)	0.103	0.009	1,820	2,433	1.205	0.083	0.086	0.120
Female circumcision should continue (Women)	0.545	0.013	2,887	3,842	1.439	0.024	0.518	0.572
Female circumcision should continue (Men)	0.597	0.013	2,292	3,081	1.280	0.022	0.571	0.623
Knows about hepatitis C (Women)	0.873	0.007	3,409	4,506	1.289	0.008	0.858	0.888
Knows about hepatitis C (Men)	0.915	0.007	2,761	3,698	1.291	0.007	0.902	0.929
Knows a way hepatitis C is contracted (Women)	0.570	0.012	3,008	3,933	1.318	0.021	0.546	0.593
Knows a way hepatitis C is contracted (Men)	0.662	0.013	2,539	3,385	1.381	0.020	0.636	0.688
Positive on HCV RNA test (Total population)	0.056	0.003	9,520	12,534	1.373	0.058	0.049	0.062
Positive on HCV RNA test (Women)	0.072	0.005	3,287	4,324	1.168	0.073	0.062	0.083
Positive on HCV RNA test (Men)	0.105	0.008	2,655	3,552	1.321	0.075	0.089	0.120
Knows about hepatitis B (Women)	0.344	0.010	3,409	4,506	1.243	0.029	0.324	0.364
Knows about hepatitis B (Men)	0.419	0.011	2,761	3,698	1.214	0.027	0.397	0.442
Knows a way hepatitis B is contracted (Women)	0.458	0.019	1,363	1,550	1.378	0.041	0.421	0.495
Knows a way hepatitis B is contracted (Men)	0.572	0.017	1,263	1,551	1.234	0.030	0.537	0.606
Positive on HBsAG test (Total population)	0.007	0.001	9,520	12,534	1.364	0.168	0.005	0.009
Positive on HBsAG test (Women)	0.008	0.002	3,287	4,324	1.263	0.251	0.004	0.011
Positive on HBsAG test (Men)	0.012	0.002	2,655	3,552	1.147	0.198	0.008	0.017
Knows about HIV/AIDS (Women)	0.674	0.012	2,887	3,842	1.326	0.017	0.651	0.697
Knows about HIV/AIDS (Men)	0.788	0.012	2,292	3,081	1.446	0.016	0.763	0.812
Currently smoking cigarettes or other tobacco products (Men)	0.443	0.014	2,761	3,698	1.429	0.030	0.416	0.470
Overweight BMI $\geq 25.0$ (Women)	0.796	0.008	3,112	4,135	1.128	0.010	0.780	0.813
Overweight BMI $\geq 25.0$ (Men)	0.650	0.011	2,666	3,584	1.198	0.017	0.628	0.672
Hypertensive (Women)	0.180	0.008	3,407	4,505	1.187	0.043	0.165	0.196
Hypertensive (Men)	0.167	0.008	2,756	3,693	1.147	0.049	0.151	0.184
Knows about how to conduct breast self-examination (Women)	0.118	0.007	3,409	4,506	1.309	0.061	0.103	0.132
Knows about Pap smear (Women)	0.071	0.005	3,409	4,506	1.194	0.074	0.061	0.082
Had any cesarean delivery	0.349	0.012	2,094	2,836	1.177	0.035	0.325	0.374
Believe woman who had a cesarean delivery can have a normal delivery later	0.402	0.013	2,237	3,019	1.273	0.033	0.376	0.429

Table B.7 Sampling errors: Lower Egypt Urban sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	3,254	2,952	na	0.000	1.000	1.000
No education (Women)	0.082	0.010	1,165	1,056	1.293	0.127	0.061	0.102
No education (Men)	0.038	0.008	933	854	1.190	0.195	0.023	0.054
Secondary complete/higher education (Women)	0.617	0.019	1,165	1,056	1.330	0.031	0.579	0.655
Secondary complete/higher education (Men)	0.620	0.028	933	854	1.788	0.046	0.563	0.677
Currently married (Women)	0.672	0.018	1,165	1,056	1.315	0.027	0.636	0.709
Currently married (Men)	0.614	0.020	933	854	1.284	0.033	0.573	0.655
Not exposed to family planning information in six months before survey (Women)	0.716	0.018	961	869	1.244	0.025	0.680	0.752
Not exposed to family planning information in six months before survey (Men)	0.835	0.016	751	678	1.190	0.019	0.803	0.867
Ideal number of children (Women)	2.784	0.042	941	861	1.216	0.015	2.701	2.867
Ideal number of children (Men)	3.133	0.064	742	676	1.139	0.021	3.004	3.261
Ever circumcised (Women)	0.719	0.024	961	869	1.657	0.033	0.671	0.767
Ever circumcised (Girls)	0.057	0.012	561	503	1.207	0.207	0.034	0.081
Female circumcision should continue (Women)	0.369	0.024	961	869	1.516	0.064	0.322	0.417
Female circumcision should continue (Men)	0.473	0.026	751	678	1.433	0.055	0.420	0.525
Knows about hepatitis C (Women)	0.918	0.010	1,165	1,056	1.287	0.011	0.897	0.938
Knows about hepatitis C (Men)	0.942	0.012	933	854	1.608	0.013	0.918	0.967
Knows a way hepatitis C is contracted (Women)	0.735	0.017	1,075	969	1.229	0.023	0.702	0.768
Knows a way hepatitis C is contracted (Men)	0.738	0.022	876	805	1.496	0.030	0.693	0.782
Positive on HCV RNA test (Total population)	0.040	0.007	2,973	2,795	1.850	0.165	0.027	0.054
Positive on HCV RNA test (Women)	0.043	0.009	1,085	1,014	1.418	0.205	0.025	0.060
Positive on HCV RNA test (Men)	0.081	0.015	863	821	1.601	0.184	0.051	0.111
Knows about hepatitis B (Women)	0.436	0.020	1,165	1,056	1.368	0.046	0.396	0.476
Knows about hepatitis B (Men)	0.510	0.023	933	854	1.384	0.045	0.464	0.555
Knows a way hepatitis B is contracted (Women)	0.570	0.028	554	461	1.308	0.048	0.515	0.625
Knows a way hepatitis B is contracted (Men)	0.638	0.030	488	435	1.396	0.048	0.577	0.699
Positive on HBsAG test (Total population)	0.008	0.003	2,973	2,795	1.701	0.348	0.002	0.014
Positive on HBsAG test (Women)	0.007	0.003	1,085	1,014	1.303	0.462	0.001	0.014
Positive on HBsAG test (Men)	0.013	0.005	863	821	1.332	0.392	0.003	0.024
Knows about HIV/AIDS (Women)	0.810	0.017	961	869	1.324	0.021	0.776	0.843
Knows about HIV/AIDS (Men)	0.871	0.019	751	678	1.555	0.022	0.833	0.909
Currently smoking cigarettes or other tobacco products (Men)	0.455	0.023	933	854	1.396	0.050	0.410	0.501
Overweight BMI $\geq 25.0$ (Women)	0.784	0.017	1,042	944	1.309	0.021	0.751	0.818
Overweight BMI $\geq 25.0$ (Men)	0.658	0.019	878	812	1.212	0.030	0.619	0.696
Hypertensive (Women)	0.220	0.014	1,164	1,056	1.193	0.066	0.191	0.249
Hypertensive (Men)	0.171	0.015	931	854	1.225	0.089	0.140	0.201
Knows about how to conduct breast self-examination (Women)	0.172	0.016	1,165	1,056	1.456	0.094	0.140	0.204
Knows about Pap smear (Women)	0.089	0.011	1,165	1,056	1.373	0.129	0.066	0.111
Had any cesarean delivery	0.405	0.023	636	575	1.165	0.056	0.360	0.451
Believe woman who had a cesarean delivery can have a normal delivery later	0.409	0.024	684	619	1.285	0.059	0.361	0.457

na = Not applicable

Table B.8 Sampling errors: Lower Egypt Rural sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.000	0.000	6,716	10,297	na	na	0.000	0.000
No education (Women)	0.237	0.010	2,244	3,450	1.141	0.043	0.216	0.257
No education (Men)	0.097	0.009	1,828	2,844	1.279	0.091	0.079	0.114
Secondary complete/higher education (Women)	0.435	0.013	2,244	3,450	1.270	0.031	0.409	0.462
Secondary complete/higher education (Men)	0.478	0.015	1,828	2,844	1.316	0.032	0.448	0.509
Currently married (Women)	0.755	0.010	2,244	3,450	1.055	0.013	0.736	0.774
Currently married (Men)	0.697	0.012	1,828	2,844	1.089	0.017	0.674	0.720
Not exposed to family planning information in six months before survey (Women)	0.735	0.012	1,926	2,973	1.216	0.017	0.710	0.759
Not exposed to family planning information in six months before survey (Men)	0.851	0.011	1,541	2,403	1.161	0.012	0.830	0.872
Ideal number of children (Women)	3.032	0.030	1,915	2,956	1.117	0.010	2.972	3.091
Ideal number of children (Men)	3.265	0.050	1,523	2,373	1.225	0.015	3.165	3.365
Ever circumcised (Women)	0.912	0.008	1,926	2,973	1.221	0.009	0.897	0.928
Ever circumcised (Girls)	0.115	0.010	1,259	1,929	1.152	0.090	0.094	0.136
Female circumcision should continue (Women)	0.596	0.016	1,926	2,973	1.409	0.026	0.565	0.628
Female circumcision should continue (Men)	0.632	0.015	1,541	2,403	1.227	0.024	0.602	0.662
Knows about hepatitis C (Women)	0.859	0.009	2,244	3,450	1.232	0.011	0.841	0.877
Knows about hepatitis C (Men)	0.907	0.008	1,828	2,844	1.191	0.009	0.891	0.923
Knows a way hepatitis C is contracted (Women)	0.515	0.014	1,933	2,964	1.255	0.028	0.487	0.544
Knows a way hepatitis C is contracted (Men)	0.638	0.015	1,663	2,579	1.306	0.024	0.607	0.669
Positive on HCV RNA test (Total population)	0.060	0.004	6,547	9,739	1.254	0.061	0.053	0.067
Positive on HCV RNA test (Women)	0.081	0.006	2,202	3,311	1.091	0.078	0.069	0.094
Positive on HCV RNA test (Men)	0.112	0.009	1,792	2,731	1.231	0.082	0.093	0.130
Knows about hepatitis B (Women)	0.316	0.012	2,244	3,450	1.191	0.037	0.292	0.339
Knows about hepatitis B (Men)	0.392	0.013	1,828	2,844	1.153	0.034	0.366	0.419
Knows a way hepatitis B is contracted (Women)	0.410	0.023	809	1,090	1.355	0.057	0.363	0.457
Knows a way hepatitis B is contracted (Men)	0.546	0.021	775	1,115	1.155	0.038	0.505	0.587
Positive on HBsAG test (Total population)	0.007	0.001	6,547	9,739	1.258	0.191	0.004	0.009
Positive on HBsAG test (Women)	0.008	0.002	2,202	3,311	1.222	0.295	0.003	0.012
Positive on HBsAG test (Men)	0.012	0.003	1,792	2,731	1.081	0.229	0.007	0.018
Knows about HIV/AIDS (Women)	0.635	0.014	1,926	2,973	1.261	0.022	0.607	0.662
Knows about HIV/AIDS (Men)	0.764	0.015	1,541	2,403	1.372	0.019	0.735	0.794
Currently smoking cigarettes or other tobacco products (Men)	0.440	0.016	1,828	2,844	1.393	0.037	0.407	0.472
Overweight BMI $\geq 25.0$ (Women)	0.800	0.009	2,070	3,191	1.059	0.012	0.781	0.818
Overweight BMI $\geq 25.0$ (Men)	0.648	0.013	1,788	2,772	1.161	0.020	0.622	0.674
Hypertensive (Women)	0.168	0.009	2,243	3,449	1.160	0.054	0.150	0.187
Hypertensive (Men)	0.166	0.010	1,825	2,839	1.099	0.058	0.147	0.186
Knows about how to conduct breast self-examination (Women)	0.101	0.008	2,244	3,450	1.278	0.080	0.085	0.118
Knows about Pap smear (Women)	0.066	0.006	2,244	3,450	1.131	0.090	0.054	0.078
Had any cesarean delivery	0.335	0.014	1,458	2,261	1.149	0.042	0.307	0.363
Believe woman who had a cesarean delivery can have a normal delivery later	0.400	0.015	1,553	2,400	1.238	0.038	0.370	0.431

na = Not applicable

Table B.9 Sampling errors: Upper Egypt Total sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.296	0.012	11,163	10,650	2.811	0.041	0.272	0.320
No education (Women)	0.287	0.009	3,637	3,417	1.209	0.032	0.269	0.305
No education (Men)	0.094	0.007	2,833	2,664	1.319	0.077	0.079	0.108
Secondary complete/higher education (Women)	0.360	0.011	3,637	3,417	1.439	0.032	0.337	0.383
Secondary complete/higher education (Men)	0.531	0.014	2,833	2,664	1.533	0.027	0.502	0.560
Currently married (Women)	0.698	0.009	3,637	3,417	1.228	0.013	0.679	0.716
Currently married (Men)	0.630	0.011	2,833	2,664	1.215	0.018	0.608	0.652
Not exposed to family planning information in six months before survey (Women)	0.643	0.011	3,187	3,011	1.352	0.018	0.621	0.666
Not exposed to family planning information in six months before survey (Men)	0.747	0.011	2,456	2,325	1.292	0.015	0.724	0.770
Ideal number of children (Women)	3.353	0.030	3,114	2,948	1.177	0.009	3.293	3.413
Ideal number of children (Men)	3.806	0.057	2,396	2,274	1.256	0.015	3.692	3.919
Ever circumcised (Women)	0.921	0.007	3,187	3,011	1.499	0.008	0.907	0.935
Ever circumcised (Girls)	0.199	0.011	2,275	2,223	1.296	0.055	0.177	0.221
Female circumcision should continue (Women)	0.619	0.013	3,187	3,011	1.537	0.021	0.593	0.646
Female circumcision should continue (Men)	0.646	0.014	2,456	2,325	1.501	0.022	0.617	0.675
Knows about hepatitis C (Women)	0.826	0.009	3,637	3,417	1.431	0.011	0.808	0.844
Knows about hepatitis C (Men)	0.884	0.009	2,833	2,664	1.428	0.010	0.867	0.902
Knows a way hepatitis C is contracted (Women)	0.545	0.015	3,016	2,822	1.610	0.027	0.516	0.574
Knows a way hepatitis C is contracted (Men)	0.645	0.014	2,519	2,356	1.465	0.022	0.617	0.673
Positive on HCV RNA test (Total population)	0.034	0.002	10,514	10,056	1.360	0.070	0.029	0.039
Positive on HCV RNA test (Women)	0.041	0.004	3,502	3,280	1.203	0.099	0.033	0.049
Positive on HCV RNA test (Men)	0.080	0.007	2,725	2,559	1.306	0.085	0.067	0.094
Knows about hepatitis B (Women)	0.308	0.011	3,637	3,417	1.471	0.037	0.286	0.331
Knows about hepatitis B (Men)	0.401	0.013	2,833	2,664	1.366	0.031	0.375	0.426
Knows a way hepatitis B is contracted (Women)	0.550	0.020	1,223	1,053	1.395	0.036	0.510	0.590
Knows a way hepatitis B is contracted (Men)	0.592	0.019	1,239	1,067	1.362	0.032	0.554	0.630
Positive on HBsAG test (Total population)	0.012	0.001	10,514	10,056	1.335	0.121	0.009	0.014
Positive on HBsAG test (Women)	0.015	0.003	3,502	3,280	1.319	0.181	0.010	0.020
Positive on HBsAG test (Men)	0.025	0.004	2,725	2,559	1.419	0.171	0.016	0.033
Knows about HIV/AIDS (Women)	0.600	0.013	3,187	3,011	1.444	0.021	0.575	0.625
Knows about HIV/AIDS (Men)	0.777	0.011	2,456	2,325	1.341	0.015	0.754	0.799
Currently smoking cigarettes or other tobacco products (Men)	0.475	0.013	2,833	2,664	1.399	0.028	0.449	0.501
Overweight BMI $\geq 25.0$ (Women)	0.704	0.009	3,285	3,084	1.154	0.013	0.685	0.722
Overweight BMI $\geq 25.0$ (Men)	0.541	0.014	2,751	2,579	1.445	0.025	0.513	0.568
Hypertensive (Women)	0.159	0.008	3,622	3,403	1.390	0.053	0.142	0.176
Hypertensive (Men)	0.167	0.008	2,826	2,655	1.088	0.046	0.152	0.182
Knows about how to conduct breast self-examination (Women)	0.081	0.006	3,637	3,417	1.364	0.076	0.069	0.093
Knows about Pap smear (Women)	0.042	0.004	3,637	3,417	1.269	0.100	0.034	0.051
Had any cesarean delivery	0.292	0.011	2,187	2,128	1.161	0.039	0.269	0.315
Believe woman who had a cesarean delivery can have a normal delivery later	0.468	0.014	2,384	2,296	1.329	0.029	0.441	0.495

Table B.10 Sampling errors: Upper Egypt Urban sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	3,717	3,151	na	0.000	1.000	1.000
No education (Women)	0.132	0.012	1,243	1,048	1.285	0.094	0.107	0.157
No education (Men)	0.048	0.007	1,083	919	1.159	0.158	0.033	0.063
Secondary complete/higher education (Women)	0.534	0.023	1,243	1,048	1.637	0.043	0.488	0.580
Secondary complete/higher education (Men)	0.613	0.027	1,083	919	1.850	0.045	0.558	0.667
Currently married (Women)	0.658	0.015	1,243	1,048	1.094	0.022	0.628	0.687
Currently married (Men)	0.598	0.018	1,083	919	1.174	0.029	0.563	0.633
Not exposed to family planning information in six months before survey (Women)	0.647	0.018	1,069	897	1.229	0.028	0.611	0.683
Not exposed to family planning information in six months before survey (Men)	0.753	0.020	917	778	1.438	0.027	0.712	0.794
Ideal number of children (Women)	3.036	0.045	1,046	878	1.249	0.015	2.947	3.126
Ideal number of children (Men)	3.517	0.102	902	767	1.461	0.029	3.314	3.721
Ever circumcised (Women)	0.859	0.016	1,069	897	1.491	0.019	0.827	0.890
Ever circumcised (Girls)	0.166	0.019	657	556	1.296	0.113	0.129	0.204
Female circumcision should continue (Women)	0.473	0.024	1,069	897	1.580	0.051	0.425	0.521
Female circumcision should continue (Men)	0.562	0.024	917	778	1.476	0.043	0.513	0.610
Knows about hepatitis C (Women)	0.918	0.014	1,243	1,048	1.741	0.015	0.891	0.945
Knows about hepatitis C (Men)	0.916	0.015	1,083	919	1.773	0.016	0.886	0.946
Knows a way hepatitis C is contracted (Women)	0.675	0.021	1,150	962	1.526	0.031	0.633	0.717
Knows a way hepatitis C is contracted (Men)	0.670	0.023	1,002	842	1.514	0.034	0.625	0.715
Positive on HCV RNA test (Total population)	0.025	0.003	3,391	2,982	1.244	0.133	0.018	0.032
Positive on HCV RNA test (Women)	0.034	0.006	1,166	1,006	1.223	0.192	0.021	0.047
Positive on HCV RNA test (Men)	0.043	0.007	1,014	882	1.173	0.174	0.028	0.058
Knows about hepatitis B (Women)	0.422	0.021	1,243	1,048	1.466	0.049	0.381	0.463
Knows about hepatitis B (Men)	0.435	0.021	1,083	919	1.409	0.049	0.392	0.477
Knows a way hepatitis B is contracted (Women)	0.636	0.027	537	442	1.308	0.043	0.582	0.691
Knows a way hepatitis B is contracted (Men)	0.662	0.029	516	400	1.382	0.044	0.604	0.720
Positive on HBsAG test (Total population)	0.016	0.003	3,391	2,982	1.344	0.182	0.010	0.022
Positive on HBsAG test (Women)	0.016	0.004	1,166	1,006	1.110	0.258	0.008	0.024
Positive on HBsAG test (Men)	0.032	0.008	1,014	882	1.410	0.244	0.016	0.048
Knows about HIV/AIDS (Women)	0.781	0.021	1,069	897	1.688	0.027	0.738	0.824
Knows about HIV/AIDS (Men)	0.840	0.020	917	778	1.647	0.024	0.800	0.880
Currently smoking cigarettes or other tobacco products (Men)	0.493	0.023	1,083	919	1.499	0.046	0.447	0.539
Overweight BMI $\geq 25.0$ (Women)	0.781	0.016	1,129	942	1.273	0.020	0.750	0.813
Overweight BMI $\geq 25.0$ (Men)	0.610	0.021	1,038	869	1.391	0.035	0.567	0.652
Hypertensive (Women)	0.188	0.019	1,234	1,040	1.680	0.100	0.150	0.225
Hypertensive (Men)	0.176	0.013	1,079	914	1.085	0.071	0.151	0.201
Knows about how to conduct breast self-examination (Women)	0.156	0.014	1,243	1,048	1.384	0.091	0.128	0.185
Knows about Pap smear (Women)	0.072	0.010	1,243	1,048	1.398	0.143	0.051	0.092
Had any cesarean delivery	0.345	0.022	704	599	1.213	0.063	0.301	0.388
Believe woman who had a cesarean delivery can have a normal delivery later	0.433	0.023	763	643	1.294	0.054	0.387	0.480

na = Not applicable



Table B.11 Sampling errors: Upper Egypt Rural sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.000	0.000	7,446	7,498	na	na	0.000	0.000
No education (Women)	0.356	0.012	2,394	2,369	1.195	0.033	0.332	0.379
No education (Men)	0.118	0.010	1,750	1,745	1.317	0.086	0.097	0.138
Secondary complete/higher education (Women)	0.283	0.013	2,394	2,369	1.370	0.045	0.258	0.308
Secondary complete/higher education (Men)	0.488	0.017	1,750	1,745	1.418	0.035	0.454	0.522
Currently married (Women)	0.715	0.012	2,394	2,369	1.286	0.017	0.691	0.739
Currently married (Men)	0.647	0.014	1,750	1,745	1.212	0.021	0.619	0.674
Not exposed to family planning information in six months before survey (Women)	0.642	0.014	2,118	2,114	1.388	0.023	0.613	0.671
Not exposed to family planning information in six months before survey (Men)	0.744	0.014	1,539	1,547	1.222	0.018	0.717	0.771
Ideal number of children (Women)	3.487	0.038	2,068	2,070	1.141	0.011	3.411	3.563
Ideal number of children (Men)	3.952	0.067	1,494	1,507	1.151	0.017	3.817	4.087
Ever circumcised (Women)	0.947	0.007	2,118	2,114	1.533	0.008	0.932	0.962
Ever circumcised (Girls)	0.210	0.013	1,618	1,667	1.285	0.062	0.184	0.236
Female circumcision should continue (Women)	0.682	0.015	2,118	2,114	1.513	0.022	0.651	0.712
Female circumcision should continue (Men)	0.688	0.018	1,539	1,547	1.491	0.026	0.653	0.724
Knows about hepatitis C (Women)	0.785	0.012	2,394	2,369	1.397	0.015	0.761	0.808
Knows about hepatitis C (Men)	0.868	0.011	1,750	1,745	1.311	0.012	0.847	0.889
Knows a way hepatitis C is contracted (Women)	0.477	0.019	1,866	1,859	1.602	0.039	0.440	0.514
Knows a way hepatitis C is contracted (Men)	0.631	0.018	1,517	1,515	1.436	0.028	0.595	0.666
Positive on HCV RNA test (Total population)	0.038	0.003	7,123	7,074	1.376	0.082	0.032	0.044
Positive on HCV RNA test (Women)	0.044	0.005	2,336	2,274	1.185	0.115	0.034	0.054
Positive on HCV RNA test (Men)	0.100	0.010	1,711	1,676	1.311	0.095	0.081	0.119
Knows about hepatitis B (Women)	0.258	0.013	2,394	2,369	1.450	0.050	0.232	0.284
Knows about hepatitis B (Men)	0.382	0.016	1,750	1,745	1.350	0.041	0.351	0.414
Knows a way hepatitis B is contracted (Women)	0.487	0.028	686	611	1.460	0.057	0.431	0.543
Knows a way hepatitis B is contracted (Men)	0.550	0.025	723	668	1.345	0.045	0.500	0.600
Positive on HBsAG test (Total population)	0.010	0.002	7,123	7,074	1.353	0.162	0.007	0.013
Positive on HBsAG test (Women)	0.015	0.003	2,336	2,274	1.398	0.238	0.008	0.022
Positive on HBsAG test (Men)	0.021	0.005	1,711	1,676	1.440	0.240	0.011	0.031
Knows about HIV/AIDS (Women)	0.523	0.014	2,118	2,114	1.332	0.028	0.494	0.552
Knows about HIV/AIDS (Men)	0.745	0.014	1,539	1,547	1.237	0.018	0.718	0.773
Currently smoking cigarettes or other tobacco products (Men)	0.466	0.016	1,750	1,745	1.347	0.034	0.434	0.498
Overweight BMI $\geq 25.0$ (Women)	0.669	0.011	2,156	2,141	1.081	0.016	0.647	0.691
Overweight BMI $\geq 25.0$ (Men)	0.506	0.018	1,713	1,711	1.494	0.036	0.470	0.542
Hypertensive (Women)	0.146	0.009	2,388	2,362	1.233	0.061	0.128	0.164
Hypertensive (Men)	0.162	0.010	1,747	1,741	1.088	0.059	0.143	0.181
Knows about how to conduct breast self-examination (Women)	0.048	0.006	2,394	2,369	1.425	0.130	0.035	0.060
Knows about Pap smear (Women)	0.029	0.004	2,394	2,369	1.141	0.134	0.021	0.037
Had any cesarean delivery	0.271	0.013	1,483	1,529	1.133	0.048	0.245	0.298
Believe woman who had a cesarean delivery can have a normal delivery later	0.482	0.017	1,621	1,653	1.334	0.034	0.448	0.515

na = Not applicable

Table B.12 Sampling errors: Frontier Governorates sample, Egypt Health Issues Survey 2015

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un-weighted (N)	Weighted (WN)			R-2SE	R-2SE
Urban residence	0.556	0.035	1,779	205	2.938	0.062	0.486	0.625
No education (Women)	0.212	0.022	545	63	1.245	0.103	0.168	0.256
No education (Men)	0.079	0.020	479	56	1.661	0.260	0.038	0.120
Secondary complete/higher education (Women)	0.454	0.030	545	63	1.386	0.065	0.395	0.514
Secondary complete/higher education (Men)	0.620	0.032	479	56	1.426	0.051	0.557	0.683
Currently married (Women)	0.760	0.022	545	63	1.180	0.028	0.717	0.803
Currently married (Men)	0.688	0.029	479	56	1.344	0.041	0.631	0.745
Not exposed to family planning information in six months before survey (Women)	0.619	0.028	492	58	1.269	0.045	0.564	0.675
Not exposed to family planning information in six months before survey (Men)	0.618	0.039	434	51	1.681	0.064	0.539	0.697
Ideal number of children (Women)	3.280	0.092	484	56	1.412	0.028	3.096	3.463
Ideal number of children (Men)	4.039	0.191	422	49	1.604	0.047	3.657	4.420
Ever circumcised (Women)	0.747	0.031	492	58	1.583	0.042	0.685	0.809
Ever circumcised (Girls)	0.150	0.029	386	44	1.585	0.193	0.092	0.208
Female circumcision should continue (Women)	0.418	0.026	492	58	1.171	0.062	0.366	0.470
Female circumcision should continue (Men)	0.402	0.038	434	51	1.621	0.095	0.326	0.479
Knows about hepatitis C (Women)	0.806	0.026	545	63	1.519	0.032	0.755	0.858
Knows about hepatitis C (Men)	0.863	0.027	479	56	1.689	0.031	0.810	0.916
Knows a way hepatitis C is contracted (Women)	0.556	0.034	446	51	1.436	0.061	0.488	0.624
Knows a way hepatitis C is contracted (Men)	0.605	0.034	417	48	1.417	0.056	0.537	0.673
Positive on HCV RNA test (Total population)	0.016	0.004	1,698	194	1.296	0.244	0.008	0.024
Positive on HCV RNA test (Women)	0.025	0.008	526	60	1.126	0.305	0.010	0.041
Positive on HCV RNA test (Men)	0.026	0.010	471	54	1.388	0.392	0.006	0.047
Knows about hepatitis B (Women)	0.294	0.028	545	63	1.433	0.095	0.238	0.350
Knows about hepatitis B (Men)	0.319	0.031	479	56	1.456	0.097	0.257	0.381
Knows a way hepatitis B is contracted (Women)	0.492	0.061	162	18	1.549	0.125	0.369	0.614
Knows a way hepatitis B is contracted (Men)	0.575	0.059	151	18	1.448	0.102	0.458	0.693
Positive on HBsAG test (Total population)	0.006	0.002	1,698	194	1.307	0.422	0.001	0.010
Positive on HBsAG test (Women)	0.008	0.004	526	60	1.178	0.585	0.000	0.017
Positive on HBsAG test (Men)	0.011	0.006	471	54	1.257	0.547	0.000	0.023
Knows about HIV/AIDS (Women)	0.648	0.033	492	58	1.545	0.051	0.582	0.715
Knows about HIV/AIDS (Men)	0.791	0.034	434	51	1.723	0.043	0.723	0.858
Currently smoking cigarettes or other tobacco products (Men)	0.444	0.030	479	56	1.308	0.067	0.384	0.503
Overweight BMI $\geq 25.0$ (Women)	0.686	0.028	487	56	1.329	0.041	0.630	0.742
Overweight BMI $\geq 25.0$ (Men)	0.520	0.035	470	55	1.513	0.067	0.450	0.590
Hypertensive (Women)	0.124	0.017	545	63	1.232	0.140	0.090	0.159
Hypertensive (Men)	0.140	0.022	479	56	1.397	0.159	0.096	0.184
Knows about how to conduct breast self-examination (Women)	0.189	0.029	545	63	1.755	0.156	0.130	0.248
Knows about Pap smear (Women)	0.076	0.018	545	63	1.548	0.232	0.041	0.111
Had any cesarean delivery	0.333	0.030	352	43	1.189	0.090	0.273	0.393
Believe woman who had a cesarean delivery can have a normal delivery later	0.523	0.045	374	45	1.725	0.086	0.433	0.612

# HEPATITIS TEST RESULTS FOR THE POPULATION AGE 15-59

## Appendix C

Table C.1 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 15-59 by background characteristics

Percentage of the de facto population age 15-59 with a blood sample tested for HBV and for HCV for whom the test result was positive, by sex and socioeconomic characteristics, Egypt 2015

Background characteristic	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAg (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 15-59</b>					
<b>Urban-rural residence</b>					
Urban	12.5	1.3	5.9	3.7	3,224
Rural	13.6	1.1	9.3	6.6	5,614
<b>Place of residence</b>					
Urban Governorates	13.5	1.6	5.5	3.4	1,173
Lower Egypt	12.3	0.8	10.3	7.2	4,324
Urban	10.4	0.7	7.5	4.3	1,013
Rural	12.8	0.8	11.2	8.1	3,311
Upper Egypt	14.4	1.5	6.1	4.1	3,280
Urban	13.3	1.6	4.8	3.4	1,006
Rural	14.9	1.5	6.7	4.4	2,274
Frontier Governorates <sup>1</sup>	14.0	0.8	3.5	2.5	60
<b>Education</b>					
No education	22.7	1.8	14.5	10.1	1,973
Some primary	22.0	1.2	13.6	9.0	748
Primary complete/some secondary	7.8	0.9	4.9	3.1	2,268
Secondary complete/higher	9.9	0.9	5.6	4.0	3,849
<b>Work status</b>					
Working for cash	14.0	1.0	9.9	6.6	1,180
Not working for cash	13.1	1.2	7.8	5.3	7,657
<b>Wealth quintile</b>					
Lowest	14.1	0.5	9.9	7.3	1,753
Second	16.1	1.3	8.7	6.3	1,757
Middle	12.8	1.6	8.6	6.0	1,722
Fourth	13.0	1.0	8.3	5.3	1,815
Highest	10.2	1.3	4.9	2.7	1,791
<b>Total</b>	<b>13.2</b>	<b>1.2</b>	<b>8.1</b>	<b>5.5</b>	<b>8,838</b>
<b>MALES 15-59</b>					
<b>Urban-rural residence</b>					
Urban	18.8	2.7	8.5	5.9	2,734
Rural	18.8	1.5	14.7	10.7	4,431
<b>Place of residence</b>					
Urban Governorates	18.7	3.4	8.5	5.7	1,003
Lower Egypt	17.5	1.3	14.6	10.5	3,550
Urban	17.0	1.3	11.0	8.1	820
Rural	17.6	1.2	15.7	11.2	2,730
Upper Egypt	20.8	2.5	11.0	8.0	2,559
Urban	20.7	3.2	6.3	4.3	882
Rural	20.9	2.1	13.4	10.0	1,676
Frontier Governorates <sup>1</sup>	13.2	1.1	3.5	2.6	54
<b>Education</b>					
No education	29.0	1.8	21.9	18.4	592
Some primary	26.6	2.8	21.0	15.4	669
Primary complete/some secondary	13.4	1.3	8.8	6.4	2,146
Secondary complete/higher	18.9	2.2	11.3	7.6	3,757
<b>Work status</b>					
Working for cash	21.2	2.3	14.0	10.1	5,898
Not working for cash	7.7	0.4	4.8	3.3	1,267
<b>Wealth quintile</b>					
Lowest	18.4	1.4	16.2	12.3	1,410
Second	20.6	1.7	15.7	10.7	1,364
Middle	17.8	1.6	12.4	8.8	1,327
Fourth	20.9	2.8	9.9	7.7	1,524
Highest	16.3	2.3	8.2	5.3	1,539
<b>Total</b>	<b>18.8</b>	<b>2.0</b>	<b>12.4</b>	<b>8.9</b>	<b>7,165</b>

Continued...

Table C.1—Continued

Background characteristic	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
TOTAL 15-59					
<b>Urban-rural residence</b>					
Urban	15.4	2.0	7.1	4.7	5,958
Rural	15.9	1.3	11.7	8.4	10,045
<b>Place of residence</b>					
Urban Governorates	15.9	2.5	6.9	4.4	2,176
Lower Egypt	14.6	1.0	12.2	8.7	7,874
Urban	13.4	1.0	9.1	6.0	1,833
Rural	15.0	1.0	13.2	9.5	6,041
Upper Egypt	17.2	1.9	8.2	5.8	5,839
Urban	16.8	2.3	5.5	3.8	1,889
Rural	17.4	1.7	9.5	6.8	3,950
Frontier Governorates <sup>1</sup>	13.6	0.9	3.5	2.6	114
<b>Education</b>					
No education	24.1	1.8	16.2	12.0	2,565
Some primary	24.2	2.0	17.1	12.0	1,417
Primary complete/some secondary	10.5	1.1	6.8	4.7	4,415
Secondary complete/higher	14.3	1.6	8.4	5.7	7,606
<b>Work status</b>					
Working for cash	20.0	2.1	13.3	9.5	7,078
Not working for cash	12.3	1.1	7.4	5.1	8,924
<b>Wealth quintile</b>					
Lowest	16.0	0.9	12.7	9.5	3,164
Second	18.1	1.5	11.8	8.2	3,121
Middle	14.9	1.6	10.2	7.2	3,049
Fourth	16.6	1.8	9.0	6.4	3,339
Highest	13.0	1.8	6.5	3.9	3,331
Total	15.7	1.5	10.0	7.0	16,003

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection.

<sup>1</sup> Does not include North and South Sinai governorates

**Table C.2 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 15-59 by governorate**

Percentage of the de facto interviewed population age 15-59 with a blood sample tested for HBV and for HCV for whom the test result was positive, by governorate, Egypt 2015

Governorate	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>Urban Governorates</b>					
Cairo	16.8	2.7	7.4	4.7	1,550
Alexandria	13.7	1.9	5.5	3.6	556
Port Said	11.2	0.5	6.8	4.1	56
Suez	14.9	1.0	7.4	3.8	14
<b>Lower Egypt</b>					
Damietta	11.7	0.5	14.2	8.2	316
Dakahlia	13.7	1.3	11.6	7.8	1,201
Sharkia	18.2	1.5	13.9	10.4	1,427
Kalyubia	16.2	1.4	9.3	5.7	755
Kafr El-Sheikh	9.7	0.8	9.5	5.5	650
Gharbia	12.3	0.3	12.2	9.8	1,094
Menoufia	20.6	1.7	15.6	11.4	805
Behera	12.1	0.3	12.0	8.8	1,492
Ismailia	16.2	1.2	8.4	4.3	135
<b>Upper Egypt</b>					
Giza	16.4	2.0	5.6	4.4	1,393
Beni Suef	13.9	1.1	12.2	8.0	528
Fayoum	18.1	0.9	11.6	8.0	513
Menya	18.0	2.1	15.1	10.5	845
Assuit	15.5	2.3	6.0	4.2	863
Souhag	16.0	1.8	4.5	3.3	659
Qena	18.5	2.2	6.6	4.3	581
Aswan	22.6	2.4	6.7	5.7	276
Luxor	26.6	2.5	6.7	4.2	180
<b>Frontier Governorates</b>					
Red Sea	14.6	0.3	3.2	2.1	41
New Valley	15.1	1.5	2.4	2.1	37
Matroh	11.1	1.1	4.9	3.6	36
<b>Total 15-59</b>	<b>15.7</b>	<b>1.5</b>	<b>10.0</b>	<b>7.0</b>	<b>16,003</b>

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection.

**Table C.3 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 15-59 by lifetime history of medical injections**

Percentage of the de facto population age 15-59 with a blood sample tested for HBV and for HCV for whom the test result was positive, by sex and lifetime history of medical injections, Egypt 2015

Medical injections	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 15-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	21.2	0.7	18.1	12.7	426
No	12.8	1.2	7.6	5.1	8,344
Don't know/missing	14.4	0.0	8.4	6.8	67
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	13.2	1.2	8.0	5.5	8,807
No	(16.5)	(0.0)	(16.4)	(11.5)	28
Don't know/missing	*	*	*	*	2
<b>Injection in which a needle and syringe reused</b>					
Yes	16.2	1.6	8.0	5.1	139
No/never received injection	13.2	1.1	8.1	5.5	8,695
Don't know/missing	*	*	*	*	4
Total	13.2	1.2	8.1	5.5	8,838
<b>MALES 15-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	29.7	1.7	26.4	18.5	799
No	17.3	1.9	10.6	7.7	6,298
Don't know/missing	28.0	12.8	9.8	2.6	68
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	18.8	2.0	12.4	8.9	7,143
No	(18.7)	(3.3)	(8.7)	(5.4)	22
Don't know/missing	*	*	*	*	0
<b>Injection in which a needle and syringe reused</b>					
Yes	31.3	1.2	19.1	13.9	161
No/never received injection	18.5	2.0	12.2	8.8	6,990
Don't know/missing	*	*	*	*	14
Total	18.8	2.0	12.4	8.9	7,165
<b>TOTAL 15-59</b>					
<b>Injection to treat schistosomiasis</b>					
Yes	26.7	1.3	23.5	16.5	1,225
No	14.7	1.5	8.9	6.2	14,643
Don't know/missing	21.2	6.4	9.1	4.7	135
<b>Injection for purpose other than treatment of schistosomiasis</b>					
Yes	15.7	1.5	10.0	7.0	15,950
No	17.5	1.5	13.0	8.8	50
Don't know/missing	*	*	*	*	2
<b>Injection in which a needle and syringe reused</b>					
Yes	24.3	1.4	13.9	9.8	299
No/never received injection	15.6	1.5	9.9	7.0	15,685
Don't know/missing	(15.1)	(0.3)	(9.0)	(9.0)	18
Total	15.7	1.5	10.0	7.0	16,003

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

**Table C.4 Outcome of testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) among the population age 15-59 by lifetime history of hospitalization and medical procedures other than injections**

Percentage of the de facto population age 15-59 with a blood sample tested for HBV and for HCV for whom the test result was positive, by sex and lifetime history of hospitalization and medical procedures other than injections, Egypt 2015

Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAg (surface antigen) test	Percentage positive on HCV antibody (Chemiluminescence) test	Percentage positive on HCV RNA test	
<b>FEMALES 15-59</b>					
<b>Ever hospitalized</b>					
Yes	14.4	1.2	9.1	6.4	4,695
No	11.9	1.1	6.9	4.6	4,140
Don't know/missing	*	*	*	*	2
<b>Ever had surgery</b>					
Yes	14.6	1.3	8.8	6.1	4,740
No	11.7	1.0	7.2	4.8	4,098
<b>Ever had suture/stitches</b>					
Yes	14.3	1.3	8.1	5.6	5,150
No	11.8	1.0	8.1	5.4	3,687
Don't know/missing	*	*	*	*	1
<b>Ever had intravenous line</b>					
Yes	14.5	1.3	8.5	5.8	5,609
No	10.9	0.9	7.4	5.1	3,228
Don't know/missing	*	*	*	*	1
<b>Ever had urinary catheter</b>					
Yes	17.2	1.4	8.1	5.8	1,162
No	12.6	1.1	8.1	5.5	7,672
Don't know/missing	*	*	*	*	4
<b>Ever had blood transfusion</b>					
Yes	21.9	1.8	12.6	8.4	485
No	12.7	1.1	7.8	5.3	8,330
Don't know/missing	*	*	*	*	23
<b>Ever had endoscopy</b>					
Yes	20.0	2.6	16.9	11.3	339
No	13.0	1.1	7.7	5.3	8,495
Don't know/missing	*	*	*	*	4
<b>Ever had dental treatment</b>					
Yes	14.9	1.1	9.1	6.2	6,192
No	9.2	1.2	5.8	4.0	2,645
Don't know/missing	*	*	*	*	0
<b>Total</b>	<b>13.2</b>	<b>1.2</b>	<b>8.1</b>	<b>5.5</b>	<b>8,838</b>

*Continued...*

Table C.4—Continued

Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemilumi- nescence) test	Percentage positive on HCV RNA test	
MALES 15-59					
<b>Ever hospitalized</b>					
Yes	21.4	2.0	15.4	11.2	3,061
No	16.9	2.0	10.1	7.1	4,104
Don't know/missing	*	*	*	*	0
<b>Ever had surgery</b>					
Yes	21.8	2.3	15.1	11.0	2,765
No	16.9	1.8	10.6	7.5	4,400
<b>Ever had suture/stitches</b>					
Yes	20.4	2.3	13.3	9.7	3,710
No	17.1	1.6	11.3	8.0	3,454
Don't know/missing	*	*	*	*	1
<b>Ever had intravenous line</b>					
Yes	20.9	2.1	15.0	11.3	3,261
No	17.0	1.9	10.2	6.8	3,901
Don't know/missing	*	*	*	*	3
<b>Ever had urinary catheter</b>					
Yes	26.5	1.4	24.4	16.9	331
No	18.4	2.0	11.8	8.5	6,832
Don't know/missing	*	*	*	*	2
<b>Ever had blood transfusion</b>					
Yes	25.7	3.7	29.3	22.5	335
No	18.5	1.9	11.5	8.2	6,811
Don't know/missing	*	*	*	*	19
<b>Ever had endoscopy</b>					
Yes	29.2	3.4	24.0	17.4	292
No	18.3	1.9	11.8	8.5	6,868
Don't know/missing	*	*	*	*	5
<b>Ever had dental treatment</b>					
Yes	21.4	2.4	13.7	9.8	4,796
No	13.4	1.2	9.7	6.9	2,368
Don't know/missing	*	*	*	*	1
Total	18.8	2.0	12.4	8.9	7,165

Continued...



Table C.4—Continued

Hospitalization/ Medical procedure	HBV prevalence		HCV prevalence		Number tested
	Percentage positive on HBcAb (core antibody) test	Percentage positive on HBsAG (surface antigen) test	Percentage positive on HCV antibody (Chemilumi- nescence) test	Percentage positive on HCV RNA test	
TOTAL 15-59					
<b>Ever hospitalized</b>					
Yes	17.2	1.5	11.6	8.3	7,757
No	14.4	1.5	8.5	5.9	8,244
Don't know/missing	*	*	*	*	2
<b>Ever had surgery</b>					
Yes	17.2	1.6	11.2	7.9	7,505
No	14.4	1.4	9.0	6.2	8,498
<b>Ever had suture/stitches</b>					
Yes	16.8	1.7	10.3	7.3	8,860
No	14.3	1.3	9.6	6.7	7,140
Don't know/missing	*	*	*	*	3
<b>Ever had intravenous line</b>					
Yes	16.9	1.6	10.9	7.8	8,870
No	14.3	1.4	8.9	6.0	7,129
Don't know/missing	*	*	*	*	3
<b>Ever had urinary catheter</b>					
Yes	19.3	1.4	11.7	8.3	1,492
No	15.4	1.5	9.8	6.9	14,505
Don't know/missing	*	*	*	*	6
<b>Ever had blood transfusion</b>					
Yes	23.5	2.6	19.4	14.2	820
No	15.3	1.5	9.5	6.6	15,141
Don't know/missing	(7.5)	(0.0)	(9.9)	(9.9)	42
<b>Ever had endoscopy</b>					
Yes	24.3	3.0	20.2	14.1	631
No	15.3	1.5	9.6	6.7	15,363
Don't know/missing	*	*	*	*	9
<b>Ever had dental treatment</b>					
Yes	17.8	1.7	11.1	7.8	10,988
No	11.2	1.2	7.6	5.4	5,013
Don't know/missing	*	*	*	*	1
Total	15.7	1.5	10.0	7.0	16,003

Note: The HBcAb (core antibody) test identifies respondents who ever were infected with the HBV virus. The HBsAG (surface antigen) test identifies those respondents with an active hepatitis B infection at the time of the survey. The HCV antibody test identifies respondents ever infected with the HCV virus. The HCV RNA test identifies those respondents with an active hepatitis C infection. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.



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**ARAB REPUBLIC OF EGYPT  
MINISTRY OF HEALTH AND POPULATION  
EL- ZANATY & ASSOCIATES**

**EGYPT DEMOGRAPHIC AND HEALTH SURVEY  
HEALTH ISSUES COMPONENT  
2015**

**HOUSEHOLD QUESTIONNAIRE  
FINAL**

**DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.**



HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION	
GOVERNORATE _____ PSU _____ KISM/MARKAZ _____ BUILDING NO. _____ SHIAKHA/VILLAGE _____ HOUSING UNIT NO. _____ URBAN ..... 1 RURAL ..... 2 HOUSEHOLD NUMBER INSIDE PSU _____ NAME OF HOUSEHOLD HEAD _____ ADDRESS IN DETAIL _____ TELEPHONE: CELLULAR _____ LANDLINE _____	GOVERNORATE <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> PSU <div style="border: 1px solid black; width: 100px; height: 15px; margin: 0 auto;"></div> URBAN/RURAL <div style="border: 1px solid black; width: 20px; height: 15px; margin: 0 auto;"></div> HOUSEHOLD NO. <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div>

INTERVIEWER VISITS										
	1	2	3	FINAL VISIT						
DATE	_____	_____	_____	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="font-size: small;">DAY</th> <th style="font-size: small;">MONTH</th> <th style="font-size: small;">YEAR</th> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>	DAY	MONTH	YEAR			
DAY	MONTH	YEAR								
TEAM	_____	_____	_____	TEAM .....						
INTERVIEWER	_____	_____	_____	INT. NUMBER ...						
SUPERVISOR	_____	_____	_____	SUP. NUMBER .						
RESULT	_____	_____	_____	RESULT .....						
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>						
TIME	_____	_____								
RESULT CODES: 1 COMPLETED 2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT 3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME 4 POSTPONED 5 REFUSED 6 DWELLING VACANT OR ADDRESS NOT A DWELLING 7 DWELLING DESTROYED 8 DWELLING NOT FOUND 9 OTHER _____ (SPECIFY)			LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE <span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span> <b>FOR ALL HOUSEHOLDS</b> TOTAL PERSONS IN HOUSEHOLD <span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span> TOTAL PERSONS AGE 15-59 YEARS <span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span> TOTAL PERSONS AGE 6 MONTHS -14 YEARS <span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>							
ADDRESS CHECKED BY: _____			YES 1	NO 2						
REINTERVIEW: .....			1	2						
NAME	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER						
DATE	/ /	/ /	/ /	/ /						
SIGNATURE	_____	_____	_____	_____						
	<span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>	<span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>	<span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>	<span style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></span>						

BACK OF IDENTIFICATION (COVER) PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION AND CONSENT

Hello. My name is \_\_\_\_\_.

I am working with the Ministry of Health and Population.

We are conducting a survey about health all over Egypt. The information we collect will help the government to plan health services.

Your household was selected for the survey.

I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team.

You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?  
May I begin the interview now?

SIGNATURE OF INTERVIEWER: \_\_\_\_\_ DATE: \_\_\_\_\_

RESPONDENT AGREES  
TO BE INTERVIEWED . . . 1  
↓

RESPONDENT DOES NOT AGREE  
TO BE INTERVIEWED . . . . . 2 → END

**HOUSEHOLD SCHEDULE**

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HOUSEHOLD HEAD	SEX	RESIDENCE		AGE	BIRTH DATE	
				010	011	012	IF AGE 00	
001	002	003	004	010	011	012	013	014
	<p>Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, <u>starting with the head of the household.</u></p> <p>AFTER LISTING THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, GO TO QUESTIONS 005-009 TO BE SURE THAT THE LISTING IS COMPLETE.</p> <p>THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 010-021 FOR EACH PERSON.</p>	<p>What is the relationship of (NAME) to the head of the household?</p> <p>SEE CODES BELOW</p>	<p>Is (NAME) male or female?</p>	<p>Does (NAME) usually live here?</p>	<p>Did (NAME) sleep here last night?</p>	<p>How old was (NAME) at his/her last birthday?</p> <p>RECORD IN COMPLETED YEARS.</p> <p>IF 95 OR MORE, RECORD '95'.</p>	<p>What is (NAME's) birth date?</p> <p>COMPARE WITH Q012 AND CORRECT IF INCONSISTENT</p>	<p>CHECK 013.</p> <p>CIRCLE CODE 1 IF (NAME) WAS BORN IN THE MONTH OF INTERVIEW OR PREVIOUS 5 MONTHS.</p> <p>CIRCLE CODE 2 IF THE CHILD WAS BORN 6-11 MONTHS BEFORE THE INTERVIEW.</p>
			M    F	YES   NO	YES   NO	IN YEARS	MONTH    YEAR	0-5 MONTHS    6-11 MONTHS
01		0 1 HEAD	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
02		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
03		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
04		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
05		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
06		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
07		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
08		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
09		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
10		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
11		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2
12		<input type="text"/> <input type="text"/>	1    2	1    2	1    2	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	1    2

Just to make sure that I have a complete household listing:

005 Are there any other persons such as small children or infants that we have not listed?    YES  → ADD TO 002    NO

006 In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here?    YES  → ADD TO 002    NO

007 Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed?    YES  → ADD TO 002    NO

008 TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED        009 RECORD TOTAL PERSONS   

CODES FOR 003: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD	08 = BROTHER OR SISTER
02 = WIFE OR HUSBAND	09 = OTHER RELATIVE
03 = SON OR DAUGHTER	10 = ADOPTED/FOSTER STEPCHILD
04 = SON-IN-LAW OR DAUGHTER-IN-LAW	11 = NOT RELATED
05 = GRANDCHILD	98 = DON'T KNOW
06 = PARENT	
07 = PARENT-IN-LAW	

LINE NO.	MARITAL STATUS	ELIGIBILITY		SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS			
		ADULTS	CHILDREN				
	IF AGE 15 OR OLDER			IF AGE 0-17 YEARS			
001	015	016	017	018	019	020	021
	What is (NAME'S) current marital status? 1 MARRIED 2 WIDOWED 3 DIVORCED 4 SEPARATED 5 SIGNED CONTRACT 6 NEVER MARRIED	CHECK 012 AND CIRCLE LINE NUMBERS OF ALL INDIVIDUALS AGE 15-59 YEARS.	CHECK 012 AND CIRCLE LINE NUMBER FOR:  (1) ALL CHILDREN AGE 1-14 YEARS  CHECK 014 AND CIRCLE LINE NUMBER FOR:  (2) ALL CHILDREN FOR WHOM CODE 2 '6-11 MONTHS' IS RECORDED.	Is (NAME)'s natural mother alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL MOTHER.	Does (NAME)'s natural mother usually live in this household or was she a guest last night?  IF YES: What is her name?  RECORD MOTHER'S LINE NUMBER.  IF NO: RECORD '00'.	Is (NAME)'s natural father alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL FATHER.	Does (NAME)'s natural father usually live in this household or was he a guest last night?  IF YES: What is his name?  RECORD FATHER'S LINE NUMBER.  IF NO: RECORD '00'.
				YES NO DK	LINE NO.	YES NO DK	LINE NO.
01	<input type="checkbox"/>	01	01	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
02	<input type="checkbox"/>	02	02	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
03	<input type="checkbox"/>	03	03	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
04	<input type="checkbox"/>	04	04	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
05	<input type="checkbox"/>	05	05	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
06	<input type="checkbox"/>	06	.06	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
07	<input type="checkbox"/>	07	.07	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
08	<input type="checkbox"/>	08	08	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
09	<input type="checkbox"/>	09	09	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
10	<input type="checkbox"/>	10	10	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
11	<input type="checkbox"/>	11	11	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
12	<input type="checkbox"/>	12	12	1 2 8 ↓ GO TO 020	<input type="checkbox"/>	1 2 8 ↓ GO TO NEXT PERSON/022	<input type="checkbox"/>
022	CHECK 016 AND RECORD NUMBER OF INDIVIDUALS 15-59 YEARS						<input type="checkbox"/>
023	CHECK 017 AND RECORD NUMBER OF CHILDREN AGE 6 MONTHS-14 YEARS.						<input type="checkbox"/>





**HOUSEHOLD ENVIRONMENT AND POSSESSIONS**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																							
107	Where is (SOURCE IN 106) located?	IN OWN DWELLING ..... 1 IN OWN YARD/PLOT ..... 2 ELSEWHERE ..... 3	→ 109																																							
108	How long does it take to go there, get water, and come back?	MINUTES..... <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW ..... 998																																								
109	Does your household have: a) Electricity? b) A radio with cassette recorder? c) A color television? d) A black and white television? e) A video or DVD player? f) A smart phone, i.e., a phone on which the internet can be accessed? g) Other mobile phone? h) A telephone (land line)? i) A personal home computer (laptop, notebook, tablet, etc.)? j) A sewing machine? k) An electric fan? l) An air conditioner?	<table border="0"> <thead> <tr> <th></th> <th align="right">YES</th> <th align="right">NO</th> </tr> </thead> <tbody> <tr> <td>ELECTRICITY .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>RADIO .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>COLOR TV .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>BLACK AND WHITE TV ...</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>VIDEO/DVD .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>SMART PHONE .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>OTHER MOBILE PHONE ...</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>NON-MOBILE TELEPHONE ...</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>COMPUTER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>SEWING MACHINE .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>ELECTRIC FAN .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>AIR CONDITIONER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> </tbody> </table>		YES	NO	ELECTRICITY .....	1	2	RADIO .....	1	2	COLOR TV .....	1	2	BLACK AND WHITE TV ...	1	2	VIDEO/DVD .....	1	2	SMART PHONE .....	1	2	OTHER MOBILE PHONE ...	1	2	NON-MOBILE TELEPHONE ...	1	2	COMPUTER .....	1	2	SEWING MACHINE .....	1	2	ELECTRIC FAN .....	1	2	AIR CONDITIONER .....	1	2	
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110	Does your household own a satellite dish?  IF NO: In your home, are you connected to satellite from elsewhere?	YES, OWNS DISH ..... 1 NO, CONNECTED ONLY ..... 2 NO ..... 3																																								
111	How does your household mainly dispose of kitchen waste and trash?  RECORD MAIN METHOD OF DISPOSAL ONLY. IF TWO OR MORE METHODS ARE USED EQUALLY, RECORD THE METHOD HIGHEST ON THE LIST.	<b>COLLECTED</b> FROM HOME ..... 11 FROM CONTAINER IN STREET ... 12 <b>DUMPED</b> INTO STREET/EMPTY PLOT ..... 21 INTO CANAL/DRAINAGE ..... 22 <b>BURNED</b> ..... 31 <b>FED TO ANIMALS</b> ..... 41 OTHER ..... 96 (SPECIFY)																																								

**HOUSEHOLD ENVIRONMENT AND POSSESSIONS**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																										
112	Does your household have: a) A refrigerator? b) A freezer? c) A water heater? d) A dishwasher? e) An automatic washing machine? f) Any other washing machine? g) A bed? h) A sofa? i) A hanging lamp (yellow with no cover)? j) A table? k) A tablia (very low round table)? l) A chair? m) Kolla/Zeer (a container for reserving water)?	<table border="0"> <tr> <td></td> <td align="right">YES</td> <td align="right">NO</td> </tr> <tr> <td>REFRIGERATOR .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>FREEZER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>WATER HEATER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>DISHWASHER.....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>AUTOMATIC WASHER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>OTHER WASHER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>BED .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>SOFA .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>HANGING LAMP .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>TABLE .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>TABLIA .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>CHAIR .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>KOLLA/ZEER .....</td> <td align="right">1</td> <td align="right">2</td> </tr> </table>		YES	NO	REFRIGERATOR .....	1	2	FREEZER .....	1	2	WATER HEATER .....	1	2	DISHWASHER.....	1	2	AUTOMATIC WASHER .....	1	2	OTHER WASHER .....	1	2	BED .....	1	2	SOFA .....	1	2	HANGING LAMP .....	1	2	TABLE .....	1	2	TABLIA .....	1	2	CHAIR .....	1	2	KOLLA/ZEER .....	1	2	
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113	How many rooms does your household use for sleeping?	ROOMS ..... <input type="text"/> <input type="text"/>																																											
114	MAIN MATERIAL OF THE FLOOR.  RECORD OBSERVATION.	<table border="0"> <tr> <td colspan="2"><b>NATURAL FLOOR</b></td> </tr> <tr> <td>EARTH/SAND .....</td> <td align="right">11</td> </tr> <tr> <td colspan="2"><b>RUDIMENTARY FLOOR</b></td> </tr> <tr> <td>WOOD PLANKS .....</td> <td align="right">21</td> </tr> <tr> <td colspan="2"><b>FINISHED FLOOR</b></td> </tr> <tr> <td colspan="2">PARQUET OR POLISHED</td> </tr> <tr> <td>WOOD .....</td> <td align="right">31</td> </tr> <tr> <td>CERAMIC/MARBLE TILES .....</td> <td align="right">32</td> </tr> <tr> <td>CEMENT TILES .....</td> <td align="right">33</td> </tr> <tr> <td>CEMENT .....</td> <td align="right">34</td> </tr> <tr> <td>WALL-TO-WALL CARPET .....</td> <td align="right">35</td> </tr> <tr> <td>VINYL .....</td> <td align="right">36</td> </tr> <tr> <td>OTHER .....</td> <td align="right">96</td> </tr> <tr> <td align="center" colspan="2">(SPECIFY)</td> </tr> </table>	<b>NATURAL FLOOR</b>		EARTH/SAND .....	11	<b>RUDIMENTARY FLOOR</b>		WOOD PLANKS .....	21	<b>FINISHED FLOOR</b>		PARQUET OR POLISHED		WOOD .....	31	CERAMIC/MARBLE TILES .....	32	CEMENT TILES .....	33	CEMENT .....	34	WALL-TO-WALL CARPET .....	35	VINYL .....	36	OTHER .....	96	(SPECIFY)																
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115	Does any member of this household own: a) A watch? b) A bicycle? c) A motorcycle or motor scooter? d) An animal-drawn cart? e) A car or truck?	<table border="0"> <tr> <td></td> <td align="right">YES</td> <td align="right">NO</td> </tr> <tr> <td>WATCH .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>BICYCLE .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>MOTORCYCLE/SCOOTER ...</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>ANIMAL-DRAWN CART .....</td> <td align="right">1</td> <td align="right">2</td> </tr> <tr> <td>CAR/TRUCK .....</td> <td align="right">1</td> <td align="right">2</td> </tr> </table>		YES	NO	WATCH .....	1	2	BICYCLE .....	1	2	MOTORCYCLE/SCOOTER ...	1	2	ANIMAL-DRAWN CART .....	1	2	CAR/TRUCK .....	1	2																									
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116	Does any member of your household have an account in a bank or any saving institution?	YES .....	1																																										
117	Does any member of this household own any land that can be used for agriculture?	YES .....	1																																										
118	How many feddans or kirates of agricultural land do members of this household own?  IF MORE THAN 95 FEDDAN, ENTER '99.95'.	<table border="0"> <tr> <td></td> <td align="center">FEDDAN</td> <td align="center">KIRATE</td> </tr> <tr> <td>LAND AREA</td> <td align="center"><input type="text"/> <input type="text"/></td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>DON'T KNOW .....</td> <td align="right" colspan="2">99.98</td> </tr> </table>		FEDDAN	KIRATE	LAND AREA	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	DON'T KNOW .....	99.98																																			
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119	Does your household own any livestock, herds, or farm animals?	YES .....	1																																										
120	How many of the following does your household own? a) Cattle (buffalo, calf)? b) Milk cows or bulls? c) Horses, donkeys, or mules? d) Goats? e) Sheep?  IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.	<table border="0"> <tr> <td>CATTLE .....</td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>COWS/BULLS .....</td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>HORSES/DONKEYS/MULES .</td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>GOATS .....</td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>SHEEP .....</td> <td align="center"><input type="text"/> <input type="text"/></td> </tr> </table>	CATTLE .....	<input type="text"/> <input type="text"/>	COWS/BULLS .....	<input type="text"/> <input type="text"/>	HORSES/DONKEYS/MULES .	<input type="text"/> <input type="text"/>	GOATS .....	<input type="text"/> <input type="text"/>	SHEEP .....	<input type="text"/> <input type="text"/>																																	
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**HOUSEHOLD ENVIRONMENT AND POSSESSIONS**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																								
121	Does your household own any poultry or birds?	YES ..... 1 NO ..... 2	→ 123																								
122	How many of the following does your household have?  a) Chickens? b) Geese? c) Ducks? d) Pigeons? e) Quail? f) Turkey? g) Ornamental/song birds? h) Any other birds?  IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.	<table border="1"> <tr> <td>CHICKENS .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>GEESE .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>DUCKS .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>PIGEONS.....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>QUAIL .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>TURKEY .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>ORNAMENTAL/SONG BIRDS</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>OTHER .....</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table>	CHICKENS .....	<input type="text"/>	<input type="text"/>	GEESE .....	<input type="text"/>	<input type="text"/>	DUCKS .....	<input type="text"/>	<input type="text"/>	PIGEONS.....	<input type="text"/>	<input type="text"/>	QUAIL .....	<input type="text"/>	<input type="text"/>	TURKEY .....	<input type="text"/>	<input type="text"/>	ORNAMENTAL/SONG BIRDS	<input type="text"/>	<input type="text"/>	OTHER .....	<input type="text"/>	<input type="text"/>	
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ORNAMENTAL/SONG BIRDS	<input type="text"/>	<input type="text"/>																									
OTHER .....	<input type="text"/>	<input type="text"/>																									
123	How often does anyone smoke inside your house? Would you say daily, weekly, monthly, less than monthly, or never?	DAILY ... ..... 1 WEEKLY ... ..... 2 MONTHLY ..... 3 LESS THAN MONTHLY ..... 4 NEVER ... ..... 5																									

INTERVIEWER OBSERVATIONS  
TO BE FILLED IN AFTER COMPLETING INTERVIEW

201 COMMENTS ABOUT RESPONDENT:

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202 COMMENTS ON SPECIFIC QUESTIONS:

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203 ANY OTHER COMMENTS:

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204 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

205 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_

**ARAB REPUBLIC OF EGYPT  
MINISTRY OF HEALTH AND POPULATION  
EL- ZANATY & ASSOCIATES**

**EGYPT DEMOGRAPHIC AND HEALTH SURVEY  
HEALTH ISSUES COMPONENT  
2015**

**ADULT AGE 15-59 YEARS  
QUESTIONNAIRE  
FINAL**

**DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.**



HEALTH ISSUES QUESTIONNAIRE (ADULT AGE 15-59 YEARS)

IDENTIFICATION	
GOVERNORATE _____ PSU _____ KISM/MARKAZ _____ BUILDING NO. _____ SHIAKHA/VILLAGE _____ HOUSING UNIT NO. _____ URBAN _____ 1                      RURAL _____ 2 HOUSEHOLD NUMBER INSIDE PSU: _____ NAME OF HOUSEHOLD HEAD _____ ADDRESS IN DETAIL _____ NAME OF RESPONDENT _____ GENDER    MALE _____ 1                      FEMALE _____ 2 RESPONDENT LINE NUMBER _____ TELEPHONE:    CELLULAR _____	GOVERNORATE <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> PSU <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> URBAN/RURAL <input style="width: 20px; height: 20px;" type="text"/> HOUSEHOLD NO. <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> GENDER <input style="width: 20px; height: 20px;" type="text"/> LINE NUMBER <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

INTERVIEWER VISITS																																													
	1	2	3	FINAL VISIT																																									
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	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER
NAME	_____	_____	_____	_____
DATE	/ / 2015	/ / 2015	/ / 2015	/ / 2015
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**SECTION 1. RESPONDENT'S BACKGROUND**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO												
101	<p>Hello. My name is _____ and I am working with the Ministry of Health and Population. We are conducting a national survey about health in Egypt and your household was selected for the survey. We would very much appreciate your participation in our survey. The questions take about 20-25 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team.</p> <p>You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.</p> <p>In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.</p> <p>Do you have any questions? May I begin the interview now?</p> <p>Signature of interviewer: _____ Date: _____</p> <p>RESPONDENT AGREES TO BE INTERVIEWED    1    RESPONDENT DOES NOT AGREE TO BE INTERVIEWED    2 → END</p>														
102	<p>RECORD THE TIME.</p>	<p>HOUR ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p> <p>MINUTES ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p>													
103	<p>During the interview I would like to measure your blood pressure. This will be done three times during the interview.</p> <p>This is a harmless procedure. It is used to find out if a person has high blood pressure. If it is not treated, high blood pressure may eventually cause serious damage to the heart.</p> <p>The results of this blood pressure measurement will be given to you after the interview together with an explanation of the meaning of your blood pressure numbers. If your blood pressure is high, we will suggest that you consult a health facility or doctor since we cannot provide any further testing or treatment during the survey.</p> <p>Do you have any questions about the blood pressure measurement so far? If you have any questions about the procedure at any time, please ask me.</p> <p>You can say yes or not to having the blood pressure measurement now.</p> <p>You can also decide at anytime not to participate in the blood pressure measures.</p> <p>Would you allow me to proceed to take your blood pressure measurement at this time?</p> <p>Signature of interviewer: _____ Date: _____</p> <p>RESPONDENT AGREES ..... 1    RESPONDENT DOES NOT AGREE ..... 2 → 108</p>														
104	<p>Before taking your blood pressure , I would like to ask a few questions about things that may affect these measurements.</p> <p>Have you done any of the following within the past 30 minutes:</p> <p>Eaten anything?</p> <p>Had coffee, tea, cola or other drink that has caffeine?</p> <p>Smoked any tobacco product?</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">YES</th> <th style="width: 20%; text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>EATEN .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>HAD CAFFEINATED DRINK</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>SMOKED .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	EATEN .....	1	2	HAD CAFFEINATED DRINK	1	2	SMOKED .....	1	2	
	YES	NO													
EATEN .....	1	2													
HAD CAFFEINATED DRINK	1	2													
SMOKED .....	1	2													
105	<p>May I begin the process of measuring your blood pressure?</p> <p>BEFORE TAKING THE FIRST BLOOD PRESSURE READING, MEASURE THE CIRCUMFERENCE OF THE RESPONDENT'S ARM MIDWAY BETWEEN THE ELBOW AND THE SHOULDER. RECORD THE MEASUREMENT IN CENTIMETERS.</p>	<p>ARM CIRCUMFERENCE (IN CENTIMETERS) ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></p>													
106	<p>USE THE ARM CIRCUMFERENCE MEASUREMENT TO SELECT THE APPROPRIATE BLOOD PRESSURE MONITOR MODEL AND CUFF SIZE. CIRCLE THE CODE FOR THE MODEL AND CUFF SIZE.</p>	<p><b>MODEL 767</b>          SMALL: 16 CM – 23 CM ..... 1          MEDIUM: 24 CM – 35 CM ..... 2          LARGE: 36 CM – 41 CM ..... 3</p> <p><b>MODEL 789</b>          EXTRA LARGE: 42 CM – 60 CM .. 4</p>													





NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
107	TAKE THE FIRST BLOOD PRESSURE READING.  RECORD THE SYSTOLIC AND DIASTOLIC PRESSURE. THEN PROCEED TO Q109.  IF YOU ARE UNABLE TO MEASURE THE RESPONDENT'S BLOOD PRESSURE, RECORD THE REASON IN Q108.	<b>BLOOD PRESSURE MEASURED</b>  SYSTOLIC ..... 1 <input type="text"/> <input type="text"/> <input type="text"/>  DIASTOLIC ..... 2 <input type="text"/> <input type="text"/> <input type="text"/>	
108	RECORD REASON BLOOD PRESSURE NOT MEASURED.	<b>REASON BLOOD PRESSURE NOT MEASURED</b>  REFUSED ..... 9994 TECHNICAL PROBLEMS ..... 9995 OTHER ..... 9996 (SPECIFY)	
109	In what month and year were you born?	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98  YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998	
110	How old were you at your last birthday?  COMPARE AND CORRECT 109 AND/OR 110 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
111	What is your current marital status?	MARRIED ..... 1 WIDOWED ..... 2 DIVORCED ..... 3 SEPARATED ..... 4 SIGNED CONTRACT ..... 5 NEVER MARRIED ..... 6	
112	Have you ever attended school?	YES ..... 1 NO ..... 2	→ 116
113	What is the highest level of school you attended?	PRIMARY ..... 1 PREPARATORY ..... 2 SECONDARY ..... 3 UPPER INTERMEDIATE ..... 4 UNIVERSITY ..... 5 MORE THAN UNIVERSITY ..... 6	
114	What is the highest grade you successfully completed at that level?	GRADE ..... <input type="text"/>	
115	CHECK 113:  PRIMARY <input type="checkbox"/> ↓  PREPARATORY OR HIGHER <input type="checkbox"/> → 117		
116	Now I would like you to read this sentence to me.  SHOW CARD TO RESPONDENT.  IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL ..... 1 ABLE TO READ ONLY PARTS OF SENTENCE ..... 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE ..... 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED ..... 5	→ 118      → 118
117	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	
118	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	
119	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
120	Do you use a computer at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	
121	Do you access the internet at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	→ 123
122	Do you use social media like Facebook or Twitter at least once per week, less than once a week or not at all?	AT LEAST ONCE A WEEK ..... 1 LESS THAN ONCE A WEEK ..... 2 NOT AT ALL ..... 3	
123	Have you done any work in the last seven days even if it was only for a short period of time?	YES ..... 1 NO ..... 2	→ 125
124	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES ..... 1 NO ..... 2	→ 127
125	What is your occupation, that is, what kind of work do you mainly do?	_____ _____  (RECORD ANSWER IN DETAIL)	
126	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY ..... 1 CASH AND KIND ..... 2 IN KIND ONLY ..... 3 NOT PAID ..... 4	
127	What is your religion?	MUSLEM ..... 1 CHRISTIAN ..... 2 OTHER _____ 6 (SPECIFY)	
128	Have you come in contact with livestock in the last 6 months?	YES ..... 1 NO ..... 2	→ 131
129	When you come in contact with livestock, do you take any precautions to avoid diseases the animals may have?	YES ..... 1 NO ..... 2	→ 131
130	What precautions do you take?  Anything else? RECORD ALL MENTIONED.	WASH HANDS AFTER CONTACT . A WEAR FACE MASK ..... B WEAR GLOVES/PLASTIC BAGS . C  OTHER _____ X (SPECIFY)	
131	Have you come in contact with stray animals in the last 6 months?	YES ..... 1 NO ..... 2	
132	Do you currently smoke cigarettes or other tobacco products every day, on some days, or not at all?	EVERY DAY ..... 1 SOME DAYS ..... 2 NOT AT ALL ..... 3	→ 134

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
133	Was there ever a time in your life when you smoked cigarettes or other tobacco products?	YES ..... 1 NO ..... 2	→ 135
134	For how many years in total, would you say you smoked every day? IF LESS THAN ONE YEAR, WRITE '00'.	NUMBER OF YEARS ..... <input type="text"/> <input type="text"/>	
135	Do you agree or disagree with the following:  Smoking tobacco products is very risky for the smoker's health.  Smoke from persons using tobacco products also poses health risks for nonsmokers.	DIS- AGREE AGREE DK  BAD FOR SMOKER . 1 2 8  HEALTH RISKS FOR NONSMOKERS ..... 1 2 8	

## SECTION 2. HEPATITIS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																																																
201	Now I would like to ask about some health care procedures. At any time in your life, have you ever been hospitalized?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8																																																	
202	At any time in your life, did you ever have:  Surgery? A blood transfusion? Intravenous line? Suture/stitches? Endoscopy? Dialysis? Urinary catheter? Dental treatment of any type (e.g., extraction, treatment for gum disease, filling) or teeth cleaning? Acupuncture? Cupping without blood? Cupping with blood?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>SURGERY .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>BLOOD TRANSFUSION . . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>INTRAVENOUS LINE ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>SUTURE/STITCHES .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>ENDOSCOPY .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DIALYSIS .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>URINARY CATHETER ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DENTAL TREATMENT</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>ACUPUNCTURE . . . . .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CUPPING W/OUT BLOOD .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CUPPING WITH BLOOD ..</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		YES	NO	DK	SURGERY .....	1	2	8	BLOOD TRANSFUSION . . .	1	2	8	INTRAVENOUS LINE ...	1	2	8	SUTURE/STITCHES .....	1	2	8	ENDOSCOPY .....	1	2	8	DIALYSIS .....	1	2	8	URINARY CATHETER ...	1	2	8	DENTAL TREATMENT	1	2	8	ACUPUNCTURE . . . . .	1	2	8	CUPPING W/OUT BLOOD .	1	2	8	CUPPING WITH BLOOD ..	1	2	8	
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203	At any time in your life, did you ever receive an injection:  To treat for schistosomiasis (bilharziasis)?  For any other purpose?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>SCHISTOSOMIASIS .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>OTHER PURPOSE .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		YES	NO	DK	SCHISTOSOMIASIS .....	1	2	8	OTHER PURPOSE .....	1	2	8																																					
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OTHER PURPOSE .....	1	2	8																																																
204	CHECK 203:  EVER HAD INJECTION <input type="checkbox"/> NEVER HAD INJECTION <input type="checkbox"/> → 210																																																		
205	On any of the occasions in which you received an injection, was the same needle and syringe used to give an injection to someone else?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8																																																	
206	Who gave you the last injection?	DOCTOR ..... 01 DENTIST ..... 02 PHARMACIST ..... 03 NURSE ..... 04 RELATIVE/NEIGHBOR ..... 05 BARBER ..... 06 MYSELF ..... 07 OTHER ..... 96  (SPECIFY)																																																	
207	Now I would like to ask some questions about any injections that were received in the last 12 months. Have you had an injection for any reason in the last 12 months?  IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS: <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/>  NONE ..... 00 → 210																																																	
208	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS: <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/>  NONE ..... 00 → 210																																																	
209	The last time you got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8																																																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
210	Have you ever had a tattoo?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
211	CHECK GENDER :  FEMALE <input type="checkbox"/>   MALE <input type="checkbox"/> 		215
212	At any time in your life, did you ever have your ears pierced?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
213	How frequently do you go to the hair salon/beauty center?	ONCE A WEEK ..... 1 MORE THAN ONCE A MONTH ... 2 ONCE A MONTH ..... 3 LESS THAN ONCE A MONTH .... 4 IN FEASTS AND SPECIAL OCCASIONS ..... 5 OTHER ..... 6 (SPECIFY) NEVER ..... 7	217
214	At the hair salon, do they use their own equipment or you bring yours?	MY EQUIPMENT ..... 1 HAIR SALON EQUIPMENT ..... 2 MY AND HAIR SALON EQUIPMENT. 3	217
215	How frequently do you go to the barber?	ONCE A WEEK ..... 1 MORE THAN ONCE A MONTH ... 2 ONCE A MONTH ..... 3 LESS THAN ONCE A MONTH .... 4 IN FEASTS AND SPECIAL OCCASIONS ..... 5 OTHER ..... 6 (SPECIFY) NEVER ..... 7	217
216	When you go to the barber, do they cut hair/shave you with their equipment they have or your own equipment?	MY EQUIPMENT ..... 1 BARBER'S EQUIPMENT ..... 2 MY AND BARBER'S EQUIPMENT... 3	
217	Now I would like to talk about something else. Have you ever heard about the illness hepatitis C?	YES ..... 1 NO ..... 2	230
218	In the last 6 months have you heard, seen, or received any information about hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	220
219	Where did you hear or see that information?  PROBE: Any other source?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F EDUCATIONAL SEMINAR ..... G HOME VISIT BY HEALTH WORKER . H FACILITY-BASED HEALTH WORKER I HUSBAND/WIFE ..... J OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... K OTHER ..... X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
220	How is hepatitis C spread from one person to another?  Please mention at least four ways that you know.  RECORD ALL MENTIONED.	HETEROSEXUAL SEX ..... A HOMOSEXUAL SEX ..... B <b>CONTACT WITH INFECTED PERSON'S BLOOD THROUGH:</b> TRANSFUSION ..... C UNCLEAN NEEDLES ..... D OTHER (E.G., RAZORS) ..... E CASUAL PHYSICAL CONTACT(S) (E.G., SHAKING HANDS, SHARING FOOD OR DRINK, ETC.) ..... F MOTHER-TO-CHILD TRANSMISSION G MOSQUITO/OTHER INSECT BITE . H OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
221	Were you ever been told by a doctor or health professional that you had a positive hepatitis C test?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 223
222	Have you ever been tested to see if you have hepatitis C?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 229
223	How old were you when you were first told that you had a positive hepatitis C test?	AGE..... <input type="text"/> <input type="text"/>  DON'T KNOW ..... 98	
224	Were you ever given or did you ever take anything to treat the hepatitis C?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 226
225	What treatment were you given?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	INTERFERON ..... A RIBAVIRIN ..... B LEGALON (SILYMARIN) ..... C SOVALDI (SOFOSBUVIR) ..... D OLYSIO (SIMEPREVIR) ..... E (OTHER) HERBAL MEDICINE ... F VITAMINS ..... G OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
226	Have you been told by a doctor or health professional that you currently have hepatitis C?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 229
227	Are you receiving any treatment at this time for the hepatitis C?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 229
228	What treatment are you receiving at this time?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	INTERFERON ..... A RIBAVIRIN ..... B LEGALON (SILYMARIN) ..... C SOVALDI (SOFOSBUVIR) ..... D OLYSIO (SIMEPREVIR) ..... E (OTHER) HERBAL MEDICINE ... F VITAMINS ..... G OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
229	Does anyone (else) who is living in this household currently have hepatitis C?  IF YES: How many other people?	NUMBER OF OTHER HH MEMBERS WITH HCV INFECTION NO ONE ELSE ..... 00	
230	Have you ever heard about the illness hepatitis B?	YES..... 1 NO ..... 2	→ 243
231	In the last 6 months have you heard, seen, or received any information about hepatitis B?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 233
232	Where did you hear or see that information?  PROBE: Any other source?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F EDUCATIONAL SEMINAR ..... G HOME VISIT BY HEALTH WORKER H FACILITY-BASED HEALTH WORKER I HUSBAND/WIFE ..... J OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... K OTHER ..... X (SPECIFY)	
233	How is hepatitis B spread from one person to another?  Please mention all of the ways you know.  RECORD ALL MENTIONED.	HETEROSEXUAL SEX ..... A HOMOSEXUAL SEX ..... B <b>CONTACT WITH INFECTED PERSON'S BLOOD THROUGH:</b> TRANSFUSION ..... C UNCLEAN NEEDLES ..... D OTHER (E.G., RAZORS) ..... E CASUAL PHYSICAL CONTACT(S) (E.G., SHAKING HANDS, SHARING FOOD OR DRINK, ETC.) ..... F MOTHER-TO-CHILD TRANSMISSION G MOSQUITO/OTHER INSECT BITE . H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
234	Were you ever told by a doctor or health professional that you had a positive hepatitis B test?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 236
235	Have you ever been tested to see if you have hepatitis B?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 242
236	How old were you when you were first told that you had a positive hepatitis B test?	AGE..... DON'T KNOW ..... 98	
237	Were you ever given or did you ever take anything to treat the hepatitis B?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 239
238	What treatment were you given?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	LAMIVUDINE ..... A ADEFOVIR (DIPIVOXIL) ..... B ENTECAVIR ..... C TELBIVUDINE ..... D TENOFVIR ..... E INTERFERON ..... F (OTHER) HERBAL MEDICINE ..... G VITAMINS ..... H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
239	Have you been told by a doctor or health professional that you currently have hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 242
240	Are you receiving any treatment at this time for the hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 242
241	What treatment are you receiving at this time?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	LAMIVUDINE ..... A ADEFOVIR (DIPVOXIL) ..... B ENTECAVIR ..... C TELBIVUDINE ..... D TENOFIVIR ..... E INTERFERON ..... F (OTHER) HERBAL MEDICINE ..... G VITAMINS ..... H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
242	Does anyone (else) who is living in this household have currently hepatitis B?  IF YES: How many other people?	NUMBER OF OTHER HH MEMBERS WITH HBV INFECTION NO ONE ELSE ..... 00	<input type="text"/> <input type="text"/>
243	Have you ever had: Jaundice, that is, a yellowing of the skin or eyes? Change in urine color, that is, dark urine?	YES NO DK JAUNDICE ..... 1 2 8 DARK URINE ..... 1 2 8	
244	CHECK 243: YES RECORDED FOR <input type="checkbox"/> NO OR DON'T KNOW RECORDED FOR <input type="checkbox"/> JAUNDICE AND/OR DARK URINE BOTH JAUNDICE AND DARK URINE		→ 246
245	Do you know the cause of the jaundice and/or the change in urine color?  IF MENTIONS HEPATITIS WITHOUT SPECIFYING TYPE ASK: Do you know the type of hepatitis?  RECORD ALL MENTIONED.  IF MENTIONS HEPATITIS C, CHECK THAT Q217-229 HAVE BEEN COMPLETED AS APPROPRIATE.  IF MENTIONS HEPATITIS B, CHECK THAT Q230-242 HAVE BEEN COMPLETED AS APPROPRIATE.	HEPATITIS A ..... A HEPATITIS B ..... B HEPATITIS C ..... C HEPATITIS, UNKNOWN TYPE ..... D OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
246	Have you been told by a doctor or health professional that you had any (other) kind of liver disease?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 251
247	Have you been told by a doctor or health professional that you currently have any (other) kind of liver disease?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 249
248	Are you receiving any treatment at this time for the other kind of liver disease?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
249	Do you know the cause of the liver disease?  IF MENTIONS HEPATITIS WITHOUT SPECIFYING TYPE ASK: Do you know the type of hepatitis?  RECORD ALL MENTIONED.	HEPATITIS A ..... A HEPATITIS, UNKNOWN TYPE ..... D BILHARZIASIS ..... E OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
250	How old were you when you were first told that you had (DISEASE(S) IN 249)?	AGE ..... DON'T KNOW ..... 98	<input type="text"/> <input type="text"/>



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
251	<p>Does anyone (else) who is living in this household have any type of liver disease other than hepatitis B or hepatitis C? IF YES: How many other people?</p>	<p>NUMBER OF OTHER HH MEMBERS WITH LIVER DISEASE NO ONE ELSE ..... 00</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-right: 5px;"></div> </div>	<p>→ 301</p>
252	<p>Do you know the cause(s) of the liver disease that this (these) other household member(s) has (have)?</p> <p>IF MENTIONS HEPATITIS WITHOUT SPECIFYING TYPE ASK: Do you know the type of hepatitis?</p> <p>RECORD ONLY INDIVIDUALS WITH LIVER DISEASE OTHER THAN HEPATITIS B AND/OR HEPATITIS C. IF MENTIONS HEPATITIS C, CHECK THAT Q217-229 HAVE BEEN COMPLETED AS APPROPRIATE.</p> <p>IF MENTIONS HEPATITIS B, CHECK THAT Q230-242 HAVE BEEN COMPLETED AS APPROPRIATE.</p>	<p>HEPATITIS A ..... A HEPATITIS, UNKNOWN TYPE ..... D BILHARZIASIS ..... E OTHER ..... X (SPECIFY) DON'T KNOW ..... Z</p>	

SECTION 3. KNOWLEDGE OF HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																
INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY																			
301	Now I would like to talk about something else. Have you ever heard of an illness called AIDS(HIV)?	YES..... 1 NO ..... 2	→ 401																
302	Can people reduce their chance of getting the HIV virus (AIDS) by having just one uninfected sex partner who has no other sex partners?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
303	Can people get the HIV virus (AIDS) from mosquito bites?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
304	Can people reduce their chances of getting the HIV virus (AIDS) by using a condom every time they have sex?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
305	Can people get the HIV virus (AIDS) by sharing food with a person who has AIDS?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
306	Can people reduce their chance of getting the HIV virus (AIDS) by abstaining from sexual intercourse?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
307	Is it possible for a healthy-looking person to have the HIV virus (AIDS)?	YES..... 1 NO ..... 2 DON'T KNOW..... 8																	
308	Can the HIV virus (AIDS) be transmitted from a mother to her baby:  During pregnancy?  During delivery?  By breastfeeding?	<table border="0"> <tr> <td></td> <td>YES</td> <td>NO</td> <td>DK</td> </tr> <tr> <td>PREGNANCY.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DELIVERY.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BREASTFEEDING..</td> <td>1</td> <td>2</td> <td>8</td> </tr> </table>		YES	NO	DK	PREGNANCY.....	1	2	8	DELIVERY.....	1	2	8	BREASTFEEDING..	1	2	8	
	YES	NO	DK																
PREGNANCY.....	1	2	8																
DELIVERY.....	1	2	8																
BREASTFEEDING..	1	2	8																
309	CHECK 308: AT LEAST <input type="checkbox"/> ONE 'YES' ↓	OTHER <input type="checkbox"/>	→ 311																
310	Are there any special drugs that a doctor or a nurse can give to a woman infected with the HIV virus (AIDS) to reduce the risk of transmission to the baby?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																	
311	Do you know a place where people can go to get tested for the virus that causes HIV (AIDS)?	YES..... 1 NO ..... 2	→ 313																
312	Where is that?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND ADDRESS OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  PROBE: Any other place?  RECORD ALL SOURCES MENTIONED.  _____  _____ (NAME AND ADDRESS OF PLACE)	<p><b>GOVERNMENT</b></p> <p>GOVERNMENT HOSPITAL ..... A GOVT. HEALTH UNIT ..... B VCT CENTER ..... C FAMILY PLANNING CLINIC ..... D MOBILE CLINIC ..... E STAND ALONE GOV'T LAB ... F OTHER GOVT. _____ G (SPECIFY)</p> <p><b>NON GOVERNMENTAL</b></p> <p>_____ H (SPECIFY)</p> <p><b>PRIVATE MEDICAL</b></p> <p>PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR ..... I PHARMACY ..... J STAND ALONE PRIVATE LAB... K OTHER PRIVATE MEDICAL _____ L (SPECIFY)</p> <p><b>OTHER NON-MEDICAL</b></p> <p>_____ X (SPECIFY)</p>																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
313	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the HIV virus (AIDS)?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	
314	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES..... 1 NO ..... 2 DK/NOT SURE/DEPENDS ..... 8	
315	If a member of your family became sick with AIDS, would you want it to remain a secret or not?	YES, REMAIN A SECRET ..... 1 NO ..... 2 DK/NOT SURE/DEPENDS ..... 8	
316	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED ..... 1 SHOULD NOT BE ALLOWED ..... 2 DK/NOT SURE/DEPENDS ..... 8	
317	In the last 6 months have you heard, seen, or received any information about HIV(AIDS)?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 401
318	Where did you hear or see that information?  PROBE: Anywhere else?  RECORD ALL MENTIONED.	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F EDUCATIONAL SEMINAF..... G HOME VISIT BY HEALTH WORKER H FACILITY-BASED HEALTH WORKER I HUSBAND/WIFE ..... J OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... K OTHER _____ X (SPECIFY)	

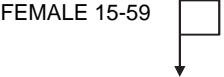

SECTION 4. NONCOMMUNICABLE DISEASES AND OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																				
401	Have you ever been told by a doctor or other health professional that you had hypertension or high blood pressure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 407																				
402	Were you told on two or more different occasions by a doctor or other health professional that you had hypertension or high blood pressure?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																					
403	How old were you when you were <u>first</u> told by a doctor or health professional that you had high blood pressure?	AGE ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>																					
404	To lower your hypertension or high blood pressure, are you now taking prescribed medication?	YES ..... 1 NO ..... 2	→ 406																				
405	What type of medication are you taking?	PILLS ..... 1 INJECTION ..... 2 OTHER ..... 6 (SPECIFY)																					
406	Are you taking any of the following actions now to lower your blood pressure:  a. Controlling your weight or losing weight? b. Eating a healthy diet? c. Exercising? d. Stopping smoking?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">N/A</th> </tr> </thead> <tbody> <tr> <td>CONTROL WEIGHT</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>HEALTHY DIET</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>EXERCISE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>STOP SMOKING</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> </tbody> </table>		YES	NO	N/A	CONTROL WEIGHT	1	2		HEALTHY DIET	1	2		EXERCISE	1	2		STOP SMOKING	1	2	3	
	YES	NO	N/A																				
CONTROL WEIGHT	1	2																					
HEALTHY DIET	1	2																					
EXERCISE	1	2																					
STOP SMOKING	1	2	3																				
407	Have you ever heard of an illness called diabetes or high sugar?	YES ..... 1 NO ..... 2	→ 413																				
408	(Other than during pregnancy), has a doctor or other health professional ever told you that you had diabetes?	YES ..... 1 NO ..... 2 DON'T KNOW/NOT SURE ..... 8	→ 413																				
409	How old were you when you were <u>first</u> told by a doctor or health professional that you had diabetes?	AGE ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>																					
410	Are you taking any prescribed medications for your diabetes?	YES ..... 1 NO ..... 2	→ 412																				
411	What type of medication are you taking?	PILLS ..... A INSULIN INJECTION ..... B OTHER ..... X (SPECIFY)																					
412	Are you taking any of the following actions now because of the diabetes:  a. Controlling your weight or losing weight? b. Eating a healthy diet? c. Exercising? d. Stopping smoking?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">YES</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">N/A</th> </tr> </thead> <tbody> <tr> <td>CONTROL WEIGHT</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>HEALTHY DIET</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>EXERCISE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td>STOP SMOKING</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> </tbody> </table>		YES	NO	N/A	CONTROL WEIGHT	1	2		HEALTHY DIET	1	2		EXERCISE	1	2		STOP SMOKING	1	2	3	
	YES	NO	N/A																				
CONTROL WEIGHT	1	2																					
HEALTHY DIET	1	2																					
EXERCISE	1	2																					
STOP SMOKING	1	2	3																				

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
413	Have you ever been told by a doctor or other health professional that you had had a heart attack or myocardial infarction?	YES ..... 1 NO ..... 2	→ 418
414	How old were you when you were <u>first</u> told by a doctor or health professional that you had had a heart attack or myocardial infarction?	AGE ..... <input type="text"/> <input type="text"/>	
415	Are you taking any prescribed medications because of the heart attack or myocardial infarction?	YES ..... 1 NO ..... 2	→ 417
416	What type of medication are you taking?	PILLS ..... A INJECTION ..... B OTHER ..... X (SPECIFY)	
417	Are you taking any of the following actions now because of the heart attack or myocardial infarction:  a. Controlling your weight or losing weight? b. Eating a healthy diet? c. Exercising? d. Stopping smoking?	YES NO N/A  CONTROL WEIGHT ..... 1 2 HEALTHY DIET ..... 1 2 EXERCISE ..... 1 2 STOP SMOKING ..... 1 2 3	
418	Have you ever been told by a doctor or other health professional that you had had a stroke?	YES ..... 1 NO ..... 2	→ 423
419	How old were you when you were <u>first</u> told by a doctor or health professional that you had had a stroke?	AGE ..... <input type="text"/> <input type="text"/>	
420	Are you taking any prescribed medications because of the stroke?	YES ..... 1 NO ..... 2	→ 422
421	What type of medication are you taking?	PILLS ..... A INJECTION ..... B OTHER ..... X (SPECIFY)	
422	Are you taking any of the following actions now because of the stroke:  a. Controlling your weight or losing weight? b. Eating a healthy diet? c. Exercising? d. Stopping smoking?	YES NO N/A  CONTROL WEIGHT ..... 1 2 HEALTHY DIET ..... 1 2 EXERCISE ..... 1 2 STOP SMOKING ..... 1 2 3	
423	CHECK 226, 239 AND 247 RECORD ANY ILLNESSES FOR WHICH THE INDIVIDUAL IS CURRENTLY BEING TREATED.	HEPATITIS C ..... A HEPATITIS B ..... B OTHER LIVER DISEASE ..... C NONE OF THE ILLNESSES ..... Y	→ 426
424	During the last 12 months, did you receive care/treatment for (CONDITIONS IN 423) in a government health facility or in a private health facility?	GOVERNMENT ..... 1 PRIVATE ..... 2 BOTH GOV'T AND PRIVATE ..... 3 NOT RECEIVING TREATMENT FOR CONDITION CURRENTLY ..... 4	
425	In total, how much have you spent for care/treatment for the (CONDITIONS IN 423) in the past four weeks? Please calculate all costs for the last four weeks, that is, costs for consultation, examination, medication, tests and other treatment you may received?	COST IN POUNDS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>  DON'T KNOW ..... 999998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
426	FOR THE INTERVIEWER: CHECK 401, 408, 413, AND 418 . RECORD ANY ILLNESSES FOR WHICH THE INDIVIDUAL IS CURRENTLY BEING TREATED.	HIGH BLOOD PRESSURE ..... C DIABETES/HIGH SUGAR ..... D HEART ATTACK ..... E STROKE ..... F NONE OF THE ILLNESSES ..... Y →	429
427	During the last 12 months, did you receive care/treatment for (CONDITIONS IN 426) in a government health facility or in a private health facility?	GOVERNMENT ..... 1 PRIVATE ..... 2 BOTH GOV'T AND PRIVATE ..... 3 NOT RECEIVING TREATMENT FOR CONDITION CURRENTLY ..... 4	
428	In total, how much have you spent for care/treatment for the (CONDITIONS IN 426) in the past four weeks? Please calculate all costs for the last four weeks, that is, costs for consultation, examination, medication, tests and other treatment you may received?	COST IN POUNDS <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW ..... 999998	
429	RECORD THE TIME.	HOUR ..... <input type="text"/> <input type="text"/> MINUTE: ..... <input type="text"/> <input type="text"/>	
430	CHECK 103: AGREED TO MEASUREMENT <input type="checkbox"/>	DID NOT AGREE TO MEASUREMENT <input type="checkbox"/> →	501
431	May I measure your blood pressure at this time? INTERVIEWER SIGNATURE _____ DATE _____  RESPONDENT AGREES <input type="checkbox"/> ↓ RECORD OUTCOME OF BLOOD PRESSURE MEASUREMENT.  RESPONDENT DOES NOT AGREE <input type="checkbox"/> ↓ RECORD 9994.	<b>BLOOD PRESSURE MEASURED</b> SYSTOLIC ..... 1 <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC ..... 2 <input type="text"/> <input type="text"/> <input type="text"/>  <b>REASON BLOOD PRESSURE NOT MEASURED</b> REFUSED ..... 9994 TECHNICAL PROBLEMS . 9995 OTHER _____ 9996 (SPECIFY)	

SECTION 5 FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	CHECK 110 (AGE) AND GENDER  FEMALE 15-59 <input type="checkbox"/> 	MALE <input type="checkbox"/> 15-59 YEARS <input type="checkbox"/> 	507
502	INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY		
503	Now I would like to talk about the practice of female circumcision.  Have you been circumcised?	YES ..... 1 NO ..... 2	507
504	How old were you when you were circumcised?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>  DON'T KNOW ..... 98	
505	Who performed the circumcision?	DOCTOR ..... 1 NURSE/OTHER HEALTH PROVIDER 2 DAYA ..... 3 BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY) DON'T KNOW ..... 8	
506	Where did the Circumcision took place?	IN HOUSE ..... 01 IN ANOTHER HOUSE ..... 02 HOSPITAL/PRIVATE CLINIC ..... 03 HOSPITAL/GOVERNMENTAL HEALTH UNIT ..... 04 BARBER ..... 05 MARKET ..... 06 MOULED ..... 07 OTHER ..... 96 (SPECIFY) DK ..... 98	
507	Now I would like to ask some (other) questions about female circumcision. During the past year have you discussed female circumcision with your relatives, friends, or neighbors?	YES ..... 1 NO ..... 2	
508	During the past year have you heard, seen or received any information about female circumcision?	YES ..... 1 NO ..... 2 UNSURE ..... 8	510
509	Where did you hear or see that information?  PROBE: Anywhere else?  RECORD ALL MENTIONED	TELEVISION ..... A RADIO ..... B NEWSPAPER/MAGAZINE ..... C PAMPHLET/BROCHURE ..... D POSTER ..... E COMMUNITY MEETING ..... F EDUCATIONAL SEMINAR ..... G HOME VISIT BY HEALTH WORKER H FACILITY-BASED HEALTH WORKER I HUSBAND/WIFE ..... J OTHER RELATIVE/FRIENDS/ NEIGHBORS ..... K OTHER ..... X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO		
510	Do you believe that female circumcision is required by religious precepts?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8			
511	Do you think that the practice of female circumcision should be continued or should it be stopped?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8			
512	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;"> MALE <input type="checkbox"/> ↓ Do you think that women want this practice to be continued or to be stopped? </td> <td style="width: 50%; text-align: center; vertical-align: top;"> FEMALE <input type="checkbox"/> ↓ Do you think that men want this practice to be continued or to be stopped? </td> </tr> </table>	MALE <input type="checkbox"/> ↓ Do you think that women want this practice to be continued or to be stopped?	FEMALE <input type="checkbox"/> ↓ Do you think that men want this practice to be continued or to be stopped?	CONTINUED ..... 1 STOPPED ..... 2 DON'T KNOW ..... 8	
MALE <input type="checkbox"/> ↓ Do you think that women want this practice to be continued or to be stopped?	FEMALE <input type="checkbox"/> ↓ Do you think that men want this practice to be continued or to be stopped?				
513	I will read you some statements about female circumcision. Please tell me if you agree or disagree.  A husband will prefer his wife to be circumcised.  Circumcision prevents adultery.  Childbirth is more difficult for a woman who has been circumcised.  Circumcision can cause severe consequences that can lead to a girl's death.	DIS- DON'T AGREE AGREE KNOW HUSBAND PREFER. . 1 2 8 PREVENTS ADULTERY ..... 1 2 8 CHILDBIRTH IS MORE DIFFICULT 1 2 8 MAY LEAD TO GIRL'S DEATH ... 1 2 8			
514	CHECK 110 (AGE) AND GENDER	MALE 15-59 <input type="checkbox"/> ↓ FEMALE 15-59 YEARS <input type="checkbox"/> → 601			
515	I also have some questions about male circumcision. Have you been circumcised?	YES ..... 1 NO ..... 2 → 601			
516	Who performed the circumcision?	DOCTOR ..... 1 NURSE/HEALTH PROVIDER ..... 2 DAYA ..... 3 BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY) DK ..... 8			
517	Where did the circumcision took place?	IN HOUSE ..... 01 IN ANOTHER HOUSE ..... 02 PRIVATE HOSPITAL/CLINIC ..... 03 GOVERNMENT HOSPITAL/ HEALTH UNIT ..... 04 BARBER ..... 05 MARKET ..... 06 MOULED ..... 07 OTHER ..... 96 (SPECIFY) DK ..... 98			



SECTION 6. WOMAN'S HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO								
601	CHECK 111 (MARITAL STATUS): MARRIED/WIDOWED/ DIVORCED/SEPARATED <input type="checkbox"/> NEVER MARRIED <input type="checkbox"/> /SIGNED CONTRACT		→ 610								
602	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES ..... 1 NO ..... 2	→ 607								
603	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES ..... 1 NO ..... 2	→ 605								
604	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS AT HOME ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
605	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES ..... 1 NO ..... 2	→ 607								
606	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> DAUGHTERS ELSEWHERE ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
607	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES ..... 1 NO ..... 2	→ 609								
608	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table> GIRLS DEAD ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>									
609	SUM ANSWERS TO 604, 606, AND 608, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td></tr></table>									
610	CHECK AGE AND GENDER: FEMALE 15-59 <input type="checkbox"/> MALE 15-49 <input type="checkbox"/> MALE 50-59 <input type="checkbox"/>		→ 701 → 704								
611	Do you know how to give yourself a breast exam to look for signs of breast cancer?	YES ..... 1 NO ..... 2	→ 613								
612	Have you performed a breast cancer self exam within the last 12 months?	YES ..... 1 NO ..... 2									
613	Has a health provider ever examined your breasts for signs of cancer?	YES ..... 1 NO ..... 2 NOT SURE ..... 8									
614	Have ever you had a mammogram, ultrasound, or other clinical test to look for signs of breast cancer?	YES ..... 1 NO ..... 2 NOT SURE ..... 8									
615	CHECK 613 AND 614: CODE 1 CIRCLED <input type="checkbox"/> IN 613 AND/OR 614 CODE 2 OR 8 CIRCLED <input type="checkbox"/> IN BOTH QUESTIONS		→ 617								

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																								
616	When was the last time a health provider examined you or conducted tests to look for cancer in your breasts? IF LESS THAN ONE YEAR, RECORD 00.	YEARS AGO ..... <input type="text"/> <input type="text"/> NOT SURE ..... 98																									
617	Have you ever heard of a pap smear, that is, an exam that consists of removing cells from the cervix to detect changes that can suggest the presence of cancer in a woman's womb?	YES ..... 1 NO ..... 2	→ 620																								
618	Have you ever had such an exam at any time?	YES ..... 1 NO ..... 2	→ 620																								
619	When was the last time you had a pap smear? IF LESS THAN ONE YEAR, RECORD 00.	YEARS AGO ..... <input type="text"/> <input type="text"/> NOT SURE ..... 98																									
620	CHECK 110 (AGE) AND 111 (MARITAL STATUS): EVER-MARRIED <input type="checkbox"/> 15-49 YEARS ↓ NEVER-MARRIED 15-49 YEARS <input type="checkbox"/> AGE 50-59 <input type="checkbox"/>		→ 701 → 704																								
621	Now I would like to ask some questions about Caesarean sections, that is, the practice in which a woman's belly is cut open to deliver a baby. Have you ever heard of this practice?	YES ..... 1 NO ..... 2	→ 632																								
622	I am going to read some statements about the practice of Caesarean delivery. Please tell me whether you agree or disagree with each of the statements.  Delivery by Caesarean section is less painful than vaginal delivery. Delivery by Caesarean section is safer for the baby than a vaginal delivery. Delivery by Caesarean section is more convenient for mothers because they can schedule when their baby will be born. Delivery by Caesarean section is more risky for a mother than a vaginal delivery. Doctors prefer for women to deliver by Caesarean section.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">AGREE</th> <th style="text-align: center;">DIS- AGREE</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>LESS PAINFUL .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>SAFER FOR BABY ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CONVENIENT .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>MORE RISKY .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DOCTORS PREFER .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		AGREE	DIS- AGREE	DK	LESS PAINFUL .....	1	2	8	SAFER FOR BABY ...	1	2	8	CONVENIENT .....	1	2	8	MORE RISKY .....	1	2	8	DOCTORS PREFER .	1	2	8	
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DOCTORS PREFER .	1	2	8																								
623	If a mother delivers one baby by Caesarean section, can she have any future babies vaginally if she wants?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																									

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
624	CHECK 609: ONE BORN OR MORE <input type="checkbox"/>	NONE <input type="checkbox"/> →	632
625	How many of your births were delivered by Caesarean section?	NUMBER OF C-SECTIONS <input type="text"/> <input type="text"/> NONE ..... 00 →	632
626	Now I would like to ask you about the last caesarean section delivery. When was the decision for a caesarean section made? early in your pregnancy, toward the end of your pregnancy but before you went into labour, or during the delivery?	EARLY IN THE PREGNANCY (1-6 MONTHS) ..... 1 LATER IN PREGNANCY (7-9 MONTHS) ..... 2 AFTER LABOUR BEGAN ..... 3 OTHER ..... 6 (SPECIFY)	
627	Why was a caesarean section performed for you?  PROBE: What else?	PREVIOUS CAESARIAN SECTION ... A <b>PROBLEMS DURING PREGNANCY</b> ECLAMPSIA/PREECLAMPSIA ..... B PLACENTA PREVIA ..... C OTHER PREGNANCY PROBLEMS . D <b>PROBLEMS DURING LABOUR</b> OBSTRUCTED LABOUR ..... E PROLONGED LABOUR ..... F FETAL DISTRESS ..... G OTHER PROBLEM DURING LABOUR H TWINS/TRIPLETS ..... I I REQUESTED IT/DIDN'T WANT NORMAL DELIVERY ..... J OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
628	When was the last time you had a caesarean section delivery?  IF LESS THAN ONE YEAR, RECORD 00.	YEARS AGO ..... <input type="text"/> <input type="text"/> NOT SURE ..... 98	
629	CHECK 625: MORE THAN ONE C-SECTION <input type="checkbox"/>	ONE CAESAREAN DELIVERY <input type="checkbox"/> →	632
630	Why was the first caesarean section performed for you?  PROBE: What else?	<b>PROBLEMS DURING PREGNANCY.</b> ECLAMPSIA/PREECLAMPSIA ..... B PLACENTA PREVIA ..... C OTHER PREGNANCY PROBLEMS . D <b>PROBLEMS DURING LABOUR</b> OBSTRUCTED LABOUR ..... E PROLONGED LABOUR ..... F FETAL DISTRESS ..... G OTHER PROBLEM DURING LABOUR H TWINS/TRIPLETS ..... I I REQUESTED IT/DIDN'T WANT NORMAL DELIVERY ..... J OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
631	When was the first time you had a caesarean section delivery?  IF LESS THAN ONE YEAR, RECORD 00.	YEARS AGO ..... <input type="text"/> <input type="text"/> NOT SURE ..... 98	
632	Are you pregnant now?	YES ..... 1 NO ..... 2 NOT SURE ..... 8	

## SECTION 7.- REPRODUCTIVE HEALTH KNOWLEDGE AND ATTITUDES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.  Have you ever heard of (METHOD)?		
01	<b>Female Sterilization.</b> PROBE: Women can have an operation to avoid having any more children.	YES ..... 1 NO ..... 2	
02	<b>Male Sterilization.</b> PROBE: Men can have an operation to avoid having any more children.	YES ..... 1 NO ..... 2	
03	<b>IUD.</b> PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse.	YES ..... 1 NO ..... 2	
04	<b>Injectables.</b> PROBE: Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES ..... 1 NO ..... 2	
05	<b>Pill.</b> PROBE: Women can take a pill every day to avoid becoming pregnant.	YES ..... 1 NO ..... 2	
06	<b>Implants.</b> PROBE: Women can have one or more small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES ..... 1 NO ..... 2	
07	<b>Condom.</b> PROBE: Men can put a rubber sheath on their penis before sexual intercourse.	YES ..... 1 NO ..... 2	
08	<b>Diaphragm, Foam, Jelly.</b> A woman can place a sponge, suppository, diaphragm, jelly or cream inside her vagina before intercourse.	YES ..... 1 NO ..... 2	
09	<b>Rhythm Method.</b> PROBE: To avoid pregnancy, women do not have sexual intercourse on the days of the month they think they can get pregnant.	YES ..... 1 NO ..... 2	
10	<b>Withdrawal.</b> PROBE: Men can be careful and pull out before climax.	YES ..... 1 NO ..... 2	
11	<b>Prolonged Breastfeeding.</b>	YES ..... 1 NO ..... 2	
12	<b>Emergency Contraception.</b> PROBE: As an emergency measure, within three days after they have unprotected sexual intercourse, women can take special pills to prevent pregnancy.	YES ..... 1 NO ..... 2	
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES ..... 1  _____ (SPECIFY)  _____ (SPECIFY)  NO ..... 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
702	<p>CHECK 111 (MARITAL STATUS):</p> <p>CURRENTLY MARRIED <input type="checkbox"/></p> <p>WIDOWED/DIVORCED/SEPARATED/NEVER-MARRIED/SIGNED CONTRACT <input type="checkbox"/></p> <p>Do you know a place where you can obtain a method of family planning?</p> <p>Do you know a place where a person who wants to use family planning can get a method?</p>	<p>YES ..... 1</p> <p>NO ..... 2 → 704</p>	
703	<p>Where is that?</p> <p>Any other place?</p> <p>PROBE TO IDENTIFY EACH TYPE OF SOURCE.</p> <p>IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE.</p> <p>_____ (NAME OF PLACE(S))</p>	<p><b>PUBLIC SECTOR</b></p> <p>GOVT. HOSPITAL ..... A</p> <p>GOVT. HEALTH UNIT ..... B</p> <p>FAMILY PLANNING CLINIC ..... C</p> <p>MOBILE CLINIC ..... D</p> <p>FIELDWORKER ..... E</p> <p>OTHER PUBLIC SECTOR _____ F (SPECIFY)</p> <p><b>PRIVATE MEDICAL SECTOR</b></p> <p>PRIVATE HOSPITAL/CLINIC ..... G</p> <p>PHARMACY ..... H</p> <p>PRIVATE DOCTOR ..... I</p> <p>MOBILE CLINIC ..... J</p> <p>FIELDWORKER ..... K</p> <p>OTHER PRIVATE MEDICAL SECTOR _____ L (SPECIFY)</p> <p><b>OTHER SOURCE</b></p> <p>SHOP ..... M</p> <p>CHURCH/MOSQUE ..... N</p> <p>FRIEND/RELATIVE ..... O</p> <p><b>OTHER</b> _____ X (SPECIFY)</p>	
704	<p>During the past 6 months have you heard about family planning:</p> <p>On the radio?</p> <p>On the television?</p> <p>In a newspaper or magazine?</p> <p>On a poster, billboard, or sign?</p> <p>At a community meeting?</p> <p>From a religious leader?</p>	<p>YES NO</p> <p>RADIO ..... 1 2</p> <p>TELEVISION ..... 1 2</p> <p>NEWSPAPER/MAGAZINE ... 1 2</p> <p>POSTER/BILLBOARD/SIGN ... 1 2</p> <p>COMMUNITY MEETING ..... 1 2</p> <p>RELIGIOUS LEADER ..... 1 2</p>	
705	<p>Would you consider it appropriate for a couple to use family planning after the first birth?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	
706	<p>Would you consider it appropriate for a newly married couple to use family planning before the first pregnancy?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	
707	<p>Now I would like you to think about what age is best for a person to marry.</p> <p>What is the ideal age for a girl to marry?</p>	<p>IDEAL AGE FOR GIRL TO MARRY ..... <input type="text"/> <input type="text"/></p> <p>AGE DOES NOT MATTER ..... 95</p> <p>DON'T KNOW/NOT SURE ..... 98</p>	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
708	What is the ideal age for a boy to marry?	IDEAL AGE FOR BOY TO MARRY ..... <input type="text"/> AGE DOES NOT MATTER ..... 95 DON'T KNOW/NOT SURE ..... 98	
709	In your opinion, what is the ideal length of time that a woman should wait between births?  RECORD RESPONSE EXACTLY AS GIVEN.	MONTHS ..... 1 <input type="text"/> YEARS ..... 2 <input type="text"/> DON'T KNOW ..... 998	
709A	CHECK AGE Q110:  AGE 15-49 YEARS <input type="text"/> AGE 50-59 YEARS <input type="text"/>		→ 808
710	CHECK 111 (MARITAL STATUS):  CURRENTLY MARRIED <input type="text"/> WIDOWED/DIVORCED/ SEPARATED/ If you could go back to the time before you married and could choose exactly the number of children to have in your whole life, how many would that be?  NEVER-MARRIED/ SIGNED CONTRACT <input type="text"/> If you could choose exactly the number of children to have in your whole life, how many would that be?  PROBE FOR A NUMERIC RESPONSE.	NONE ..... 00 NUMBER ..... <input type="text"/> OTHER _____ 96 (SPECIFY)	→ 712   → 712
711	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> OTHER _____ 96 (SPECIFY)	
712	CHECK 111:  CURRENTLY MARRIED <input type="text"/> WIDOWED/DIVORCED/ SEPARATED/ NEVER-MARRIED/ SIGNED CONTRACT <input type="text"/>		→ 807A
713	Do you think your spouse wants the same number of children that you want, or does he/ she want more or fewer than you want?	SAME NUMBER ..... 1 MORE CHILDREN ..... 2 FEWER CHILDREN ..... 3 DON'T KNOW ..... 8	

SECTION 8. GENDER ATTITUDES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
801	CHECK 126 PAID FOR WORK: CODE 1 OR 2 CIRCLED <input type="checkbox"/> OTHER <input type="checkbox"/>		→ 804
802	Now I would like to talk with you about how your family makes decisions about the money you earn. Who usually decides how the money you earn will be used: mainly you, mainly your spouse, or you and your spouse jointly?	RESPONDENT ..... 1 SPOUSE ..... 2 RESPONDENT AND SPOUSE JOINTLY 3 OTHER _____ 6 (SPECIFY)	
803	Would you say that the money that you earn is more than what your spouse earns, less than what your spouse earns, or about the same?	MORE THAN SPOUSE ..... 1 LESS THAN SPOUSE ..... 2 ABOUT THE SAME ..... 3 SPOUSE HAS NO EARNINGS ..... 4 DON'T KNOW ..... 8	→ 805
804	Who usually decides how your spouse's earnings will be used: mainly you, mainly your spouse, or you and your spouse jointly?	RESPONDENT ..... 1 SPOUSE ..... 2 RESPONDENT AND SPOUSE JOINTLY 3 SOMEONE ELSE ..... 4 SPOUSE HAS NO EARNINGS ..... 5 OTHER _____ 6 (SPECIFY)	
805	Who usually makes decisions about your health care: mainly you, mainly your spouse, or you and your spouse jointly?	RESPONDENT ..... 1 SPOUSE ..... 2 RESPONDENT AND SPOUSE JOINTLY 3 SOMEONE ELSE ..... 4 OTHER _____ 6 (SPECIFY)	
806	Who usually makes decisions about making major household purchases: mainly you, mainly your spouse, or you and your spouse	RESPONDENT ..... 1 SPOUSE ..... 2 RESPONDENT AND SPOUSE JOINTLY 3 SOMEONE ELSE ..... 4 OTHER _____ 6 (SPECIFY)	
807	Who usually makes decisions about visits to your family or relatives: mainly you, mainly your spouse, or you and your spouse jointly?	RESPONDENT ..... 1 SPOUSE ..... 2 RESPONDENT AND SPOUSE JOINTLY 3 SOMEONE ELSE ..... 4 OTHER _____ 6 (SPECIFY)	
807A	CHECK GENDER : FEMALE <input type="checkbox"/> MALE <input type="checkbox"/>		→ 808

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																											
807B	<p>Now I would like to ask you some questions about medical care for your self.</p> <p>Many different factors can prevent a woman from getting medical advice or treatment for themselves. When you are sick and wants to get medical advice or treatment, is each of the following a big problem or not for her?</p> <p>Getting permission to go to the doctor?</p> <p>Getting money needed for advice or treatment?</p> <p>The distance to the health facility?</p> <p>Having to take transportation?</p> <p>Not wanting to go alone?</p> <p>Concern that there may not be a female health provider?</p> <p>Concern that there may not be any health provider?</p> <p>Concern that there may be no drugs available?</p>	<table> <thead> <tr> <th></th> <th>BIG PROB- LEM</th> <th>NOT A BIG PROB- LEM</th> </tr> </thead> <tbody> <tr> <td>PERMISSION TO GO ..</td> <td>1</td> <td>2</td> </tr> <tr> <td>GETTING MONEY ...</td> <td>1</td> <td>2</td> </tr> <tr> <td>DISTANCE .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>TAKING TRANSPORT ..</td> <td>1</td> <td>2</td> </tr> <tr> <td>GO ALONE .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>NO FEMALE PROV....</td> <td>1</td> <td>2</td> </tr> <tr> <td>NO PROVIDER .....</td> <td>1</td> <td>2</td> </tr> <tr> <td>NO DRUGS .....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		BIG PROB- LEM	NOT A BIG PROB- LEM	PERMISSION TO GO ..	1	2	GETTING MONEY ...	1	2	DISTANCE .....	1	2	TAKING TRANSPORT ..	1	2	GO ALONE .....	1	2	NO FEMALE PROV....	1	2	NO PROVIDER .....	1	2	NO DRUGS .....	1	2	
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808	<p>PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)</p>	<table> <thead> <tr> <th></th> <th>PRES/ LISTEN.</th> <th>PRES/ NOT LISTEN.</th> <th>NOT PRES</th> </tr> </thead> <tbody> <tr> <td>CHILDREN &lt; 10 .....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>SPOUSE .....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>OTHER MALES .....</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>OTHER FEMALES ...</td> <td>1</td> <td>2</td> <td>3</td> </tr> </tbody> </table>		PRES/ LISTEN.	PRES/ NOT LISTEN.	NOT PRES	CHILDREN < 10 .....	1	2	3	SPOUSE .....	1	2	3	OTHER MALES .....	1	2	3	OTHER FEMALES ...	1	2	3								
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809	<p>In your opinion, is a husband justified in hitting or beating his wife in the following situations:</p> <p>If she goes out without telling him?</p> <p>If she neglects the children?</p> <p>If she argues with him?</p> <p>If she refuses to have sex with him?</p> <p>If she burns the food?</p>	<table> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>GOES OUT .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>NEGL. CHILDREN ...</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>ARGUES .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>REFUSES SEX .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BURNS FOOD .....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		YES	NO	DK	GOES OUT .....	1	2	8	NEGL. CHILDREN ...	1	2	8	ARGUES .....	1	2	8	REFUSES SEX .....	1	2	8	BURNS FOOD .....	1	2	8				
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## SECTION 9. 24-HOUR DIETARY HISTORY - MOTHER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																																				
901	CHECK Q012, 014, AND 019 IN HOUSEHOLD SCHEDULE.  MOTHER OF CHILD <input type="checkbox"/> AGE 6 MONTHS-4 YEARS	OTHER <input type="checkbox"/> →	1001																																																																				
902	<p>Now I would like to ask you about liquids or foods that YOU had yesterday during the day or at night. I am interested in whether you had the item I mention even if it was combined with other foods.</p> <p>Did you drink or eat:</p>	<table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>a) Juice or juice drinks?</td> <td>a) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>b) Milk such as tinned, powdered, or fresh animal milk?</td> <td>b) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>c) Yogurt?</td> <td>c) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>d) Subsidized bread?</td> <td>d) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>e) Other bread, rice, noodles, porridge, or other foods made from grains?</td> <td>e) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>f) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?</td> <td>f) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>g) Potatoes, white potatoes, white yams, or any other foods made from roots?</td> <td>g) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>h) Any dark green, leafy vegetables?</td> <td>h) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>i) Ripe mangoes, papayas (yellow) or apricots?</td> <td>i) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>j) Any other fruits or vegetables?</td> <td>j) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>k) Liver, kidney, heart or other organ meats?</td> <td>k) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>l) Any meat, such as beef, pork, lamb, goat, chicken, or duck?</td> <td>l) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>m) Eggs?</td> <td>m) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>n) Fresh or dried fish or shellfish?</td> <td>n) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>o) Any foods made from beans, peas, lentils, or nuts?</td> <td>o) 1</td> <td>2</td> <td>8</td> </tr> <tr> <td>p) Cheese or other food made from milk?</td> <td>p) 1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		YES	NO	DK	a) Juice or juice drinks?	a) 1	2	8	b) Milk such as tinned, powdered, or fresh animal milk?	b) 1	2	8	c) Yogurt?	c) 1	2	8	d) Subsidized bread?	d) 1	2	8	e) Other bread, rice, noodles, porridge, or other foods made from grains?	e) 1	2	8	f) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	f) 1	2	8	g) Potatoes, white potatoes, white yams, or any other foods made from roots?	g) 1	2	8	h) Any dark green, leafy vegetables?	h) 1	2	8	i) Ripe mangoes, papayas (yellow) or apricots?	i) 1	2	8	j) Any other fruits or vegetables?	j) 1	2	8	k) Liver, kidney, heart or other organ meats?	k) 1	2	8	l) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	l) 1	2	8	m) Eggs?	m) 1	2	8	n) Fresh or dried fish or shellfish?	n) 1	2	8	o) Any foods made from beans, peas, lentils, or nuts?	o) 1	2	8	p) Cheese or other food made from milk?	p) 1	2	8	
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SECTION 10. AVERAGING BLOOD PRESSURE MEASURES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
1001	RECORD THE TIME.	HOUR ..... <input type="text"/> <input type="text"/> MINUTES ..... <input type="text"/> <input type="text"/>	
1002	CHECK 103 AND 431: AGREED TO BOTH MEASUREMENTS <input type="checkbox"/>	OTHER <input type="checkbox"/>	→ 1011
1003	May I measure your blood pressure at this time?  INTERVIEWER SIGNATURE _____ DATE _____  RESPONDENT AGREES <input type="checkbox"/> RESPONDENT DOES NOT AGREE <input type="checkbox"/>  RECORD OUTCOME OF BLOOD PRESSURE MEASUREMENT.      RECORD 9994.	BLOOD PRESSURE SYSTOLIC ..... 1 <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC ..... 2 <input type="text"/> <input type="text"/> <input type="text"/>  <b>RECORD REASON BLOOD PRESSURE NOT MEASURED</b> REFUSED ..... 9994 TECHNICAL PROBLEMS ... 9995 OTHER _____ 9996 (SPECIFY)	
1004	CHECK Q431 AND Q1003. SYSTOLIC AND DIASTOLIC BLOOD PRESSURE RECORDED IN BOTH Q431 AND Q1003 <input type="checkbox"/>	SYSTOLIC AND DIASTOLIC BLOOD PRESSURE MEASURES NOT RECORDED IN BOTH Q431 AND Q1003 <input type="checkbox"/>	→ 1010
1005	RECORD AND CALCULATE THE AVERAGE OF THE SYSTOLIC AND DIASTOLIC BLOOD PRESSURE FROM Q431 AND Q1003		
1006	BLOOD PRESSURE MEASUREMENTS FROM Q431	SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1007	BLOOD PRESSURE MEASUREMENTS FROM Q1003	SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1008	RECORD THE SUM OF THE SYSTOLIC AND DIASTOLIC MEASURES.	SUM SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> SUM DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	
1009	CALCULATE THE AVERAGE SYSTOLIC AND DIASTOLIC PRESSURES BY THE SUM IN Q1008 BY 2.	AVERAGE SYSTOLIC <input type="text"/> <input type="text"/> <input type="text"/> AVERAGE DIASTOLIC <input type="text"/> <input type="text"/> <input type="text"/>	→ 1014
1010	CHECK Q1003: SYSTOLIC AND DIASTOLIC BLOOD PRESSURE NOT RECORDED IN Q1003 <input type="checkbox"/>	BOTH SYSTOLIC AND DIASTOLIC BLOOD PRESSURE RECORDED IN Q1003 <input type="checkbox"/>	→ 1013
1011	CHECK Q431: SYSTOLIC AND DIASTOLIC BLOOD PRESSURE NOT RECORDED IN Q431 <input type="checkbox"/>	BOTH SYSTOLIC AND DIASTOLIC BLOOD PRESSURE RECORDED IN Q431 <input type="checkbox"/>	→ 1013

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO																																																							
1012	CHECK Q107: SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE RECORDED IN Q107	BOTH SYSTOLIC <u>AND</u> <input type="checkbox"/> DIASTOLIC BLOOD PRESSURE <u>NOT RECORDED IN Q107</u>	→ 1016																																																							
1013	RECORD THE SYSTOLIC AND DIASTOLIC PRESSURE	<table style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">SYSTOLIC</td> <td style="width: 50%;">DIASTOLIC</td> </tr> <tr> <td><input style="width: 30px; height: 20px;" type="text"/></td> <td><input style="width: 30px; height: 20px;" type="text"/></td> </tr> </table>	SYSTOLIC	DIASTOLIC	<input style="width: 30px; height: 20px;" type="text"/>	<input style="width: 30px; height: 20px;" type="text"/>																																																				
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1014	<p>USE THE TABLE BELOW TO DETERMINE THE CORRECT CODE TO RECORD ON THE BLOOD PRESSURE REPORT AND REFERRAL FORM.</p> <p>CIRCLE THE <b>ROW</b> IN WHICH THE VALUE FOR THE <b>SYSTOLIC</b> BLOOD PRESSURE FROM Q1009 OR Q1013 IS FOUND.</p> <p>THEN CIRCLE THE <b>COLUMN</b> IN WHICH THE VALUE FOR THE <b>DIASTOLIC</b> BLOOD FROM Q1009 OR Q1013 IS FOUND.</p> <p>THE VALUE WHERE THE ROW AND COLUMN YOU HAVE CIRCLED INTERSECT IN THE TABLE WILL BE USED IN COMPLETING Q1015.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: left;">AVERAGE SYSTOLIC PRESSURE</th> <th colspan="6" style="text-align: center;">AVERAGE DIASTOLIC PRESSURE</th> </tr> <tr> <th style="text-align: center;">&lt;85</th> <th style="text-align: center;">85-89</th> <th style="text-align: center;">90-99</th> <th style="text-align: center;">100-109</th> <th style="text-align: center;">110-119</th> <th style="text-align: center;">≥ 120</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">&lt;130</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: left;">130-139</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: left;">140-159</td> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: left;">160-179</td> <td style="text-align: center;">4</td> <td style="text-align: center;">4</td> <td style="text-align: center;">4</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: left;">180-209</td> <td style="text-align: center;">5</td> <td style="text-align: center;">5</td> <td style="text-align: center;">5</td> <td style="text-align: center;">5</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: left;">≥ 210</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> </tr> </tbody> </table>			AVERAGE SYSTOLIC PRESSURE	AVERAGE DIASTOLIC PRESSURE						<85	85-89	90-99	100-109	110-119	≥ 120	<130	1	2	3	4	5	6	130-139	2	2	3	4	5	6	140-159	3	3	3	4	5	6	160-179	4	4	4	4	5	6	180-209	5	5	5	5	5	6	≥ 210	6	6	6	6	6	6
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1015	<p>RECORD THE NUMBER YOU CIRCLED IN Q1014 IN THE CHART BELOW. THEN USE THE INSTRUCTIONS TO THE RIGHT OF THAT NUMBER TO COMPLETE A BLOOD PRESSURE REPORT AND REFERRAL FORM FOR THE RESPONDENT. GIVE THE FORM TO THE RESPONDENT AND ANSWER ANY QUESTIONS HE/SHE MAY HAVE.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 35%;">RESPONDENT'S BLOOD PRESSURE CATEGORY</th> <th style="width: 60%;">CONSULT HEALTH PROVIDER TO CHECK BLOOD PRESSURE <u>WITHIN</u>:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">NORMAL</td> <td style="text-align: center;"><b>24 MONTHS</b></td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">AT THE HIGH END OF THE NORMAL RANGE</td> <td style="text-align: center;"><b>12 MONTHS</b></td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">ABOVE NORMAL RANGE</td> <td style="text-align: center;"><b>2 MONTHS</b></td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">MODERATELY HIGH</td> <td style="text-align: center;"><b>1 MONTH</b></td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">VERY HIGH</td> <td style="text-align: center;"><b>7 DAYS</b></td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">EXTREMELY HIGH</td> <td style="text-align: center;"><b>TODAY</b></td> </tr> </tbody> </table>				RESPONDENT'S BLOOD PRESSURE CATEGORY	CONSULT HEALTH PROVIDER TO CHECK BLOOD PRESSURE <u>WITHIN</u> :	1	NORMAL	<b>24 MONTHS</b>	2	AT THE HIGH END OF THE NORMAL RANGE	<b>12 MONTHS</b>	3	ABOVE NORMAL RANGE	<b>2 MONTHS</b>	4	MODERATELY HIGH	<b>1 MONTH</b>	5	VERY HIGH	<b>7 DAYS</b>	6	EXTREMELY HIGH	<b>TODAY</b>																																		
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5	VERY HIGH	<b>7 DAYS</b>																																																								
6	EXTREMELY HIGH	<b>TODAY</b>																																																								
1016	<p>CHECK THAT THE HOUSEHOLD HAS RECEIVED A BROCHURE ON BLOOD PRESSURE.</p> <p>THANK THE RESPONDENT AND ADVISE THAT THE RESPONDENT OR OTHER MEMBERS OF THE HOUSEHOLD MAY BE ASKED TO PARTICIPATE AGAIN IN INTERVIEWS OR OTHER SURVEY ACTIVITIES IN THE FUTURE.</p> <p>Thank you for taking the time to answer these questions.</p>																																																									
1017	RECORD THE TIME AT THE END OF THE INTERVIEW.	HOUR ..... <input style="width: 30px; height: 20px;" type="text"/> MINUTES ..... <input style="width: 30px; height: 20px;" type="text"/>																																																								

## SECTION 11 WEIGHT AND HEIGHT AND BIOMARKER TESTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
	FIELD EDITOR RECORD NAME OF PERSON:	.....	
1101	WEIGHT IN KILOGRAMS	KG <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> NOT PRESENT ..... 999.94 REFUSED ..... 999.95 OTHER ..... 999.96	
1102	HEIGHT IN CENTIMETERS	CM. <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> NOT PRESENT ..... 999.4 REFUSED ..... 999.5 OTHER ..... 999.6	
1102A	NAME OF TECHNICIAN: <input type="text"/> <input type="text"/> <input type="text"/>	NAME OF ASSISTANT <input type="text"/> <input type="text"/> <input type="text"/>	
1103	CHECK 110 AND RECORD RESPONDENT AGE	AGE 18-59 YEARS ..... 1 AGE 15-17 YEARS ..... 2	→ 1112
1104	CHECK 111 AND RECORD MARITAL STATUS OF RESPONDENT	NEVER-MARRIED/SIGNED CONTRACT ..... 1 MARRIED/WIDOWED/SEPARATED/DIVORCED ..... 2	→ 1112
1105	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE ELIGIBLE ADOLESCENT FROM HOUSEHOLD SCHEDULE	LINE NUMBER ..... <input type="text"/> <input type="text"/>	
1106	<p>INFORM ADULT IDENTIFIED IN 1105 AS RESPONSIBLE FOR ELIGIBLE ADOLESCENT ABOUT HEPATITIS TESTING.</p> <p>(Good morning/afternoon. My name is _____ and I am from the Ministry of Health and Population and part of the survey team.)</p> <p>As you know, we are conducting a national survey about health issues, including hepatitis. Hepatitis may cause liver damage and other serious health problems. In Egypt, hepatitis is often caused by infection with the hepatitis C virus, although some cases are also caused by hepatitis B and other forms of the hepatitis virus.</p> <p>As part of the survey, we are asking to obtain a small amount of blood from all persons age 1-59 years to test later in the laboratory in order to know how many people have the hepatitis B and C viruses. This information is very important to help the Ministry of Health and Population to plan for programs to treat this disease.</p> <p>The results of the test will be kept confidential.</p> <p>If you agree to take part, I will ask you to let us take about teaspoonful of blood, from a vein in (NAME's) arm.</p> <p>The risk to (NAME) from this testing is small. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>(NAME) may get some bruising where the blood is taken from (his/her) arm. If (NAME) has any bleeding, swelling or other problem later, you should tell our study staff or your health worker.</p> <p>The blood will be sent to the Central Laboratory of the Ministry of Health and Population in Cairo for the hepatitis B and C tests. We will return to give you the results of (NAME's) test in two to three months. If the test shows that (NAME) has the hepatitis B and/or C virus, we will give you a referral for (NAME) to a special Liver Disease Treatment Center or other health facility for counseling and advice about treatment.</p> <p>Do you have any questions so far?  <b>LABORATORY TECHNICIAN: ENCOURAGE THE RESPONDENT TO ASK ANY QUESTIONS.</b>          If you have any questions at any time, please ask me.</p> <p>You can also speak to the head of this survey team. I can also give you information on how to contact the directors of this survey in Cairo.  <b>LABORATORY TECHNICIAN: PROVIDE CONTACT INFORMATION IF REQUESTED.</b></p> <p>You can say yes or not to (NAME) giving blood. However, we will be grateful if you can allow us to take a small blood sample.</p>		

1107	<p>REQUEST PERMISSION FOR TESTS</p> <p>Would you allow me to take a sample of blood from (NAME's) arm to:</p> <p>test for the hepatitis C virus?</p>	<p>GRANTED <b>HCV</b> TEST ..... 1</p> <p>REFUSED ..... 2</p> <p>SIGN YOUR NAME. _____</p>	
1108	<p>test for the hepatitis B virus?</p>	<p>GRANTED <b>HBV</b> TEST ..... 1</p> <p>REFUSED ..... 2</p> <p>SIGN YOUR NAME. _____</p>	
1109	<p>CHECK 1107 AND 1108:</p> <p>AGREED BLOOD SAMPLE COULD BE TAKEN <input type="checkbox"/> FOR ONE OR BOTH HEPATITIS TESTS.</p> <p>REFUSED <input type="checkbox"/> BOTH</p> <p>GO TO 1125 AND CIRCLE H <input type="checkbox"/></p>		
1110	<p>ASK CONSENT TO STORE BLOOD FOR FUTURE TESTING FROM ADULT IDENTIFIED AS RESPONSIBLE FOR ADOLESCENT IN 1105.</p> <p>We ask you to allow the Ministry of Health and Population to store part of (NAME'S) blood sample at the Central Laboratory in Cairo to be used for testing or research in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that may be associated with health or illness.</p> <p>We will not be able to contact you with results from future testing. However, if you allow (NAME's) blood to be used, we may be able to find out things that will help improve health situation for Egyptians.</p> <p>You may join in this study without having (NAME's) blood sample stored for future studies.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT NUMBERS IF REQUESTED.</b></p> <p>Will you allow us to keep (NAME's) blood sample stored for later testing or research?</p>		
1111	<p>CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.</p>	<p>GRANTED FUTURE TESTING ..... 1</p> <p>REFUSED ..... 2</p> <p>SIGN YOUR NAME. _____</p>	
1112	<p>INFORM ELIGIBLE ADULT AGE 18-59 OR ADOLESCENT AGE 15-17 ABOUT HEPATITIS TESTING.</p> <p>(Good morning/afternoon. My name is _____ and I am from the Ministry of Health and Population and part of the survey team.)</p> <p>As you know, we are conducting a national survey about health issues, including hepatitis. Hepatitis may cause liver damage and other serious health problems. In Egypt, hepatitis is often caused by infection with the hepatitis C virus, although some cases are also caused by the hepatitis B and other forms of the hepatitis virus.</p> <p>As part of the survey, we are asking to obtain a small amount of blood from all persons age 1-59 years to test later in the laboratory in order to know how many people have the hepatitis B and C viruses. This information is very important to help the Ministry of Health and Population to plan for programs to treat this disease.</p> <p>The results of the test will be kept confidential.</p> <p>If you agree to take part, I will ask you to let us take about teaspoonful of blood, from a vein in your arm.</p> <p>The risk to you from this testing is small. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>You may get some bruising where the blood is taken from your arm. If you have any bleeding, swelling or other problem later, you should tell our study staff or your health worker.</p> <p>The blood will be sent to the Central Laboratory of the Ministry of Health and Population in Cairo for the hepatitis B and C tests. We will return to give you the results in two to three months. If the test shows that you have the hepatitis B and/or C virus, we will give you a referral to a special Liver Disease Treatment Center or other health facility for counseling and advice about treatment.</p> <p>Do you have any questions so far?</p> <p><b>LABORATORY TECHNICIAN: ENCOURAGE THE RESPONDENT TO ASK ANY QUESTIONS.</b></p> <p>If you have any questions at any time, please ask me.</p> <p>You can also speak to the head of this survey team. I can also give you information on how to contact the directors of this survey in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT INFORMATION IF REQUESTED.</b></p> <p>You can say yes or not to giving blood. However, we will be grateful if you can allow us to take a small blood sample.</p>		

1113	CHECK 1103 AND 1104: 18-59 YEARS OR 15-17 YEARS AND EVER MARRIED <input type="checkbox"/> 15-17 YEARS AND NEVER MARRIED/SIGNED CONTRACT → CHECK 1107: PARENT/ CARETAKER AGREED TO HCV TEST <input type="checkbox"/> PARENT/ CARETAKER REFUSED <input type="checkbox"/> → 1115	
1114	Would you allow me to take a sample of blood from your arm to test for the hepatitis C virus?	GRANTED <b>HCV</b> TEST ..... 1 REFUSED ..... 2 SIGN YOUR NAME. _____
1115	CHECK 1103 AND 1104: 18-59 YEARS OR 15-17 YEARS AND EVER MARRIED <input type="checkbox"/> 15-17 YEARS AND NEVER MARRIED/SIGNED CONTRACT → CHECK 1108: PARENT/ CARETAKER AGREED TO HBV TEST <input type="checkbox"/> PARENT/ CARETAKER REFUSED <input type="checkbox"/> → 1117	
1116	Would you allow us to test your blood sample for the HBV virus?	GRANTED <b>HBV</b> TEST ..... 1 REFUSED ..... 2 SIGN YOUR NAME. _____
1117	CHECK 1114 AND 1116: RESPONDENT AGREED TO ONE OR BOTH TESTS <input type="checkbox"/> RESPONDENT REFUSED <input type="checkbox"/> → GO TO 1125 AND CIRCLE H	
1118	RECORD RESPONDENT'S GENDER	FEMALE ..... 1 MALE ..... 2 → 1122
1119	CHECK Q019, 012 AND 014 FROM HOUSEHOLD SCHEDULE IF WOMAN IS MOTHER OF CHILD AGE 6-MONTHS-4 YEARS	YES ..... 1 NO ..... 2 → 1122
1120	<p>INFORM MOTHER OF CHILD AGE 6 MONTHS - 4 YEARS ABOUT AFLATOXIN TESTING</p> <p>Aflatoxins are chemicals produced by molds. These molds can grow on foods commonly eaten in Egypt, especially if foods are grown or stored where it is warm and humid. A woman who is nursing can even pass the aflatoxins she eats through her breast milk to her baby.</p> <p>Aflatoxins harm the liver and can cause liver cancer, just like the hepatitis C virus. Aflatoxins also may slow the physical growth of young children and their height.</p> <p>In order to better understand the effect that aflatoxins may be having on young children in Egypt, we are asking to test blood from mothers and children under age 5 for aflatoxins. We would like to use a small amount of the blood we will take from your arm for this testing.</p> <p>We will not be able to contact you with results of the aflatoxin testing. However, if you allow your blood to be tested for aflatoxins, we may be able to find out things that will help us persuade the authorities to improve food safety and storage to cut down on the amount of mold in food.</p> <p>You may join in the hepatitis testing component of this study without having your blood sample used for the aflatoxin testing.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT NUMBERS IF REQUESTED.</b></p> <p>You can say yes or not to giving blood. However, we will be grateful if you can allow us to test some of your blood sample for aflatoxins.</p>	
1121	<b>REQUEST PERMISSION FOR AFLATOXIN TEST - MOTHER OF CHILD 6 MONTHS-4 YEARS</b> Would you allow us to test your blood for aflatoxins?	GRANTED AFLATOXIN TEST ..... 1 REFUSED ..... 2 SIGN YOUR NAME. _____

1122	<p>CHECK 1103 AND 1104:</p> <p>18-59 YEARS OR 15-17 YEARS AND EVER MARRIED <input type="checkbox"/></p> <p>15-17 YEARS AND NEVER MARRIED/SIGNED CONTRACT → CHECK 1111:</p> <p>PARENT/ CARETAKER AGREED TO FUTURE TESTS <input type="checkbox"/></p> <p>PARENT/ CARETAKER REFUSED <input type="checkbox"/></p> <p>GO TO 1125 AND CHECK REFUSED</p>		
1123	<p>ASK CONSENT TO STORE BLOOD FOR FUTURE TESTING FOR ELIGIBLE ADULT AGE 18-59 OR ADOLESCENT AGE 15-17.</p> <p>We ask you to allow the Ministry of Health and Population to store part of your blood sample at the Central Laboratory in Cairo to be used for testing or research in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that may be associated with health or illness.</p> <p>We will not be able to contact you with results from future testing. However, if you allow your blood to be used, we may be able to find out things that will help in improving health situation for Egyptians.</p> <p>You may join in this study without having your blood sample stored for future studies.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT NUMBERS IF REQUESTED.</b></p> <p>Will you allow us to keep your blood sample stored for later testing or research?</p>		
1124	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	<p>GRANTED FUTURE TESTING . . . . . 1</p> <p>REFUSED . . . . . 2</p> <p>SIGN YOUR NAME. _____</p>	
1125	<p>CHECK 1107, 1108, 1114 AND 1116. RECORD FINAL OUTCOME OF REQUEST TO OBTAIN BLOOD SAMPLE FOR HEPATITIS B AND C TESTING.</p> <p>FOR NEVER-MARRIED ADOLESCENTS, PERMISSION MUST BE GRANTED FOR THE HCV TEST IN BOTH 1107 AND 1114 AND FOR THE HBV TEST IN BOTH 1108 AND 1116.</p> <p>CHECK 1121 FOR PERMISSION FOR AFLATOXIN TEST.</p> <p>CHECK 1111 AND 1124 FOR PERMISSION TO STORE BLOOD FOR FUTURE TESTING.</p> <p>FOR NEVER-MARRIED ADOLESCENTS, PERMISSION MUST BE GRANTED FOR STORING BLOOD FOR IN BOTH 1111 AND 1124.</p> <p>IF APPROPRIATE PERMISSIONS GRANTED, BUT BLOOD SAMPLE IS NOT TAKEN, RECORD 'OTHER' AND SPECIFY REASON.</p>	<p>GRANTED <b>AFLATOXIN</b> . . . . . A</p> <p>GRANTED <b>HBV</b> TEST . . . . . B</p> <p>GRANTED <b>HCV</b> TEST . . . . . C</p> <p>GRANTED <b>FUTURE STORAGE</b> . . . . . F</p> <p>NOT PRESENT . . . . . G</p> <p>REFUSED ALL TESTS . . . . . H</p> <p>CHANGED HIS/HER MIND . . . . . I</p> <p>OTHER _____ X</p> <p style="text-align: center;">SPECIFY</p>	→ 1131

1126	<p>PLACE FIRST BAR CODE LABEL IN SPACE ON QUESTIONNAIRE AND FOLLOW INSTRUCTIONS FOR PLACEMENT OF OTHER LABELS.</p> <p>IF YOU CAN NOT TAKE THE BLOOD SAMPLE, CROSS THE BAR CODE THEN GO BACK TO 1125 AND CIRCLE "I OR X" AS APPROPRIATE.</p>	<div style="border: 1px dashed black; padding: 10px; text-align: center;"> <p>BAR CODE LABEL</p> </div> <p>OF BLOOD, THE THIRD BAR CODE ON THE TRANSMITTAL FORM, AND THE FOURTH ON THE PARTICIPATION FORM..</p>	
1127	CHECK COLUMN 010 IN THE HOUSEHOLD SCHEDULE AND RECORD IF THE RESPONDENT IS A USUAL RESIDENT OF THE HOUSEHOLD.	YES ..... 1 → 1129 NO ..... 2	
1128	We hope to return the result of the hepatitis B and C testing in about two to three months. Can you give me the address and telephone number for the place where you expect to be living at that time?	SAME ADDRESS AS EDHS HOUSEHOLD ..... 1 DIFFERENT ADDRESS ..... 2  ADDRESS _____ _____  CELL/TELEPHONE _____ _____  DOES NOT WANT RESULTS RETURNED ..... 3 → 1131	
1129	As I told you, we will come back in about two to three months to return the result of the test. If you are not at home at that time, may we leave the result in a sealed envelope with any household member?	YES ..... 1 NO, DO NOT LEAVE WITH ANYONE ELSE ..... 2 DOES NOT WANT RESULTS RETURNED ..... 3 → 1131	
1130	COMPLETE AND GIVE THE RESPONDENT THE CALL BACK IDENTIFICATION FORM. ASK THE RESPONDENT TO KEEP THE FORM AND PRESENT IT TO THE EHS STAFF MEMBER WHO WILL RETURN THE RESPONDENT'S TEST RESULT. EXPLAIN THAT THE FORM WILL HELP THE CALL BACK TEAM TO CORRECTLY IDENTIFY THE RESPONDENT.		
1131	NAME OF PHYSICIAN: <input type="text"/> <input type="text"/> <input type="text"/> NAME OF TECHNICIAN: <input type="text"/> <input type="text"/> <input type="text"/> NAME OF ASSISTANT <input type="text"/> <input type="text"/> <input type="text"/>		



OBSERVATIONS  
TO BE FILLED IN AFTER COMPLETING INTERVIEW  
1201 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:

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COMMENTS ON SPECIFIC QUESTIONS:

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ANY OTHER COMMENTS:

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1202 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

1203 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_

1204 BIOMARKER TESTING PERSONNEL OBSERVATIONS

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NAME OF PHYSICIAN/LAB TECH: \_\_\_\_\_ DATE: \_\_\_\_\_



**ARAB REPUBLIC OF EGYPT  
MINISTRY OF HEALTH AND POPULATION  
EL- ZANATY & ASSOCIATES**

**EGYPT DEMOGRAPHIC AND HEALTH SURVEY  
HEALTH ISSUES COMPONENT  
2015**

**CHILD AGE 6 MONTHS-14 YEARS  
QUESTIONNAIRE**

**FINAL**

DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL  
AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.



HEALTH ISSUES QUESTIONNAIRE (CHILD AGE 6 MONTHS-14 YEARS)

IDENTIFICATION	
GOVERNORATE _____ PSU _____	GOVERNORATE <input type="text"/> <input type="text"/>
KISM/MARKAZ _____ BUILDING NO. _____	PSU <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
SHIAKHA/VILLAGE _____ HOUSING UNIT NO. _____	URBAN/RURAL <input type="text"/>
URBAN _____ 1                      RURAL _____ 2	HOUSEHOLD NO. <input type="text"/> <input type="text"/> <input type="text"/>
HOUSEHOLD NUMBER INSIDE PSU: _____	GENDER <input type="text"/>
NAME OF HOUSEHOLD HEAD _____	CHILD LINE NUMBER <input type="text"/> <input type="text"/>
ADDRESS IN DETAIL _____	CARETAKER LINE NUMBER <input type="text"/> <input type="text"/>
NAME OF CHILD _____	RELATIONSHIP <input type="text"/>
GENDER    MALE    _____ 1            FEMALE    _____ 2	
CHILD LINE NUMBER _____	
NAME OF CARETAKER _____	
LINE NUMBER OF CARETAKER _____	
RELATIONSHIP TO CHILD    MOTHER ..... 1    OTHER ..... 2	

INTERVIEWER VISITS										
	1	2	3	FINAL VISIT						
DATE	_____	_____	_____	<table border="1" style="font-size: small;"> <tr> <td style="text-align: center;">DAY</td> <td style="text-align: center;">MONTH</td> <td style="text-align: center;">YEAR</td> </tr> <tr> <td><input type="text"/><input type="text"/></td> <td><input type="text"/><input type="text"/></td> <td><input type="text"/><input type="text"/></td> </tr> </table>	DAY	MONTH	YEAR	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
DAY	MONTH	YEAR								
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>								
TEAM	_____	_____	_____	TEAM .....						
INTERVIEWER	_____	_____	_____	INT. No. <table border="1" style="font-size: small;"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
<input type="text"/>	<input type="text"/>	<input type="text"/>								
SUPERVISOR	_____	_____	_____	SUP. No. <table border="1" style="font-size: small;"><tr><td><input type="text"/></td><td><input type="text"/></td><td><input type="text"/></td></tr></table>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
<input type="text"/>	<input type="text"/>	<input type="text"/>								
RESULT	_____	_____	_____	RESULT .....						
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS <input type="text"/>						
TIME	_____	_____								
<b>RESULT CODES:</b> 1 COMPLETED                      4 REFUSED 2 NOT AT HOME                      5 PARTLY COMPLETED                      7 OTHER _____ 3 POSTPONED                      6 INCAPACITATED                      (SPECIFY) _____										



	FIELD EDITOR	OFFICE EDITOR	CODER	KEYER
NAME	_____	_____	_____	_____
DATE	/ / 2015	/ / 2015	/ / 2015	/ / 2015
SIGNATURE	_____	_____	_____	_____
	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

**SECTION 1. CHILD'S BACKGROUND**

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
100	RECORD THE TIME.	HOUR ..... <input type="text"/> <input type="text"/> MINUTES ..... <input type="text"/> <input type="text"/>	
101	<p><b>INFORMED CONSENT FOR CHILDREN AGE 6 MONTHS-14 YEARS</b></p> <p>Hello. My name is _____ and I am working with the Ministry of Health and Population.</p> <p>We are conducting a national survey about health in Egypt and your household was selected for the survey. As part of the survey, we would like to ask you questions about (NAME OF CHILD)'s health situation. We would very much appreciate your participation. The questions take about 10-15 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team.</p> <p>You don't have to answer the questions about (NAME OF CHILD), but we hope you will agree to answer the questions since the information is important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.</p> <p>In case you need more information about the survey, you may contact the person listed on the card that has already been given to your household.</p> <p>Do you have any questions? May I begin the interview now?</p> <p>Signature of Interviewer: _____ Date: _____</p> <p>RESPONDENT AGREES TO INTERVIEW ..... 1      RESPONDENT DOES NOT AGREE TO INTERVIEW ..... 2 → 601</p> <p align="center">↓</p>		
102	CHECK HOUSEHOLD SCHEDULE Q019 AND RECORD IF THE RESPONDENT IS THE CHILD'S MOTHER OR NOT.	YES, RESPONDENT IS CHILD'S MOTHER ..... 1 NO, RESPONDENT IS OTHER CARETAKER ..... 2	
103	In what day, month and year was (NAME) born?	DAY ..... <input type="text"/> <input type="text"/> DON'T KNOW DAY .....98 MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH .....98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR .....9998	
104	How old was (NAME) on (his/her) last birthday? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT.	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/>	
105	CHECK Q104 FOR AGE.	0-2 YEARS <input type="checkbox"/> ↓ 3-5 YEARS <input type="checkbox"/> → 111 6-14 YEARS <input type="checkbox"/> → 108	
106	CALCULATE AND RECORD AGE IN COMPLETED MONTHS.	AGE IN COMPLETED MONTHS ..... <input type="text"/> <input type="text"/>	
107	CHECK Q104 AND 106 AND RECORD AGE.	0-5 MONTHS <input type="checkbox"/> ↓ END 6 MONTHS OR OLDER <input type="checkbox"/> → 201	
108	Has (NAME) ever attended school?	YES ..... 1 NO ..... 2 → 201	
109	What is the highest level of school (NAME) attended?	PRIMARY ..... 1 PREPARATORY ..... 2 SECONDARY ..... 3	
110	What is the highest grade (NAME) successfully completed at that level?	GRADE ..... <input type="text"/> → 201	
111	Did (NAME) ever attend kindergarten, a private nursery, or other prepare (him/her) for primary school?	YES ..... 1 NO ..... 2	

SECTION 2. HEPATITIS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																
201	Now I would like to ask about some health care procedures. At any time in (his/her) life, was (NAME) hospitalized?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																																																	
202	At any time in (his/her) life, did (NAME) ever have:  Surgery? A blood transfusion? Intravenous line? Suture/stitches? Endoscopy? Dialysis? Urinary catheter? Dental treatment of any type (e.g., extraction, treatment for gum disease, filling) or teeth cleaning? Acupuncture? Cupping without blood? Cupping with blood?	<table border="0"> <tr> <td></td> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">DK</td> </tr> <tr> <td>SURGERY .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>BLOOD TRANSFUSION ..</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>INTRAVENOUS LINE.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>SUTURE/STITCHES.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>ENDOSCOPY .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DIALYSIS .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>URINARY CATHETER ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>DENTAL TREATMENT ...</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>ACUPUNCTURE .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CUPPING W/OUT BLOOD .</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CUPPING WITH BLOOD ..</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </table>		YES	NO	DK	SURGERY .....	1	2	8	BLOOD TRANSFUSION ..	1	2	8	INTRAVENOUS LINE.....	1	2	8	SUTURE/STITCHES.....	1	2	8	ENDOSCOPY .....	1	2	8	DIALYSIS .....	1	2	8	URINARY CATHETER ...	1	2	8	DENTAL TREATMENT ...	1	2	8	ACUPUNCTURE .....	1	2	8	CUPPING W/OUT BLOOD .	1	2	8	CUPPING WITH BLOOD ..	1	2	8	
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203	At any time in (his/her) life, did (NAME) ever receive an injection:  For vaccination? To treat for schistosomiasis (bilharziasis)? For any other purpose?	<table border="0"> <tr> <td></td> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">DK</td> </tr> <tr> <td>VACCINATION .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>SCHISTOSOMIASIS .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>OTHER PURPOSE .....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </table>		YES	NO	DK	VACCINATION .....	1	2	8	SCHISTOSOMIASIS .....	1	2	8	OTHER PURPOSE .....	1	2	8																																	
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204	CHECK 203:  EVER HAD INJECTION <input type="checkbox"/> NEVER HAD INJECTION <input type="checkbox"/> → 210																																																		
205	On any of the occasions in which (NAME) received an injection, was the same needle and syringe used to give an injection to someone else?	YES ..... 1 NO ..... 2 DON'T KNOW..... 8																																																	
206	Who gave (NAME) the last injection?	DOCTOR ..... 01 DENTIST ..... 02 PHARMACIST ..... 03 NURSE ..... 04 RELATIVE/NEIGHBOR ..... 05 BARBER ..... 06 HIM/HER SELF ..... 07 OTHER ..... 96 (SPECIFY)																																																	
207	Now I would like to ask some questions about any injections that were received in the last 12 months. Has (NAME) had an injection for any reason in the last 12 months? IF YES: How many injections has (NAME) had? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTION: ... <input type="text"/> <input type="text"/> NONE ..... 00 →210																																																	
208	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS 90 OR MORE, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTION: ... <input type="text"/> <input type="text"/> NONE ..... 00 →210																																																	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
209	The last time (NAME) got an injection from a health worker, did he/she take the syringe and needle from a new, unopened package?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
210	At any time in (his/her) life, did (NAME) ever have a tattoo?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
211	CHECK GENDER :  FEMALE <input type="checkbox"/>  MALE <input type="checkbox"/> 		
212	At any time in her life, did (NAME) ever have her ears pierced?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	
213	How frequently does (name) go to the hair salon/beauty center?	ONCE A WEEK ..... 1 MORE THAN ONCE A MONTH ... 2 ONCE A MONTH ..... 3 LESS THAN ONCE A MONTH .... 4 IN FEASTS AND SPECIAL OCCASIONS ..... 5 OTHER _____ 6 (SPECIFY) NEVER ..... 7	→ 217
214	At the hair salon, do they use their own equipment or (NAME) bring her equipment?	HER EQUIPMENT ..... 1 HAIR SALON EQUIPMENT ..... 2 OWN AND SALON ..... 3	→ 217
215	How frequently does (NAME) go to the barber?	ONCE A WEEK ..... 1 MORE THAN ONCE A MONTH .. 2 ONCE A MONTH ..... 3 LESS THAN ONCE A MONTH .... 4 IN FEASTS AND SPECIAL OCCASIONS ..... 5 OTHER _____ 6 (SPECIFY) NEVER ..... 7	→ 217
216	When (NAME) goes to the barber, do they cut hair/shave him with equipment they have or his own equipment?	HIS/HER EQUIPMENT ..... 1 HAIR SALON EQUIPMENT ..... 2 OWN AND SALON ..... 3	
217	Did a doctor or other health professional ever say that (NAME) had a positive hepatitis C test?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 219
218	Has (NAME) ever been tested to see if he/she had hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 225
219	How old was (NAME) when he/she was first told that he/she had a positive hepatitis C test?	AGE IN YEARS ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
220	Was (NAME) ever given or did (NAME) ever take anything to treat the hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 225
221	What treatment was (NAME) given?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	INTERFERON ..... A RIBAVIRIN ..... B LEGALON (SILYMARIN) ..... C SOVALDI (SOFOSBUVIR) ..... D OLYSIO (SIMEPREVIR) ..... E (OTHER) HERBAL MEDICINE ..... F VITAMINS ..... G OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
222	Has a doctor or health professional said that (NAME) currently has hepatitis C?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 225



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
223	Is (NAME) receiving any treatment for the hepatitis C at this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 225
224	What treatment are (NAME) receiving at this time?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	INTERFERON ..... A RIBAVIRIN ..... B LEGALON (SILYMARIN) ..... C SOVALDI (SOFOSBUVIR) ..... D OLYSIO (SIMEPREVIR) ..... E (OTHER) HERBAL MEDICINE ..... F VITAMINS ..... G OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
225	Did a doctor or other health professional ever say that (NAME) had a positive hepatitis B test?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 227
226	Has (NAME) ever been tested to see if he/she had hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 233
227	How old was (NAME) when he/she was first told that he/she had a hepatitis B test?	AGE IN YEARS ..... <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
228	Was (NAME) ever given or did (NAME) ever take anything to treat the hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 233
229	What treatment(s) have (NAME) ever been given?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	LAMIVUDINE ..... A ADEFOVIR DIPVOXIL ..... B ENTECAVIR ..... C TELBIVUDINE ..... D TENOFVIR ..... E INTERFERON ..... F (OTHER) HERBAL MEDICINE ..... G VITAMINS ..... H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
230	Has a doctor or health professional said that (NAME) currently has hepatitis B?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 233
231	Is (NAME) receiving any treatment for the hepatitis B at this time?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	→ 233
232	What treatment are (NAME) receiving at this time?  PROBE: Any other treatment?  RECORD ALL MENTIONED.	LAMIVUDINE ..... A ADEFOVIR DIPVOXIL ..... B ENTECAVIR ..... C TELBIVUDINE ..... D TENOFVIR ..... E INTERFERON ..... F (OTHER) HERBAL MEDICINE ..... G VITAMINS ..... H OTHER ..... X (SPECIFY) DON'T KNOW ..... Z	
233	Has (NAME) ever had:  Jaundice, that is, a yellowing of the skin or eyes?  Change in urine color, that is, dark urine?	YES NO DK JAUNDICE ..... 1 2 8 DARK URINE ..... 1 2 8	
234	CHECK 233: YES RECORDED FOR JAUNDICE AND/OR DARK URINE <input type="checkbox"/>	NO OR DON'T KNOW RECORDED FOR BOTH JAUNDICE AND DARK URINE <input type="checkbox"/>	→ 236

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
235	<p>Do you know the cause of the jaundice and/or the change in urine color?</p> <p>IF MENTIONS HEPATITIS WITHOUT SPECIFYING TYPE ASK: Do you know the type of hepatitis?</p> <p>RECORD ALL MENTIONED.</p> <p>IF MENTIONS HEPATITIS C, CHECK THAT Q217-224 HAVE BEEN COMPLETED AS APPROPRIATE.</p> <p>IF MENTIONS HEPATITIS B, CHECK THAT Q225-232 HAVE BEEN COMPLETED AS APPROPRIATE.</p>	<p>HEPATITIS A ..... A</p> <p>HEPATITIS B ..... B</p> <p>HEPATITIS C ..... C</p> <p>HEPATITIS, UNKNOWN TYPE ..... D</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>DON'T KNOW ..... Z</p>	
236	<p>Has a doctor or health professional ever said that (NAME) had any (other) kind of liver disease?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	<p>→ 301</p>
237	<p>Has a doctor or health professional ever said that (NAME) currently has any (other) kind of liver disease?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>	
238	<p>Do you know the cause of the liver disease?</p> <p>IF MENTIONS HEPATITIS WITHOUT SPECIFYING TYPE ASK: Do you know the type of hepatitis?</p> <p>RECORD ALL MENTIONED.</p>	<p>HEPATITIS A ..... A</p> <p>HEPATITIS, UNKNOWN TYPE ..... D</p> <p>BILHARZIASIS ..... E</p> <p>OTHER _____ X</p> <p>(SPECIFY)</p> <p>DON'T KNOW ..... Z</p>	
239	<p>How old was (NAME) when the doctor or health professional said he/she had (DISEASE IN 238)?</p>	<p>AGE IN YEARS ..... <input type="text"/> <input type="text"/></p> <p>DON'T KNOW ..... 98</p>	

SECTION 3 FEMALE CIRCUMCISION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
301	CHECK GENDER FROM IDENTIFICATION PAGE  FEMALE <input type="checkbox"/> MALE <input type="checkbox"/>		309
302	INTERVIEWER:CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. DO NOT READ THE FOLLOWING QUESTIONS IF THERE IS NO PRIVACY		
303	Now I would like to talk about the practice of female circumcision. Has (NAME) been circumcised?	YES..... 1 NO ..... 2	307
304	How old were (NAME) when she was circumcised?	AGE IN COMPLETED YEARS <input type="text"/> <input type="text"/> DON'T KNOW ..... 98	
305	Who performed the circumcision that (NAME) had ?	DOCTOR ..... 1 NURSE/OTHER HEALTH PROVIDER 2 DAYA ..... 3 BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY)	
306	Where did that (NAME) the circumcision took place?	IN HOUSE ..... 01 IN ANOTHER HOUSE ..... 02 PRIVATE HOSPITAL/CLINIC ..... 03 GOVERNMENT HOSPITAL/HEALTH UNIT ..... 04 BARBER ..... 05 MARKET ..... 06 MOULED ..... 07 OTHER ..... 96 (SPECIFY) DK ..... 98	308
307	Do you expect that (NAME) will be circumcised in the future?	YES..... 1 NO ..... 2 DON'T KNOW ..... 8	401
308	Can you tell me the reason(s) that (NAME) was(will be) circumcised?  PROBE: Any other reason(s)?	REQUIRED BY RELIGION ..... A TRADITIONAL PRACTICE ..... B PRESERVES VIRGINITY ..... C PRESSURE FROM RELATIVES ... D IMPORTANT FOR MARRIAGE .... E OTHER ..... X (SPECIFY)	401
309	Now I have some questions about male circumcision. Has (NAME) been circumcised?	YES..... 1 NO ..... 2	401
310	Who performed (NAME)'s circumcision?	DOCTOR ..... 1 NURSE/HEALTH PROVIDER ..... 2 DAYA ..... 3 HEALTH BARBER ..... 4 GHAGARIA ..... 5 OTHER ..... 6 (SPECIFY) DK ..... 8	
311	Where did the circumcision took place?	IN HOUSE ..... 01 IN ANOTHER HOUSE ..... 02 PRIVATE HOSPITAL/CLINIC ..... 03 GOVERNMENT HOSPITAL/HEALTH UNIT ..... 04 BARBER ..... 05 MARKET ..... 06 MOULED ..... 07 OTHER ..... 96 (SPECIFY) DK ..... 98	

SECTION 4. 24-HOUR DIETARY HISTORY FOR CHILD AND MOTHER

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																																																																																																																								
401	CHECK 104 AND 106: <div style="display: flex; align-items: center; margin-left: 100px;"> <input style="width: 20px; height: 20px; margin-right: 5px;" type="checkbox"/> <div style="margin-left: 5px;">                         AGE 3-4 YEARS                          AGE 6 MONTHS-2 YEARS                     </div> </div>	<div style="display: flex; align-items: center; margin-left: 100px;"> <input style="width: 20px; height: 20px; margin-right: 5px;" type="checkbox"/> → 404  <input style="width: 20px; height: 20px; margin-right: 5px; margin-top: 10px;" type="checkbox"/> → 409                     </div>																																																																																																																									
402	Is (NAME) currently breastfeeding?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																																																																																																																									
403	Yesterday during the day or night, was (NAME) given any commercially produced breastmilk substitutes such as Similac, Bebelack, or Biomeal? IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ..... <input style="width: 40px; height: 20px;" type="text"/> NOT GIVEN FORMULA ..... 95 DON'T KNOW ..... 98																																																																																																																									
404	Yesterday during the day or night, was (NAME) given any commercially produced baby cereal, e.g., Cerelac?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8																																																																																																																									
405	Now I would like to ask you about (OTHER)liquids or foods that (NAME) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods.	<p style="text-align: right;"><u>CHILD</u></p> <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;">YES</th> <th style="width: 10%;">NO</th> <th style="width: 10%;">DK</th> </tr> </thead> <tbody> <tr> <td>Did (NAME)/you (drink/eat):</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>a) Plain water?</td> <td style="text-align: right;"><b>a)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>b) Juice or juice drinks?</td> <td style="text-align: right;"><b>b)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>c) Clear broth?</td> <td style="text-align: right;"><b>c)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>d) Milk such as tinned, powdered, or fresh animal milk?</td> <td style="text-align: right;"><b>d)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.</td> <td style="text-align: right;">NUMBER OF TIMES DRANK MILK</td> <td colspan="3" style="text-align: center;"><input style="width: 40px; height: 20px;" type="text"/></td> </tr> <tr> <td>e) Any other liquids?</td> <td style="text-align: right;"><b>e)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>f) Yogurt?</td> <td style="text-align: right;"><b>f)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.</td> <td style="text-align: right;">NUMBER OF TIMES ATE YOGURT</td> <td colspan="3" style="text-align: center;"><input style="width: 40px; height: 20px;" type="text"/></td> </tr> <tr> <td>g) Subsidized bread?</td> <td style="text-align: right;"><b>g)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>h) Other bread, rice, noodles, porridge, or other foods made from grains?</td> <td style="text-align: right;"><b>h)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>i) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?</td> <td style="text-align: right;"><b>i)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>j) Potatoes, white potatoes, white yams, or any other foods made from roots?</td> <td style="text-align: right;"><b>j)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>k) Any dark green, leafy vegetables?</td> <td style="text-align: right;"><b>k)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>l) Ripe mangoes, papayas (yellow) or apricots?</td> <td style="text-align: right;"><b>l)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>m) Any other fruits or vegetables?</td> <td style="text-align: right;"><b>m)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>n) Liver, kidney, heart or other organ meats?</td> <td style="text-align: right;"><b>n)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>o) Any meat, such as beef, pork, lamb, goat, chicken, or duck?</td> <td style="text-align: right;"><b>o)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>p) Eggs?</td> <td style="text-align: right;"><b>p)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>q) Fresh or dried fish or shellfish?</td> <td style="text-align: right;"><b>q)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>r) Any foods made from beans, peas, lentils, or nuts?</td> <td style="text-align: right;"><b>r)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>s) Cheese or other food made from milk?</td> <td style="text-align: right;"><b>s)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>t) Any other solid, semi-solid, or soft food?</td> <td style="text-align: right;"><b>t)</b></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>			YES	NO	DK	Did (NAME)/you (drink/eat):					a) Plain water?	<b>a)</b>	1	2	8	b) Juice or juice drinks?	<b>b)</b>	1	2	8	c) Clear broth?	<b>c)</b>	1	2	8	d) Milk such as tinned, powdered, or fresh animal milk?	<b>d)</b>	1	2	8	IF YES: How many times did (NAME) drink milk? 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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
406	CHECK 404 AND 405 (CATEGORIES "F" THROUGH "t"):  NOT A SINGLE "YES" <input type="checkbox"/> AT LEAST ONE "YES" <input type="checkbox"/>	→ 408	408				
407	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night?  IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	YES ..... 1 (GO BACK TO RECORD FOOD EATEN YESTERDAY) ←  NO ..... 2 →	409				
408	How many times did (NAME ) eat solid, semi-solid, or soft foods yesterday during the day or at night?  IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ..... <input type="text"/>  DON'T KNOW ..... 8					
409	RECORD THE TIME.	HOUR ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table> MINUTES ..... <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>					

SECTION 5 BIOMARKER TESTING

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	FIELD EDITOR RECORD NAME OF CHILD: .....		
501	CHECK 104 AND 106:  AGE 6 MONTHS-4 YEARS <input type="checkbox"/> 5-14 YEARS <input type="checkbox"/> → GO TO 504 		
502	WEIGHT IN KILOGRAMS	KG <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> NOT PRESENT ..... 999.94 REFUSED ..... 999.95 OTHER ..... 999.96	
503	HEIGHT IN CENTIMETERS	CM. <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> NOT PRESENT ..... 999.4 REFUSED ..... 999.5 OTHER ..... 999.6	
503A	MEASURED: LYING DOWN ..... 1 STANDING UP ..... 2		
503B	NAME OF TECHNICIAN: <input type="text"/> <input type="text"/> <input type="text"/>	NAME OF ASSISTANT <input type="text"/> <input type="text"/> <input type="text"/>	
504	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE ELIGIBLE CHILD FROM THE HOUSEHOLD SCHEDULE.	LINE NUMBER <input type="text"/> <input type="text"/>	
505	CHECK 104 AND 106:  AGE 1-14 YEARS <input type="checkbox"/> 6-11 MONTHS <input type="checkbox"/> → GO TO 511 		
506	INFORM ADULT IDENTIFIED IN 504 AS RESPONSIBLE FOR ELIGIBLE CHILD ABOUT HEPATITIS TESTING. (Good morning/afternoon. My name is _____ and I am from the Ministry of Health and Population and part of the survey team.)  As you know, we are conducting a national survey about health issues, including hepatitis. Hepatitis may cause liver damage and other serious health problems. In Egypt, hepatitis is often caused by infection with the hepatitis C virus, although some cases are also caused by hepatitis B and other forms of the hepatitis virus.  As part of the survey, we are asking to obtain a small amount of blood from all persons age 1-59 years to test later in the laboratory in order to know how many people have the hepatitis B and C viruses. This information is very important to help the Ministry of Health and Population to plan for programs to treat this disease.  The results of the test will be kept confidential.  If you agree to take part, I will ask you to let us take about teaspoonful of blood, from a vein in (NAME's) arm.  The risk to (NAME) from this testing is small. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.  (NAME) may get some bruising where the blood is taken from (his/her) arm. If (NAME) has any bleeding, swelling or other problem later, you should tell our study staff or your health worker.  The blood will be sent to the Central Laboratory of the Ministry of Health and Population in Cairo for the hepatitis B and C tests. We will return to give you the results of (NAME's) test in two to three months. If the test shows that (NAME) has the hepatitis B and/or C virus, we will give you a referral for (NAME) to a special Liver Disease Treatment Center or other health facility for counseling and advice about treatment.  Do you have any questions so far? <b>LABORATORY TECHNICIAN: ENCOURAGE THE RESPONDENT TO ASK ANY QUESTIONS.</b> If you have any questions at any time, please ask me.  You can also speak to the head of this survey team. I can also give you information on how to contact the directors of this survey in Cairo. <b>LABORATORY TECHNICIAN: PROVIDE CONTACT INFORMATION IF REQUESTED.</b>  You can say yes or not to giving blood. However, we will be grateful if you can allow us to take a small blood sample.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
507	REQUEST PERMISSION FOR TESTS Would you allow me to take a sample of blood from (NAME's) arm to:  test for the hepatitis C virus?	GRANTED <b>HCV</b> TEST ..... 1  REFUSED ..... 2  SIGN YOUR NAME. _____	
508	test for the hepatitis B virus?	GRANTED <b>HBV</b> TEST ..... 1  REFUSED ..... 2  SIGN YOUR NAME. _____	
509	CHECK 507 AND 508:  AGREED BLOOD SAMPLE COULD BE TAKEN FOR ONE OR BOTH HEPATITIS TESTS. <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <input type="checkbox"/>  </div>	REFUSED <input type="checkbox"/> → GO TO 515 AND CIRCLE H	
510	CHECK 104 AND 106:  AGE 1-4 YEARS <input type="checkbox"/>	AGE 5-14 YEARS <input type="checkbox"/> → GO TO 513	
511	<p>INFORM ADULT IDENTIFIED IN 504 AS RESPONSIBLE FOR ELIGIBLE CHILD AGE 6 MONTHS - 4 YEARS ABOUT AFLATOXIN TESTING.</p> <p>Aflatoxins are chemicals produced by molds. These molds can grow on foods commonly eaten in Egypt, especially if foods are grown or stored where it is warm and humid. A woman who is nursing can even pass the aflatoxins she eats through her breast milk to her baby.</p> <p>Aflatoxins harm the liver and can cause liver cancer, just like the hepatitis C virus. Aflatoxins also may slow the growth of young children and their height.</p> <p>In order to better understand the effect aflatoxins may be having on young children in Egypt, we are asking to test blood from children under age five and their mothers for aflatoxins.</p> <p>FOR CHILDREN AGE 1-4 YEARS: We would like to use a small amount of the blood we will take from (NAME's) arm for the aflatoxin testing.</p> <p>You may join in the hepatitis testing component of this study without having (NAME's) blood sample used for the aflatoxin testing.</p> <p>FOR CHILDREN AGE 6-11 MONTHS: We would like to take a small amount of blood from NAME'S heel for the aflatoxin test. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test.</p> <p>We will not be able to contact you with results of the aflatoxin testing. However, if you allow (NAME's) blood to be used, we may be able to find out things that will help us persuade the authorities to improve food safety and storage to cut down on the amount of mold in food.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT NUMBERS IF REQUESTED.</b></p> <p>You can say yes or not to giving blood. However, we will be grateful if you can allow us to use a small blood sample for the aflatoxin testing.</p>		
512	REQUEST PERMISSION FOR AFLATOXIN TEST - CHILDREN AGE 6 MONTHS - 4 YEARS  Would you allow us to test (NAME's) blood for aflatoxins?	GRANTED AFLATOXIN ..... 1  REFUSED ..... 2  SIGN YOUR NAME. _____	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
513	<p>ASK CONSENT TO STORE BLOOD FOR FUTURE TESTING FROM ADULT IDENTIFIED AS RESPONSIBLE FOR CHILD IN 504.</p> <p>We ask you to allow the Ministry of Health and Population to store part of (NAME'S) blood sample at the Central Laboratory in Cairo to be used for testing or research in the future. We are not certain exactly what tests will be done but they will involve testing for infections or chemicals that may be associated with health or illness.</p> <p>We will not be able to contact you with results from future testing. However, if you allow (NAME's) blood to be used, we may be able to find out things that will help improve health situation for Egyptians.</p> <p>You may join in this study without having (NAME's) blood sample stored for future studies.</p> <p>If you have any questions at any time, we want you to tell us. Again you can speak to the head of this survey team or I can give you information about how to contact the survey directors in Cairo.</p> <p><b>LABORATORY TECHNICIAN: PROVIDE CONTACT NUMBERS IF REQUESTED.</b></p> <p>Will you allow us to keep (NAME's) blood sample stored for later testing or research?</p>		
514	CIRCLE THE APPROPRIATE CODE AND SIGN YOUR NAME.	GRANTED ..... 1 REFUSED ..... 2 SIGN YOUR NAME. _____	
515	<p>CHECK AND RECORD FINAL OUTCOME OF REQUEST TO OBTAIN BLOOD SAMPLE</p> <p>CHECK 507 FOR PERMISSION FOR HCV            CHECK 508 FOR PERMISSION FOR HBV            CHECK 512 FOR PERMISSION FOR AFLATOXIN TEST            CHECK 514 FOR PERMISSION TO STORE BLOOD FOR FUTURE TESTING</p> <p>IF APPROPRIATE PERMISSIONS GRANTED, BUT BLOOD SAMPLE IS NOT TAKEN, RECORD 'OTHER' AND SPECIFY REASON</p>	GRANTED AFLATOXIN ..... A GRANTED <b>HBV</b> TEST ..... B GRANTED <b>HCV</b> TEST ..... C GRANTED FUTURE STORAGE ... F  NOT PRESENT ..... G REFUSED ..... H CHILD REFUSED ..... I OTHER ..... X	→ 521



NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP			
516	<p>PLACE FIRST BAR CODE LABEL IN SPACE ON QUESTIONNAIRE AND FOLLOW INSTRUCTIONS FOR PLACEMENT OF OTHER LABELS.</p> <p>IF YOU CAN NOT TAKE THE BLOOD SAMPLE,CROSS THE BAR CODE, THEN GO BACK TO Q.515 AND CIRCLE (I OR X) AS APPROPRIATE.</p>	<div style="border: 1px dashed black; padding: 10px; text-align: center;"> <p>BAR CODE LABEL</p> </div> <p>OF BLOOD, THE THIRD BAR CODE ON THE TRANSMITTAL FORM, AND THE FOURTH ON THE PARTICIPATION FORM..</p>				
517	CHECK COLUMN 010 IN THE HOUSEHOLD SCHEDULE AND RECORD IF THE CHILD IS A USUAL RESIDENT OF THE HOUSEHOLD.	YES ..... 1 NO ..... 2	→ 519			
518	<p>IF AGE 1-14 YEARS: We hope to return the result of the hepatitis B and C testing in about two to three months. Can you give me the address and telephone number for the place where you expect (NAME) to be living at that time?</p> <p>IF AGE 6-11 MONTHS, CIRCLE CODE 4</p>	SAME ADDRESS AS EHS HOUSEHOLD ..... 1 DIFFERENT ADDRESS ..... 2  ADDRESS _____ _____  CELL/TELEPHONE _____  DOES NOT WANT RESULTS RETURNED ..... 3 NO RESULTS RETURNED (6-11 MONTHS) ..... 4	→ 521			
519	As I told you, we will come back in about two to three months to return the result of the test. If you are not at home at that time, may we leave the result for (NAME) in a sealed envelope with any household member?	YES ..... 1 NO, DO NOT LEAVE WITH ANYONE ELSE ..... 2  DOES NOT WANT RESULTS RETURNED ..... 3 NO RESULTS RETURNED (6-11 MONTHS) ..... 4	→ 521			
520	COMPLETE AND GIVE THE RESPONDENT THE CALL BACK IDENTIFICATION FORM. ASK THE RESPONDENT TO KEEP THE FORM AND PRESENT IT TO THE EHS STAFF MEMBER WHO WILL RETURN (NAME'S) TEST RESULT. EXPLAIN THAT THE FORM WILL HELP THE CALL BACK TEAM TO CORRECTLY IDENTIFY (NAME).					
521	NAME OF PHYSICIAN:	<input type="text"/> <input type="text"/> <input type="text"/>	NAME OF TECHNICIAN:	<input type="text"/> <input type="text"/> <input type="text"/>	NAME OF ASSISTANT	<input type="text"/> <input type="text"/> <input type="text"/>

OBSERVATIONS  
TO BE FILLED IN AFTER COMPLETING INTERVIEW  
601 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:

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COMMENTS ON SPECIFIC QUESTIONS:

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ANY OTHER COMMENTS:

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602 SUPERVISOR'S OBSERVATIONS

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NAME OF SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

603 EDITOR'S OBSERVATIONS

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NAME OF EDITOR: \_\_\_\_\_ DATE: \_\_\_\_\_

604 BIOMARKER TESTING PERSONNEL OBSERVATIONS

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NAME OF PHYSICIAN/LAB TECH: \_\_\_\_\_ DATE: \_\_\_\_\_