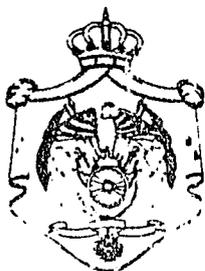


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Background and Methodology of the
1983 Jordan Fertility and Family Health Survey

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1. OVER VIEW

The 1983 Jordan Fertility and Family Health Survey (JFFHS) was undertaken by the Department of Statistics (DOS), under the National Household Survey Program, 1981-1985. It was in collaboration with Centers for Disease Control (CDC), Atlanta Georgia/USA, and the financial support of USAID in data collection.

This survey is the third round of the series of fertility surveys. The first one was the 1972 National Fertility Survey (NFS) carried out by DOS in collaboration with the United Nations. The second round was the 1976 Jordan Fertility Survey (JFS) under the World Fertility Survey Program.

The 1983 JFFHS differs from the 1972 NFS and 1976 JFS because of including sections on family health information, which is done for the first time as part of a fertility survey, which allow for different kinds of interrelations between fertility, mortality and morbidity and health care.

2. OBJECTIVES OF THE SURVEY

The Jordanian population is characterized by high fertility level. The 1972 NFS reported a high fertility rate, and the 1976 JFS reported a continuing high fertility rate and a declining infant and child mortality rates. The 1981 Jordan Demographic Survey (JDS) indicated a slightly lower infant and child mortality as well as fertility rate .

As a result of high fertility and declining mortality, half of the Jordanian population are under 15 years of age. The Government of Jordan is aiming at improving health standards for mothers and children as part of the over all development of the population. This survey was planned to collect data on health services which helps the Ministry of Health in evaluating its programs including prenatal care, and well-baby services as well as estimating the proportion of children under 5 years of age who have received polio, DPT and measles vaccination. In addition, information on the relative importance of respiratory problems in accidents as causes of death have been collected in this survey. Diarrheal disease has also been identified as an important cause of illness and death in many countries.

The overall objective of the survey is to provide information covering the following areas :

1. Proximate Fertility Determinants: The main determinants of birth intervals such as breastfeeding and lactational amenorhea and contraceptive use, on the assumption that child-spacing is important for the health of the mother.

2. Birth History: A complete history of respondent's live births, which identifies the timing of births and deaths is registered. This is important to study fertility levels and trends as well as evaluation of reporting of births.

3. Child Health Status: Questions were asked on major immunizations such as polio, measles and DPT which children under age 5 years received. Also, questions on diarrhea in the last two weeks prior to the interview date were asked for the same group of children and type of treatment received.

4. Mortality: Data collected in the survey allows for direct and indirect estimation of levels and trends of infant and child mortality. Data on symptomology associated with recent child deaths to get information related to cause of death was also collected.

5. Health Services: Several questions were asked about the use of maternal and child health services including prenatal care, tetanus immunization, place of last birth and child medical care.

3. GEOGRAPHIC COVERAGE BAD TARGET POPULATION

The survey was designed to be representative of the population of the East Bank of Jordan. Nomads living in remote areas, residents of hotels and prisons were excluded from the sample.

All ever-married women aged 15-49 years in the sampled households were individually interviewed by the individual questionnaire. A limited number of questions were asked about all members of visited households as a background information to be used in the calculation of estimates.

4. SAMPLE DESIGN

The general purpose sample which had been designed by the Department of Statistics in collaboration with FOPLAB/University of North Carolina at Chapel Hill, USA, is used for this survey. This sample called "master sample" was designed using the Population and Housing Census, 1979 as a frame, to serve the National Household Survey program, 1981-1985.

The master sample consists of 21 independent replicates each of which covers 1000 households representing the population of the East Bank of Jordan, excluding nomads living in remote areas and residents in institutions. Each of these replicates is a self weighted sample and formed of 50 primary or secondary stratum units. In each stratum unit, there is an average of 20 sampled households.

According to the 1979 Population and Housing Census, there were a total of about 320, thousand households in the East Bank of Jordan. For the 1983 JFFHS, a sample of 5000 households was considered sufficient. Thus, this survey used 5 of the 21 replicates of the master sample.

At the first level of stratification all localities were classified into two strata:

- (1) Urban localities with population size 5000 or more
- (2) Rural localities with population size less than 5000. Within each stratum of this level of stratification, selection of sampling units was made seperately, although sampling fractions were the same for both strata.

4.1. Selection of Urban Sample

The 1979 lists of blocks in the urban localities served as the frame for urban sample. These blocks were ordered on a rough measure of socio-economic status alternatively high to low, low to high, etc, within and then among urban localities (41 in number). The localities themselves were ordered by decreasing size of population. Blocks (primary stratum units) were selected with probability proportional to measure of size of each block (M_i) which were computed for each block by dividing the household count by the average cluster size, chosen to be 20 households.

Within each selected block (PSU), 20 households, on average were selected for interviewing by applying systematic sampling to the list of housing units' numbers assigned and stenciled on each structure for the 1979 Census.

4.2. Selection of Rural Sample

A three stage design was used in rural areas, with localities as primary stratum units and blocks as secondary stratum units (SSUs) and housing units as ultimate sampling units. The SSUs were ordered by geographic proximity and were selected with probability proportional to size measures and within each selected SSU (block) households were also selected with probability proportional to size measures. Within each selected block, (SSU), 20 households, on average, were selected for interviewing by applying systematic sampling to the list of housing units.

4.3. Updating the Frame

Blocks selected in the sample were located in the field and on available maps. Since the time period between the 1979 Housing and Population Census and the surveys was more than two years, it was decided to update the lists of households in each sample block. Also, a rough sketch for each block showing roads and structures with the numbers on it was prepared to facilitate the field work.

5. THE QUESTIONNAIRE

The questionnaire used in the 1983 JTFHS consisted of two parts : The household and the individual. The household part included a set of questions on household members, relationship, sex, age, school attendance, marital status and children ever born alive for each ever-married woman and those who are still living . Also it included a question on date of last live birth and a question on eligibility of respondents for individual interview . This was in addition to household characteristics such as the number of rooms in the house, tenancy status, availability of electricity, television, refrigerator, etc, (see attached questionnaire).

The individual questionnaire consisted of eight sections:

Section 1, was dealing with background information of the respondent, such as age, marital status, years of schooling, age at first marriage and working status.

Section 2, was about maternity status; Questions were about whether the respondent ever been pregnant, number of live births(males and females) and number of still living children, number of miscarriages, treatment recived, and wether the last live birth was wanted or unwanted, and desire for having more children in future.

- Section 3, covered immunization of living children under 5 years of age, particularly for poliomyelitis, DPT and number of times vaccinated. Questions on diarrhea in the last two weeks and type of treatment the child received, were asked in this section.
- Section 4, dealt with children born in the last 5 years prior to the survey who were dead by the day of interview. Questions about causes of death and symptoms noticed before the death of the child, were asked.
- Section 5, was on post partum amenorrhea, and breastfeeding of the last live birth during the 5 years preceding the survey. Questions were asked whether the last live birth was breastfed or not, and reason for not breastfeeding and type of milk given to the child.
- Section 6, covered the maternal and child health services. Use of prenatal care, place of last live birth. Questions in this section were asked to women with a live birth in the last five years preceding the survey.
- Section 7, was dealing with child spacing and contraceptive use. Questions were about methods ever used, currently used and desire to use in future and source of contraceptives, used or expected to be used.

6. METHODOLOGY OF THE SURVEY

The survey had been carried out into three stages: The preparatory stage, field work and data processing and report writing.

6.1. The Preparatory Stage

After the approval of conducting the survey by the Government of Jordan, USAID and Centers for Disease Control, the following activities were carried out.

- (1) The questionnaire was designed by staff from the Department of Statistics, Department of Research, Planning and Training/Ministry of Health, and Centers for Disease Control.
- (2) The questionnaire was translated into Arabic and designed to suite the field work and data processing requirements.
- (3) Instructions related to all questions in the questionnaire and definistions were prepared.
- (4) Field supervisors were recruited and trained.
- (5) The questionnaire was pretested after training 15 interviewers for this reason. The pretest was done in three working days of field work. Completed questionnaires were examined and discussed with the interviewers individually and together.
- (6) Modifications on the questionnaire and instructions were made according to the preterst results. Most of these modifications were minor and limited to the skip questions in the breast-feeding section.
- (7) Questionnaire was finalized and printed for the field work, as well as instructions of field work.

- (8) The final Arabic questionnaire and the specifications were translated into English keeping the same Arabic shape, to be used in writing the computer editing programs by CDC staff.
- (9) Along with activities on questionnaire and specifications, work on the sample was going on. Lists of households in each of the selected blocks (PSUs or SSUs) were prepared as well as sketches of these blocks with marks on the selected households.
- (10) Thirty-six interviewers and 8 field editors--all females--were recruited locally in Amman, Balqa, and Irbid Governorates and trained for field work. Out of which 28 interviewers and 7 field editors were selected to do the field work.

Training of interviewers and field editors was conducted during the last 2 weeks of July 1983 in Amman for trainees from Governorates of Amman and Balqa, and in Irbid, for trainees from Irbid Governorate.

The first 10 days of training covered sampling issues and how to reach the selected households, followed by explanation of all questions, definitions and concepts in the questionnaires. Interviewers were then asked to interview their neighbors in the locality in which they resided and these questionnaires were discussed in the classroom.

In the last 3 days, the interviewers were taken to the field (not in the selected areas of the sample) in urban well as rural areas, to have field training with the supervisors to assure the quality of training.

Finally, a general discussion was held, where interviewers talked about what they experienced during the last few days of field training.

6.2. Field Work

The field work started on August 1, 1983 in Amman, Irbid and Balqa Governorates. On September 23, three teams travelled from Amman and Irbid to the South to conduct the field work in Karak and Ma'an Governorates. It took them less than 3 weeks to complete the field work in these two governorates. The over all field work of the survey was completed by the first week of October, 1983, a little less than ten weeks of field work.

The general procedure of the field work in the survey can be summarised as follows: As the sample was ready before as part of the activities in the preparatory stage, sampled households were marked on the households' lists of the selected blocks (PSUs or SSUs), and on the sketches attached, to facilitate the field work. Field supervisors receive lists and sketches of daily work assignment one day prior to visiting the particular areas. The cartographer shows them the boundaries of the areas on the map, and how to go there. Sampled households of the areas were divided into 4 categories (the number of interviewers in the team) and distributed among the interviewers, according to the geographic nature of the area, to make the interviewers walk the least distance possible.

In the morning of the next day, the team (The supervision, field editor and 4 interviewers) meet in the office and move to the working area after taking sufficient number of questionnaires and stationary as well as the lists and sketches of the blocks and instructions manuals. The first step after they reach

there, was to identify the boundaries of the block in front of all members of the team so as not to cross to other blocks. The second step, was to show each interviewer her working area and the sampled households when necessary.

The supervisors were used to keep on visiting the interviewers while conducting the interview for explanations or questions or to solve any problems if faced, as well as collecting completed questionnaires to be passed to the field editor for editing. Field editing was done to minimize errors and incompleteness, and inconsistencies, before taking questionnaires back to the office. Some of the households were visited again to edit some information or as a quality control check, either by the field editor or female supervisor or an interviewer other than the first one.

Before the end of the working day and in the field, households who were not at home were listed for later visit. A household can be visited up to three times to complete the interview.

Completed questionnaires and uncompleted ones were then matched with the lists to make sure that every visited household was according to the sample. Then these questionnaires were sent to the archives to be prepared for later stages of work. Supervisors were also to fill forms of daily production.

The Archives :

The archives was designed to facilitate the later stages of processing. A special place was assigned every working area (PSU or SSU). Special forms were also prepared to record summary information of PSU or SSU, information, total number of housing units visited, number of households interviewed number of household

questionnaires completed and number of individual questionnaires completed and number of households to be revisited because interview was not completed. A daily reporting of the work progress through these forms was to the survey director.

6.3. Data Processing and Preparation of the Report

While field work was going on, office editing and coding was initiated in Amman, Irbid and Balqa Governorates. Both editing and coding were done in one stage because many of the questions were precoded. In Karak and Ma'an Governorates, editing and coding was done in the evening of the everyday of field work of the particular areas. Before returning back to Amman, all completed questionnaires were edited and coded.

Data entry was also started as soon as a sizable work was completed. By December 1983, all data was entered into the computer. Data cleaning using computer editing programs was also started earlier where some CDC staff came to Amman and installed and tested the computer editing programs prepared by them. These programs were to edit completeness, range and consistency of the data. Data entered into the computer was divided into number of working files to facilitate the work in this stage and make best use of the time. Data cleaning stage was completed by the end of January 1984. Then the data was copied on data tapes and sent to CDC for tabulation, and evaluation in the presence of a DOS staff member.

Writing the report of principal findings was started in March 1983 in Atlanta, after the tabulation of results was completed. In June, after two CDC staff members came to Amman, the first draft of the report was completed.

By July, 1984 the report was finalized by staff members from DOS and CDC and staff members of the Department of Planning, Training and Research Ministry Health in Amman.

ORGANIZATIONAL CHART OF THE SURVEY

