DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control

Memorandum

Date February 3, 1983

From Leo Morris, Ph.D., M.P.H., Chief, Program Evaluation Branch (PEB) and John E. Anderson, Ph.D., Chief, Demographic Analysis Section, PEB, Division of Reproductive Health, Center for Health Promotion and Education (CHPE)

Subject Foreign Trip Report (AID/RSSA): Amman, Jordan--Fertility and Family Health Survey, January 10-25, 1983

To William H. Foege, M.D.
Director, Centers for Disease Control
Through: Acting Director, CHPE

SUMMARY

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During this travel to Jordan, a protocol and draft questionnaire for a fertility and family health survey were prepared in collaboration with members of the Department of Statistics, Ministry of Health, and USAID. CDC will provide technical assistance in the areas of questionnaire design, preparation of field work documents, preparing and installing editing programs, data analysis, and report-writing. This survey differs from previous surveys that CDC has provided technical assistance for in two major respects: The major portion of data processing will take place in Jordan, not at CDC, and a complete maternity history will be collected. Field work has been scheduled for April-June 1983, following a pretest of the questionnaire during the period March 5-17, 1983. Dr. Anderson will return to Jordan for the pretest.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

Amman, Jordan, January 10-25, 1983, at the request of AID/Washington and USAID/Amman, to provide technical assistance to the Jordan Department of Statistics in planning a fertility and family health survey to be fielded in 1983. This travel was in accordance with the Resource Support Services Agreement (RSSA) between the Office of Population, AID, and CDC/CHPE/DRH.

II. PRINCIPAL CONTACTS

A. USAID/Amman (44371)

1. Walter Bollinger, Mission Director
2. Jack Thomas, Population Advisor
3. Scott Edmonds, Health Officer

B. Department of Statistics (666828)

1. Borhan N. Shrydeh, Director General
2. Abdallah Abdul-Aziz Zou'bi, Manpower Survey Director
3. Huda Ghneim, Chief, Computing Center

C. Ministry of Health (MOH)

1. Dr. M. S. Shahid, Director of Planning, Training, and Research
2. Mr. A. R. Maayter, Head, Health Statistics Section, Planning Unit
3. Dr. T. R. Lubani, Public Health Specialist, Planning Unit
4. Dr. Talat Hmond, Medical Officer, Planning Unit
5. Dr. Suwwan, Economist

D. Other

1. Dr. M. Nizamuddin, U.N. Demographic Advisor
2. Donald W. Harbick, Westinghouse Health Systems (WHS), Health Planning Advisor to MOH
3. Margaret Britton, WHS Advisor to MOH
4. Joseph Baldi, Health Education Advisor to MOH

III. 1983 FERTILITY AND FAMILY HEALTH SURVEY

A. Survey Procotol

During the visit, a protocol for the survey project was prepared in collaboration with the USAID Mission, Department of Statistics and Ministry of Health. A complete copy of this document is attached as Annex I and includes the topics listed below. When this document has been approved by the National Planning Council, an agreement will be signed between the Department of Statistics (DOS) and USAID/Amman. Approval is expected sometime in February 1983. The protocol includes sections on:

1. General background and justification of the project;
2. Project objectives;
3. Work plan;
4. Technical responsibilities: CDC;
5. Technical responsibilities: DOS;
6. Budget;
7. Financial reimbursement procedures; and
8. Dissemination of data.

As planned, the survey will include 5,000 households. An existing sampling frame developed by the DOS, with assistance of POPLABS, will be used. All ever-married women residing in sample households will be interviewed. Based on past surveys in Jordan, it is expected that there is an average of one ever-married woman per household.

Since field work would be very difficult during Ramadan, the timetable for the survey calls for field work to begin in April and to be concluded by mid-June when Ramadan begins. Because of this tight scheduling, it is very important

for all stages of the survey to occur when planned, without delay. (The complete time schedule is on page 10 of the Protocol in Annex I.)

Travel to Amman by DRH personnel will be required at a number of stages, including:

1.	Pretest and questionnaire finalization	Feb./Mar. 1983
2.	Field work and review of installation data editing programs	May 1983
3.	[illegible]lation and data analysis	Sept. 1983
4.	[illegible]ntation of final results at DOS Workshop	Feb. 1984

The DOS computer is an NCR, which will require that the editing programs be written in COBOL. This will need to be done before May 1983 at CDC by a trained programmer. The programmer will need to travel to Amman in May 1983 to install the programs and test them on data from the initial 1,000 questionnaires that become available during field work completed in April. This is a key stage of the project for which DRH resources need to be allocated.

B. Questionnaire

The proposed questionnaire incorporates a number of standard sections from previous surveys DRH has been involved in. These are:

1. Respondents background
2. Breastfeeding
3. Use of Maternal and Child Health Services
4. Use of Contraceptives
5. Source of Contraception

In addition, a complete fertility history will be obtained for the respondents and modules on the health status of children less than 5 years of age and child mortality have been added, based on the questions used in the Sine-Saloum Regional Family Health Survey being conducted in Senegal this year.

Copies of the draft questionnaire that will be pretested in March are available upon request.

Leo Morris, Ph.D., M.P.H.

John E. Anderson, Ph.D.

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JORDAN FERTILITY AND FAMILY HEALTH SURVEY, 1983
DEPARTMENT OF STATISTICS, JORDAN

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A. GENERAL BACKGROUND AND JUSTIFICATION FOR PROJECT

1. The Hashemite Kingdom of Jordan, ever since its inception in 1950 has been striving to improve the economic and social well-being of its people. During the past three decades considerable progress has been made towards modernizing the structure of Jordanian society. The provision of health, education and welfare services to the bulk of its population has contributed to a sharp decline in mortality during recent years. This rapidly declining mortality, coupled with continuing high fertility, is doubling Jordan's population approximately every 18 years. In 1952, the population of the East Bank of Jordan was estimated to be 587,000 and by November 1961, it was estimated to be about 900,000. The provisional figures of the 1979 census for East Bank territory alone indicate a figure of almost 2.2 million. The population of the West Bank is estimated to be around 0.8 million making the total population of the country approximately 3 million.

2. Two population and housing censuses have been taken (one in 1961 and another in 1979). In between these two censuses several sample surveys have been conducted on migration, labor force participation, family budget, economic productivity, fertility and population changes. The National Fertility Survey of 1972, conducted by the Department of Statistics (DOS) with assistance from UNFPA, reported a very high fertility rate for the country as a whole. The Jordan Fertility Survey (JFS) conducted in 1976 has recently reported contininuing high fertility rates and decline infant mortality rates (IMR), although the IMR is still at a relatively high level of 65 per 1000 live births*. The 1981 Jordan Birth and Death Data

* Abdel-Aziz, Abdalla: Evaluation of the Jordan Fertility Survey, 1976. World Fertility Survey Scientific Reports No. 42, London, January 1983).

Collection Survey will provide further data on levels and trends in vital rates.

3. Another characteristic of the Jordanian population is its high rate of urbanization and congestion of big cities. According to the 1979 census, about 65 percent of the East Bank territory population lives in urban areas, not including the contiguous suburban areas. Of the total growth between 1961 and 1979, 66 percent occurred in urban areas. The Arab-Israeli War of 1967 caused a massive movement of a refugee population to the East Bank. This great influx of refugees, many of them urban centers, only aggravated the existing human conditions. The Government of Jordan (GOJ) is pursuing a vigorous socio-economic development program aimed at reducing the urban sprawl and congestion through urban planning. The successful implementation of such plans and the formulation of an effective integrated population and development policy requires extensive information concerning the levels and probable future trends of the major demo-raphic variables.

4. The Jordanian population is young. As a result of continuing high birth rates and declining death rates, more than half of the population is under 15 years of age and almost 20% is less than 5 years of age. A stated goal of the GOJ health program is "to improve the standards of health for both mother and child." Thus, it is important to determine the patter of utilization of maternal and child health services, including prenatal care, and well-baby

services, as well as estimating the proportion of children who have received polio, DPT and measles vaccination. Data on vaccination levels can be used to determine the number of children in need of vaccination services. This type of information takes on a special urgency due to the reported diphteria outbreak in late 1982.

5. Many health problems face children, but with limited resources it is not possible to address all of these problems at the same time and with equal emphasis. Thus, the most important health problems must be identified and current control measures evaluated to determine if they are adequate or if more could be done. As mentioned above, data related to the protection against diseases for which immunizations are available (poliomyelitis, diphteria, pertussis, tetanus, and measles) should be evaluated and documented. In addition, information on the relative importance of respiratory problems and accidents as a cause of death should be collected. Also, diarrheal diseases have been identified as important causes of illness and death in many countries*. In determining national health priorities, the extent of diarrheal diseases - that is, the number of deaths due to diarrhea (mortality) and the amount of illness (morbidity) - should be evaluated. This can be done by conducting sample surveys for this specific purpose or adding a relevant module to a more general survey on fertility and family health as will be covered in this proposed survey.

*WHO document CDD/SER/81.5, Geneva

6. In view of the above and other ambitious socio-economic development goals as reflected in the current five year development plan, the GOJ continuously needs comprehensive and reliable data on key socio-economic, demographic and maternal child health variables in order to systematically plan and evaluate health programs and its economic development and to modify specific programs to raise the standard of living of its population.

7. The civil registration system is reported to be nearly complete for births but a much lower proportion of deaths are reported on a timely basis. The need for undertaking periodic sample surveys that generate data on the key socio-economic and demographic variables (e.g., economic status, educational levels, fertility, and mortality), is increasingly being recognized by policy makers, planners and researchers in Jordan.

8. The DOS has redesigned and resumed its multiround national household Survey Program (NHSP), initially in the following substantive topic areas.

   a. Basic population characteristics
   b. Basic housing characteristics;
   c. Manpower; and
   d. Vital statistics

   For this survey program a new national sampling frame of 21,000 households has been created in collaboration with the International Program of Laboratories for Population Statistics (POPLABS).

9. In view of the objectives of the GOJ, particularly, DOS and the Ministry of Health, to obtain continuing measures of fertility and mortality as well as to evaluate maternal and child health services, it is agreed that DOS and CDC will collaborate in organizing and conducting a survey on fertility and family health. The survey will be primarily aimed at providing much needed data to various national and regional agencies charged with the responsibility of planning and implementing developmental plans as well as with the provision of health services.

B. PROJECT OBJECTIVES

The overall objective of this project is to assist the DOS in planning, organizing and conducting a survey of Fertility and Family Health in the East Bank of the Hashemite Kingdom of Jordan. This survey will measure levels of fertility and mortality and will make use of the sampling fram developed for the NHSP. The Fertility and Family Health Survey will yield information in a number of areas including:

1. Fertility Determinants: Because child spacing is an important factor in maternal and child health, the main determinants of intervals between births will be measured, including contraceptive use, breast-feeding and lactational amenorrhea.

2. Birth History: A complete history of respondent's live births will be collected. This will be of use in identifying births and deaths for a recent period of tiem, and will be useful in evaluating fertility trends and reporting errors through comparisons with previous surveys.

3. Mortality: In addition to measuring mortality levels using direct and indirect methods, data on symptomatology associated with recent child deaths will be obtained to get information related to causes of death.

4. Child Health Status:

   a. Diarrhea incidence rates for a recent interval of time will be obtained for children under 5 years of age, as well as type of treatment received.

   b. Immunization status for children will be obtained for children less than 5 years of age for major immunizations: Polio, measles and DPT.

5. Use of maternal and child health care services will be obtained including prenatal care, tetanus immunization for expectant mothers, place of last birth, and child medical care.

C. WORK PLAN

1. Sample Design: The fertility and Family Health Survey is to utilize the sampling frame recently developed for NHSP. Of the 21 replicates in the sampling frame, 5 replicates will be chosen yielding approximately 5000 households. Each replicates has 50 primary sampling units (PSU's) each containing clusters of an average of 21 occupied households. The number of occupied households depends upon updated

listings reflecting new construction and the occupied households. On the average, based on results of the 1976 Jordan Fertility Survey, one ever-married woman is expected per occupied household.

Governorate	Occupied Households [1] No.	%	No. of [2] Households Expected in Sample	No. of [3] PSU's
Amman	173,253	.551	2,838	138
Irbid	87,537	.279	1,437	70
Balqa	22,177	.071	366	18
Karak	18,955	.060	309	15
Ma'an	12,228	.039	201	10
TOTAL	314,250	1,000	5,151	250

1/ Main Findings of Advance Tabulations: Housing and Population Census, 1979. Department of Statistics, Hashemite Kingdom of Jordan, Amman, March 1981.

2/ Based on probability proportional to size (pps) selection.

3/ Rounding to nearest whole number; subtotals do not add to 250 due to rounding.

2. Project Organization (DOS)

a. Central Staff
   1) The Director General is the National Director of the project.
   2) The Project Manager will be a senior demographer
   3) Assistant Project Manager
   4) General Field Work Coordination

b. Field Work Staff
   1) Field Supervisors
   2) Field Editors
   3) Interviewers
   4) Drivers

c. Data Processing Staff
   1) Data Processing Supervisors
   2) Editors, coders and data entry
   3) Programmer and Systems Analyst

d. Coding, Tabulation and Analysis*
   1) Office edit
   2) Coding
   3) Data entry
   4) Computer edit
   5) Tabulation
   6) Analysis

A team consists of a supervisor, field editor and 4 interviewers. As shown in Annex 1 (Work Plan by Governorate), field work, including a two week training period, can take anywhere from 9 to 21 weeks depending on the number of teams (from 2 to 6). Since it is essential that the field work be completed before the Ramadan around mid-June, it is planned to use 6 teams beginning for the week of April 2-7 until the week of June 4-9. It would be possible to complete field work in 10 weeks with 5 teams. However, restrictions on travel of female interviewers make the 6 team option more desirable. Although subject to modification, 3 teams would cover the Amman and Balqa Governorates in 9 weeks, 2 teams from Irbid will cover that governorate in 8 weeks and one team will cover Karak and Ma'an Governorates in 6 weeks (all estimates include 2-week training period).

3. Questionnaire Design and Content: There will be two questionnaires: a household questionnaire (1 per household) and an individual questionnaire (1 per eligible respondent). The household questionnaire will be used to collect information on characteristics of every household in the sample. This questionnaire will also obtain a limited amount of information for all child bearing-age women,

* These stages will be performed in a parallell fashion with the field work phase according to the timetable shown in Appendix II

and to screen for eligible respondents - ever married woman age (15-49 years). The individual questionnaire, is designed to last approximately 30 minutes. It will be administered to all eligible respondents identified in the household. Questionnaire content is to include:

a. Household Questionnaire

   i. Household Identification

   ii. Household Characteristics (e.g., water source electricity, sanitary facilities, tenancy).

   iii. Number of persons residing in household

   iv. Characteristics of all women of child bearing age (marital status, education, number of children).

b. Individual Questionnaire for Eligible Respondents

   i. Background characteristics

   ii. Birth History

   iii. Breast feeding and lactational amenorrhea

   iv. Family regulation

   v. Use of maternal and child health services

   vi. Mortality (including symptomatology)

   vii. Child health status (including immunization status and diarrhea incidence).

4. Further Analysis:

Following the completion of the Principal Report secondary analysis may be performed in a number of areas including detailed birth history analysis, proximate determinants of fertility, analysis of trends and reporting erros on fertility, and multivariate analysis of child health status. Previous agreement of the DOS should be obtained for secondary analysis.

5. Timetable

The project duration is expected to extend from January 29, 1983 through February 23, 1984, in order to allow sufficient time to accomplish the objectives set forth in this project proposal. The major project activities are presented below roughly in chronological order:

Activity	Dates
Development of Draft Protocol and Questionnaire	Jan. 12-22, 1983
NPC Review and Approval of Protocol	Jan. 23-30, 1983
Translation and Review of Questionnaire	Jan. 29-Feb. 17, 1983
Preparation of Field Work Manuals	Jan. 31-Feb. 18, 1983
Sample Selection	February 1983
Pretest (including training)	Feb. 26-Mar. 17, 1983
Recruitment of Field Staff	Mar. 5-17, 1983
Field Staff Training	Apr. 2-14, 1983
Writing of CENTS-4 Tabulation Programs	Apr. 2-28, 1983
Field Work	Apr. 16-June 9, 1983
Data Entry Procedures	April 1983
Office Edit, Coding and Data Entry	May 7-July 14, 1983
Install Computer Edit Programs	May 28-June 2, 1983
Comput Edit-Correction of Data	June 4-Aug. 25, 1983
Tabulation and Preparation of Data for Principal Report	Sept. 3- Oct. 13, 1983
Presentation of Preliminary Results and Draft Principal Report	Oct. 15-Dec. 15, 1983
Finalization and Printing of Principal Report	Jan 7-Feb. 2, 1984
Presentation of Findings at Seminar and Discussion of secondary analysis	Feb. 1984 (dates to be determined)

A tabular form of this timetable is shown in Appendix II.

D. CDC TECHNICAL RESPONSIBILITIES

1. CDC will collaborate with the Department of Statistics (DOS) in conducting this Fertility and Family Health Survey. Specifically, CDC will provide assistance in the following areas when needed:

   a. questionnaire design;

   b. preparing interviewer and coding manuals

   c. evaluating pre-test results

   d. finalization of the questionnaires

   e. writing and installing computer editing programs

   f. tabulation and analysis of the results;

      1) tables and analysis will be performed at DOS whenever possible;

      2) other tables and analysis of data is to be carried out at the CDC offices, when necessary.

      3) CDC can fund one DOS official to work at CDC during the analysis of data and report preparation.

   g. preparation of the Principal Report

   h. presentation of results in a seminar

   i. technical support for second stage analysis

2. Based on DOS request, CDC, with USAID/Jordan approval, will provide technical assistance, through short-term visits which may include the following:

   a. Feb.-March, 1983: Pretest and finalization of the questionnaire

   b. May, 1983: Installation of data editing programs and field work supervision

   c. September, 1983: Tabulation and analysis

   d. February, 1984: Presentation of Results.

   This schedule of visits is tentative and subject to alteration depending on requirements that become apparent as the project develops.

E. DOS TECHNICAL RESPONSIBILITIES

The DOS will have primary responsibility for implementing the survey, including those areas listed in Section D. In addition, the DOS will have responsibility for the following areas:

1. Sample selection and household listing
2. Interviewer training
3. Field Operations
4. Translation and printing of interviewer and coding manuals
5. Recruitment and training of interviewers
6. Provision of sufficient vehicles for field operations
7. Provision of staff needed for field operations, editing, coding data entry and analysis
8. Provision of sufficient staff, computer processing facilities and physical facilities to ensure timely production of edited dat tape, tabulations and principal report.
9. Publication and printing of Principal report.

F. BUDGET

The detailed budget is shwon in Appendix III. There are three major categories: 1) Staff Renumeration; 2) Per Diem and 3) Supplies which ar summarized below. The proposed budget, independent of DOS counterpart costs, is JD 19,972. Line item changes can be made within 20 percent of any of the line items without special authority or advance approval by USAID. Otherwise, special authority has to be obtained.

Initially, 30 percent of the total budget, or JD 5,992 is to be made available to DOS in order to initiate the project. Thereafter, additional funds will be released as described in Section G below upon presentation of vouchers and receipts.

BUDGET BY MAJOR CATEGORIES (JD)

A.	STAFF REMUNERATION		8,990
	1. Salaries	5,670	
	2. Incentives	3,320	
B.	PER DIEM		6,850
C.	SUPPLIES		4,132
			19,972

G. FINANCIAL REIMBURSABLE PROCEDURES

DOS, will establish an account from which expenses described in the budget herein will be paid. Reimbursement by USAID/Jordan is to be performed upon certification of DOS. This is in order to allow for project staff to be paid in a timely manner and for procurement of necessary supplies. USAID will advance 30 percent of the total budget upon project approval to expedite project implementation. Expense vouchers are to be submitted on a monthly basis by DOS to USAID for reimbursement until project completion.

H. DISSEMINATION OF DATA

1. The use of all data will be governed by the laws and regulations of the Government of Jordan.

2. In order to maximize the usefulness of this project, DOS agrees to make the data available to in-country institutions for planning purposes and also to other research organizations for further cross-national research. Additionally, and in acknowledgement of the mutual support provided through this agreement, and in order to expedite the available of data, the DOS agrees to provide as soon as available an edited and fully documented data tape as specified in paragraph 3 below. To insure the confidentiality of information provided by each respondent, the tape will be prepared to prevent identification of individuals.

3. One copy of the edited and fully documented data tape will be provided by DOS directly to USAID, for cross-national studies, following written permission from the GOJ. In addition, copy of the data tape is be provided to CDC, upon request. A procedure governing use of the tape will be mutually agreed upon by the DOS and CDC.

4. Other persons or organizations desiring copies of the data are to request it directly from DOS. The requesting person or organization is required to pay for the necessary costs providing a tape. These organizations are to give proper credit to the DOS when publishing.

5. Prior DOS approval is required before data results and analysis can be released by users. In releasing and publishing results, by the other party is to be cited as collaborator, contributor, sponsor or associate, both parties agree to consult prior to publication of such documents.

APPENDIX I

WORK PLAN BY GOVERNORATE

1983 FFH SURVEY

Governorate	Area	No. of PSU's	PSU's per day	Working Days	Revisit Days	Total Days	No. of Team Days/Teams 2	3	4	5	6
Amman	U	113	1⅓	75	11	86	43	29	22	17	14
	R	25	1	25	-	25	13	8	6	5	4
Irbid	U	22	1⅓	15	1	17	9	6	4	4	3
	R	48	1	48	-	48	24	16	12	10	8
Balqa	U	3	1½	2	0	2	1	1	1	1	1
	R	15	1	15	-	15	8	5	4	3	3
Karak	U	4	1⅓	3	1	4	2	1	1	1	1
	R	11	1	11	-	11	6	4	3	2	2
Ma'an	U	5	1½	4	1	5	3	2	1	1	1
	R	5	1	5	-	5	3	2	1	1	1
							112	74	55	43	38
				- 6 Days/Week*			19	13	10	8	7
				+ 2 WKS Training			21	15	13	10	9

*Rounded up to nearest whole number

PROPOSED TIME SCHEDULE

APPENDIX 2

1983 JORDAN FAMILY HEALTH - FERTILITY SURVEY

TASKS	1983 J	F	M	A	M	J	J	A	S	O	N	D	1984 J	F	M
Protocol and Questionnaire Development	X														
NPC Review and Approval of Protocol	X	X													
Translation and Review of Questionnaire		X													
Preparation of Fieldwork Documents		X	X												
Sample Selection		X	X												
Recruitment of Field Staff			X												
Pretest and Finalization of Questionnaire			X												
Interview Training				X											
Field Work				X	X	X									
Writing of CENTS-4 Tabulation Programs				X	X										
Office Edit, Coding, Data Entry					X	X	X								
Install Computer Edit Programs					X	X									
Computer Edit/Correction of Data Tape						X	X	X							
Tabulation of Data for Principal Report									X	X					
Presentation of Preliminary Findings and Draft Principal Report										X	X	X			
Printing and Finalization of Principal Report												X			
Presentation of Findings at Seminar													X		
Initiation of Secondary Analysis														x	

APPENDIX III

PROPOSED BUDGET

ITEMS		AMOUNT (JD)
A. STAFF REMUNERATION		8990
1. SALARIES	5670	
23 Interviewers (INT) x 2 1/2 mo. x 70 JD	4200	
6 Field Editors (FE) x 2 1/3 mo. x 70 JD	1050	
3 Drivers x 2 mo. x 70 JD	420	
2. Salary Supplements (Incentives) 166 person-months x 20 JD	3320	
B. PER DIEM		6850
15 Interviewers/FE (Training Period) x 14 days x 12 JD =	2520	
384 Person-days:Field Staff @ 9.3 JD =	3570	
84 Person-days: Central Staff @ 9.0 JD	760	
C. SUPPLIES		4132
1. Transport	2632	
3 Vehicles x 2 mo. x 360 JD	2160	
Gasoline: 12000 Km ÷ 5 km/liter = 860 liters x 180 fils	432	
2. OFFICE	1500	
Printing of Questionnaire, Manuals and Reports (paper, ink, plates)	1200	
Other	300	
TOTAL JD		19972
US$		$56321