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Trip Report - Cairo, Egypt

Nutrition CRSP

January 23 to February 27, 1984

Gail G. Harrison

Gail G. Harrison, University of Arizona
Principal Investigator, Nutrition CRSP

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Objectives

The trip was undertaken with the following major objectives:

(1) to assess with the other Principal Investigators the status of field operations and data management in Phase II thus far, and to plan together for mid-course corrections.

(2) to attend and respond to the site visits from the management entity.

(3) to plan with the other Principal Investigators the management of the project in the remainder of Phase II.

(4) to review, observe, and assess field procedures specifically in morbidity and anthropometry, and data status in this area, and to initiate necessary modifications and training.

(5) To collaborate with the other Principal Investigators and representatives of the Management Entity in development of the project budget for the remainder of the CRSP period.

(6) to supervise the beginning of and local planning for the work of Ms. Mary Mohs, who is a doctoral student from Arizona spending February and March working in the Nutrition Institute with the zinc analyses and other aspects of the CRSP as assigned.

Accomplishments and Assessments

Objectives number one, two and three are interrelated and will be addressed together. Numerous meetings were held with the other U.S. Principal Investigators, the Egyptian Principal Investigator, and representatives from management in order to assess the state of the project and make plans for changes in management in order to meet the project objectives. These discussions resulted in decisions to make some fundamental shifts in project management, which we are now attempting to implement.

A major decision was to have one of the U.S. Principal Investigators resident in Egypt for essentially all the time during the next year and possibly for the remainder of Phase II. The three U.S. PI's were able to coordinate schedules so that this can be accomplished, with enough overlap when a change of resident PI is made so that continuity can be assured. The resident PI will then have responsibility for management of all aspects of the project, in close communication with the others and senior scientists as appropriate. This change in management operations requires thorough familiarization by all of us with protocols, procedures, quality control, and data flow in all aspects of the CRSP. It is my assessment that we were moving toward this type of management style at an increasingly accelerated rate as the nature of integrated field work demanded it; however,

the site visits by management and the specific recommendations of Dr. Calloway served as a catalyst toward making these changes concrete.

Activities which were directed to accomplishing these objectives of changed management included joint planning among the four PIs for budgeting, field logistics, and household recruitment; identification of and planning to solve problems in areas which have heretofore been more completely under the direction of other senior scientists; and general increased sharing of technical information among all of us. Living arrangements have been made for continuous presence of one of the U.S. PIs in the field beginning early in June 1984.

A fundamental issue with regard to over all project management was the rate of recruitment of families into the core study group, especially with regard to the rate of recruitment of pregnant women. It became clear in January that the rate of recruitment of pregnant women was seriously lagging behind what would be required to recruit the necessary sample by October 1, 1984. Numerous discussions were held among the PIs, management representatives, and appropriate senior scientists in order to solve this problem. Several different approaches to recruitment were worked out, and the protocols to be followed were in a state of flux as late as mid-February. However, a protocol has now been agreed upon for followup of known pregnant women and

identification of pregnancies from a group of approximately 350 "potentially pregnant" or high risk women. The essentials of that protocol are attached to this report (attachment C). Division of labor between the morbidity and reproduction groups has been agreed upon. The Egyptian senior scientist who was responsible, Dr. Said, has at least temporarily removed himself from participation in the CRSP; in the meantime the Egyptian Principal Investigator has assumed responsibility for supervising this aspect of the study.

Other general management issues include those which are addressed in my exit memo to Dr. Galal (attachment B) and will not be repeated in the text of this report.

With regard to objective number five, budgets were drafted for all institutions for the remainder of the budget and returned to the U.S. with Dr. Kirksey.

With regard to objective number four, specifically in Morbidity and Anthropometry, a number of activities were undertaken and the results are as follows:

(1) There was a major problem with scales in the first several months of Phase II. Reports from Egypt had indicated that the portable beam balances were too unwieldy to transport within the village and that the Heathkit electronic scales that had been purchased for the project were non-functional. We were able to facilitate diagnosis of the problem with the Heathkit electronic scales and to put all of

them in functioning order. They seem to be accurate to the manufacturer's specifications (plus or minus 1%) when care is taken to realign all parts after transportation and when batteries are changed regularly. There is now a plan for regular replacement of batteries and routine checking of scales, and the young doctors have been retrained in the care and use of this equipment. We will examine the weight data collected in November - January, but it is possible that due to problems with the scales some or much of it may be unusable until approximately early February.

(2) We accomplished substantial training and retraining in the area of Anthropometry with the existing cohort of young doctors, a few new young physicians assigned to the Institute, and the reproduction group which will assume responsibility for anthropometry on target infants and post-partum women. Dr. Farouk Shaheen will continue this training as time goes on.

(3) Quality control procedures in anthropometry were discussed at great length. Logistically we do not have enough staff for the duplicate observer called for in the core protocol for all measurements. Until this time, there have been duplicate observations only in some instances. We discussed many solutions, and settled on the idea of recruiting and training several nurses who could accompany the doctors for physical examination both to help in filling out forms and to function as the second member or the anthropo-

metry team. At the time that I left Egypt, this had not yet been accomplished because of some difficulties in transferring the individuals from one administrative unit to another. Dr. Shaheen is to follow up and implement this recommendation. It was also decided that for the routine checks by an expert team called for by the protocol, Dr. Shaheen and Ms. Meyer would constitute the expert team. We began training of Ms. Meyer in anthropometry techniques, and her training is now being completed with Dr. Shaheen. Followup will be the responsibility of both of these individuals.

(4) The need for retraining and standardization on Dubowitz examination prior to the first deliveries of target infants was discussed. Concrete plans for this training and retraining are to be implemented by Dr. Shaheen, Ms. Meyer, and others.

(5) Extensive discussions were held on the details on the Physical Examination, Medical History, and Morbidity Recall forms and protocols including the illness follow-up subroutine. Minor revisions were made in draft forms, and these revisions were communicated to the U.S. for incorporation into the printed forms which should be available within a few weeks.

(6) I worked intensively with Dr. Sieber and Dr. Shaheen in planning for revision for the morbidity manual. This revision has largely accomplished and the revised manual will be forwarded directly. For specific details see Dr.

Sieber's trip report.

(7) The administration of the morbidity section was the subject of many discussions with Dr. Shaheen, Dr. Sieber, and Dr. Galal and Ms. Meyer. In the Egypt project, the young physicians carry a large share of the data collection responsibility including physical examination, medical history, weekly morbidity recall, anthropometry, biological sampling, skin testing, and newborn follow-up. The complexity of the logistics for these activities, including the tracking of supplies and equipment and the supervision of quality control procedures, is of a scope that requires more administrative support than the section had. It was finally decided to redefine the position of Ms. Amany, who is currently functioning as an administrative assistant/ bookkeeper for the CRSP. While retaining some of these responsibilities, she will shift her efforts primarily to the support of the clinical section in close collaboration with Ms. Meyer and Dr. Shaheen.

(8) Several training sessions were held with the young physicians on the specifics of anthropometry, morbidity procedures, quality control and standardization. Dr. Shaheen intends to continue these sessions and in addition to implement various procedures for increasing the degree of scientific commitment and involvement of these young physicians on whom so much of this project depends. These activities will include weekly seminars (which have been started are and

reported to be enthusiastically attended), as well as general and specific encouragement of individual interests in the CRSP by these young professionals.

(9) The issues of data flow and management for the morbidity and anthropometry data were addressed in great detail. The situation in late January was that morbidity data including physical exam, medical history, weekly morbidity recall, and anthropometry were being held either in the morbidity section or in the data management unit. Completed forms had been reviewed in detail by Dr. Saneya Wahaab and her staff in the Data Management Unit and they had a clear picture of what problems existed in the use of the forms. They had communicated to Dr. Shaheen about these specific problems, but there was a need for decisive action in editing existing forms and getting them forwarded to the data management unit in Kansas. I spent several days (with the help of Ms. Meyer and Ms. Mohs), working with Dr. Saneya to go through all completed morbidity and anthropometry data forms and develop decision rules for handling inconsistencies and other perceived problems. We also developed a list of issues for communication and retraining of the young doctors and accomplished this before I left. All existing morbidity data were able to be forwarded with travelers during January and February, and I believe many of the specific problems in use of the forms has now been solved. Whether data will now flow smoothly to the data management unit rather than "clot"

again as occurred in the first few months of Phase II remains to be seen.

With regard to objective number six, Ms. Mary Mohs arrived on February 2, to spend two months working specifically on zinc analyses with Dr. Dakroury and his laboratory staff and to familiarize herself with the field application of cognitive measures in relation to her dissertation project which was previously been approved by the SCB. Ms. Mohs traveled to Egypt on her own funds following a decision in January by management that graduate students should not be supported by the CRSP in terms of travel. I worked out with Drs. Galal, Dakroury, Bishry and Yunis and Ms. Meyer the plans for her activities. She spent at least half the time doing general CRSP not related to her dissertation, primarily assisting the processes of data movement in terms of morbidity forms.

ATTACHMENT A

CALENDAR OF ACTIVITIES

January 23 - Monday Travel Tucson to Cairo

January 24 - Tuesday Arrived in Cairo, met briefly at NI with Drs. Kirksey, Jerome, Balderston, Galal and Ms. Meyers about plans for remainder of Dr. Balderston's visit (she had arrived the day previous) and for Dr. Calloway's visit the following week

January 25 - Wednesday Meetings at Nutrition Institute to catch up on status of field activities and plans for next weeks; with Drs. Galal, Shaheen, Jerome, Kirksey, Balderston and Ms. Meyers

January 26 - Thursday CRSP Project meeting in the morning; meeting with other U.S. PIs in afternoon

January 27 - Friday Weekend

January 28 - Saturday Worked with Dr. Farouk Shaheen regarding status of anthropometry and morbidity portions of the project, and projected needs

January 29 - Sunday Continuation of previous day's agenda, plus meeting of U.S. and Egyptian PIs to plan budget

January 30 - Monday Morning meeting with the young doctors and Dr. Shaheen to discuss morbidity and anthropometry - field progress and problems

Meeting at USAID with Drs. Balderston, Jerome, Kirksey and Dr. William Oldham and Mr. John Wiles

Afternoon budget meeting of all four PIs and Dr. Balderston

January 31 - Tuesday Kalama all day with the young doctors, to observe morbidity and anthropometry procedures and sampling of blood, saliva and skin testing

February 1 - Wednesday CRSP Project meeting, morning. Kalama in the afternoon continuing agenda of 1/31

February 2 - Thursday Kalama - Overview with Dr. Calloway and U.S. Co-PIs

February 3 - Friday Kalama with Dr. Calloway and young physicians

February 4 - Saturday Meeting of PIs; meeting with Drs. Calloway and Shaheen regarding morbidity and anthropometry

February 5 - Sunday Work with Dr. Shaheen; meeting with U.S. PIs, Ms. Meyer and Dr. Calloway

February 6 - Monday Meetings with Ms. Meyer and Dr. Shaheen; meeting with Dr. Hussein Khalal and other PIs, Introduction of Ms. Mary Mohs (graduate research assistant) to NI & planning of her agenda with Ms. Meyer, Dr. Galal & Dr. Dakroury.

February 7 - Tuesday	Dr. Calloway's exit meeting with four PIs. Subsequent meeting of PIs re: Dr. Calloway's recommendations. Exit meeting of PIs with Dr. Ted Wachs
February 8 - Wednesday	Budget meeting of four PIs
February 9 - Thursday	CRSP weekly project meeting; Kalama in afternoon with young physicians
February 10 - Friday	Weekend
February 11 - Saturday	Work with Dr. Saneya Wahaab regarding morbidity and anthropometry data flow and forms
February 12 - Sunday	Continuation of previous day's agenda, plus meeting with Dr. Otto Sieber and Dr. Shaheen to plan Dr. Sieber's agenda in detail
February 13 - Monday	Morning: meeting with young physicians & Dr. Sieber Afternoon: continuation of work with Dr. Saneya on morbidity data
February 14 - Tuesday	Training session with young doctors - Morbidity protocols and standardization, with Drs. Sieber & Shaheen
February 15 - Wednesday	National Research Center - morning (non-CRSP) Afternoon: apartment hunting with Dr. Jerome
February 16 - Thursday	Morning: weekly CRSP meeting Afternoon: meeting with Drs. Amin, Shaheen, el-Ghorab and others about protocol for recruitment of pregnant women
February 17 - Friday	Weekend
February 18 - Saturday	Meeting with Drs. Sieber and Shaheen about morbidity; all-afternoon training session with young physicians
February 19 - Sunday	Continuation of Saturday's agenda, all day
February 20 - Monday	Kalama with young physicians
February 21 - Tuesday	Meetings with Dr. Shaheen and young doctors about morbidity procedures; training session for young doctors and reproduction group on anthropometry
February 22 - Wednesday	National Research Center - morning Meeting with Drs. Galal, Jerome and Ms. Meyer (Dr. Jerome's exit meeting)
February 23 - Thursday	Attended as invited participant in all-day workshop at NI on Evaluation of Nutrition Education programs; met with Drs. Amin, Shaheen & Galal on pregnancy issue
February 24 - Friday	Weekend

February 25 - Saturday	Meetings all day regarding pregnancy recruiting protocols and procedures
February 26 - Sunday	Meetings with Dr. Shaheen, Galal, Ms. Meyer, and others; exit meetings
February 27 - Monday	Training sessions with Dr. Shaheen and Ms. Meyer on anthropometry; plans for completion of Ms. Meyer's training in this area by Dr. Shaheen
February 28 - Tuesday	Departure from Cairo



THE UNIVERSITY OF ARIZONA

HEALTH SCIENCES CENTER
TUCSON, ARIZONA 85724

COLLEGE OF MEDICINE
DEPARTMENT OF FAMILY AND COMMUNITY MEDICINE

February 27, 1984

Exit memo 1/23 - 2/27/84

Dr. Osman Galal
Nutrition Institute
16 Kasr el-Ainy Street
Cairo 11562
Arab Republic of Egypt

Dear Osman:

You know my activities with regard to the CRSP over the past five weeks, so I won't detail them here, but rather will put on paper my assessment of where we are, and immediate needs for the next couple of months in the areas with which I have been concerned, so that you are aware of what follow-up should be taking place.

Overall Project Management

(A) I am very pleased with the progress made in the last weeks with regard to data flow and management. Still-existing problems are inadequate staff, space, and photocopying facilities. I know these problems are in the process of resolution. Nancy Meyer and Dr. Saneya are working together to facilitate the smooth flow of data.

(B) We need to get the resting metabolic rate data collection started at once. The equipment has been checked and the staff trained. Dr. Naggar was waiting for an EKG monitor before moving the equipment to Kalama, but need not wait since RMR measurements (the only 'core' data in this area) do not require it. Dr. Ismail and Dr. Gardner of the Kenya project have agreed to standardize their protocols, but we should not wait for this to begin. Larry Verity's trip has not yet been approved, but I see no reason that Dr. Naggar should not go ahead and begin. Nancy is to follow up with him.

(C) The importance of recruiting pregnant women into the study in the next few months is appreciated by all. It is vitally important that this process not "stall out" at any time between now and October. Before the first deliveries of target infants, we will need some review and retraining, and quality control procedures specified, on the Dubowitz exam.

(D) There is a need to hold discussions and make concrete decisions before mid-May on three major issues:

- (1) Publications policy, including data access and graduate students' theses. If you can bring to the May SCB meeting a draft which is accepted here we can then review it from the U.S. side, or if it is possible sooner, you could telex a draft to us to give more time.
- (2) The use of food (candy, cookies) as rewards for children and families' participation is widespread and inconsistent among data collectors. A consistent policy has to be adopted. Ideal would be not to give any of these items, since the process interferes with our major independent variable, food intake. Should it be truly impossible to find alternatives, we must document what is done.
- (3) We need to start now the plans for Ramadan - field logistics, changes, and staffing. Some thought has been given to this, but much more is required. It is likely that the workload in the field will be very heavy in the weeks immediately before and after Ramadan.

Anthropometry.

(A) The major problem with scales has been resolved. All six Heathkit scales are now functional; there is a plan for regular replacement of batteries; and the young doctors have been re-trained in the care and use of this equipment.

(B) It was decided that the reproduction group will assume responsibility for anthropometry on the target infants and postpartum women. Training has begun, but more training is needed to standardize their methods with those of the young doctors. Dr. Amin's group will need some additional equipment; Dr. Kirksey was to have initiated the ordering of additional scales, skinfold calipers and measuring tape.

(C) The quality control in this area has been conscientious but there is a problem of not enough staff for the duplicate observer called for in the core protocol. I have discussed with Dr. Shaheen possible ways to cope with this. The best solution so far proposed is to recruit and train several nurses who could then accompany the doctors for physical exams both to help in filling out forms and to function as the second member of the anthropometry team. This will require your follow-up. Another aspect of quality control with routine

Dr. Osman Calal
February 27, 1984
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checks by an "expert" team called for once on each target. I have proposed that Farouk Shaheen and Nancy Meyer be the "expert" team. Nancy is now being trained by Farouk.

Morbidity

(A) Manuals and forms: Dr. Sieber is revising the morbidity manual (including standard treatment protocols) after extensive discussions with Dr. Shaheen and the young doctors. I will send the revision back within a couple of weeks by DHL, and a copy to Berkeley. Printed morbidity recall, physical exam, medical history and anthropometry forms should be ready to send with Dr. Watson in April.

(B) Administration: The morbidity section needs administrative help due to the scope and complexity of activities. This is being resolved with the redefinition of Amany's position.

I am very much impressed by the positive changes and development I see in the staff of the project over the last several months. With the Data Management Unit now functioning and with a competent new U.S. Field Coordinator, the data management aspects look more optimistic. I am especially pleased with the development of professional interest and enthusiasm among the young doctors, on whose care and diligence so much of the project depends.

Again, thanks to all for the usual warm hospitality.

Sincerely,



Gail G. Harrison

xc: Dr. F. Shaheen
Ms. N. Meyer
Dr. N. Jerome
Dr. A. Kirksey

Left for typing in Cairo - copies for Galal, Shaheen, Meyer
Typed in Arizona - copies for Jerome, Kirksey, file

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ATTACHMENT CIdentification of Pregnancy & Follow up

Data management will send a list to the reproduction group. Pregnants shall be identified and checked throughout the list using the identification of pregnancy form. The outcome of this check is either:

1. Pregnant

2- Not pregnant.

. - The non-pregnant will be checked after exactly one month from the last visit .

. - Pregnants will be divided into two groups according to the duration of pregnancy . The 1st. group who are pregnant less than equal to 4 months and the 2nd group who are greater than 4 months. The 2nd group will be excluded ; while the 1st group will follow the following schedules -

1- They will be included as core-families for routine examination ; and a reproduction form I will be used.

2- A weekly routine morbidity recall visit to the Household and a weekly routine of schedule K will be done for the pregnant.

. Pregnancy monthly visit reproduction form II will be done.

I.V. blood is withdrawn from check that pregnant on the 5th and 8th month of pregnancy.

. Fill the pregnancy outcome reproduction form III, whenever there is any change in the pregnancy status.

If pregnancy ended by an infant, the interviewer has to do dubowitz within the first 5 days of infants life. On the 8th day use reproduction form II page 2 in which the infant is measured and weighed.

However, in this form another separate page is used for the lactating mother, where also some anthropometric measures are done.

Identification of Pregnancy

Block No. Household No. Date ^D^M^Y

Interviewer Name of Lead Female

ID No. Age years

. What was the first date of your last menses? day month or
 between day month and day month

. Date of last menses was established by

Exact calender

Calender of events

. Time since first day of last menses D M

(If intermenstrual period is more than one month)

. Do you think you are pregnant?

yes; no; don't know; no answer.

(If answer to pregnancy is "Yes")

. For how many months are you pregnant? months, don't know.

(If answer to pregnancy test is "NO" or "Don't know")

. Are you using contraceptives? no, no answer

yes:

- Pills
- Condom
- Cream
- Safe period
- Other(specify) _____

. Do you hope to be pregnant?

yes; no; no answer.

Pregnancy Test :

For women who have^{not had} a menstrual period for over 45 days, the pregnancy test should be offered.

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REPRODUCTION/LACTATION HISTORY (FIRST VISIT)

Block No. Household No. Date Interviewer

Name of H.H. Head _____

Name of Lead Female _____ I.D. No. Age years

Marital and Reproductive History : Use (-) if not known

Duration of marriage years

Age of first marriage years

Age when first pregnant years

Number of marriages

Number of living children

Number of dead children

Number of ^{previous} pregnancies

Number of live births Males Females

Number of abortions and miscarriages (<28 weeks)

Number of stillbirths (>28 weeks)

Number of normal deliveries

Number of difficult deliveries Forceps Caesarean

Present birth control measures IUD Pill (If yes, type) _____
Code 1 if yes; 2 if no; 3 if no answer. Indigenous Local Not used (Office use)

Menstrual History: Use (-) if not known

Age at menarche years

Duration of intermenstrual period days

Duration of menstrual period days

Regularity of menses (Regular=1. Irregular=2)

Approximate date of last menses Days

Pain during menses (Code 1, 2 or 3)

Amount of menses/How many towels are used each day?

Are you pregnant now? (Code 1, 2 or 3)

If yes, duration of pregnancy Months

If pregnant for 4 months or less, use Reproduction Form II

Are you lactating? (Code 1 or 2)

Code 1 if yes; 2 if no; 3 if no answer.

Smoking Habits

Lead Female: Cigarettes Water pipe Other (Specify) _____
 (Office)

Lead Male: Cigarettes Water pipe Other (Specify) _____
 (Office)

Supplements

Do you take mineral/vitamin supplements?

If yes, do you take: Iron

B-Complex

Other (Specify) _____
 (Office use)

Did you obtain supplements from health center?

Are you taking the supplement?

If yes, for how long? weeks days

If not, why? (Specify) _____
 (Office use)

RECALL ATTACHMENT
SCHEDULE K: PREGNANCY

Sicc' No. Household No. Date of Recall
Interviewer ID Dates Included to D D M M

Code: Yes = 1, No = 2, Don't know = 3

Individual ID Number: Lead Female
Respondent ID Number: same

In the past week:

- Did you feel quickening/fetal movement?
- Did you feel heaviness/tingling/tenderness in your breast?
- Did you have bleeding?
- If yes, how many days?
- Did you have discharge?
- Did you feel contractions
- Did you feel morning sickness?
- Did you feel craving for special foods?
- If yes, list: 1.
- 2.
- 3.
- 4.
- 5. Food in general
- Did you feel aversion to particular foods?
- If yes, list: 1.
- 2.
- 3.
- 4.
- 5. All foods
- Did you eat different than usual?
- (If yes, notify supervisor)
- Did you feel more tired than usual?
- Did you feel less tired than usual?
- Did you change your activity pattern?
- (If yes, attach schedule J)
- Are you nursing?
- If yes, has your milk changed in quantity?
- quality?
- Other
- If other, describe

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PREGNANCY MONTHLY VISITS

Block No. Household No. Date
 Name of H.H. Head _____ I.D. No.
 Name of Lead Female _____
 Weeks of gestation Date of last menses

Anthropometry Recording Form

Observer A _____
 Observer B _____

Parameters to be measured	First pair of measurements				Second pair of measurements		Comments
	Observer A	Observer B	Difference of A & B	Acceptable?	Observer A	Observer B	
Weight (kg)	-----	-----			-----	-----	
Midarm circumference (cm)	-----	-----			-----	-----	
Triceps skinfold (mm)	-----	-----			-----	-----	
Biceps skinfold (mm)	-----	-----			-----	-----	
Subscapular skinfold (mm)	-----	-----			-----	-----	

Pre-set limits: Weight, 0.1 kg; Midarm circumference, 0.2 cm; Triceps skinfold, 3 mm; Biceps skinfold, 3 mm; Subscapular skinfold, 3 mm.

Code 1 if yes; 2 if no; 3 if no answer.

Examiner

Nipple enlarged?*
 Colored areola?*
 Lower limb edema?*
 Are you presently breast feeding?
 Blood pressure S D
 Fundal height . cm
 Fetal heart sounds
 Fetal movements

*By examination

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Code 1 if yes; 2 if no; 3 if no answer.

Supplements

Do you take mineral/vitamin supplements?

If yes, do you take: Iron

B-Complex

Other (Specify) _____
(Office use)

Did you obtain supplements from health center?

Are you taking the supplement?

If yes, for how long? weeks days

If not, why? (Specify) _____
(Office use)

Smoking Habits

Lead Female: Cigarettes Water pipe Other (Specify) _____
(Office use)

Lead Male: Cigarettes Water pipe Other (Specify) _____
(Office use)

Blood, finger-prick withdrawn (22 and 36 weeks only) Sample obtained at AM

Hemoglobin . g/dl PM

Hematocrit . %

Ferritin . ng/ml

Blood smear for differential while blood cell count

Neutrophils

Basophils

Eosinophils

Monocytes

Lymphocytes

Urine (monthly) Sample obtained at AM PM

Albumin, mg/dl Neg Tr 30 100 300 >2000

Glucose, mg/dl Neg 100 250 500 1000 >2000

Ketones, mg/dl Neg 5 15 40 >80

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PREGNANCY OUTCOME

Block No. Household No. Date Examiner
Name of H.H. Head _____ D M Y
Name of Lead Female _____ I.D. No.
Date of Pregnancy Outcome
D M Y

Code 1 if YES, 2 if NO and 3 if NO ANSWER.

Pregnancy outcome Abortion or miscarriage (<28 weeks)
 Stillbirth (>28 weeks)
 Live birth

If live born Normal delivery
 Complicated Hemorrhage
 Forceps
 Caesarean

Pleurity Single Twins Triplets

Attended by Self/Family "Daya"
 Paramedical Physician/Hospital

NEWBORN: Name of Infant _____ I.D. No.

Infant + clothing . kg
Clothing . kg
Infant Birth Weight . kg at age hours

GESTATIONAL AGE:

weeks by menstrual history
 weeks by date of quickening
 weeks by fundal height
 weeks by Dubowitz score at age days hours

Continue to page 2 for anthropometry recording form for 8-day-old-infant.
and to page 3 for anthropometry recording form for lactating mother.

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NEWBORN (6-day-old):

Anthropometry Recording Form

Observer A _____

Observer B _____

Parameters to be measured	First pair of measurements				Second pair of measurements		Comments
	Observer A	Observer B	Difference of A & B	Acceptable?	Observer A	Observer B	
	_____	_____	_____	_____	_____	_____	
Length (cm)	_____	_____	_____	_____	_____	_____	
Weight (kg)	_____	_____	_____	_____	_____	_____	
Midarm circumference (cm)	_____	_____	_____	_____	_____	_____	
Triceps skinfold (mm)	_____	_____	_____	_____	_____	_____	
Biceps skinfold (mm)	_____	_____	_____	_____	_____	_____	
Subscapular skinfold (mm)	_____	_____	_____	_____	_____	_____	
Head circumference (cm)	_____	_____	_____	_____	_____	_____	

Pre-set limits: Length, 1 cm; Weight, .1 kg; Midarm circumference, 0.2 cm; Triceps skinfold, 1.5 mm; Biceps skinfold, 1.5 mm; Subscapular skinfold, 1.5 mm; Head circumference, .2 cm.

LACTATING MOTHER (8-days);

Anthropometry Recording Form

Observer A _____

Observer B _____

Parameters to be measured	First pair of measurements				Second pair of measurements		Comments
	Observer A	Observer B	Difference of A & B	Acceptable?	Observer A	Observer B	
Weight (kg)	_____	_____			_____	_____	
Midarm circumference (cm)	_____	_____			_____	_____	
Triceps skinfold (mm)	_____	_____			_____	_____	
Biceps skinfold (mm)	_____	_____			_____	_____	
Subscapular skinfold (mm)	_____	_____			_____	_____	

Pre-set limits: Length, 1 cm; Weight, .1 kg; Midarm circumference, 0.2 cm; Triceps skinfold, 1.5 mm; Biceps skinfold, 1.5 mm; Subscapular skinfold, 1.5 mm; Head circumference, .2 cm.

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