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**Women and Infant Nutrition Field Support Project (WINS)**

**Report on a WINS Consultant's  
Technical Assistance Visit  
to Uganda**

February 18 to March 7, 1993

**SUBMITTED BY:**

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## **I. OBJECTIVES OF THE VISIT TO UGANDA**

- To determine why the start up of WINS activities in Uganda has been delayed and how best to move the project forward.
- To review the goals, objectives, and expected outcomes with the in-country WINS team.
- In light of the delay to revise the work plan with input from the DMO's, MOH, CHDC.
- Revise the budget in order to accomplish planned activities.
- Assist Ugandan Team with planning for implementation of project activities.
- To plan the baseline studies in the districts in collaboration with CHDC and the Iganga and Rukungiri District Medical Officers (DMO's) and to help better structure division of labor, coordination and responsibilities in the teamwork among the Uganda WINS team members.
- To help identify research questions for operations research.
- To clarify and strengthen coordination between the WINS Project and UNICEF.
- Incorporate base line indicators to be followed to evaluate the project progress and impact.

## **II. ACTIVITIES**

Eleven working days were spent in country, in Kampala from 2/20 to 3/5. One day was spent in Washington for debriefing with the WINS Project Director (Bibi Essama) and representatives from the International Center for Research in Women (Michael Paolisso and Charlotte Johnson-Welch) and the Pragma Corporation (Charles Teller).

The following meetings were held in Kampala:

Monday 2/21            Initial team meeting with Dr. Jessica Jitta, Ms. Louise Sserunjogi of the Child Health Development Center (CHDC), Dr. Dennis Lwamafa and Ursula Wangwe of the MOH-Nutrition Division to discuss the purpose of my visit and to plan the agenda and activities. The WINS Project objectives, goals, and outcomes were discussed and reviewed. The team members presented the current status of WINS activities in Uganda. Ms. Imelda Zimbe of IPH was away until the last two days of my stay.

- Tuesday 2/22** Meeting with Dr. Jitta and Ms. Sserunjogi (CHDC) to discuss research activities.
- Meeting with U. Wangwe (MOH) and L. Sserunjogi to start revision of the work plan.
- Wednesday 2/23** Meeting with the DMO of Iganga, Dr. James Baguma and the Assistant District Medical Officer of Rukungiri, Dr. James Mugeme, representing the Rukungiri DMO who was out of the country.
- The entire day was spent reviewing goals, outcomes, revising work schedule, technical assistance needs, progress to date and work plans for the next six months.
- Thursday 2/24** Meetings with:
- i. USAID's TAACS, David Puckett
  - ii. Ms. Carol Jaensen and Björn Lindquist (UNICEF), U. Wangwe and Dr. Lwamafa (MOH) and L. Sserunjogi (CHDC).
- Friday 2/25** Budget review and revision.  
Discussion of technical assistance requirements and the timing of visits.
- Saturday 2/26** Work on plans for operations research and baseline survey.
- Monday 2/28** Mbarara trip planned for Tuesday/Wednesday to visit SWIP Team. SWIP team does training of community health workers of Rukungiri for their new action plan for Health and Nutrition and is developing training curricula. The meeting was held at UNICEF Kampala.
- Tuesday 3/1** Meeting with L. Sserunjogi of CHDC to further discuss items to be included in the baseline surveys based on earlier discussions and review of the materials with the district medical officers.
- Wednesday 3/2** Finalization of the topics, research plans, questions, content and nutritional status measures for the baseline survey. We also met with the statistician, Mr. Bagenda to discuss sampling and data entry and management. We discussed and outlined two topics for operations research.
- Thursday 3/3** Meeting with Dr. Dennis Lwamafa and U. Wangwe of MOH and Dr. Jessica Jitta and L. Sserunjogi of CHDC to work out operational aspects of project, i.e.; fixing of responsibility, coordination, communication fiscal management; frequency and structure of Steering Committee, review

of work schedules and timing for visits of technical assistance. The need for and role of a local WINS coordinator was discussed.

Friday 3/4 Write up of meetings and consultations and meeting with Dr. J. Jitta about the research budget.

Saturday 3/5 Very brief meeting with Dr. Dennis Lwamafa prior to my departure, to discuss the budget.

### **III. FINDINGS**

#### **A. Progress and Problems to Date**

WINS team held two steering committee meetings since September 1993, one at the insistence of Bibi Essama, which included the two DMOs. There have been no other WINS teams activities to initiate the program. No responsibility has been assigned or delegated to others by the Chair of the Steering Committee. Lack of activity to move the WINS program along was attributed to lack of any WINS funds in country.

In Iganga, the district level meeting to disseminate WINS findings has not to date taken place, nor has any district action plan been discussed or written.

In Rukungiri, under the new program of SWIP and UNICEF, a different picture emerges. A meeting to disseminate findings of the WINS RAP was held in the Spring of 1993 and an action plan based on the RAP was written for the Rukungiri district. This was reviewed by Essama and Neumann during their Aug/Sept 1993 consultation in Uganda during their last visit there. Under a UNICEF (USAID funded) initiative, SWIP has undertaken a community-based action plan, largely adopted from WINS action plan, but not so acknowledged. This plan was to expand SWIP sanitation and water concerns and include health and nutrition education. In Nov. 1993 activities were initiated with the formation of a Training Team under the new SWIP Program Management Unit (PMU). The team was charged with designing a curriculum for health and nutrition education for the training of community health workers (CHW).

As the first step and at the suggestion of a visiting UNICEF nutritionist, it was advised that the Training group first meet with two "pilot" communities (one of which was assessed by WINS team) to present findings of the assessment and get community feedback about its view of the causes of these problems, possible solutions and activities. This community input would then form the basis of the curriculum design. The community recommended growth monitoring activities to be carried out by community volunteers, half male, half female and volunteer recorders. This GMP activity has been carried out in two pilot areas with positive response by the villagers.

Furthermore, to learn more about the communities which UNICEF designated as "sentinel areas" in Rukungiri for surveillance of health, sanitation and nutrition, "baseline" information was collected in a total of 3000 households. These results have been analyzed and written up by the DMO of Rukungiri and should now be available. Relevant information was then to be incorporated into the health/nutrition education curriculum being designed by SWIP.

Thus, a good deal of activity has started in Rukungiri based to a great extent on the WINS RAP Assessment and Action Plan of the WINS team, DMO and District health team (DHT). However, the WINS contribution not only has not been acknowledged, but the WINS presence and opportunity to participate has been excluded. UNICEF and SWIP appear to have taken over the WINS plan and "run with it."

Why Dr. Lwamafa and U. Wangwe allowed this to happen is puzzling and disturbing. The WINS team has not been allowed to see the actual UNICEF/SWIP action plan for the district, nor the draft of the nutrition education curriculum. (This is further discussed under the report of a meeting with the SWIP Training Unit).

**B. Description of Proposed Activities in Iganga for the Next Six Months (March - September 1994)**

The following activities were proposed by the DMO of Iganga District, Dr. James Baguma, during a day and a half long meeting with me and the WINS in-country program team at Makerere University (CHDC) on February 22 and 23, 1994.

**1. Baseline Survey (March 1 to May 31, 1994)**

Preparation for a baseline survey includes coverage of a subsample of the entire district. This will include household information, the food and nutrition situation, nutritional status of adults and children, and KAP of nutrition related topics. In the six sub-counties targeted for intervention, households will be oversampled and more in depth KAP studies and focus groups carried out. Cluster sampling will be used and villages and households randomly selected. The baseline studies will be carried out under the direction of the CHDC in collaboration with the DMO and district team (DHT) of Iganga. The actual surveys will be performed in May and June with analysis and write-up of the findings in July and August and dissemination of findings in about August 1994.

**2. Dissemination of findings from the Iganga WINS Rapid Assessment of the Nutrition of Infants and Women and Planning of Action Plan (April 11-20, 1994)**

A dissemination meeting of 120 people (health, agriculture, community development, administration resistance councils, NGOs) will be held in Iganga on April 11th to share with the district the findings of the WINS Nutrition RAP of women and infant nutrition from 1993.

The meeting will be followed by a brief visit to Embu, Kenya to observe and learn about the implementation of the community-based Growth Monitoring and Promotion Program (GMP). Upon return a two to three day meeting will be held to plan for the intervention and Action Plan for improving maternal and infant nutrition in six sub-counties.

For WINS to be integrated with other existing programs in the district (such as EPI, CDD, CBHC) joint planning will take place. There are plans to appoint a nutrition coordinator who will work with the resistance councils at levels RC3 to RC5, community health workers (CHW), assistant health visitors, pregnancy monitors, nursing assistants and non-governmental organizations (NGO's).

The Iganga DMO and DHT will attend a meeting in Entebbe on March 22 sponsored by UNICEF and one MOH to review the experience of Rukungiri with community sensitization about nutrition, community based growth monitoring, and to review a curriculum developed by the SWIP training unit for training of community level health and nutrition workers. It is hoped that the curriculum can also be adopted for use in Iganga and elsewhere.

During April and May, existing health and nutrition education materials and methods will be gathered and reviewed for content and applicability to Iganga. WINS will support a technical assistant in the field of IEC who will spend three weeks in Uganda to review existing materials for suitability, quality; supervision methods, and quality control and evaluation methods.

Contact and coordination will be made with "training allies" in the district who have been carrying out training of primary health care workers for health education and sanitation education. These are the Diocese of Basoga, a primary care outreach program, RUWASA, a DANIDA-supported rural water and sanitation project in Iganga and a community based health care organization (CHBC) which is now expanding with the help of WHO. In addition, the NGO Safe Motherhood has trained pregnancy monitors, two per sub-county, in Iganga, to detect pregnant women and provide prenatal education.

### 3. Training Plans

Actual training is planned to start in June. The main trainer of trainers (TOT), the District Health Teams (DHT) will train sub-county supervisors who will, in turn, train parish and community level personnel. The sub-counties will be assisted by the assistant health visitors, health assistants, agricultural extension workers and the community development officer.

There are plans to expand CHW training, with the goal of having one CHW per 10-15 households. The CHWs and TBAs will be trained by sub-county staff, several sub counties at one time. The nursing assistants, five per sub-county (of 10,000 population) will play an

important role and will be trained to work with pregnant mothers and growth monitoring promotion. Training of village level and community level workers is planned for June and July.

Training in the actual use of growth-monitoring equipment - scales, length/height boards, arm tapes and their distribution to health workers will occur in August-September.

#### 4. Concerns in Iganga (by C. Neumann)

The initial dissemination of RAP findings has been delayed until April 11. This is due to numerous competing workshops, and programs being held in the district prior to April 11.

Iganga is heavily counting on SWIP to come up with a training curriculum for them to use. Given very different circumstances in Rukungiri, this may be unrealistic and Iganga will have to review existing materials and develop and/or modify their own.

There will need to be a strong WINS coordinator identified. The district is large and relatively densely populated with many varieties and levels of government and non-government groups working there. The DMOs idea about a Nutrition Coordinator is a sound one. The District Development Officer has been mentioned as being a very capable person, in this regard.

**C. Proposed Activities in Rukungiri (March - September 1994)**

The activities were proposed by the Assistant District Medical Officer of Rukungiri during a day and a half long meeting with other members of the WINS team at the CHDC (Makerere University), on February 22 and 23, 1994.

**1. Workshop - March 22, 1994**

A workshop sponsored by the MOH and UNICEF is planned for March 22, 1994 in Entebbe to review the following activities in Rukungiri:

- i. Community-based growth monitoring in three pilot areas.
- ii. Review a draft of the SWIP nutrition education curriculum for CBHC workers.
- iii. Baseline information from the sentinel areas survey of 3000 households.

The training materials, curricula and approaches may be modified based on the March 22nd meeting.

**2. Training - March to September 1994**

Continued training is planned for all levels of personnel. Nutrition is only one component of CHBC training which also includes safe water, sanitation, and health.

Training will take place on the following levels:

<u>District</u>	<u>Subcounty</u>	<u>Community</u>
District Health Teams	Extension Workers	TBAs
Agriculture Nutrition Worker	" Agriculture	CBHC
Education	" Health	Pregnancy Monitors

**3. Community Development**

Continuing sensitization and mobilization at all levels will be ongoing simultaneously with training, with a focus on food, nutrition and health problems and solutions by the community. Community-based growth monitoring (GMP) will also be extended. Training will include anthropometry for Trainers of Trainers (TOTs) and community based workers and volunteers and TBAs. Weight, height, length and arm circumference will be covered. Length monitoring will be included in selected GMP programs.

**4. Baseline Survey of Entire District - April to July 1994**

Although a baseline survey was initiated in three designated sentinel areas of 3000 households (total), a fuller baseline including KAP around child feeding and maternal nutrition and nutritional status assessment will be carried out on a subsample, district-wide.

The full array of survey activities from instrument development to data collection, analysis, write-up and dissemination is planned from approximately April through July 1994.

Operations research studies will be planned and probably only one initiated before the end of September 1994.

The above plans are based on the meeting with the Assistant District Medical Officer, Dr. James Mugeme acting for the DMO of Rukungiri who was out of the country.

## ANNEX 1

### Technical Expertise to be Provided by WINS

Technical Expertise	Focus	Dates
1. <u>Information/Education/Communication (IEC) Specialist</u>	Evaluation of existing Health/Nutrition education materials, curricula; methods for training, supervision and evaluation; Assist with design of communication component	May or June 1994  (3 weeks)
2. <u>Evaluation</u>	To Plan for: Process Evaluation Outcome (impact) evaluation Program monitoring Assist with design and implementation of evaluation procedures; ongoing and end-of-project	July, 1994  (3 weeks)
3. <u>Operations Research</u> Maternal Nutrition Component	Work with CHDC staff to design and implement operations research and provide input for assessment of and education for maternal nutrition improvement i. Anemia in women: prevalence causes and prevention ii. Maternal anthropometric risk detection and pregnancy outcome.	August 1994 or September 1994

**ANNEX 2**

**WINS  
Steering Committee**

MOH, CHDC, IPH  
DMO - Iganga  
DMO - Rukungiri  
Denis Lwamafa - Chair  
Ursula Wangwe - Coordinator/Secretary

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**Training**

U. Wangwe, Coordinator  
I. Zimbe

**Research**

J. Jitta  
L. Sserunjogi, Res. Coordinator -  
DMO's  
I. Zimbe

**Capacity Building**

D. Lwamafa  
DMO - DHT

**Other groups to be involved:**

SWIP - Rukungiri

UNICEF

Safe Motherhood

Wellstart

EPI

CDD

RUWASA

Bosaga Diocese

## **ANNEX 3**

## ANNEX 3

### Preliminary Revised Budget

Year I (October-September 1994)

(Uganda Portion)

<u>Dissemination and Planning</u>	<u>US\$</u>
Action Program and Field Trip to Embu, Kenya	18,000
<u>Baseline Surveys</u> (Include KAP and nutritional status)	
Iganga	6,000
Rukungiri	6,000
<u>Training and IEC</u> Inform, Education Communications	
Needs Assessment	
IEC Strategy Development	10,000
IEC Materials Development	
<u>Capacity Building</u>	
Refresher course - District Health Team CDTU	2,500
Management training - DMO	2,500
Computer on hands training x 6 people @ \$400.	2,400
Retraining: CHW, Preg-monitors, TBA's Nursing Assistants	3,000

## **In-Country Management and Technical Support Year One**

			<b><u>Unit Cost</u></b>	<b><u>US\$</u></b>
MCH/GMP	J. Jitta	4 person mos.	100	400
MCH/Nutrition Research	S. Sserunjogi	4 person mos.	70	280
Trainer/Quality Control	I. Zimbe	3 person mos.	70	210
Biostatistics	D. Bagenda	3 person mos.	70	210
<b><u>Steering Committee</u></b>				
Chair	D. Lwamafa	11 meetings	35	385
Coordinator of Training	U. Wangwe	11 meetings	30	330
<b><u>Other Direct Costs</u></b>				
Vehicles: operations and maintenance (x2)			800	1,600
Local program office: repair maintenance - MOH - Nutrition Division				3,000
Field expense				1,000
Field office expenses				1,100
Communications (telephone, fax, postage, DHL)				25,000
Xerox				500
<b><u>Operations Research</u></b>				
2 Studies in each district, start up in year one; continue into year 2 at similar funding level				4,000

## Highly Tentative Year II Budget Estimates

				<b>Increased by 5%</b>
MCH	J. Jitta	4 person mos.	\$ 100	\$ 400
Meetings/Research	L. Sserunjogi	6 person mos.	70	420
Research/Training	I. Zimbe	6 person mos.	70	420
Biosstatistics	D. Bagenda	4 person mos.	70	280

### Steering Committee

D. Lwamafa, Chair	12 Meetings @	40	480
U. Wangwe, Secretary Coordinator	12 Meetings @	35	420

### District Activities

Evaluation Dissemination Meetings	5,000
National Dissemination Meetings	5,000
District Level Meetings	8,000
Vehicles, Petrol	4,800
Field Expenses	3,000
Operations Research	6,000
Repeating Surveys	6,000

**Needed Supplies and Equipment (US \$)**

Fax Machines @ \$1,200. (2 Districts, CHDC)	x3	\$3,600
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**Anthropometric Supplies**

Salter Scales @	\$ 70	x20	1,400
Solar battery-digital scales @	70	x20	1,400
Length/Height Boards @	150	x20	3,000
Arm Measuring Tapes @	3	x20	60
Birthweight Scales (PATH) @	1	x20	20
Computer Software @	100	x3	300
Slide Projector			700
Overhead Projector			400
Projector Screen			300
Typewriter			210

(\*Prices need to be checked)

1984

1984

## ANNEX 4

### Operations Research: WINS Team and Child Health Development Center

#### **Topic 1: Anemia in Women: Prevalence, Identification, Intervention**

Anemia, particularly in pregnant women, is felt to affect 40-50% of women globally. Adverse effects of anemia have been demonstrated on physical activity, work capacity, cognitive function, increased risk of infection and on birth weight.

The etiology of anemia is multifaceted--nutritional deficiency (iron, B<sub>12</sub>, Folic acid, vitamin A,), blood loss secondary to gastrointestinal and urinary tract parasitism (notably malaria and schistosomiasis) and congenital hemoglobinopathies, i.e. Sickle Cell disease, etc., and chronic infection.

A better understanding of the extent and etiology of anemia is needed as well as appropriate and feasible methods for identifying anemia on a community level by community health workers and traditional health providers--notably TBAs. Although iron deficiency is felt to be the most widespread cause of anemia, for more effective intervention, the other main causes of anemia need to be identified.

The steps of an anemia study in women are the following:

1. a. Identification of the prevalence of anemia<sup>1</sup> in the following groups:

- Non-pregnant women 15-45 (childbearing age)
- Pregnant women 2nd or 3rd trimester
- Lactating women
- School age female children 6-10 years
- Comparison group of men and school age boys

Method: Reliable field method for hemoglobin -- Hema-cue.

b. Comparison of "bloodless" appropriate technology method (to be chosen) to compare this method to the above more accurate method and to test the feasibility of the simpler method which might be used by CHW, TBA, etc.

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<sup>1</sup>WHO definition of anemia: < 12 gm/dl in nonpregnant women; < 11 gm/dl in pregnant women

## 2. Identify the main types or etiologies/determinants of anemia.

- diet history (folic, B<sub>12</sub>, iron sources); Bioavailability issues, i.e. phytate, fiber, tea, coffee, citrus in the diet)
- spleen rates (for endemic malaria)
- urine and stool examination for schistosomiasis and hookworm.
- use of blood smears for red blood cell morphology (macrocytes, microcytes, sickle cell, etc.)
- sickling tests
- thick smears for malaria
- serum ferritin determinations for iron stores

(All blood tests can be done on capillary blood obtained by finger stick)

A multifaceted intervention will be designed:

1. Diet-nutrition education/diet quality improvement - use of heme iron containing foods
2. Identification and treatment of parasites including malaria prevention
3. Iron/folic supplementation plus other nutrients as indicated

### **Topic 2. Risk Determination for Low Birth Weight and Delivery Complications using Maternal Anthropometric Indicators and Past History of Complications**

It has been shown that underweight women (wt < 45 kg.; arm circumference < 23.5 cm; BMI < 19) in pre-pregnancy or early pregnancy are at significant increased risk for the birth of low birth weight (small-for-date) infants. Women with short stature are at significantly increased risk for having labor and delivery complications, placing both the infant and mother at increased risk. It has also been shown that a past history of a women having produced a LBW infant or of having had labor or delivery complications places the mother at increased risk for a repeat of such events (WHO Multicenter analyses of Maternal Anthropometry and Pregnancy Outcome, 1990 in press). Women with iodine deficiency (I.D.D.) are at risk for poor pregnancy outcome (increased abortions, stillbirths, LBW). Therefore women exhibiting visible goiter should also be identified and treated appropriately.

The challenge is to identify malnourished women with current and a past evidence of malnutrition and obvious goiter on a community level prior to or early enough in pregnancy so that effective interventions and appropriate referral for safe obstetrical handling can occur.

It should be noted that anemia per se (particularly megaloblastic anemia) is a risk factor for LBW and ideally should be part of the nutritional screening package. (See section on "maternal anemia").

## **Approach**

The approach is to identify women likely to become pregnant or already pregnant (the latest in the 2nd trimester), evaluate them for "nutritional" risk, record these risk factors in a maternal home-based record and then provide or refer for appropriate intervention.

The cadre of community health workers to be trained to carry out anthropometry and other risk assessment would be: CHW; TBAs, assistant nurses; pregnancy monitors; other appropriate groups of women.

## **Methods to be taught in training:**

1. Obtaining height,\* weight, use of a nomogram for BMI, mid upper arm circumference (MUAC), birthweight using a simple birthweight scale by PATH<sup>+</sup>
2. To detect visible goiter by inspection.
3. To obtain history of previous birth of LBW infant previous labor or delivery complication.

The above information can be obtained on non-pregnant or pregnant women and recorded on her home-based record.

Pregnant women would need to be tracked to term by weekly home visits so as to obtain birth weight and information on labor and delivery or other complications and test the performance of indicators for poor pregnancy outcome and labor and delivery complications.

For the group of pregnant women, the study would also allow for the monitoring of pregnancy weight gain and the ability to determine the actual number of serial weighing in order to monitor adequate weight gain velocity (in their 2nd and 3rd weighing) i.e. with two of weighing (i.e. weight gain of a minimum of 1 kg. 4 weeks apart in trimester 2 or 3 i.e. after pregnancy is obvious is the 2nd trimester).

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\* Color-coded MUAC tapes or numeric tapes can be constructed with appropriate cut -offs (i.e. 23.5 cm) indicated.

+ PATH has developed color coded BW scales. Also height bars or sticks can be used for determination of short stature (can be set as appropriate cut off, i.e. 148, 150 cm).

The main challenge will be for adequacy of referral facilities for women with stunting for safe delivery should labor or delivery difficulties arise. As for nutrition intervention, this would include improving diet quality and quantity, reduced work load, in intrapartum, pre-pregnancy or during pregnancy and treatment of I.D.D.

It would be highly desirable to identify malnourished and anemic pre-school and school age girls and treat them before they enter adolescence and childbearing. A woman's size upon entry into pregnancy is a major determinant of the infant's size at birth.

Special attention should be paid to the percent of girls compared to boys who are brought for growth monitoring and promotion and differences in prevalence for stunting and underweight.

In school aged children, identification of stunted and underweight children, particularly girls can be conveniently screened for. Screening also for anemia and iodine deficiency can be carried out. Intervention for PEM, anemia and iodine deficiency and health/nutrition education can most feasibly be carried out on the schools. Also, school performance will improve, as well, as be shown by research studies.