

VITAL

VITAMIN A FIELD SUPPORT PROJECT

**NIGERIA NATIONAL MICRONUTRIENT SURVEY
TRIP REPORT**

November 7-11, 1993

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TRIP REPORT**

November 7-11, 1993

by

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ACRONYMS

CHESTRAD	Center for Health Sciences Training, Research and Development
CIC	Conjunctival Impression Cytology
CICH	Centre for International Child Health (London)
FMOH	Federal Ministry of Health and Social Services
JHU	Johns Hopkins University
LSHTM	London School of Hygiene and Tropical London
MCUI	Medical College of the University of Ibadan
MRDR	Modified Relative Dose Response
NE	Northeast
NMS	National Micronutrient Survey
NW	Northwest
RAM	Random Access Memory
RIA	Radio Immune Assay
SDA	Simplified Dietary Assessment
SE	Southeast
SF	Serum Ferritin
SR	Serum Retinol
SW	Southwest
TSH	Thyroid Stimulating Hormone
UCH	University College Hospital, Ibadan
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VITAL	Vitamin A Field Support Project
WB	World Bank

1. INTRODUCTION

The purpose of this trip was to assess the current status of the NMS and come to consensus with the NMS team on the work plan for the next three months. The field operations for the survey having been completed in September, 1993, the visit was intended to clarify plans and requirements for data analysis and writing of a draft survey report in preparation for a national dissemination seminar to be held in early 1994. Specifically, VITAL wished to learn how much of the data had been recovered from the field, how much had been entered into computers and cleaned, how much additional data cleaning would be needed, and whether adequate human, technical and material resources would be available for analysis and report writing over the next three months. The status of the biochemical analyses and clarification of the time frame for completion of these was also to be determined. The trip would be also an opportunity to discuss tentative dates for the national dissemination seminar, with the USAID Mission, the FMOH and the NMS investigators.

2. BACKGROUND

The Federal Government of Nigeria has committed itself to the goals of the 1990 World Health Summit for Children. This summit called for virtual elimination of vitamin A deficiency and iodine disorders, and a 50% reduction of iron deficiency, by the year 2000. In recognition of the resolutions of this Summit, as well as in response to a communique issued at the end of a national workshop on food and nutrition policy held in January 1989, the Federal Government set up an intersectoral National Committee on Food and Nutrition in October 1990. This Committee is mandated, among other things, to develop a national nutrition policy and program.

The National Micronutrient Survey (NMS) represents a critical element in the formulation of a national food and nutrition policy for Nigeria. The NMS is intended to obtain baseline information about the prevalence of micronutrient deficiencies, nationally and at the health zone level, which will then be used to develop control strategies and programs.

The National Committee assigned responsibility to the Federal Ministry of Health and Social Services (FMOH) to arrange for a prevalence assessment of vitamin A, iron and iodine deficiencies. Following a request from the FMOH to USAID Lagos, the Africa Bureau and Office of Nutrition of USAID (Washington D.C.), agreed to provide the funding for the survey as well as the technical and financial services of its Vitamin A Field Support Project (VITAL).

The NMS is a significant first step in the long range goal of eliminating micronutrient deficiencies in Nigeria. The survey is designed to assess the magnitude and distribution of micronutrient deficiencies nationally and in each of the four health zones, to identify risk factors associated with development of micronutrient deficiencies and to identify groups at risk. The survey is a community-based, cross-sectional point prevalence survey of vitamin A, iron and iodine status of 4200 randomly selected children aged 6 to 71 months and their mothers (or principal caretakers). The survey began in May, 1993, following operational research conducted

in January and February and a pilot study conducted in April, 1993.

The survey is implemented by a technical committee composed of national experts in the fields of nutrition, ophthalmology, pediatrics, biochemistry, statistics and epidemiology. This committee is chaired by the Principal Investigator (PI), Professor Tola Atinmo, who is also the project director. The project headquarters is at the Medical College University of Ibadan (MCUI).

3. DISCUSSION

3.1. USAID/LAGOS AND FMOH INVOLVEMENT

On 11/8/93 the author met with Mr. Gene Chiavaroli, Dr. Nikke Grange, Mrs. Bunmi Dosumu and Professor Atinmo at the USAID Mission in Lagos. The discussion concerned the purpose and objectives of Dr. Haggerty's visit, the timing of the national dissemination seminar, USAID/Lagos' assistance during the next three months and specifically in preparation of the seminar, plans for future use of NMS data, remaining work to be completed by NMS team prior to the seminar, future support by USAID, and arrival/role of the data analyst and other consultants.

Mr. Chiavaroli confirmed USAID's continued support of the NMS and authorized the transfer of an additional computer to Ibadan to assist with data entry and analysis. In addition, he suggested that Dr. Grange and Professor Atinmo think about a small research grants program for the next couple of years to be used to publish papers coming out of the NMS. This could be channeled through (for example) the Mothercare project. USAID believes that although there will be outside assistance during data analysis, the analysis should be done by the Nigerians. Mr. Chiavaroli asked if the NMS data would be made available to the World Bank and UNICEF, and Professor Atinmo reminded him of the clause in the ISTI/FMOH sub-contract stating that the FMOH will make the survey data available to researchers for reference and research as well as to USAID. Prior to the national seminar, the FMOH and USAID will discuss options for the mechanics of sharing the NMS data with the the World Bank and UNICEF. The likelihood of follow-on program support with USAID/R&D/N OMNI was discussed briefly.

The national dissemination seminar, planned for early 1994 after the main data analysis is completed and a survey report drafted, was discussed. In addition to completion of the work, other factors constraining the timing of the seminar include the termination of the ISTI/FMOH contract in March 1994, and Nigerian national elections scheduled for February 19, 1994. USAID recommends that the seminar be held well before the national elections, i.e. late January or early February 1994, in order to avoid potential adverse effects of possible political and civil instability near and after the elections. USAID/Lagos agreed to provide coordination for local planning and preparation for seminar. The mission and the NMS team have high hopes that Dr. Hope Sukin from USAID Washington, and an OMNI representative, will attend the seminar.

Following the meeting with Mr. Chiavaroli, Professor Atinmo, Mrs. Dosumu, Dr. Grange and Dr. Haggerty met to discuss further specific details of work objectives for the next 3 months. Mrs. Dosumu will follow up on the additional computer, and will obtain information about possible venues for the seminar. The Sheraton Hotel, Lagos, and the Sheraton Hotel, Abuja, are possible locations. Professor Atinmo prefers Abuja to minimize distractions of participants based in Lagos. On the other hand, Abuja is very expensive. Mrs. Dosumu will inquire whether group discount rates are available from the Sheraton Abuja. In light of the Mission's concerns about stability near election time, the week of January 31-February 4 was identified as the best "target" week for the seminar. Final decisions about dates and venue of seminar should be made by mid-December so that USAID can begin making appropriate arrangements.

Dr. Haggerty explained VITAL's concern that monitoring and supervision of data entry/cleaning/analysis may not be adequate during the next four weeks while the survey epidemiologist, Dr. Lola Dare, is abroad. While the presence of VITAL's data analyst consultant, Mr. Manwela Manun'Ebo, would partially solve this problem, Mr. Manun'Ebo is unable to arrive before the end of November. VITAL urges very close monitoring of data analysis activities by the PI and USAID, given the short time until the national seminar. Mrs. Dosumu and Dr. Grange agree to visit CHESTRAD during the next two weeks to monitor the status of data analysis.

Mrs. Dosumu hopes to take vacation from about November 18-December 10. Professor Atinmo will need to take charge of arrival of consultant Manun'Ebo at the end of November.

Professor Atinmo, Dr. Grange and Dr. Haggerty met and discussed further technical aspects of the study and Dr. Grange's specific role. Dr. Grange confirmed that the NMS is part of her job description, and therefore she expects to devote some of her time to it. She sees her role mainly as reviewer and critiquer; she would like to review the preliminary results and focus on child morbidity and infant feeding data. Professor Atinmo would like Dr. Grange's involvement earlier. Dr. Grange agrees, but informs of travel commitments Dec. 1-11. Both Professor Atinmo and Dr. Grange (as well as other NMS consultants on the technical committee) have a nutrition meeting in Yola around Thanksgiving. Dr. Haggerty urges the PI to convey to the NMS co-investigators the importance of leaving ample time in their schedules to participate in data interpretation and report writing between now and February.

The data entry schedule was discussed. Currently SE data has been entered and almost fully cleaned, SW data has been entered and partially cleaned, NW data has been entered but not cleaned, and NE data has not been entered. Dr. Grange suggested that laboratory data be entered/cleaned in the same zonal order as data from the main questionnaire. This will ensure that complete data will be available for each of the four zones in succession. (Later, in Ibadan, other NMS consultants agree that this makes excellent sense.)

At the FMOH, Professor Atinmo, Dr. Grange, Mrs. Dosumu and Dr. Haggerty met with Dr. Patrick Okungbowa. Dr. Okungbowa favors Lagos as a venue for the seminar, because it will enhance national attention. He also wants to form a subcommittee with Mrs. Dosumu and Dr. Grange and meet in December to discuss the National Food and Nutrition Committee. The

new USAID/R&D/N OMNI project was discussed briefly.

3.2. STATUS OF NMS

3.2.1. General

On Monday 11/8/93 the author traveled to Ibadan with the PI in the USAID-donated project vehicle. Examples of the tedious logistical challenges the NMS team has had to contend with were apparent. En route, a stop was made at a chemical plant on the outskirts of Lagos to check on the availability of dry ice and argon gas, the former needed for transport of remaining biochemical specimens from Jos and Maiduguri sub-zones in the NE zone, the latter for drying of samples at the retinol lab in Ibadan. Dry ice happened to be available and a plan was made for Dr. Olubaju (an NMS assistant from the FMOH) to pick it up the next day, bring it (by air) to the NE to retrieve the remaining specimens, and return with the specimens to Ibadan. Argon gas was available but before release the plant required an interview with the chemist who will be using the gas. A visit by Dr. Adeyefa was arranged. About half way to Ibadan a 30 minute stop was made at a gas station to refuel. This was relatively short compared to most of the long waits seen at gas stations en route due to the recent 6-fold increase in the price of fuel.

On Tuesday, 11/9/93, Professor Atinmo and Dr. Haggerty met with Dr. Babatunde Osotimihen, Provost of MCUI. Dr. Osotimihen expressed his considerable satisfaction with the progress of the study. He noted that it was one of the few in Nigeria that has brought together scientists from multiple disciplines. He emphasized that MCUI was quite proud to be the umbrella organization for the investigators, and felt that the success of the work to date reflected the high quality of scientists at the College.

Professor Atinmo and Dr. Haggerty next met with the NMS consultants (Dr. Iyabo Adeyefa, Dr. Lola Dare, Dr. Tunde Ajaiyeoba, Dr. Osotimihen) and discussed the status of survey data entry, status of laboratory analyses, a time frame for completion of all data entry and analysis, tentative dates for dissemination seminar, visits of other expatriate consultants, and other current issues and problems. The author's work schedule for the week was finalized: most of the visit was reserved for working with data management staff, however, visits to the retinol, RIA and CIC laboratories were also included. The outcomes of these visits and the implications for the respective study components are discussed below.

3.2.2. RETINOL LAB

A visit to the retinol lab by Dr. Adeyefa and Dr. Haggerty was made on 11/11/93. The primary HPLC machine at UCH had broken down due to a problem with the pump, but the problem had been diagnosed and a technician sent to Lagos to make the repair, which should have been completed during the week of 11/15. A back-up HPLC machine in the Biochemistry Dept at UI recently updated was now in working order. No retinol analyses had been started yet, but were due to start by 11/12. Argon gas for drying arrived on 11/11.

In the study, approximately 4200 children were sampled for SR (no mothers). Approximately 80-100 samples/day can be run with one HPLC machine. With two HPLC machines up to 200 samples can be run per day. Without further equipment breakdown, this would make it possible to complete all retinol analyses by mid-December. Retinol analyses have to be completed by end December at the latest, if the seminar is to be held in early February. Dr. Adeyefa plans to put the two HPLC machines into full-time use, with two technicians on each, and thinks completion of analyses in this time frame is possible.

Dr. Adeyefa would like to send 20 to 50 retinol samples for HPLC analyses to an overseas lab (i.e. Iowa State or U. London) for quality assurance. On 11/12 in London Dr. Haggerty contacted the Center for International Child Health (CICH) (which analyzed retinols for the Ghana VAST study) and a positive response was obtained. VITAL will follow through with Dr. Adeyefa.

3.2.3. RIA LAB

The Radio Immuno Assay (RIA) lab was visited by Drs. Adeyefa and Haggerty on 11/11. In the RIA lab TSH and SF analyses were done. TSH (thyroid stimulating hormone, testing for iodine deficiency) will be tested on 4200 child blood samples (no mothers). To date, TSH analyses have been completed for the SW and SE zones, and the data will be sent to CHESTRAD. TSH analyses go quickly (i.e. about 200 at a time), and therefore should be entirely completed in about 2 weeks. No additional TSH test kits are needed.

Regarding SF, an indicator of iron deficiency, the study protocol calls for SF to be done on all subjects with Hb<10g/dl, and a 20% control sub-sample with normal Hb. About 600 SF tests per zone are expected. No SF analyses had been done yet, but the Hb data available for all zones is ready to be screened. Currently the RIA lab has enough SF kits to run 600 samples. VITAL needs to send two more batches of 15 SF kits each, the first to arrive 11/22, the second to arrive one week later. VITAL must ensure that consignee is sending the kits fresh, and should request that shipping be done according to production schedule. (Subsequently VITAL placed an order for shipment of 30 kits with expiry dates of January 18, 1994.)

As with SR, Dr. Adeyefa would like to send a sub-sample of TSH and SF specimens to an outside lab for quality control. VITAL will make the appropriate contacts and follow through with Dr. Adeyefa.

The feasibility of a visit by Dr. Barbara Underwood and Dr. Moulay Benmiloud in early January, 1994, to assist in interpreting results of vitamin A, iron, and iodine indicators, was confirmed.

3.2.4. CIC Lab

The CIC (Conjunctival Impression Cytology) lab at UCH was visited on 11/10/93 by Drs. Ajaiyeoba and Haggerty. Approximately 700 CIC samples were collected, i.e. 350 from the SW and 350 from the NW. Analyses of the CIC samples had not begun, due to some problems Dr.

Ajaiyeoba has had setting up the lab for the CIC work. The ethanol he obtained in Nigeria has a purity of only 75-80%, which will produce poor quality slides. Also, his main lab does not have regular running water.

Solutions to the CIC problems were discussed with the P.I. and other consultants. Dr. Ajaiyeoba proposed travelling to JHU to stain and read the specimens, but Dr. Grange at USAID advised that it would be better in the long run (in the context of capacity building) for these "teething problems" to be worked out in Nigeria. Although Dr. Ajaiyeoba had already moved the samples to a lab with a reliable water supply in the Pathology Dept., the ethanol problem was key¹. Dr. Adeyefa agreed to lend a liter of her 99.5% pure ethanol while a supply of pure ethanol is ordered from abroad by VITAL. Dr. Dare offered to lend an inoculation hood from CHESTRAD, which should reduce the problem of ethanol dilution. Dr. Ajaiyeoba will buy caustic soda to put at base of ethanol to help maintain its purity.

3.2.5. CHESTRAD

The data management center (CHESTRAD), located outside UCH, was visited 11/9-11/11. Currently 5 people are working on NMS data and 4 computers are being used. Dr. Lola Dare, the survey epidemiologist, is assisted by a statistical assistant (Dr. Debo Adeyemo), a data manager (Mr. Sola Oyeleke) and three data entry clerks. Dr. Adeyemo is fluent in EPI-INFO and familiar with SPSS/PC+, and oversees data cleaning. Mr. Oyeleke is responsible for the questionnaires, allocates them to data entry clerks, supervises the data entry process and does some data cleaning.

Working conditions and equipment for the data analysis are less than optimal. The floppy disk drive on the computer donated by USAID sometimes doesn't read disks and needs to be serviced. All the other computers have only 4 MB of RAM, which are sufficiently roomy while zones are being analyzed separately, but may not be sufficient when zones are combined. This needs to be verified immediately (by combining all zones in an SPSS system file and doing a dummy MANOVA or REGRESSION test, even if with dirty data) and, if true (i.e. the procedures won't run), two additional 4 MB RAM chips should be purchased to upgrade two of the computers. (If the additional computer USAID will donate has a 486 chip, 8 MB RAM, and a 200+ MB hard drive memory, then only one additional 4 MB chip should be purchased.) Prof. Atinmo needs to check for local availability of the chips.

The NMS data management staff are working long days in close quarters. However, there is no air conditioning, it is hot and humid in the computer room, and (at least during this visit), there was no water in the center (the building had a stoppage of running water). Prof. Atinmo needs to address these problems in concert with Dr. Dare immediately.

¹ VITAL contacted Dr. Humphrey at JHU who confirmed the importance of pure ethanol for good staining. The low purity implied that the source of ethanol was poor. Although Dr. Humphrey offered that JHU could stain and mount all the samples in Baltimore and then return the slides to Nigeria for reading, an alternative solution in Ibadan was found (see text).

3.2.6. STATUS OF DATA ENTRY, CLEANING, ANALYSIS

A main questionnaire which obtained ethnographic, demographic, socioeconomic, health and morbidity information, was administered to all respondents (i.e. about 4200 mothers/caretakers). Biochemical specimens were obtained on specific segments of the study population as described above. Dietary information was obtained on 50% sub-sample of children.

Data from all the zones has been sent to CHESTRAD. From the SE, 95% of the main questionnaires were filled, 5% were not. Cleaning is nearly complete. From the SW, about 92% of the questionnaires were returned and filled; 8% of the questionnaires were missing. In Benin sub-zone, dietary data was collected on a 33% sub-sample instead of a 50% sub-sample. This will need to be adjusted so that the Benin data carries the same weight proportional to its size as the other sub-zones. Cleaning of SW should be completed by 11/24. From the NW, 100% of questionnaires were returned, but 24% were not filled. Dietary data from Zaria sub-zone is missing, however it is thought to be somewhere at CHESTRAD. The PI sent a letter to the NW zonal coordinator to find out why 24% were unfilled. The information manager may need to travel to the NW to obtain this information if it is not forthcoming by post. Data from the NE has just recently arrived at CHESTRAD, and the breakdown of filled, unfilled, etc., was not available at the time of this writing.

From 11/12-11/13 Dr. Dare and Dr. Haggerty joined Mr. Manun'Ebo at the LSHTM in London and worked on the SE and SW data sets. Nutritional indices were far outside of the expected ranges, suggesting that one or more variables (i.e. visit date, birth date, child weight, child height) were recorded or entered incorrectly. On many of the records, it was discovered that the American date format was entered incorrectly as European format, causing up to 12 month errors in child age. Also, some errors in entry of height data were discovered. Fortunately, these are data entry (rather than field) errors which can be easily corrected. The data will be corrected and preliminary tables from the SE run during the week of 11/15, and from the SW during the week of 11/22.

Given the relatively short time available to analyze the NMS data, the results prepared for the seminar cannot be exhaustive. Instead, the analyses should focus on national and health-zone level prevalence estimates of vitamin A, iron and iodine deficiencies, identification of population groups at risk according to main geographical, socioeconomic, demographic, health and nutritional indices, and identification of main risk factors for the micronutrient deficiencies. A more detailed plan of analyses geared toward the draft survey report needs to be developed as the data become cleaner over the next three weeks.

4. CONCLUSIONS AND RECOMMENDATIONS

The NMS team has accomplished a tremendously large and difficult task and is to be commended for their diligent work to date. Their perseverance is especially admirable in light of the difficult

transport and communications logistics, the uncertainties in fuel accessibility and the unstable political environment they have had to face.

If the final work of data entry, cleaning and analysis is completed according to the schedule outlined in this report, it does seem possible that the national dissemination seminar can be held in early February. This, of course, is barring major political upheavals in the country. In addition, this assumes that there are no (as yet undiscovered) major omissions or errors in the way information was recorded in the field. Finally, because the retinol assays are limiting the rate at which all the biochemical data will be available, this assumes that two HPLC machines will be maintained in good working order. Other issues and problems need to be addressed, and these are listed in the form of recommendations below.

- Mrs. Dosumu should follow through on additional computer from USAID;
- Prof. Atinmo should remind Mrs. Dosumu to send a service man to repair the USAID computer asap;
- Location of the dissemination seminar should be decided asap (USAID/Lagos, FMOH, PI, VITAL) and availability in early February discerned;
- USAID, FMOH, VITAL and NMS team should begin jointly planning the dissemination seminar, i.e. a tentative list of participants, a tentative agenda and a budget should be drafted by late December;
- VITAL should order a 40 MB hard disk drive for the RIA lab upon receipt of computer specifications from Dr. Adeyefa²;
- VITAL needs to make appropriate arrangements with CICH for analysis of 20 to 50 retinol samples in London³;
- Prof. Atinmo and Dr. Dare should address the problems of air conditioning and water at CHESTRAD; at a minimum water stored in covered containers should be made available;
- Prof. Atinmo should clarify with Dr. Dare the payment for Dr. Adeyemo for the remainder of November asap;
- Dr. Grange/Mrs. Dosumu should kindly follow-up on their offer to check in at CHESTRAD during the remainder of November;

² As of 11/30/93 VITAL was coordinating orders for remaining supplies, including hard disk drive and ethanol, with Dr. Adeyefa.

³ As of 11/30/93 CICH has agreed to analyze retinol samples, and arrangements for transport and analysis are under discussion.

- Prof. Atinmo should ensure that Dr. Adeyemo sends the remainder of the data to VITAL asap by DHL (or Fedex); copies of the data will be immediately sent to Dr. Dare in Boston and Mr. Manun'Ebo in London;
- Prof. Atinmo should send Mr. Oyeleke and Dr. Olubaju to the NW in the immediate future if an adequate response about unfilled questionnaires is not received from the zonal coordinator; a similar trip to the NE should be arranged if, after data entry, significant gaps in the data exist;
- Prof. Atinmo should visit CHESTRAD daily to monitor the status of data entry and cleaning, particularly during the next three weeks; he should examine preliminary tables to see if the data looks reasonable;
- During the first half of December Drs. Dare and Haggerty should develop a revised, detailed plan of data analysis and a list of all preliminary tables to be produced; in mid-December an assessment of the status of the dietary data as well as the need for and timing of specific assistance for interpretation of dietary data should be made;
- Dr. Haggerty should return to Nigeria approximately 3 weeks prior to the seminar to assist with final analyses and drafting of the survey report;
- VITAL should finalize travel arrangements for Mr. Manun'Ebo (late November), and Drs. Underwood and Benmiloud (early January).

5. LIST OF PERSONS MET

USAID/Lagos:

Mr. Eugene Chiavaroli, AID Affairs Office

Mrs. Bunmi Dosumu, AID Affairs Office

Dr. Nikke Grange, Combatting Communicable Childhood Diseases

FMOH:

Dr. Patrick Okungbowa

Dr. Olubaju

NMS Consultants (MCUI Affiliates):

Dr. Tola Atinmo, P.I.

Dr. Babatunde Osotimihen, Chemist

Dr. Iyabode Adeyefa, Biochemist

Dr. Tunde Ajaiyeoba, Ophthalmologist

Dr. Lola Dare, Epidemiologist

CHESTRAD:

Dr. Debo Adeyemo, Statistical Assistant

Mr. Sola Oyeleke, Information Manager

OTHERS:

RIA Lab technicians

Retinol Lab technicians

CIC Lab technician

Data entry clerks

Head of UCH Ophthalmology Department

6. APPENDIX

DR PATRICIA HAGGERTY - VITAL AFRICA REGION PROGRAMME OFFICE.

PROGRAMME OF VISIT TO NIGERIA (NOVEMBER 7 - 11, 1993)

Sunday Nov 7, 1993 8.00pm Arrival and check into Sheraton Hotel, Ikeja

Monday Nov 8, 1993 10.00am Briefing at USAID, Lagos
2.00pm " " FMOH, Lagos
4.00pm Depart Lagos to Ibadan
Check into IITA International House
8.00pm Dinner (Private)

Tuesday Nov 9, 1993 9.30am Meeting with the Provost CMUI
10.00am Meeting with all NMS Consultants
Venue; Provost Conference Room
1.00pm Lunch with NMS Consultants
3.00pm Meeting with Consultants continues
at the MRU/Network Office, UCH
5.00pm Visit the Data Management Centre,
CHESTRAD.
7.00pm Reception by Provost CMUI

Wednesday Nov 10, 1993 9.30am Visit the Laboratories
1. Retinol Lab
2. RIA Lab
3. CIC Lab.
1.00pm Lunch (Private)
3.00pm Visit the Data Management Center,
CHESTRAD
8.00pm DINNER with NMS Consultants

Thursday Nov 11, 1993 9.30am Final meeting with NMS Consultants
11.00am Depart Ibadan to Lagos
3.00pm De briefing at USAID Lagos
7.30pm DINNER (Private)
10.30pm Depart MMA.

