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IVORY COAST

— May 13 - 25, 1984 —

Needs assessment for a nutrition education
program.

by

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I. OVERVIEW

With the efforts of its president since independence, Felix Houphouet Boigny, Ivory Coast has capitalized on the know-how of its French colonialists through cooperation, using modern technology and business practices to "catch up" to the West. Boigny's goals were to harness the country's rich natural resources, build a diverse economic base, and develop self-sufficiency for the Ivorian people--enabling them to create, invest in, and support Ivorian companies.

Boigny's attitude was exceeded only by his ambition as the industrial and commercial infrastructure of his dreams became the modern economic miracle of West Africa. International banking consortia, impressed by the rapid, well-organized growth and the stability of the government, made large loans to Ivory Coast, enabling the development of the hydroelectric plants, off-shore oil exploration, the creation of regional economic enterprises. By 1982, 711 international companies were operational, up from 110 in 1960.

Development of trade activities throughout the country and the creation of the hydroelectric dams brought livelihood to the people of the interior, a restless federation of 60 ethnic groups who in years past had fought each other for territorial and political gains. Economic development has been the essential tool in unifying the people.

Economic development presumed social, cultural, and educational development, and a healthy population capable of bringing this about. A massive government bureaucracy was created to address these concerns. Creation of Ivorian banks and other opportunities for investment gave Ivorians their own private corporations and public institutions. Little did anyone imagine in the late 1970s that the dream would be eclipsed by troubles as soon as 1980.

Since the "effective" devaluation of the franc (now 423 to US\$1, from 205 to US\$1 in 1980), the closing of many factories and businesses operated by expatriate firms has occurred. Thousands of employees have been thrown out of work. At the same time, the world price of cocoa and coffee is depressed, providing little incentive for high crop yields; two years of poor rainfall have made such yields impossible, anyway. Poor rainfall has also closed the hydroelectric projects, forcing reliance on gas for power.

The government's opposition to family planning and lenient immigration policy has fostered an effective population growth rate of 3.1%. Thousands cross the borders of Niger, Mali, Upper Volta, and Ghana to Ivory Coast in the hopes of a higher standard of living. Most find low-paying or no jobs; many live in squalor, adding to the social and health problems, particularly in the cities.

There is no USAID Mission in the Ivory Coast. The embassy provides "self-help" grants, limited in amount and scope. Peace Corps pulled out in 1981. Recent urgent pleas by REDSO to USAID for direct assistance have been rejected by the State Department.

Fortunately, some international assistance still exists--UNICEF, World Health Organization, the French Volontaires de Progres, Protestant, Catholic, and Coptist missions, which operate schools, social centers, hospitals, and a dental clinic. The population is 15% Christian, 15% Muslim, and the remainder adhere to traditional animist beliefs, including many dietary taboos that conflict with proper nutritional practices.

Against a backdrop of economic decline and increasing personal hardship, it is not surprising to find the health care system overloaded and beginning to break down.

During my visit, I received reports on two separate and unrelated patient deaths in the major and best equipped hospital in the country, Centre Hospitalier Universite (CHU) Cocody. Both patients (one in an auto accident, the other a victim of an asthma attack) arrived at the hospital with normally treatable conditions and in plenty of time. The cause of death was a lack of adequate supplies, in both cases, of compressed oxygen. Supplies vital to treatment and prevention are in short supply or exhausted throughout the country. Red Cross sends women away to buy their own vaccines. But the pharmacies are often without product to sell. Children are left unvaccinated against polio, yellow fever, diphtheria, tetanus, tuberculosis, and measles.

Rooms in the CHU Cocody Pediatric Clinic offer little comfort to patients. Beds have been removed so that 15 to 20 women and infants may repose on mats on the floor to await treatment. Only the critically ill children receive beds. Needless to say, health problems are interrelated. It is impossible to focus on nutrition education without noticing and mentioning other critical health needs.

The following English summary of the full report (in French) discusses the structure, objectives, problems, needs, and recommendations for technical assistance to the National Nutrition Education Program operated by the National Hygiene Education Program of the Institute for Public Health. All work performed and recommendations reached reflect the collaborative effort of all with whom I met and spoke (Appendix A) during my two-week visit.

II. SCOPE OF WORK

The scope of work during my tour (May 12-25, 1984) required:

- The development of a full understanding of the objectives, structure, activities, problems, and needs of the Institut de Santé Publique/Service Nutritionnel Education Sanitaire (INSP/SNES) and their management/use of the Nutrition Education Program.
- Interviews with field agencies that take advantage of and/or provide funding to the Nutrition Education Program, including maternal-child health clinics, neighborhood social centers, UNICEF, World Health Organization, Red Cross, and religious organizations; field visits to the service sites.
- Inventory of materials, skills, and services and a working session on communication theory and practice with communications specialists serving the Nutrition Education Program (NEP). (This group is known as Service Education Sanitaire (SES) and exists within INSP.)
- Collaboration with INSP to develop a request for technical assistance befitting the needs of NEP and the field agencies that put NEP into effect.

All my recommendations are tempered by my professional background and knowledge of working/living conditions in Ivory Coast. (I lived in Abidjan and travelled widely throughout the country in 1980-1981.)

III. TASKS COMPLETED FOR THE SCOPE OF WORK

A. Overall Structure and Objectives of INSP/SNES

INSP has as its function the research and implementation of improvements to the national health care system. Planning, research design, and implementation of experimental/prototype programs begin at INSP. SNES is a subdivision whose primary focus relates to educating the general public on matters of hygiene, including but not limited to water quality, sanitation, vaccinations, nutrition, and control of certain diseases (i.e., diarrhea emanating from poor hygienic conditions). My discussions with INSP Director Coulibaly and SNES Director Messou provided a good overview of the nation's health care system, the regional and local health services, services of ministries other than public health (i.e., Council Affairs, Information) that assist in promoting improved health, and of interrelationships between various field agencies and between INSP and field agencies, public and private.

During my visits at INSP headquarters I sat in on a regularly scheduled In-Service Training Program for field health care workers (on diabetes) and on an organizational meeting for an interministerial

national campaign to bring about prevention and control of diarrhea (the campaign is funded--up to 50,000--by UNICEF to the tune of 37,000+). During the tour of the INSP maternal/infant care clinics, I had the opportunity to talk with the Director-Physician in charge, nurses, and nurses aides, and to observe baby weighings, weaning food preparation demonstrations, physician consultations, and examinations there.

B. Field Visits

Most of my time in-country was on the road. I travelled to 7 maternal/infant care clinics in and around Abidjan, the primary prototype area for NEP. I spoke to director-physicians, nurses, and nurses aides. Each interview covered a wide variety of issues, initially focusing on structural/organizational aspects of the clinics, and moving into the activities in curative and preventive care, and nutrition education, and the problems and needs of the clinics. On the subject of nutrition education, we discussed patient practices concerning breastfeeding and weaning, the nature and seriousness of infant illness, the degree to which such topics as family health are treated, specific activities used to interest, involve, and bring about nutritional improvements in the diets of these patients, reasons for resistance, and how these are addressed and to what effect. The closing discussion usually focused on the areas of greatest need in the clinics overall and in the nutrition education program specifically and how these needs might best be met.

My field visits also included interviews and tours of the two major pediatric clinics in the country (both in Abidjan), a day in a village health clinic and in a small-town hospital operated by the Protestant Mission in Dabou (1½ hours from Abidjan), visits to a Red Cross Clinic, interviews with a government biologist, and the Directrresse of the maternal/child clinics countrywide, visits to a couple of social centers (which provide recreational and educational counseling services at the neighborhood level).

C. Sessions on Communications Strategies

An experienced and dedicated staff of communications specialists (SES) prepares mass media and pedagogical strategies and materials for use by NEP and field agencies throughout Ivory Coast (50 maternal/infant clinics, hundreds of neighborhood social centers, rural health centers, private agencies, schools, and volunteer organizations). Their work is not confined to the NEP. Projects recently completed include a poster on the construction and care of a village well, illustrated playing cards and a game of dominos dealing with health issues, and continued progress on a series of five films for television on nutrition issues. The last is funded by the World Health Organization and directed/produced by the television crew from Tele pour Tous, an adult education program funded and administered by the Ministry of Education and aired over the single television channel run by the Ministry of Information.

My first two visits enabled me to discover an impressive inventory of materials prepared during the past several years. Some materials are no longer available for distribution, others were poorly executed and must be redone. Currently available are several slide shows (funded in large part by UNICEF) on weaning food recipes--each accompanied by a guide on the food groups and a discussion manual for use by the group leader/health care worker.

Also available are the posters and brochures on breastfeeding and weaning. These were on display in several of the maternal/infant clinics I visited. Flannelgrams, the most effective pedagogical tool, are no longer available. Remaining stock--both the boards and the images--is being used up rapidly. Also, those that were prepared were poorly executed (i.e., drab images, poor likenesses of foods, infants, mothers, etc.). Most need to be redone complete to be boites de l'image (flipcharts on wooden backings). The boites have proven effective with Ivorian mothers, the vast majority of whom cannot read or write (the national PMI administrator put illiteracy among women at 60 to 70%). Most women speak only their ethnic language.

These flipcharts on nutrition are in the developmental stage. They have been found extremely effective in other areas (i.e., vaccination and well management campaigns). NEP has written and produced two songs addressing breastfeeding, one modern, the other traditional, performed by Ivorian artists. These will be aired on the radio and played in the maternal/infant clinics and social centers on tape recorders, which the Ivorians plan to request from donor organizations.

It is heartening to note the existence of a formal, well-documented research and development process for the development of all materials and the selection of appropriate media. It is, though, the traditional pedagogical "top down" method: the ministry identifies a problem, defines the message, then instructs the staff to develop the materials, select the media, and move into production and distribution.

The staff produce a model, develop and produce a questionnaire, select a representative test audience, go on location to administer the questionnaire and test the model, return to the studio to rework the model, and test it with new sample audiences. After a final fine tuning, they produce the material (see discussion on breastfeeding poster in full report).

Although the goal for the materials is behavioral change, no opportunity is given to members of the target audience to attest to the appropriateness of the message. The message design is fixed, rather than open, which forces people to respond to given choices/models, rather than allowing them to suggest effective designs that may fall outside the choice made by SFS. The choice of media is also a fixed suggestion, rather than being offered as one alternative among many to be selected in part by the target audience itself. Richard Manoff has written, and I agree, that the greater the participation of the target audience in various aspects of the communication process, the greater

the likelihood for message acceptance, understanding, and behavioral change. This is particularly true in light of the many resistance points in Ivorian culture to a more balanced diet (e.g., for infants)-- tabcos, family practices, attitudes, economic circumstances.

I discussed the current research and development process and my suggestions at length in relationship to various costs and benefits (i.e., greater and more costly front-end research, less wasted effort in model design and testing, an attitudinal change at the ministerial level that target audiences can participate effectively in message design, with greater results.

The remaining time was devoted to operational problems and needs: SES has no production equipment. Staff buy what they need and then "loan" it to the Service involuntarily in order to get the job done. There are no funds at INSP for basic supplies and equipment. The critical 35 mm. camera, for example, belongs to a French illustrator. TV and radio producers at the Ministry of Information give health programming very low priority, preferring to highlight music, sports, drama, and commercial production; the mass media here are considered "entertainment media," in part because of the prevailing idea in the upper echelons of government that the country is well on its way to development and that because there are no food shortages, malnutrition cannot exist.

Even if TV and radio health-related programming were offered, the broadcasts would not have a wide audience because there are only five TV sets per 100 people and 19 radios per 100 people, according to a study by an Ivorian researcher at the Center for Education and Audio Visual Research at the University of Abidjan. In addition to the shortage of receivers for these broadcasts, the electricity outages are frequent; electricity itself is not available in many villages.

In short, it was agreed that the most appropriate media for the greatest number of people were the nonelectronic. Not only because of economic and logistical impediments, but because of the fashion by which people communicate and learn in Ivory Coast.

Ivorian culture is verbal, given to story-telling, conversation, songs, etc. One-to-one contact is primarily the way information is transferred, lessons learned. This was emphasized and re-emphasized by virtually everyone I interviewed. The greatest need is for health care workers to visit the neighborhoods to contact the estimated 50% of pregnant and lactating mothers who for lack of means, knowledge, or by choice do not visit the clinics. The health care workers used to visit the neighborhoods to perform food demonstrations, to visit the homes, and deal with individual mothers. Yet the necessary automobiles and gas are no longer available.

The alternative, demonstrations and discussions at the clinic, depends on the availability of flannelgrams and posters as visual aids.

These exist but are in need of improvement, particularly the flannelgrams. Besides being useful in telling stories to illiterate Ivorian mothers, the flannelgrams are participatory tools. Mothers can test their knowledge by manipulating the images in response to questions from the health workers who conduct the educational sessions. The flipchart has also proven useful. Although clinic staff said that the mothers enjoy films and narrated slide shows, projectors were virtually non-existent at the clinics I visited.

The clinics try to offer curative and preventive care. Mothers usually come because a child is ill. The staff finds it difficult to increase attendance at the nutrition education sessions, partly, perhaps because there are no facilities where they can be held. The sessions must often be called together in halls or in the general waiting area, where conditions are crowded and the sick and the healthy gather, often with the result of infecting the latter. Having found that forced attendance at these sessions does not work, the staff now educate only mothers who volunteer to come.

IV. RECOMMENDATIONS TO USAID AND INSP

The task of building a request for technical assistance was a collaborative effort from the beginning. Each interview explored problems, needs, and specific requests for assistance. On May 25, four hours before I headed to the airport, the Director of INSP officiated at a meeting attended by representatives of all the agencies I had visited. The purpose of the meeting was for me to report my findings during the two weeks and to construct a final request for technical assistance. The consensus was that line-item budgeting would be premature until the determination was made by INCS regarding which items, if any, are eligible for funding.

The most important need for technical assistance falls in the realm of materials, equipment, and facilities acquisition:

- Purchase of flannel, boards, graphic, and photographic supplies to produce flannelgrams, flipcharts, and slide presentations for use in the clinics and social centers and at neighborhood meetings
- Purchase of audio-visual, photographic and graphic supplies to enable SES to produce adequate materials on a continuing basis.
- Provision of cassette recorders, cassettes, and loudspeakers to enable clinics to broadcast health-related messages to women waiting to be treated. These audio-visual systems are also considered a means by which women in a neighborhood can be called together (much as the town crier used to do).
- Provision of basic transportation to allow health workers to cover families in their areas better. There have been collaborative efforts among agents from the social centers and health workers from the clinics, but loss of vehicles

and gas has virtually ended these joint sorties.

At great cost in time and money, women bring infants to the clinic for treatment. Initially interested in learning about weaning food preparation, they quickly become disheartened when they are told to go immediately to the market and purchase the foods necessary for the demonstration. With barely enough to feed their families that day, they must invest in a clinic demonstration. This often becomes a woman's first and last contact with nutritional counseling. On the curative side, children with marasmus and kwashiorkor are prescribed protein supplements to survive. The clinics have extremely limited stocks and must ask mothers to invest 1,500 francs (equivalent to the cost of a day's meals) at the pharmacy. Clinic staff indicated that were they to have refrigerators to store food, they could find the means to purchase food for the demonstrations. Stoves and cooking utensils are very worn and in many cases in need of replacement.

The overcrowded conditions at the clinics make nutrition education and other preventive educational programs difficult to conduct. Distractions impair the effectiveness of the teachers. INSP is requesting funds to build open-air, gazebo-like structures with benches on clinic grounds. These facilities would be used for preventive training and consultations. As most women cook with wood, cooking demonstrations can easily take place in or near the new facilities.

School cafeterias, gardens, poultry, fish, and orchard projects were funded by UNICEF between 1964 and 1979 throughout Ivory Coast. The primary service—provision of a balanced noon meal to the students—developed a basic awareness of nutritional complementarity and health. Students appeared more alert and interested in afternoon work. Parents learned about food preparation from their children's experiences at school. The students gained invaluable knowledge about gardening, poultry, fish, and orchard management. Administrative indiscretions, inadequate staff training, and funding were among the causes for the lapse of many of the cafeterias. INSP is hoping to rekindle interest and participation in the school cafeteria concept and needs funds to resume the project.

Data collection, management, and program evaluation are areas requiring much work. The clinics keep activity records and the directors could cite their own statistics. Yet there is no INSP continuing program measurement. The baseline study conducted in Abidjan, prior to the implementation of the pilot program there, was a good start. Yet, it has not been updated and no studies were performed in the satellite test programs in San Pedro and Man. INSP has promised to prepare a proposal for a Research Center to be funded with technical assistance grants. The ongoing in-service training program for field staff provides a forum for training in data collection, management, and program evaluation. Seventy people from clinics, social centers, and private organizations attend the monthly sessions.

INSP is awaiting designation of fundable areas/projects before developing a line-item budget. Many have suggested, furthermore, that any assistance not be given in cash but in materials, to prevent losses from theft.

A final note: USAID funded a study of nutrition education needs four years ago, and nothing was done. Dr. Tebe Ambroise, physician in charge of nutrition activities at INSP, cited and will forward a copy of this study. He expressed concern that the findings from this visit, too, would be filed away.

APPENDIX A

PEOPLE AND AGENCIES CONTACTED

APPENDIX A: PEOPLE AND AGENCIES CONTACTED

During my visit in Ivory Coast I had the opportunity to conduct interviews with staff from 7 maternal/infant care clinics, 7 related health care centers, including pediatric clinics, social centers, and private health care centers, interviews with program/service directors at the ministry level, and 4 brief meetings with REDSO, U. S. Embassy personnel, UNICEF, and a physician-epidemiologist for the Center for Disease control (who was based in Abidjan and was studying several West African countries). I also attended an in-service training program on diabetes and an interministerial organizational meeting on the UNICEF-funded national campaign against diarrhea.

The primary contacts among the 53 people I interviewed are:

Institut de Sante Publique, B. P. V47, Abidjan

Dr. Nangbele Coulibaly, Director, INSP
M. Jean Raffier, Deputy Director, Programming, INSP
Dr. Ambroise Tebi, Physician-Nutritionist, INSP
M. Michel Darrac, Director, Nutrition Laboratory

Service National Education Sanitaire (Managing institution of the nutrition program)

M. Ebrin Messou, Assistant Director, SNES
Mme. G. Georgette Taye, Project Manager, Nutrition Education Program, Child Care Specialist, Certified Specialist in Family Planning and Midwifery
M. Moussa Bakayoko, Assistant Nutrition Education Program Nurse
Mme. Elise Doh, Assistant Nutrition Education Program Dietician

Service Education Sanitaire (Materials/media development center for INSP)

M. Moussa Traore, Director, SES
M. Jean Pierre Delannoy, Audio Visual Training Specialist
M. Phillippe Prochazka, Illustrator, Graphic Artist
M. Ngi Jean Sia, Communication Specialist
M. Daniel Kotan, Controller of Equipment and Material

Pediatric Clinic, Centre Hopitalier Universitaire

Dr. Adou Assis, Director, Pediatrician, Professor Cocody Clinic
Dr. Andoh, Assistant Pediatrician, Treichville Clinic

Maternal/Infant Clinics

Mme. Estelle Shaw, National Director Maternal/Infant Clinics, Ministry of Health
Dr. (Mme.) Gregoire, Director Cocody Clinic
Mme. Atin, Nutrition Specialist, Cocody Clinic
Dr. Trong Meng Ki, Director, Marcori Clinic
Mme. Nemba, Social Worker, Marcori Clinic
Dr. (Mme.) Klein Zabban, Director, Koumassi Clinic
Dr. Aly Boeiri, Pediatrician, Port Bouet Clinic

Mme. Akre, Nutrition Assistant, Midwife, Port Bouet Clinic
Mme. Genevieve Guetta, Nurse, Port Bouet Clinic
Dr. (Mme.) Kimba Abaka, Director, Koumassi Clinic
Mme. Abaye Zelika, Nurse, Koumassi Clinic
Mme. Sanon, Nurse, Koumassi Clinic
Mme. Yaro, Nutrition Assistant, Midwife Koumassi Clinic
Mme. Delphin Asserma, Child Care Specialist Youpougon Clinic
Mme. Jeanne Kosia, Midwife, Nutrition Specialist, Youpougon Clinic

Ministerial and Private Organizations

M. Gombout Ibo, Sociologist, Ministry of Social Affairs
Mme. Ute Deseniss, Regional Communications Counselor and Program
Manager
Health Workers, Red Cross Clinic, Adjame
Social Workers, Social Center, Adjame
Mme. Danielle Roziere, Social Worker, Attekoube Center (Catholic)
M. Karim Traoure, Protestant Hospital, Dabou
M. Francoise Zongo, Crew Chief, Mobile Health Clinic (Protestant) (For
visit to village of Tiaha, outside Dabou)
Ms. Darlene Bisson, REDSO Population-Nutrition Coordinator, Abidjan
M. Bernard Waldeman, Epidemiologist, Center for Disease Control, Abidjan
Mr. Duncan Miller, Director, Program Analysis and Development, REDSO/Assis
Mrs. _____, U. S. Embassy, Abidjan

APPENDIX B

ITEMIZED COMMUNICATIONS REQUESTS

APPENDIX B: THEMIZED COMMUNICATIONS REQUESTS

The following is a listing of items specifically requested by Mme. Tays, Nutrition Program Manager, and by SES Communication Specialists. The prices indicated are U. S. prices I obtained by calling local suppliers in Maine.

Materials to produce the following:

- Flannelgrams on weaning foods, the basic food groups, signs of malnutrition
- Flipcharts on basic hygiene, food groups, pregnancy, and breastfeeding, weaning and malnutrition
- Slide presentations on breastfeeding, infant daily diet plans (varying according to the three agricultural zones in Ivory Coast), malnutrition and the various associated diseases

Basic production equipment:

	<u>Estimated Cost</u>
Nikon F 35 mm. camera-body with 50 mm. lens	\$1,000.
Wide-angle and telephoto lens (35, 105 mm.)	400.
Lighting gear (150) and tripod (100)	250.
Unicolor slide processor	225.
Carousel slide projector with trays/remote control	200.
Portable projection screen	100.
Polaroid land camera b/w and color	85.
Skylight, porarizer filter, gadhet bag, cleaning gear	130.
40 rolls slide film	160.
1,000 plastic slide mounts	40.
Strobe unit (alkaline battery), cable release	60.
Tandberg professional cassette recorder	150.
Sound mixer (70) and headset (35)	105.
Repitograph with points	60.
TOTAL	<u>\$2,965.</u>

A request for a portable video production kit was considered of secondary importance given country context, priority of other needs, and cost (\$4,000.).