

EVALUATION OF ACSI-CCCD PROJECT

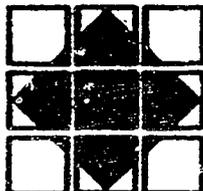
CÔTE D'IVOIRE

May 18-June 3, 1988

Evaluation Team

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ACKNOWLEDGEMENTS

The Evaluation team wishes to thank the Minister of Public Health and Population, the Honorable Alphonse Djedje Mady, and his staff for their valuable assistance. The frank, helpful, and friendly manner of those responsible for the major activities carried out under the project greatly facilitated our work. The responsible officers' views on the progress, problems, and possible future solutions were invaluable and made it possible to complete the evaluation of the ACSI-CCCD project in the Côte d'Ivoire in the short time available.

The CCCD National Coordinator, Mr. Blah Toh, and the CCCD Technical Coordinator, Professor Guessend were particularly valuable in their briefings, and in arranging for the meetings, field trips, and debriefings.

The team also wishes to thank Dennis Kux, the U.S. Ambassador to Côte d'Ivoire; Arthur Fell, Director of USAID's REDSO/WCA office in Abidjan; Dr. Charles Debose, REDSO/WCA Regional Health Officer; and Dr. Modupe Broderick, CCCD Program Specialist (REDSO/WCA); for their strong interest and help. Robert Weierbach, CCCD Technical Officer, resident in Abidjan, backstopped the team, and greatly facilitated the team's work by sharing his multi-faceted in-depth knowledge of the project, and primary health care in the Côte d'Ivoire. Jean Roy, who served as the team's resource person from CDC/Atlanta's IHPO office, was of great help and was always available to help facilitate the team's work.

While the team's conclusions and recommendations were greatly influenced by the briefings and advice of those contacted, we made our own final judgements and accept full responsibility for the conclusions and recommendations presented.

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LIST OF ACRONYMS

ACSI	African Child Survival Initiative
CCCD	Combatting Childhood Communicable Diseases
CDD	Control of Diarrheal Diseases
CHU	Central University Hospital
DSPP	Direction de la Santé Publique et de la population
DPSS	Direction de la Planification et de la Statistique Sanitaire
EPI	Expanded Program of Immunization
GOCI	Gouvernement de la Côte d'Ivoire
IH	Institut d'Hygiene
IHPO	International Health Program Office
INSP	Institute National de Santé Publique
MCH	Maternal Child Health
MLM	Mid Level Management
MOPHP	Ministry of Public Health and Population
MSPP	Ministère de la Santé Publique et de la Population
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PDRI	Project Development and Regional Implementation
PHC	Primary Health Care
REDSO/WCA	Regional Economic Development Service Organization West and Central Africa
SNES	Service National d'Education Sanitaire
T.O.	Technical Offices
VHW	Village Health Worker

UNICEF

United Nations Children's Fund

WB

World Bank

WHO

World Health Organization

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1.0 Purpose and Methodology

1.1 Purpose

The objectives of the ACSI CCCD evaluation were to:

- 1.1.1 Evaluate CCCD activities through consultations, collection and analysis of data on CCCD management and operations at the central and peripheral levels.
- 1.1.2 Assess the extent to which CCCD Activities have been integrated into existing Côte d'Ivoire Primary Health Care Structure.
- 1.1.3 Offer a series of recommendations to reinforce the expansion and delivery of CCCD services (EPI, CDD, Malaria, and Yaws) including training, health education, the health information system, and operational research, and to accelerate their integration into the primary health care system.
- 1.1.4 Advise on the desirability and feasibility of improving project progress by preparation of a second phase that would include redesign of the project and extension of its completion date.

The full Scope of Work prepared by AID/W is contained in Annex A.

1.2 Methodology

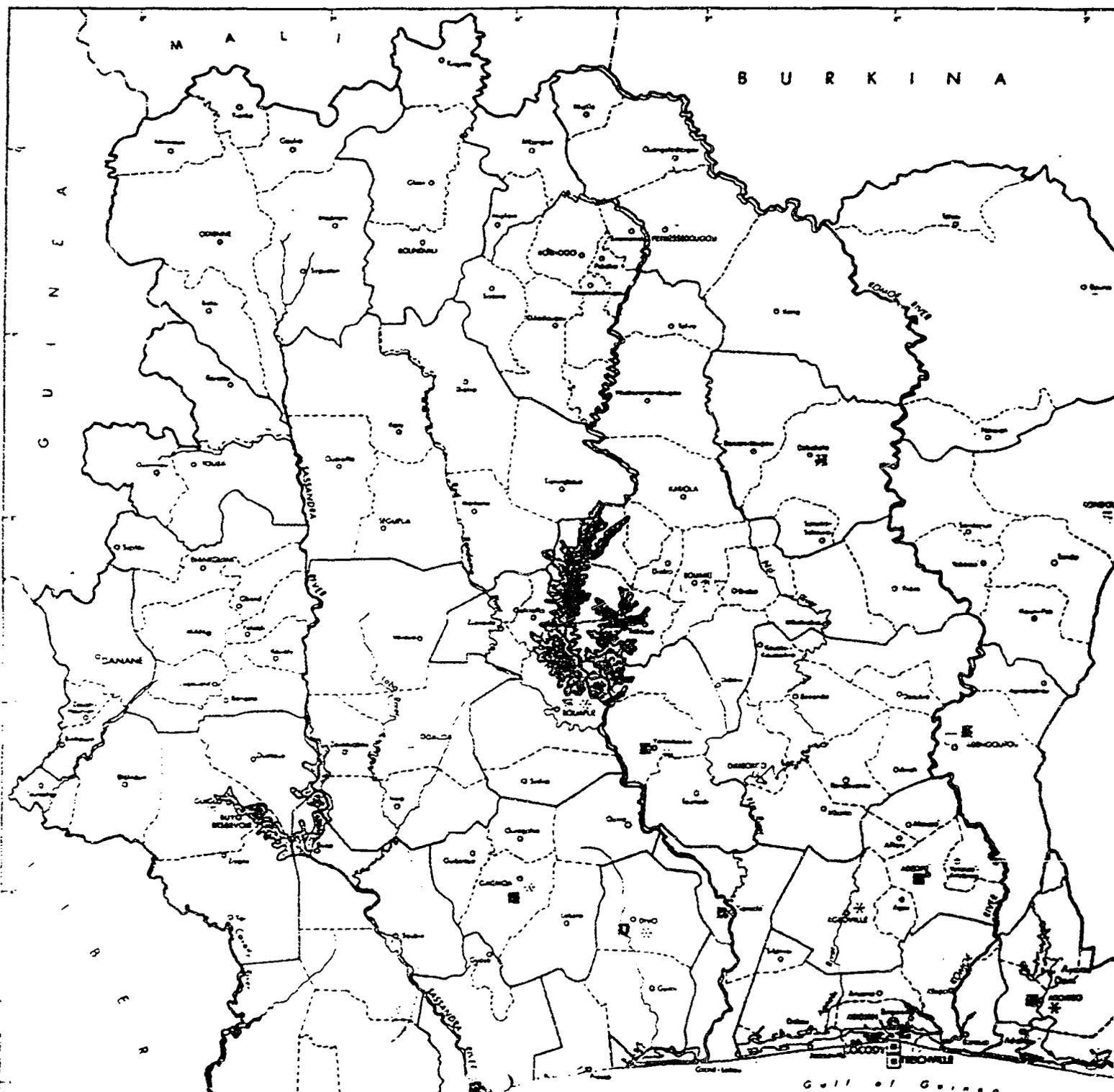
The team carried out its mandate through a series of briefings, consultations, and field trips and study of pertinent documentation. It worked in the Ivory Coast from May 18 to June 3, 1988 (See Figure 1 - Map of Health Services in Côte d'Ivoire). The team was composed of Vincent Brown, Health Management Advisor and team leader, and Professor Arthur Reingold, Epidemiologist from the School of Public Health, University of California (Berkeley). Jean Roy, from CDC/Atlanta, IHPO Office, served as the team's CDC resource representative.

In addition to briefings by AID/Washington, CDC Atlanta, the U.S. Ambassador to Côte d'Ivoire, REDSO/WCA, and the CCCD technical officer resident in Abidjan, meetings were held with the Ivorian Minister of Public Health, the National CCCD Coordinator/Director of Planning and Statistics, the CCCD Technical Coordinator/Director of Public Health, the Director of the Institute d'Hygiene, the Director of the

Institute of Public Health, and members of their senior staffs charged with carrying out the major CCCD interventions: Expanded Program of Immunization (EPI), Control of Diarrheal Diseases (CDD), Malaria Control, Health Education, Training, Health Information systems, and Operational Research.

Field visits were made to Primary Health Care facilities in Abidjan, and to the Rural Health Sector of Azope (100 kilometers north of Abidjan). The team met with the Chief Medical officer, doctors, nurses, technicians, and other primary health care health support personnel. Annex B contains a listing of personnel contacted and their titles.

The team also reviewed relevant documents related to the CCCD project in the Côte d'Ivoire and its Primary Health Care Program. (See Annex C for a list of principal documents consulted.)



Cote d' Ivoire
HEALTH AND DEMOGRAPHIC PROJECT

- NURSING SCHOOLS
ÉCOLES D'INFIRMIÈRES
- UNIVERSITY HOSPITALS
HÔPITAUX UNIVERSITAIRES
- REGIONAL HOSPITALS
HÔPITAUX RÉGIONAUX
- * SUB-REGIONAL HOSPITALS
HÔPITAUX SOUS-RÉGIONAUX
- MEDICAL DISTRICTS
BASES DE SECTEURS DE SANTÉ
- PROJECT ZONES
ZONES DU PROJET
- BOUNDARIES OF MEDICAL DISTRICTS
LIMITES DE SECTEURS DE SANTÉ
- SUB-PREFECTURE BOUNDARIES
LIMITES DE SOUS-PREFECTURES
- INTERNATIONAL BOUNDARIES
LIMITES INTERNATIONALES

Figure 1- MAP,

Source: World Bank: Health and Demographic Project Paper, 1984

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2.0 Project Planning, Administration and Management

Progress in planning, administration and management to date has been positive but modest. A solid foundation has been laid for substantial advances in the future for the principal CCCD interventions.

While the government's public declarations and stated commitment to primary health care are clear, apart from the successful national vaccination campaign, concrete actions on other major child survival/primary health care interventions have been slow in coming (e.g. combatting diarrheal diseases--construction of an ORT Demonstration and Training unit at CHU Treichville, implementing a malaria program, and utilizing primary health care support services--training, health education and health information systems).

On June 29, 1987 Acting REDSO Director Handler sent Project Implementation Letter number 7 to Professor Alphonse Djedje Mady, Minister of Public Health and Population proposing that the following five specific actions be completed by 31 May 1988:

1. "A National Malaria Policy has been adopted";

Status 5/31/88: The National Malaria Policy was signed by the Minister in early 1988, and the appropriate Ministry services are preparing plans to implement the policy.

2. "A National Diarrheal Disease Policy has been adopted";

Status 5/31/88: The draft CDD policy is circulating in the Ministry. Unofficial comments indicate it will require some revision before official approval. Progress on this activity was delayed by the highly successful National Vaccination campaign, which took place in summer and fall of 1987.

3. "A Oral Rehydration Therapy demonstration and training unit has been established at the CHU Treichville and four units have been established at regional hospitals";

"Unfortunately, the most recent year for which data could be obtained was 1986. Thus, data from the system cannot be used to evaluate the impact of CCCD activities on vaccine-preventable diseases or other targeted conditions (malaria, diarrheal diseases and yaws)."

Mission Comments: Morbidity and mortality data for 1987 is now available from health centers throughout the country. REDSO/WCA would like added to the report a recommendation that the redesign team Epidemiologist be requested to evaluate this data.

Status as of 5/31/88: The Minister of MOPHP reaffirmed his government's agreement to go ahead with the demonstration and ORT training center at CHU Treichville at a meeting with the evaluation team on June 3, 1988. At that time, the Minister scheduled a meeting on Tuesday June 7 at the CHU hospital with the REDSO/Director, Regional Health officer, and CCCD to select the building site for the ORT Training Center.

4. "Two additional Mid-level Management (MLM) courses have been held";

Status as of 5/31/88: The two MLM courses were postponed because of the National Vaccination campaign, and new dates have not been set.

5. "A Practice Survey has been undertaken"; and

Status as of 5/31/88: The practice survey was carried out in Abidjan in early 1988, and revealed the urgent necessity of doing something to increase the vaccination coverage of the new children coming of vaccination age -- e.g. the survey showed that for measles vaccination the coverage level for this new group was only 25% in Abidjan.

6. "A statistics course for the Chief Medical Officer in the field has been held".

Status as of 5/31/88: This course has not been held or scheduled.

As can be seen from the above, actions taken on the above mentioned points to date have been mixed. The national vaccination campaign in 1987 (for which the MOPHP provided leadership) required an enormous effort that virtually stopped all other primary health care activities for a period of six months. This explains in part why action on some of the points was delayed. Section 5.0, "Assessment of Major CCCD Components", which follows, discusses in more detail the specific actions referred to above.

President Houphouet-Boigny was one of the first heads of state to ratify the "Charte de Développement Sanitaire de la Région Africaine d'Ici à l'An 2000" (January 19, 1981), which approved the concept that Primary Health Care

constituted the health care strategy needed to reach the social objective of "health" for all by the year 2000. However, it was not until February 1, 1986 that a coordinator was named --the deputy director in charge of Epidemiological Disease Control in the Directorate of Public Health. The first Inter-Ministerial Committee for Primary Health Care meeting was held in late August 1986.

The team has been informed that the government's commitment to providing primary health care services (including the principal CCD interventions) is reaffirmed in the government's draft five year National Public Health plan for 1986-1990 now in clearance. When the team met with the Minister of Public Health and Population, he stressed the high priority attached by the Government to Primary Health Care and more specifically the CCD project interventions -- EPI, CDD, and Malaria.

2.1 Development and Adequacy of Operational Plans to Govern and Support Field Activity

The general situation in the Côte d'Ivoire regarding operational plans for the CCD interventions is that they either do not exist or are in the process of development. A positive first step in this process has been for the government to approve policy statements for major primary health care interventions -- e.g. the government recently approved a policy document setting forth its policies and goals in the field of malaria. A similar statement is currently circulating in the MOPHP for Control of Diarrheal Diseases. The EPI policy is already established, and this intervention is further along than the other CCD activities. The Institute d'Hygiene is concentrating on establishing operational plans for EPI activities. In sum, specific operational plans are just now being developed for the three primary interventions under the CCD project.

As noted above, the EPI program is furthest along with sixteen of the Chief Medical Officers in the 25 public health sectors in Côte d'Ivoire having responded to a request for the workplans for 1988, including a description of the needs in personnel, medical supplies and equipment, vehicles, logistic support, etc. While these requests do not contain budgets, they are specific enough for the most part to allow costing at the central level. UNICEF, as part of developing their next five year program (1990-1994), is working jointly with the government to develop a time phased plan and budget outlining the government's intentions and priorities for EPI.

UNICEF is also working with the Ministry in evaluating the CDD/ORT activities to date, with a view to developing an ORT action plan for the next five years. The MOSPP's policy statement on Malaria Control was signed recently by the Minister; however, operational plans to implement these policies have not yet been developed. This is an area where the CCCD project inputs have been particularly helpful to the Ministry.

The team feels operational plans for the major interventions are an absolute necessity and that this exercise should be treated as a process. The CCCD project is well positioned to help facilitate the process. The plans should be as simple as possible. For example, at the outset, they might contain three things: a review of last year's activities, a plan for this year's program, and a detailed projection of next year's needs. It is hoped that the EPI operational plans now being prepared can serve as an example and facilitate the work of those working in the other interventions.

2.2 Capacity of Government Management and Administrative Structures to Administer the CCCD program

The basic primary health care structure is in place and functioning with eight regions, 25 health sectors--excluding the city of Abidjan--and some 800 health facilities (i.e. basic health centers, dispensaries, Maternal Child Health centers, etc.), of which about 50% are equipped to handle vaccinations. Essentially the administrative structure is there. What is needed is basic primary health care planning, establishment of workplans reflecting Ministry priorities, provision of adequate training and supervision, and provision of the necessary logistical support --transport, gasoline, bottled gas, spare parts, other equipment, etc. (See Figures 2, 3, and 4 dealing with the Côte d'Ivoire Public Health Organization.)

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Cote d' Ivoire

HEALTH AND DEMOGRAPHIC PROJECT

MINISTRY OF PUBLIC HEALTH AND POPULATION

ORGANIZATIONAL CHART (May 30, 1984)

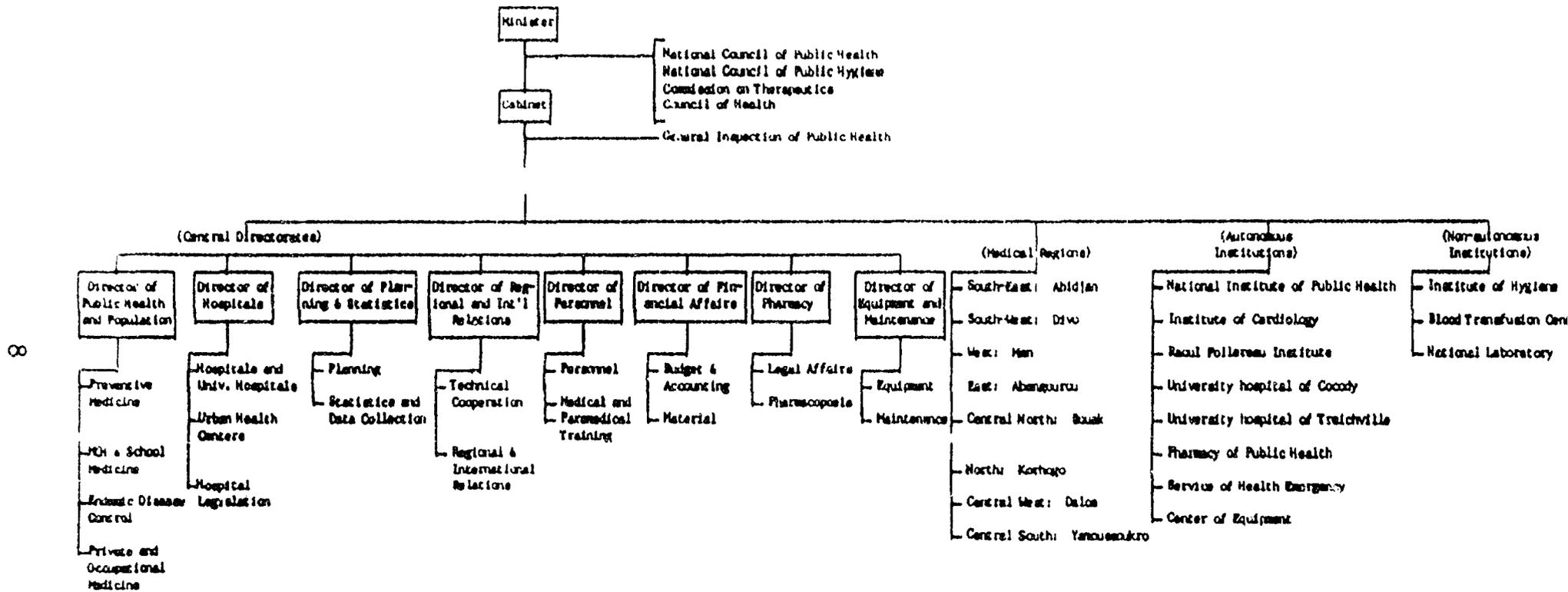


Figure 2 - Organizational Chart

Source: World Bank: Health and Demographic Project Paper, 1984

NATIONAL HEALTH PYRAMID

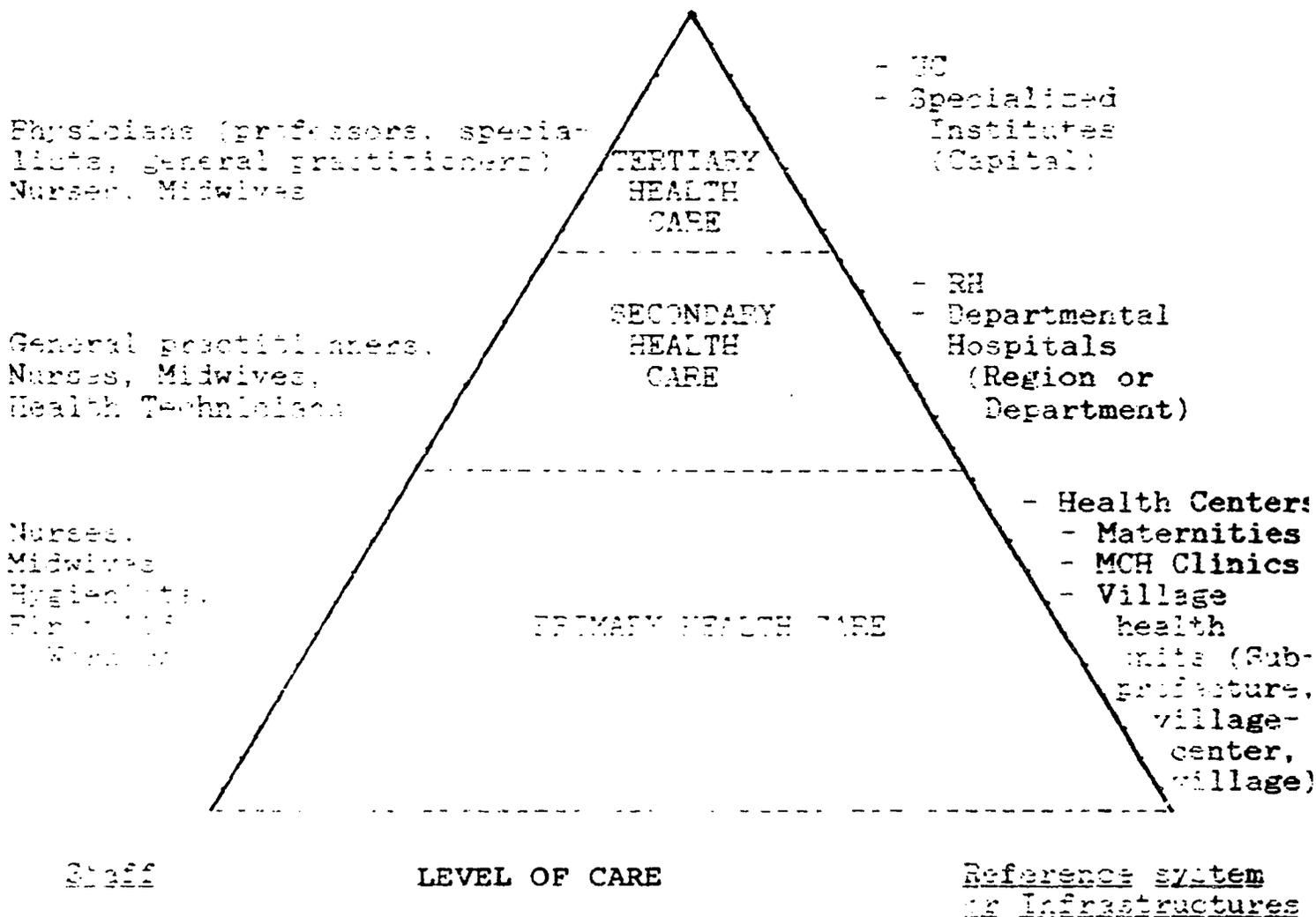


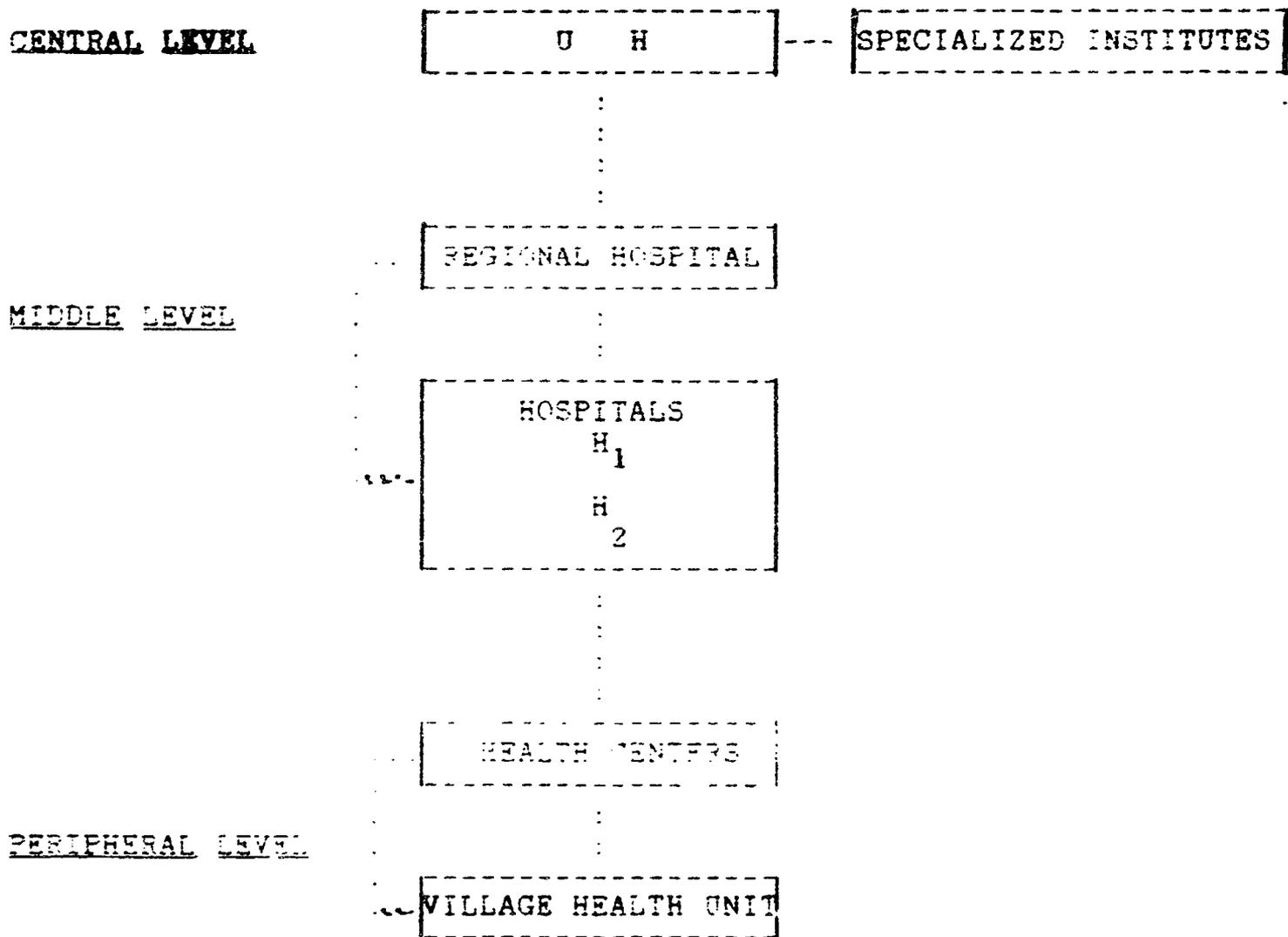
FIGURE 3

Source: IMBOUA-BOGUI (G)

Les Soins de Santé Primaires et l'Approche Sociale des Prestations Sanitaires, INSP, 1981
(Primary Health Care and Social Approach for Health Deliveries, INSP, 1981)

Best Available Document

REFERENCE SYSTEM CHART



Job Contents and Descriptions

Primary Health Care National Coordinator

Under the authority of the Director of Public Health and Population and in close collaboration with the other officers of health services or other organizations, the Deputy-Director of Major Endemic Diseases, appointed as the National officer for Primary Health Care, collects and centralizes all the necessary information for implementing the national primary health care program as defined by the Minister of Public Health and Population.

Figure 4

Source: Direction of Public Health, MOSP, Côte d'Ivoire, briefing document for First Meeting of National Committee for Primary Health Care, 8/28-29, 1986.

While budgets and plans are not yet activity oriented (i.e. EPI, CDD, Malaria, etc.), they already exist from a functional standpoint, i.e., for the operational costs of personnel, maintenance, travel, and logistic support for both hospitals and public health care facilities. Doctors, nurses, paramedics, are in the system and have received solid basic medical schooling. However, many have not had specific training in primary health care --more specifically in the CCCD interventions (EPI, CDD, and Malaria). Many who have received initial training need recycling. Therefore, the Evaluation team has concluded that the potential capacity is there.

At the CCCD National Coordinator level, there have been coordination difficulties and some confusion in sorting out lines of authority for CCCD interventions that are interdepartmental within the Ministry of Public Health and Population. In addition, support is required from time to time from other Ministries (e.g. primary education).

Experience has demonstrated the need to modify the CCCD coordination arrangement somewhat in order to involve those responsible for operating the CCCD programs more directly. The evaluation team's suggestion to name a Technical Coordinator in addition to the National CCCD Coordinator is based on consultations with the CCCD TO, the National CCCD Coordinator, the Director of Public Health, and the Minister of MOPHP. It is hoped that this change will help facilitate the coordination of CCCD activities in the future.

Much needs to be done over the next several years to make the existing primary health care structure more productive. The MOHP has made it clear that it would like CCCD help with planning and in the supervisory, management, and training aspects involved in the delivery of these health care services.

2.3 AID and CDC Administrative Performance in Support of Project, Adequacy of Procedures Established for This Purpose

Overall the total REDSO/WCA, AID/W, CDC administrative performance has been satisfactory, although there have been administrative delays along the way. Some equipment and supplies are still arriving even though they were ordered well over a year ago.

While the CCCD Technical Officer was strongly supported from a technical standpoint by CDC/Atlanta and AID/W, the same level of support was not apparent on general health management and organizational problems. The team had the impression that the situation had improved over the last six to nine months, especially in terms of REDSO support.

The REDSO Program Specialist for CCCD affairs paid for by the project, who was brought on board in the fall of 1987, was fully operational and devoting 100% of his time to the CCCD project. In February 1988, the backstop responsibility for the project was moved within REDSO to the Regional Health Officer, bringing improvements in both technical and management support. The REDSO Director also has met with the Minister of Health and Population to resolve important CCCD policy and operational problems.

The team understands that REDSO is prepared to continue this support in the future. As recommended in the technical section of this report, since the resident Epidemiologist position has been eliminated, strong backstopping support will be required from CDC/Atlanta assuming the project is extended as recommended by the Evaluation team.

The new Technical Officer (hopefully on board by October 1988) should be off to a fast start, since the CCCD project is fully operational and a good foundation has been laid with key Ministry officials responsible for the principal CCCD interventions by the present TO, who leaves in June 1988.

2.4 Conclusions

For the reasons given above on the planning and administrative support side and in the technical sections below, the evaluation team is convinced that a substantial extension of project closing date or second phase will be required if the objectives of the project are to be achieved. Based on its in-depth conversations with the Ministry of Health and Population and international donors (UNICEF, World Health Organization, and the World Bank), and their strong support for continuing the CCCD project, the evaluation team feels an extension of the CCCD project is warranted. However, given the magnitude and the importance of the three major CCCD project interventions (EPI, CDD and Malaria), the team feels a short extension would be of no particular value and that an extension until September 1991 is highly desirable.

If a second phase is approved, the CCCD project needs to be redesigned jointly with the Ivorian government, drawing on the experience to date, to make it more productive and responsive to changes that have taken place over the last three years, in line with Ivorian priorities and commitments to providing primary health services.

The preparation of the second phase should be considered as a joint process, not a single action -- i.e. it should involve a series of time phased administrative and program

steps to be taken by both the Ministry of Public Health and USAID/REDSO that will clarify the priorities, define the operational structure, and specify the actions to be taken by both entities.

As noted earlier, the Ministry of Public Health and Population values highly the contribution of the CCCD project to date and has made clear its desire that the project be extended and redesigned as necessary to make it more effective. The Evaluation team strongly endorses this position.

2.5 Recommendations

1. The evaluation team recommends that the following actions be completed prior to the call forward of the redesign team (see section 7.0 below) in early September 1988:

The status of the plan to appoint the Director of the Public Health Directorate as the Technical Coordinator for the CCCD project should be clarified before the arrival of the redesign team. If this proposal is adopted, the division of duties and responsibilities between the National CCCD Coordinator and the CCCD Technical Coordinator should be written up and approved by the Minister of Health and Population.

The CCCD Technical Coordinator should then be confirmed as responsible for the following activities and assure that a responsible officer is named for each of the activities:

- Expanded Program on Immunization (EPI)
- Malaria Control
- Control of Diarrheal Diseases (CDD)
- Health Education
- Health Information Systems (HIS)
- Training

For each of these activities, the Technical Coordinator should be authorized to obtain the support of the following technical and logistic services:

- Institute d'Hygiene for EPI
- National Institute for Public Health (INSP) for Malaria
- Directorate of Public Health for CDD
- National Institute for Public Health (INSP) for Health Education

- Directorate of Planning and Statistics for the Health Information Systems (HIS)
- National Institute for Public Health (INSP) for Training

Action by the Ministry to move ahead on the proposal (approved by the Inter-Ministerial Committee on Combatting Diarrheal Diseases) to build a central ORT training facility at CHU Treichville. The Evaluation team strongly recommends that the construction be financed from CCCD project funds.

Submission by the CCCD National Coordinator of the accounts for the first 100,000 liters of gasoline used in the vaccination campaign, agreement on a system for future accountability, and release by REDSO of a second 100,000 liters for supervisory/ follow up EPI activities.

Submission by the CCCD National Coordinator of the justification for the first and second cash advance of \$156,250 (54 million CFA), submission of a plan for use of the next advance, and release by REDSO of the third cash advance.

Submission by the CCCD National Coordinator of the remaining outstanding CCCD quarterly reports and their review by REDSO.

2. The Evaluation team recommends that the extension, or second phase be through September 1991. No additional funds would be required initially, since as of May 20, 1988, uncommitted funds amount to \$876,000 or about CFA 251 million (\$1.00=287CFA).
3. Replacement of the current CCCD Technical Officer, who is scheduled for transfer in mid-June, is an absolute necessity for the successful continuation of the project. He should be replaced as soon as possible (i.e. early to mid-October).

It is highly desirable that new Technical Officer (designate) participate as a member of the redesign team before beginning his or her assignment.

4. Continued strong support from REDSO (including the REDSO Director, and the Regional Health officer), will be required during the second phase proposed above. Given the regional responsibilities of the REDSO staff, the present full time local hire REDSO CCCD program specialist (financed from regional CCCD project funds) should be continued -- at least through the first two years of the extension.

5. Identification of an epidemiologist at IHPO, CDC/Atlanta who will serve as the source of ongoing epidemiologic support to the project for the next 3 years. This individual must speak French, be available for in country consultancies 3 or 4 times a year, and, if at all possible, should be a member of the redesign team.

2.6 Donor Coordination

2.6.1 Context

MOPHP has no formal arrangement for coordinating donors in the field of primary health care or for the CCCD project. When the national vaccination (EPI) campaign was held in 1987, the Minister chaired adhoc meetings of donors to assure that resources were provided as needed in a timely manner. This coordination effort was very successful. The ~~team~~ feels that the government might want to consider the establishment of a donor coordination committee, chaired by the Minister of Health and Population or his representative, which would meet annually and more often as needed. One important objective would be to focus donor support on government priorities in primary health care.

The CCCD project has excellent working relationships with UNICEF. This close cooperation should be continued, especially in the major CCCD interventions of EPI and CDD Oral Rehydration Therapy. Cooperation with The World Health Organization Representative, who has also been closely involved with the CCCD activities designed to support the government's primary health care program, should be continued.

The World Bank is interested in Public Health Care beyond its current loan to the Côte d'Ivoire for Nurses Training, Census, and Health Management. When the World Bank Representative met with the Evaluation team, he stressed the Bank's growing interest in the Human Resource sector concentrating on Education and Public Health (Primary Health Care).

The WB representative also underlined the importance he attached to the CCCD activities, expressed the hope that the project would have a second phase, and stated his desire to cooperate with the CCCD project as the Bank's activities in the Social sector move forward.

2.6.2 Recommendations

1. The Ministry should consider the creation of a donor support committee for the government's primary health care activities to coordinate the multi faceted activities involved in PHC activities and to assure that they represent the most efficient use of resources in meeting primary health care objectives in the Côte d'Ivoire.
2. In addition to maintaining their excellent cooperative working relations with UNICEF and WHO, the CCCD REDSO program specialist and the CCCD Technical Officer should keep the WB Representative abreast of its CCCD activities with a view to future cooperation.

3.0 Measurement of CCCD Project's Impact on Lowering Morbidity, and Mortality, and/or Increasing the Availability of Health Care Services

3.1 Examination of Relevant Epidemiologic Statistics

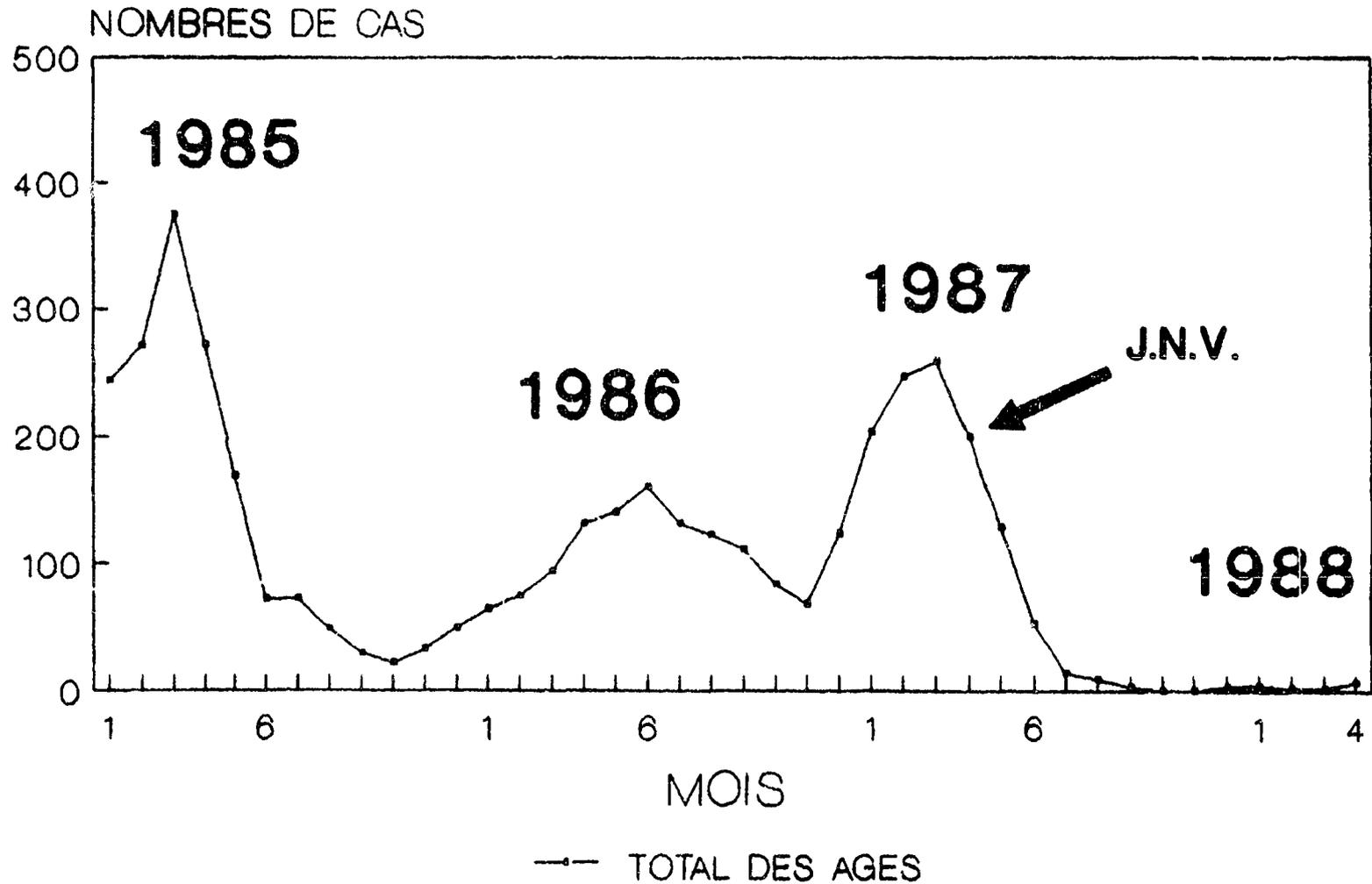
3.1.1 Vaccine-Preventable Childhood Diseases (EPI)

Data concerning the number of cases of measles, tetanus, polio, etc. are collected routinely at government health centers, which are supposed to submit monthly reports categorizing the patients seen by age and type of illness. Unfortunately, the most recent year for which data could be obtained was 1986. Thus, data from this system cannot be used to evaluate the impact of CCCD activities on vaccine-preventable diseases or the other targeted conditions (malaria, diarrheal diseases, and yaws). However, data from the University Hospital at Treichville in Abidjan (Figure 5) demonstrate that the number of cases of measles occurring in 1988, following the mass vaccination campaign, is dramatically lower than in previous years. Unofficial figures for the total number of measles cases in Abidjan during the first ten weeks of 1988 show a similar sharp decline from 1987 (37 cases in 1988 vs 425 cases in 1987) (Report of Dr. Siguihorta Ouattara, Director of EPI, Ivory Coast, See Figure 5).

A similar decline in cases of both measles and pertussis is seen in data from a sentinel surveillance project in Boundiali (Figures 6 and 7). Similar data from other parts of the country or for other EPI-diseases are not available.

CAS DE ROUGEOLE CHU TREICHVILLE 1985-88

(Measles Cases at University Hospital Treichville)



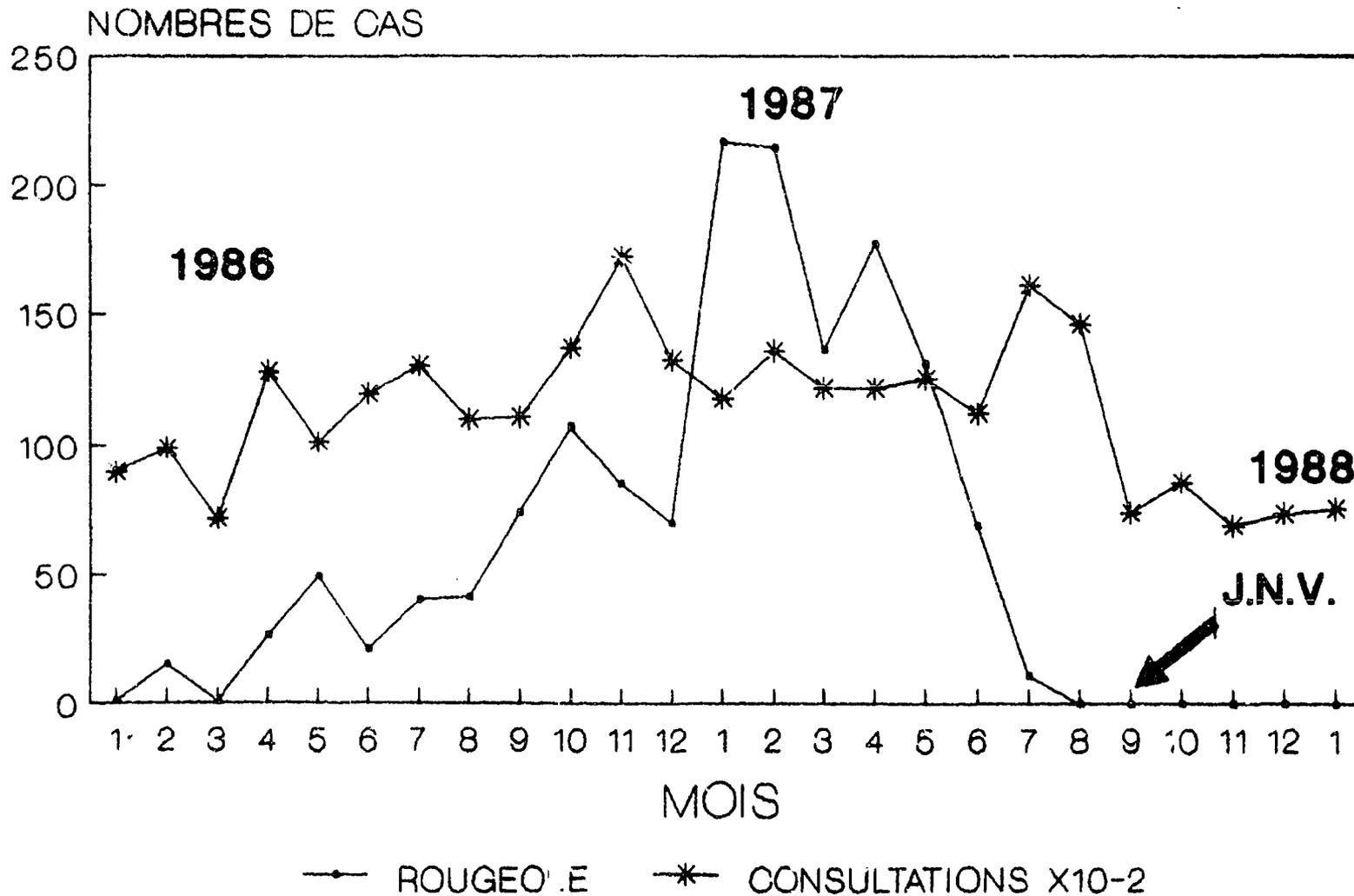
ACSI-CCOD COTE D'IVOIRE

Source: CCCD/Abidjan 6/88

Figure 5

CAS DE ROUGEOLE SSR BOUNDILAI 1986-88

(Cases of Measles at Regional Hospital Boundilai)



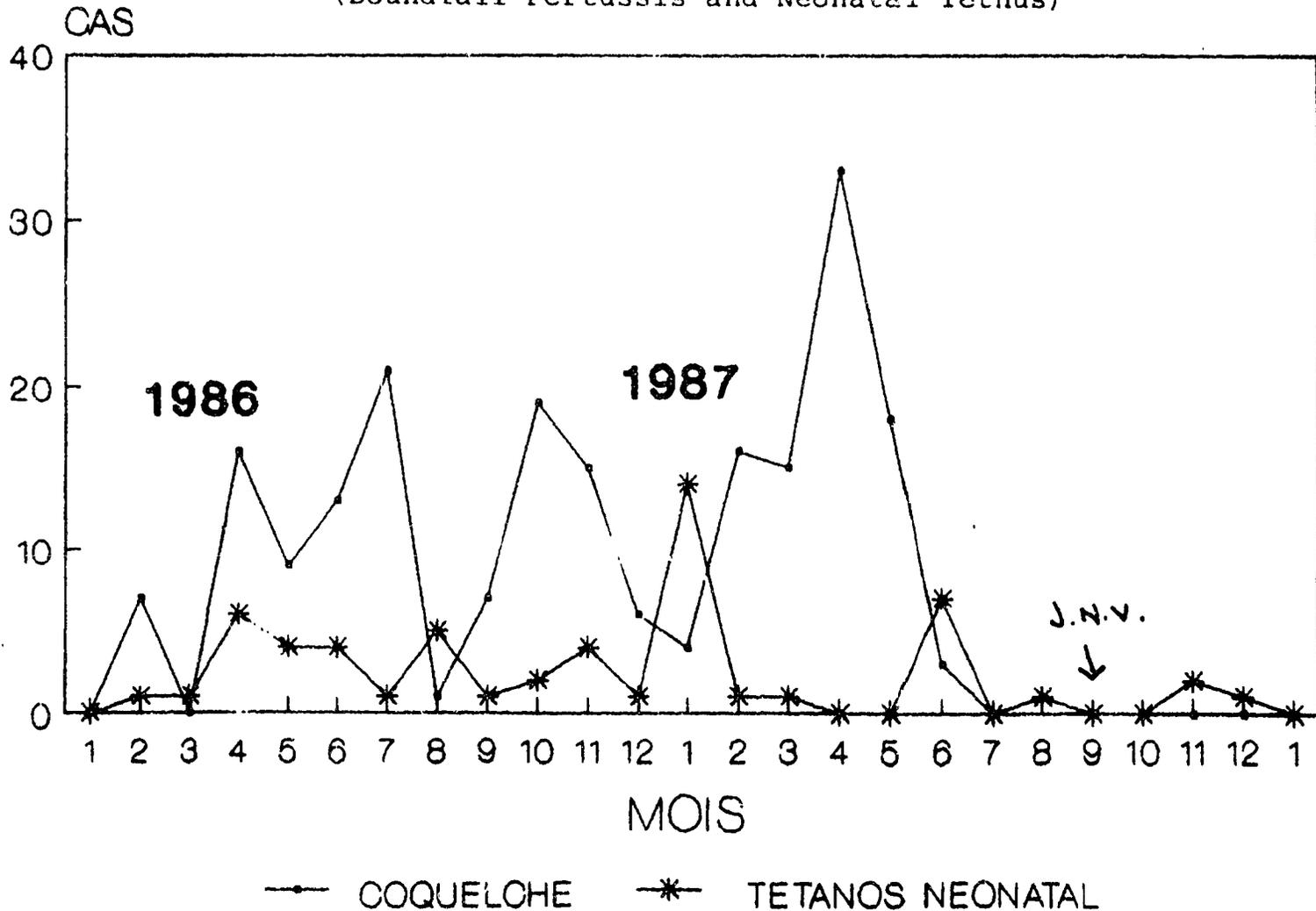
Source : CCCD/Abidjan 6/88

Figure 6

DONNEES DE LA BASE DE SSR

BOUNDIALI COQUELCHE ET TETANOS NEONATAL 1986-88

(Boundiali Pertussis and Neonatal Tetnus)



DONNEES DE LA BASE DE SSR

Source: CCCD/Abidjan

Figure 7

Data concerning the number of patients hospitalized with various conditions and the number of those patients who died have been collected in the past. While a new hospital-based data collection system currently is being designed, no data are available for 1985-87. Thus, information concerning the number of hospitalizations and deaths due to EPI-diseases for the time period of interest is unavailable.

3.1.2 Malaria

For the reasons outlined above, no malaria morbidity or mortality data are available for 1987. A health practices survey of mothers in Abidjan in January 1988 revealed that 28% of 1,953 children less than 5 years of age had had fever within the previous two weeks. In a study conducted in March-May 1986 in Agboville, 90 km from Abidjan, 42 (22%) of 191 children less than 5 years of age with fever seen at an MCH clinic were parasitemia at levels >1000 plasmodia/mm³ (Report of Dr. G. Imboua-Bogui and M. Diawara).

3.1.3 Diarrheal Disease

Again, no overall morbidity or mortality data are available for 1987. Data from the health practices survey mentioned above revealed that 28% of children less than 5 years of age also had had an episode of diarrhea during the preceding two weeks. A retrospective study of admissions to four large hospitals (2 in Abidjan, 1 in Bouaké, and 1 in Korhogo) in 1986 showed that 1,746 (11.7%) of 14,964 children less than 5 years of age admitted had diarrhea, of whom 179 (10%) died (Report by A. Coulibaly and others). Of the 85 children treated at the ORT unit at CHU Treichville in January-March, 1988, 56 were class A, 28 class B, and 1 class C; none died. However, the most severe cases of diarrhea accompanied by dehydration are admitted to the hospital directly and are not included in these tabulations.

3.1.4 Yaws

Again, no country-wide data are available. During the national vaccination campaign in September-December 1987, a survey of the most heavily infected subdistricts of the 3 rural districts thought to be most seriously affected showed that 2,825 (7%) of the total population of 39,031 had yaws (Report of the Ministry of Public Health and Population).

Mission Comments: Morbidity and mortality data for 1987 is now available from health centers throughout the country. REDSO/WCA would like added to the report a recommendation that the redesign team Epidemiologist be requested to evaluate this data.

3.2 Examination of Health Services Statistics

Data permitting an assessment of whether or not the availability of specific CCCD-related health care services has increased are limited. The number of health facilities offering routine childhood vaccinations has increased throughout the country as a result of vaccination equipment and vaccines being distributed during the mass vaccination campaign. According to Dr. Ouattara, approximately 415 of 800 health facilities in the country now are vaccinating children routinely, compared with only 265 before the campaign. At the same time, the proportion of health centers using oral rehydration therapy (ORT) reportedly has increased from approximately 50% in December 1986 to approximately 98% at the end of 1987, although only 80% of facilities have received ORS packets. (Facilities Survey, December 1986 and Evaluation of the Distribution and Utilization of ORS packets, Report by Professor Assi Adou and others). The availability of services for malaria and yaws has not changed.

3.3 Adequacy of Health Information Systems, Current and Planned, to Provide Data Needed to Measure Project Impact

The current health information system is limited in its ability to provide data needed to monitor impact of CCCD interventions, although it has improved since 1985. Monthly reports from government health centers are now received in a more timely manner, and over 90% of such centers now submit reports on a regular basis. However, outpatient clinics at hospitals have yet to be incorporated into this system. Reports from health centers are received and data entered reasonably promptly, but distribution of summaries of the data is being delayed by financial and administrative problems. Thus, the 1986 summary has yet to be duplicated and distributed. Data concerning hospital admissions and deaths are submitted irregularly in a nonstandardized manner, making it impossible to compile summary statistics. Furthermore, the data from 1985-87 have yet to be collated.

Sentinel surveillance for measles has been established at 14 health facilities in Boundiali, which report weekly to the Mèdecin-Chef. Attempts are currently underway by CCCD personnel to revive a sentinel measles surveillance system at 5 health facilities in Abidjan, although when this system was in place for 3 months in 1987 only 1-4 facilities submitted data in any given week (Report of Dr. Davis, June 1987). The data collection form to be used in Abidjan will

collect information concerning prior vaccination status, and is intended to make possible subsequent case-control studies of vaccine efficacy. It is expected that these sentinel measles surveillance systems will be maintained.

Surveillance concerning the use of ORT and the outcome of such treatment could not be evaluated fully. A form for monitoring ORT results, which is thought to have been devised in 1985 when ORS packets were first introduced, was in use in Adzopé. This form included information on the number of children of various ages receiving different forms of therapy for diarrhea with or without dehydration at a given facility in a given month. The Médecin-Chef said that he routinely received such forms from his health centers, but it remains unclear to what extent these forms are used in other sectors, to whom they are submitted, or who is responsible for data collation, entry and analysis and dissemination of results. The CCCD technical officer was unaware that these data were being collected and was doubtful that the system was widespread. Such data are routinely collected and analyzed at the ORT unit at CHU Treichville.

Similarly, surveillance for in vivo chloroquine resistance was being done in Adzopé, which had been the site of previous malaria studies. It appeared, however, that an insufficiency of laboratory materials and personnel time and a very heavy burden of cases of malaria required that this activity be undertaken irregularly. To date, in vivo resistance has not been detected.

3.4 Conclusions

The impact of routine CCCD activities in Côte d'Ivoire on morbidity and mortality from its targeted conditions is open to question. In the area of EPI, the mass vaccination campaign clearly succeeded in vaccinating a large number of children and increasing vaccine coverage rates dramatically. As a result, the number of measles cases in 1988 is down markedly. At the same time, the number of health centers equipped to offer ongoing vaccination activities increased, as did the number of health workers with at least minimal training in this area. However, it is difficult to attribute this public health success to ordinary CCCD activities. The CCCD philosophy is to build and expand the capacity for giving EPI vaccines within the existing health system and, in general, to avoid mass campaigns. In fact, the mass campaign, while increasing vaccine coverage, availability of vaccination equipment, and awareness among the people of the need for vaccinations, tended to inhibit all other CCCD activities for at least six months. While

CCCD made many important contributions to the mass campaign, it remains a debatable point whether or not to attribute the resultant decline in measles cases (and, presumably, other vaccine preventable diseases) and the expanded capacity for ongoing EPI activities to "CCCD".

Data concerning morbidity and mortality from diarrheal disease during the time period of interest are unavailable. Thus, any impact of CCCD in this area is unmeasurable. However, the availability of ORS packets and the use of ORT have expanded markedly, due to the combined efforts of CCCD and UNICEF. In malaria and yaws, no CCCD activities that have occurred to date would be expected to have had an impact on morbidity and mortality from these conditions or on the quantity or quality of services available.

4.0 Program Operation/Delivery Systems

4.1 Overview of Delivery Systems (current and proposed) for CCCD Services

As indicated earlier, the primary health care facilities are in place --eight health regions, 25 health districts or sectors plus Abidjan, and 800 plus health facilities. In addition, there are district, regional level and university national reference hospitals for referrals of cases requiring further treatment. The CCCD interventions (EPI, CDD/ORT, and Malaria) are all part of the Ivorian Primary Health Care (PHC) system. However, there are serious problems with the implementation of the health services protocols and procedures connected with providing these services to the public in both the rural and urban settings. The following section describes some of the specific areas in which the CCCD project can be helpful.

4.2 Review of Specific Elements

4.2.1 Supervision/Personnel Coverage

Personnel would appear adequate. The principal problem appears to be the need for training and refresher courses (recyclage) in the CCCD interventions, and lack of supervision. Both needs are urgent.

For example, in some districts, little or no supervisory help is provided from the district centers to the basic health facilities because of lack of gasoline and per diem to allow existing supervisory personnel to monitor and train field staff in the rural areas. This situation also affects urban supervision in urban areas like Abidjan.

Training of both supervisory and operational personnel and development of supervisory checklists is a high priority and is discussed in Section 5.6 below.

4.2.2 Logistics and Supply

Under the present arrangements, vaccines and other medical supplies for the 25 districts are obtained directly from the central health facilities, and pharmacies in Abidjan. Generally speaking, the vaccines and ORT packets needed in the field are available, and the system works fairly well. Some vaccines, syringes and needles are available--left over from the 1987 national campaign. However, immediate steps need to be taken to assure that the vaccines and equipment needed to sustain the coverage are available in the coming months. In addition to government funds, resources can also be obtained from UNICEF and the CCCD project. (See also the section 5.1 on EPI below)

There are some plans for decentralizing the supplies and vaccines to regional centers that are closer to their respective health districts. However, there is no immediate plan for action in this area.

There appear to be sufficient vehicles available in most districts, albeit some are very old and require substantial maintenance. As maintenance costs increase, the chief medical officers in the districts are finding it harder to find the necessary funds within their budgets to keep the vehicles running.

4.2.3 Communications

Communications in the Côte d'Ivoire are better than in most sub-Saharan countries. Major hard topped roads link all of the provincial urban areas. Even so there are some areas which are isolated during the rainy season. The telephone system is very effective, but not without problems. A good percentage of the population is literate, thus facilitating training and health education (e.g. village health workers can be found who read and write).

4.2.4 Control of Funds and Supplies (inventory)

Government procedures appear adequate in both categories. However, the difficulty is that these procedures are not followed, and the operating entities are very slow in submitting the justification for past purchases. These delays in turn make it difficult for the CCCD National Coordinator to request further cash advances, additional gasoline coupons, or other resources available under the

CCCD project. In June 1988, the CCCD project made arrangements for some accounting help to the CCCD National Coordinator that should help him in meeting the project accountability requirements.

One administrative "detail" that requires urgent attention is the government's delay in justifying the first advance of gasoline coupons (100,000 liters). This is holding up the release of the remaining 200,000 liters in gasoline coupons REDSO already has in hand. An additional problem is that the coupons (bons d'essence) are valid for a limited period of time. So if this problem is not resolved soon, the remaining stock of coupons could become invalid.

4.3 Recommendations

1. The responsible officers managing the principal CCCD interventions (EPI, CDD, and Malaria), and the support activities (training, health education, health information systems and operations research), in developing their annual operational and multi year programs and plans, should include realistic time phased estimates of personnel, training, supervisory, logistic, and budget/cost requirements. The project redesign team working with their Ivorian counterparts should explore these aspects in depth, and make specific recommendations for moving ahead in these areas.
2. As recommended in the Planning, Administration, and Management section (2.5), the National Coordinator needs to complete the accounting for the previous gasoline provided under the project, so additional amounts already in hand can be made available.

If necessary, the validity date on the remaining gasoline coupons (bons d'essence) should be extended to assure adequate time for use in the field.

5.0 Assessment of Major CCCD Project Components

5.1 E.P.I

5.1.1 Assessment

The mass vaccination campaign in 1988 was highly successful in raising vaccination levels across the country. Well done coverage surveys following the campaign demonstrate that vaccine coverage among children 12-23 months of age ranged from 71 to 96% by antigen (e.g. >80% for measles and yellow

fever and >70% for 3 doses of DTP and OPV) and that 63% of pregnant women received at least 2 doses of tetanus toxoid. Other beneficial outcomes of the mass campaign include greater awareness among the population of the importance of vaccinations, an increased proportion of health centers with vaccination equipment, and more health workers with at least some training in vaccination-related activities. In addition, there is heightened interest and receptivity on the part of officials in the Ministry of Health and Population in developing new strategies for maintaining high vaccination levels. Thus, the campaign has set the stage for making major strides in this CCD component area.

The need for CCD assistance in developing a system capable of maintaining high vaccination levels is made evident by the following:

1. Even after the campaign, only a little over 50% (415 of over 800) government health centers are equipped to continue vaccination activities. Virtually all of those not so equipped do not have electricity.
2. At those health centers that are equipped to offer vaccinations, vaccination activities usually are limited to one morning a week.
3. The health workers "trained" during the campaign received only two days of training, which was largely devoted to vaccination techniques. Thus, many health workers throughout the country require training or retraining in all EPI-related activities (vaccination techniques, cold chain maintenance, etc.). Although only 2 health centers were visited by the team (one near Abidjan and one in Adzopé), a number of deficiencies in EPI activities were evident that further support the need for additional training. At neither center were records kept of refrigerator/freezer temperatures, nor was there awareness of the importance of doing so. In both centers, vaccines in the refrigerators were in a completely disorganized state, making it difficult or impossible to ensure that vaccines with earlier expiration dates are used first. Neither center vaccinated children being seen for minor illnesses or mothers of young children. Vaccination technique in one center was poor, with tetanus toxoid being given to pregnant women subcutaneously and using the same disposable syringe for 4 mothers. Out of date BCG was received by one of the centers a few days before our visit.

4. The health practices survey in Abidjan in January 1988 demonstrated that vaccination coverage since the campaign is falling even in Abidjan. Among children born after the vaccination campaign and at least 2 months of age at the time of the survey, it is estimated that only 50-60% have received a first dose of OPV. Among children reaching 9 months of age after the campaign, only 25-30% appear to have received measles vaccine. Similarly, coverage with yellow fever vaccine among children reaching one year of age since the campaign has fallen sharply. Of 85 children treated for diarrhea at the ORT unit at CHU Treichville in the first 3 months of 1988, only 28 (33%) had been fully vaccinated. The situation outside of Abidjan is unknown, but is likely to be no better, if not worse.

Both the Ministry of Health and Population and UNICEF recognize the need for developing the capacity to maintain high vaccination levels via expanded fixed vaccination sites, and both are planning major activities in this area in the next 5 years. For example, UNICEF currently intends to equip an additional 15 health centers a year for vaccination activities.

Previous collaboration between the Ministry of Public Health and Population and CCCD/UNICEF has resulted in a number of discernible improvements/ changes in the area of EPI:

Surveillance/Monitoring of Impact - As noted above, sentinel surveillance for measles has been established in two locations. In addition, collection of morbidity data from government health centers has been made more complete and more timely (see above).

Planning - The Institute of Hygiene currently is attempting to assess needs in each sector for improving the routine delivery of vaccination services and maintaining vaccine coverage rates of 70% (first dose of DPT and OPV in children less than 1 year of age) in 1988. To date, 16 of 25 sectors have returned plans outlining their needs. While the planning form used has several shortcomings (e.g. insufficient detail concerning training needs, no advance planning for future years, etc.), there is clearly an interest in beginning to plan for future needs.

Financing - During the mass campaign, vaccination cards were sold for 100CFA in Abidjan and 50CFA elsewhere. Health cards are being sold for 155CFA.

However, major deficiencies that will hamper future efforts to expand the availability of routine vaccination activities continue to exist. In particular, there is a large, as yet unmet, need for adequate training and supervision at the peripheral level.

5.1.2 Conclusions

Impressive vaccination coverage rates were achieved by the national campaign in 1987, but they are not being sustained by the current system. Vaccines and vaccination equipment left over from the campaign are available, but they are insufficient to expand vaccination activities to all existing health facilities and beyond, as is the number of trained health workers. While UNICEF will be playing a major role in future vaccination activities, there will be a continuing need for substantial CCCD assistance in the areas of training, supervision, surveillance, evaluation, and auto-financing.

5.1.3 Recommendations

- 1. Coordinate all CCCD EPI-related activities closely with UNICEF.**
- 2. Focus CCCD efforts on improving and expanding training and supervision.**
- 3. Assist in maintaining and expanding sentinel surveillance (e.g. measles) and surveys (e.g. polio and neonatal tetanus) designed to monitor impact of EPI activities.**
- 4. Assist in a post-mass campaign global evaluation of the deficiencies of the existing EPI program and infrastructure and in the development of a multi-year action plan for correcting those deficiencies. Include in the evaluation a WHO- like assessment of missed opportunities for vaccination.**
- 5. Assist in developing auto-financing schemes in EPI.**

6. Consider supporting operations research studies of missed opportunities for vaccination and of the costs and utility of increasing the number of vaccination sessions per week at health facilities.

5.2 Oral Rehydration Therapy

5.2.1 Assessment

Progress in developing and implementing a national ORT program has been slow and erratic. The policy initially developed included the use of ORS packets and three other ORT solutions (sugar-salt, rice water, and guava leaves), apparently for both preventing and treating dehydration due to diarrhea. Health education materials were developed accordingly. Because it was felt that recommending three alternative ORT solutions was potentially confusing, a decision was made subsequently to promote only the use of ORS packets and sugar-salt solution. More recently, concerns have been raised about encouraging the use of sugar-salt solution because a CCCD-supported study has demonstrated that 30% of mothers were making potentially dangerous solutions one day after receiving much more intensive education than is likely to be possible in most health centers (Report by Dr. E. Shaw and others). Furthermore, a second CCCD-supported study showed that 74% of households did not have sugar available routinely. Thus, at the moment, there is confusion concerning the appropriate role of various alternative ORT solutions. In addition, there are differences of opinion about whether ORS packets should be used for all cases of diarrhea or only those in which dehydration is present. For example, in the health facilities survey conducted in December 1986, approximately half the health centers (48% in Abidjan and 52% outside Abidjan) reported using ORS packets to treat all cases of diarrhea, with or without dehydration.

ORS packets have been donated by UNICEF and CCCD, and they are now widely distributed. As noted above, almost 100% of health centers claim to be using ORT and 80% have received ORS packets, although only 55% report being resupplied regularly. ORS packets are also available in many pharmacies. At one pharmacy visited in Adzopé, ORS packets were available at a cost of 145CFA (\$0.50)

At the health center visited near Abidjan, ORT was being used to treat an estimated 5-10 children a day. Children with diarrhea and no dehydration were sent home with ORS packets, those with mild and moderate dehydration were treated with ORS at the center and then discharged with additional ORS packets, and those with severe dehydration

were referred to CHU Treichville. Intravenous fluids were not available. Health workers at the center had received minimal training in ORT at the center itself. Mothers are given a verbal description of how to use the ORS packets, a handout describing all 3 alternative ORT solutions, and instructions to return the next day to have the child checked. A log of all patients treated with ORT was being kept, including age, sex, pre- and post-treatment weight, stage of dehydration, amount of ORT received, and any associated illnesses.

In Adzopé, all the 30 health centers reportedly had ORS packets, and were using them to treat all cases of diarrhea. In theory, cases of diarrhea without dehydration were dispensed 2 or 3 ORS packets for use at home (1 per day), and cases of diarrhea with dehydration were referred to the hospital for ORT or, if severe, IV therapy. A sample of the ORT records being maintained, however, revealed that, of 45 children seen recently for diarrhea, 16 without dehydration were to be treated at home with rice water, 27 with mild dehydration were treated with ORS packets, and 2 with moderate dehydration were treated with ORS packets. Thus, there appeared to be a discrepancy between local official policy and practice in the area of treating diarrhea without dehydration.

Observation of practices at 2 health facilities is obviously inadequate to judge the current state of affairs concerning ORT. A UNICEF-sponsored survey of ORT practices in 250 health centers around the country is in progress and should yield useful information in this area. However, information from the health practices survey in Abidjan suggests that very few episodes of diarrhea are benefiting from ORT at present. Of 544 children less than 5 years of age with diarrhea during the 2 week interval before the survey, only 85 (16%) received any form of ORT. Of the 24 mothers using ORS packets, only 16 were judged to have mixed them correctly, while only 1 of 25 mothers using sugar-salt solution was judged to have mixed it correctly.

Training and supervision of health personnel and education of mothers in the proper use of ORT has been minimal thus far. While over 1000 health workers have participated in educational seminars concerning ORT, very few have been given "hands on" training. A major impediment to training health care workers has been the lack of an ORT demonstration unit designed to give such "hands on" training. The existing unit at CHU Treichville is inadequate for this purpose. Plans to replace the existing unit with one that is adequate in terms of size, equipment, and staff have been delayed due to administrative problems

finding an appropriate site on the hospital grounds. Once such a site is identified, permission from AID/Washington to use CCCD funds for construction will have to be sought.

In addition to the above problems, little attention has been given so far to the problem of auto-financing in CRT. At present, ORS packets are dispensed at no charge in health centers or can be purchased at a relatively high price in pharmacies. There are, at present, no plans for manufacturing ORS packets in Côte d'Ivoire or for making them available at a cost roughly equivalent to the cost of production and distribution.

5.2.2 Conclusions

ORS packets have been distributed widely to health facilities. However, a consistent, coherent national policy concerning the treatment of diarrheal disease has not been established, direction of this program is diffuse, and there is confusion concerning the appropriate treatment for diarrhea at home and in health facilities. The use of ORS packets to treat diarrhea without dehydration is costly and perhaps unnecessary. The appropriate role in Côte d'Ivoire of various home solutions (e.g. rice water, sugar-salt solution, etc.) for diarrhea with or without dehydration remains uncertain. Training of health workers in the appropriate use of ORT has been hampered by the inadequacy of the only existing ORT demonstration unit at CHU Treichville, as well as by the absence of a unified, coherent policy.

5.2.3 Recommendations

1. Construction, staffing, and opening of a new ORT demonstration facility at CHU Treichville should be a high priority and needs to be expedited. The government of Côte d'Ivoire should make a commitment to finding an appropriate site for this unit before the redesign team arrives.
2. ORT activities need to be re-organized under a single coordinator within the Ministry of Public Health and Population. This coordinator should work with the Director of the Central Pharmacy to develop a distribution plan for ORS packets, as well as a reporting system.
3. The ORT coordinator should work with the existing technical advisory committee, CCCD personnel, and the redesign team to formulate a coherent ORT policy for formal approval and distribution.

4. In formulating the national policy, strong consideration should be given to limiting the use of ORS packets to cases of diarrhea accompanied by dehydration, de-emphasizing the role of home ORT solutions (e.g. sugar-salt solution, etc.), and emphasizing the role of continued breast-feeding and increased intake of fluids normally consumed in the treatment of diarrhea without dehydration.
5. Once an ORT policy has been established, appropriate revisions should be made in any existing training, supervisory, and health education materials.
6. Planning of additional regional ORT demonstration facilities should begin as soon as possible.
7. Additional appropriate health workers should be made available by the Ministry of Public Health and Population for interim training at the WHO ORT Demonstration Training Unit in Kinshasa, Zaire. Such training should be supported by CCCD.
8. All CCCD activities in diarrheal disease control should be coordinated closely with UNICEF.

5.3 Malaria

5.3.1 Assessment

In the area of malaria, CCCD progress to date has been held up by the delay in issuing a formal policy statement concerning appropriate treatment and prevention measures. The need for such a statement was more than adequately demonstrated by studies in 1986 that showed that a substantial proportion of children with suspected malaria were receiving inappropriate medications and/or incorrect doses of antimalarials. The statement, which was officially signed and issued earlier this year, contains appropriate information concerning the treatment of malaria and chemoprophylaxis in pregnant women. At the same time, needed changes are reportedly being made in the purchase and supplying of antimalarial medications. Unfortunately, the document issued contains a statement that those who wish to give weekly chemoprophylaxis to young children should continue to do so.

While the statement concerning chemoprophylaxis in children is meant to be "permissive", it was clear upon visiting the two health centers to which the team went that this statement is being interpreted differently. The practice at

both health centers is to give mothers of newborn babies prescriptions for prophylactic chloroquine (10mg/kg/week) for the baby. Doctors at both centers believed that, given the statement about chemoprophylaxis in the official policy, they were obliged to continue this practice.

As noted above, the health practices survey in Abidjan in January 1988 found that 28% of children less than 5 years of age had had fever within the preceding two weeks. Of those with fever, 81% received medication(s) for fever, although only 52% (281 of 544) received an antimalarial drug. Among those receiving chloroquine, the mean duration of treatment was 2 days and the mean total dosage received was 12mg/kg.

Two possible problems in the treatment of malaria or presumptive malaria (i.e. fever) became evident during the visits to the health centers. The first problem concerns whether to give chloroquine to all children with fever, even if signs and symptoms of another possible cause of the fever are present (e.g. to give children with fever and a measles-like rash chloroquine), or to wait and see if fever persists after the other signs and symptoms abate. Practices in the two health centers differed in this area. The second problem concerns whether to dispense all three doses of chloroquine needed for the 25mg/kg regimen or to dispense only the first dose and give a prescription for the last two doses. Both of these are areas in which it would be worthwhile to arrive at a consensus and give guidelines to health care providers.

In the December 1986 survey of health facilities, 42% of facilities in Abidjan and 68% of those outside Abidjan indicated that they routinely prescribed malaria chemoprophylaxis for pregnant women. Both centers the team visited routinely prescribed chloroquine chemoprophylaxis (300mg/kg/week) for pregnant women. The level of compliance was unknown. However, in the health practices survey conducted in Abidjan, only 177 (36%) of 497 women reported taking chloroquine during their most recent pregnancy, and only 93 (18%) reported having taken it weekly.

At the highest levels within the Ministry of Public Health and Population there appeared to be disagreement about what the national malaria policy should be. This disagreement is most evident in the area of chemoprophylaxis for young children. However, there also appear to be differences of opinion concerning the need to switch to a 25mg/kg dosage schedule at this point in time. As a result, there were varying levels of concern about whether an individual with suspected malaria received the second and third doses of

chloroquine. These areas of disagreement need to be resolved if a coherent malaria and prevention program is to be promulgated and widely accepted.

5.3.2 Conclusions

Progress to date has been limited to the provision of technical assistance in techniques for monitoring chloroquine-resistance and the approval by the Minister of Health and Population of a malaria control policy. Inclusion in future technical documents of the permissive statement concerning chemoprophylaxis in children found in the malaria control policy will create confusion.

5.3.3 Recommendations

1. A coordinator of malaria activities within the Ministry of Public Health and Population should be appointed before a redesign team arrives in Abidjan.
2. A malaria technical advisory committee representing appropriate components of the Ministry of Public Health and Population should be selected to advise and work with the malaria coordinator.
3. The issue of providing chemoprophylaxis to children under five years of age should be reconsidered before its inclusion in technical guidelines for malaria control activities.
4. CCCD should assist the malaria coordinator and technical advisory committee in the development of a multi-year action plan for implementation of the malaria control program.
5. CCCD should assist in the planning and establishment of sentinel surveillance for in vivo chloroquine resistance.
6. CCCD should support operations research studies focused on how to achieve high levels of compliance with chemoprophylaxis among pregnant women and on the effect of various drug dispensing schemes on compliance with chemotherapy.

5.4 Yaws

5.4.1 Assessment

As yet, no yaws treatment/control activities have been undertaken by CCCD. Lack of activity in this area has resulted from the initial submission of an unacceptable protocol by the Ministry of Health and subsequent difficulties in agreeing upon and scheduling a consultant in this area. In October 1987, in order to pave the way for implementing a control program, a survey was conducted in the most heavily affected subsectors of the three rural sectors thought to have the worst problem with yaws (Gagnoa, Divo, and Sassandra). The prevalence of yaws in the 33 villages/local areas studied ranged from 1.4-21.4%, and was 7% overall among a population of 39,031. An intervention plan has been developed, but not officially submitted to the CCCD National Coordinator. The plan, as currently written, calls for an evaluation of the impact of the intervention 2 years later, but offers no details concerning the design, cost, etc. of the evaluation.

5.4.2 Conclusions

Convincing evidence of a serious yaws problem in selected subsectors of 3 sectors has been amassed and a plan for a reasonable control strategy developed. However, no details concerning an evaluation of the control strategy have been put forward, and the plan has not been formally submitted to CCCD for consideration.

5.4.3 Recommendations

1. The Direction of Public Health and Population should formally submit the yaws control plan to the CCCD National Coordinator.
2. CCCD should release funds for the proposed yaws control project in the designated subsectors of the 3 sectors.
3. CCCD, via a consultant with expertise in yaws control, should assist in the planning of an evaluation of the control project. Consideration should be given to combining this evaluation with future EPI coverage surveys or activities.

5.5 Operations Research

5.5.1 Assessment

CCCD has supported a number of studies intended to provide information of use in planning strategies to reduce morbidity and mortality among children less than five years of age:

- 1) Purging practices
- 2) Ability of mothers to make ORT solutions
- 3) Treatment practices of mothers for children with fever/malaria
- 4) Proportion of infants less than 9 months of age with antibodies to measles
- 5) Epidemiology and etiology of bacterial meningitis in a region with known meningococcal disease
- 6) Characteristics of children hospitalized with diarrhea.

Assuming that the primary purpose of supporting these studies has been to develop strategies for reducing morbidity and mortality, some of the studies would appear to be of more immediate applicability than others. For example, the study of how well mothers can make a safe ORT solution at home, which showed that approximately 30% of mothers made a potentially dangerous solution just one day after receiving detailed and lengthy instruction, is of immediate importance in trying to determine the optimal strategy for ORT use. Similarly, understanding what mothers do when a child develops fever is important in formulating strategies for ensuring that children receive appropriate malaria treatment. On the other hand, it is difficult to believe that the study of measles antibody levels in infants less than 9 months of age would, by itself, have led to change in the age at which measles vaccine is given in Côte d'Ivoire, particularly given that well-designed trials of a new dosage schedule of the existing vaccine and of a new vaccine currently are underway elsewhere. Similarly, it is unclear how the studies of meningitis or hospitalized diarrhea cases, at least as designed, were likely to have resulted in new strategies for decreasing morbidity and mortality from these diseases.

At the same time, there is a great need for operations research studies within the CCCD program in Côte d'Ivoire. A few priority areas in which such studies are needed include:

- 1) How to achieve high rates of compliance with chloroquine chemoprophylaxis among pregnant women
- 2) The effect on compliance with chloroquine chemotherapy of various schemes for dispensing medications (i.e. giving a single dose and a prescription vs giving all 3 doses at the health center)
- 3) Further studies of which ORT solutions should be recommended in which locations
- 4) How to reduce the use of purging by mothers for diarrhea
- 5) Whether or not increasing the number of vaccination sessions offered per week at health centers increases the number of vaccinations given

Because a full time CCCD epidemiologist will no longer be stationed in Abidjan, however, it will be more difficult in the future to ensure that research studies proposed for funding are appropriate in terms of scope, focus, duration, expense, and study design. Thus, careful thought must be given to how to oversee these activities in the future. It is likely that the back-up epidemiologist for the Côte d'Ivoire CCCD project in Atlanta will have to play a major role in helping the project officer with this task, as will other technical resource persons at CDC.

5.5.2 Conclusions

Operations research studies conducted to date under the auspices of CCCD have been uneven in their quality and usefulness in addressing operational problems. Now that a CCCD epidemiologist is no longer available in the country on a full time basis, the operations research component of the CCCD project will be much harder to oversee and coordinate, and the appropriateness, utility, and adequacy of future studies more difficult to ensure. Therefore, serious thought must be given as to how to ensure that operations research projects are limited to those that are simple in design, short in duration, inexpensive, and narrowly focused on definable operational problems.

5.5.3 Recommendations

1. Limit the operations research component of CCCD in Côte d'Ivoire to small, simple studies and develop a mechanism for ensuring the quality, scope, and appropriateness of future studies.
2. Consider adding studies of how best to introduce and/or encourage auto-financing schemes in CCCD priority disease control programs. The evaluation team recommends that a financial consultant visit Côte d'Ivoire in November, 1988, to conduct a review of the auto-financing or cost recovery schemes presently in use, and to develop a preliminary design for discussion with MOPHP. The preliminary design could be presented to the medecin chefs at their annual meeting in December 1988. The medecin chefs' agreement, cooperation, and involvement are crucial to any further development of auto-financing schemes in Cote D'Ivoire.

5.6 Training

5.5.1 Assessment

While a number of individuals have received various types of training under the CCCD program in Côte d'Ivoire, and the training unit in the Ministry of Public Health and Population appears ready and able to do additional training, there continues to be an enormous unmet need for training. At the central level and the level of the Médecin-chef, there is need for additional mid-level management training, as well as training in how to interpret and use health data to set priorities and monitor the impact of programs. In addition, there is a need for training in supervisory techniques and for the development and testing of supervisory checklists. The greatest unmet training need, however, is for training and retraining of peripheral health care workers in the activities required for the CCCD interventions. In order to meet this need, it will be necessary to re-orient the current approach to training. In the future, training activities must be decentralized, based on needs assessments, and incorporate evaluations of effectiveness. Meeting this training need also will require training substantial numbers of trainers and developing a wide range of training materials for use at the peripheral level.

5.6.2 Conclusions

While CCCD and others have provided several different types of training over the past few years, the need for training of health care workers at all levels remains enormous. Furthermore, training provided in the future must be decentralized, incorporate evaluations of effectiveness, and be based on needs assessments if large numbers of health workers are to be trained efficiently and effectively. Training-related needs include: mid-level management courses covering all CCCD interventions for regional medical officers as yet untrained; training of trainers courses to expand the training capacity of rural health sectors; training and retraining of health workers so as to expand the number of health facilities offering routine vaccinations and to ensure appropriate treatment of malaria and diarrhea; development of training materials to be used in training health workers in rural health sectors; and establishment of demonstration oral rehydration therapy centers.

5.6.3 Recommendations

1. Give two additional mid-level management courses for sector medical chiefs and other appropriate sector personnel as soon as possible.
2. Develop training materials covering the CCCD interventions and train trainers for training health workers in rural health sectors.
3. Continue with plans to establish an ORT demonstration center at CHU Treichville and begin planning two or more additional ORT demonstration centers in other sectors.
4. Coordinate EPI and ORT training with UNICEF.
5. Strengthen the role of decentralization, evaluation of effectiveness, and the use of needs assessments in all future training activities.

5.7 Health Education

5.7.1 Assessment

There has been consistently good progress in the area of health education in the CCCD project in Côte d'Ivoire. With the assistance of outside consultants, Ivorian health educators have produced, aired, and evaluated the impact of radio spots concerning the importance of measles

vaccination. The evaluation of impact, carried out in 6 villages in 2 sectors, demonstrated that most of the respondents had encountered messages about the importance of measles vaccine, although those who had heard the messages on the radio were relatively few in number and unequally distributed. In addition, planning and work on similar radio spots in other CCCD intervention areas have begun. At present, two difficulties are inhibiting further progress in this area. The first difficulty involves financial/administrative problems in paying for the production of the radio spots by the National Radio. The problems in this area must be resolved before any additional radio spots can be produced. The second difficulty, which affects only those radio spots dealing with diarrheal disease, is that there is uncertainty about what information to try and communicate. In particular, there is appropriate concern that attempting to educate mothers about the use of sugar-salt solution over the radio may be potentially dangerous. There is continuing need in the area of health education for educational materials that can be used in the health center setting to inform and instruct mothers.

5.7.2 Conclusions

Good progress was being made in CCCD-supported health education efforts until financial/administrative difficulties led to a virtual cessation of these activities. Radio spots concerning the need for measles vaccination were developed and aired successfully, although it appears that they had uneven impact. Consideration should be given, therefore to including other mass media approaches in future health education efforts. The proposed plan to develop and air similar radio spots for diarrheal disease education, malaria treatment, and tetanus vaccination should be followed, although inclusion of instructions on how to make sugar-salt-solution (SSS) in the diarrheal disease spots should be reconsidered. Additional health education materials relevant to CCCD interventions for use in peripheral health facilities also should be prepared.

5.7.3 Recommendations

1. Resolve financial/administrative difficulties and continue the development of additional radio spots for CCCD interventions
2. Consider deleting instructions concerning preparation of SSS from radio spots concerning diarrheal diseases

3. Consider including other mass media approaches in future health education campaigns
4. Develop additional health education materials for use in health facilities

5.8 Health Information System

5.8.1 Assessment

As noted above, the health information system, while improved in some respects since 1985, continues to have its share of problems. The system for collecting morbidity data from government health centers has improved in its completeness and promptness of data collection. However, the system continues to collect information on a list of overlapping diseases, conditions, and symptoms originally designed to categorize 97% of all patients seen, making it unwieldy and needlessly complex. One result is that even after the data have been collated and tabulated, only a fraction of the information collected is ever interpreted or used in decision-making. The hospital-based system of collecting morbidity and mortality data is inoperative at present.

A number of barriers appear to be inhibiting progress in developing a unified, focused, functioning health information system, particularly administrative and financial problems. In theory, the INSP is supposed to assist in the development and testing of data collection forms, after which the Department of Planning and Statistics is supposed to use the forms to gather data. Effective transfer of the responsibility for the health center-based reporting system has been hampered by disagreements and deficiencies in the areas of personnel, equipment, training, and financial support. Similar problems have inhibited progress in the implementation of a new hospital-based information data system. Until these problems can be resolved, it is unlikely that further progress will be made in improving and unifying the health information system.

At a broader level, there appears to be only limited interest within the Ministry of Public Health and Population in making more sweeping changes in the whole approach to gathering and using health data. In 1986, consultants from the U.S. Bureau of Census made a number of useful recommendations for strengthening the health information system. Most important was the recommendation that health officials be given training in how to plan and use health information systems to determine priorities and measure progress in achieving objectives. Such training would be of

use not only to those at the central level responsible for setting policy but also to *médecin-chefs* in the periphery, who should be prepared to monitor important health indicators within their respective sectors. To date, many of these recommendations have not been followed, and the need for training of this kind remains undiminished.

Despite the above difficulties, it should be possible to monitor morbidity from vaccine preventable diseases using health center morbidity data, sentinel surveillance, and periodic special surveys. Measuring reductions in severe morbidity and mortality from diarrheal disease and malaria, however, will be difficult in the absence of a functioning hospital-based system for collecting morbidity and mortality data.

5.8.2 Conclusions

The key health information data collection systems are currently being redesigned. The health unit-based system, while improved since 1985 remains unwieldy and needlessly complex. The hospital-based system is not operative. Important recommendations made in an earlier consultation by the U.S. Bureau of Census have yet to be addressed. Most pressing is the need for training in how to design and use health information systems for program management.

5.8.3 Recommendations

1. Adequate input into the ongoing redesign of health information data collection systems from technical coordinators in each of the CCD priority diseases and from CCD staff must be assured.
2. At a minimum, either the redesigned health information systems or separate sentinel surveillance systems should be able to monitor deaths due to diarrhea and malaria, as well as the number of cases of measles, severe diarrhea, and severe malaria.
3. CCD should assist in designing and implementing a new hospital-based health information system. The CCD project should support this activity immediately.
4. CCD should provide initial funding for a quarterly bulletin summarizing and interpreting data concerning important public health problems. The bulletin should be produced jointly by the Direction of Planning and Statistics and the INSP, and it should be distributed widely within the Ministry of Public Health and Population and to health workers in peripheral sectors.

5. Recommendations from the 1986 U.S. Bureau of Census Consultation should be followed, particularly those that relate to training and to the strengthening of data collection systems. A follow-up consultation by the Bureau of Census should be scheduled immediately after the visit of the redesign team.

6.0 Finance

6.1 Sources and Amount of Funding for Current and Future Activities

The financial status of the CCCD bilateral project with the Côte d'Ivoire is as follows: out of the \$1.69 million obligated, 48 percent of the funds have been earmarked, 37 percent committed and 28 percent expended according to REDSO's Summary Project Financial report dated May 20, 1988. This leaves \$876,000 or 52 percent of CCCD project funds free to be earmarked or committed at this time. Therefore, should the project be extended for three years as recommended by the evaluation team, there is no immediate need for additional funding. The redesign team should develop detailed time phased cost estimates through September 1991 as part of its mandate.

Although not yet calculated, it is clear that the government of Côte d'Ivoire made a significant self help effort in terms of equipment, manpower and money in putting on the highly successful national vaccination campaign in 1987. While the 25 health districts and 800 rural health facilities could use additional support, financial support for staff and facilities to date has been impressive.

UNICEF has been a major factor in the support of EPI and ORT primary health programs and is developing with the Ministry of Public Health and Population (MPHP) a five year government/UNICEF plan (1990-1994) for EPI and Control of Diarrheal Disease/ORT. UNICEF has indicated that they have substantial resources that can be made available to assist the government in maintaining the follow-up and institutionalization of the government's national vaccination campaign. Additional funds are also potentially available to help expand the government's ORT activities.

As the Government's primary health care program progresses, the World Bank representative indicated that the Bank would be interested in cooperation in the public health sector at the proper time. A Bank mission is expected in June to work with Ministry on health sector financing.

6.2 GOCI Budget and Auto Financing of CCCD activities

The Ministry's primary health care program already contains important self help components. For example, health cards for mother and children are sold for 155 CFA francs each. Vaccination cards are 100 CFA francs in Abidjan and 50 CFA francs in the rural areas. While initial doses of chloroquine are provided to mothers at the Health Center, the patient is expected to purchase the remaining tablets. Some pharmacies also carry ORS packets. There is some anecdotal evidence that families will purchase ORS packets when they are not used free at the nearest health facility. On the curative side, the patients are expected to pay for most medicines with their own funds, and are given prescriptions to fill at the local pharmacy.

Given the relatively higher per capita income in the Côte d'Ivoire, there is significant potential for the population to help by paying more of the costs of primary health care. The redesign team should look carefully into how the Ministry might proceed in this sensitive area.

6.3 Recommendations

1. The redesign team should develop detailed time phased cost estimates with the Ministry in terms of the resources required to operate the CCCD project through September 1991.
2. The evaluation team recommends that the redesign team increase the emphasis on self-help and sustainability in its redesign.
3. The World Bank has arranged for a Health Sector Financing team, which is scheduled to arrive in June 1988. The results of this consultation should be made available to the redesign team.

7.0 Composition of the Redesign Team

7.1 Context

The following comments are based on the assumption that USAID and CDC/Atlanta will approve the recommendation of the Evaluation team that the project be extended until September 1991 without provision of any additional financing at this time, and that the Ministry will take the necessary steps set out in Section 2.5 to trigger the call forward of the redesign team.

(Note: If the extension suggestion is not accepted, the project will end in April 1989 as scheduled under the current agreements. Technical coverage will be required from time to time from CDC Atlanta once the current TO leaves at the end of June. CDC/Atlanta working with REDSO and the Ministry would then need to prepare a plan for an orderly phase-out of the project over the coming months, and the return to AID/W of the substantial funds not used.)

Assuming the go ahead is given, the CCCD National Coordinator, the CCCD Technical Coordinator and other appropriate Ivorian offices in the Ministry of Public Health and Population should be intimately involved in all steps of the phase two redesign. Only a cooperative effort involving joint dialogue will assure that the redesign represents Ivorian priorities and a realistic plan for the future.

Based on discussion with key Ministry officials responsible for primary health care activities and CCCD interventions, the Evaluation team feels the redesign team would be of most value if the epidemiologist could come from the CDC/Atlanta backstop staff since the Côte d'Ivoire no longer has a resident epidemiologist. The design expert should have health management/planning skills and be fully conversant with USAID regulation and local government procedures in francophone countries. Given the importance of future financing for the primary health care program and self help measures, the team should be assisted by an experienced health economist. In order to minimize the effects of the hiatus between the departure of the present TO and his replacement, it is urged that the new TO (designate) take part as a member of the redesign team. It should be underlined that all team members should be fluent in French.

Three to four weeks should be adequate to carry out the redesign. However, this phase should not start before early September, given the absence of key government personnel during the month of August. Any prolonged delay should be avoided in order to avoid losing the benefits of the work accomplished to date. REDSO backstopping and in particular the help of the REDSO CCCD Program Specialist will be vital in keeping the project moving until the new TO is on board on or about October 15, 1988.

7.2 Recommendations

1. The redesign team should have the following composition:
 - one epidemiologist (CDC/Atlanta backstop officer)
 - one design expert (Health Management)
 - one health economist (1-2 weeks), plus
CCCD Technical Officer (designate)
2. The team should stay in the Côte d'Ivoire for three to four weeks starting in early September 1988.
3. The CCCD National Coordinator and the CCCD Technical Coordinator should assure that appropriate officers are designated to work with the team to assure that the final design represents Ministry of Public Health and Population priorities, and sets practical realistic operational and program goals.

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AIDAC: ABIDJAN FOR REDSO, CDC FOR IHPO

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SUBJECT: ACSI CCCD PROJECT THIRD YEAR EVALUATION

REF: A) ROSEBERRY-DEBOSE TELCON 5/10, B) STATE 126739.

1. AS DISCUSSED IN REF A, MR. VINCENT BROWN OF SUBJECT TEAM WILL ARRIVE EARLY (MAY 18) TO COMPENSATE FOR 2 DAYS HOLIDAY DURING WEEK OF MAY 23, 1988. MR. JEAN ROY, CDC RESOURCE REPRESENTATIVE, WILL ARRIVE AS PLANNED ON THE 22 OF MAY, WITH SECOND TEAM MEMBER, DR. REINGOLD. UNFORTUNATELY NEITHER MR. BROWN NOR DR. REINGOLD ARE AVAILABLE AFTER JUNE 3, 1988. REQUEST REDSO SCHEDULE REDSO AND MOH MEETINGS WITH MR. BROWN FOR MAY 19 AND 20 IF POSSIBLE. DUE TO LACK OF TRAVEL FUNDS AND PREVIOUS COMMITMENTS, AFR/TR/HPN SHEPPERD AND ROSEBERRY WILL NOT BE ABLE TO PARTICIPATE IN EVALUATION.

2. AFR/TR/HPN APPRECIATES WORKED PERFORMED BY T.O. WEIERBACH REGARDING SECRETARIAL SUPPORT. THESE MATERIALS HAVE BEEN FORWARDED TO MR. BROWN. PRAGMA WILL FUND ALL COSTS OF EVALUATION.

3. REGARDING TEAM'S ITENIRARY: WE SUGGEST A MAXIMUM 2 DAYS VIEWING SERVICE DELIVERY THE SECOND WEEK FOR REINGOLD AND ROY (BROWN MAY ACCOMPANY TEAM IF TIME PERMITS). WE SUGGEST A FINAL DEBRIEFING WITH MOH AND REDSO OCCUR O/A JUNE 3. BROWN AND REINGOLD WILL LEAVE BEHIND A DRAFT REPORT AND A FINAL REPORT WILL BE PRINTED IN WASHINGTON INCORPORATING MOH AND REDSO COMMENTS.

4. BOTH BROWN AND REINGOLD WILL RECEIVE ORIENTATION FROM AFR/TR/HPN AND IHPO BEFORE ARRIVING.

5. SCW FOR EVALUATION IS AS FOLLOWS:

OBJECTIVES OF EVALUATION:

A. TO EVALUATE ACSI-CCCD ACTIVITIES IN COTE D'IVOIRE THROUGH SYSTEMATIC COLLECTION AND ANALYSIS OF DATA ON ACSICCCD MANAGEMENT AND OPERATIONS AT THE CENTRAL, REGIONAL AND PERIPHERAL LEVELS.

B. TO MEASURE THE EXTENT TO WHICH ACSI-CCCD ACTIVITIES HAVE BEEN INTEGRATED INTO THE EXISTING COTE D'IVOIRE PRIMARY HEALTH CARE STRUCTURE.

C. TO OFFER A SERIES OF RECOMMENDATIONS TO IMPRESS THE EXPANSION AND DELIVERY OF ACSICCCD SERVICES (INCLUDING TRAINING, HEALTH EDUCATION AND HEALTH INFORMATION SYSTEM DEVELOPMENTS) AND TO ACCELERATE THEIR INTEGRATION INTO THE PRIMARY HEALTH CARE DELIVERY STRUCTURE GIVEN EVER PRESENT RESOURCES CONSTRAINTS.

D. TO ADVISE AID THE FEASIBILITY OF IMPROVING PROJECT PROGRESS VIA REDESIGN EMPHASIZING CHILD SURVIVAL AND PROJECT SUSTAINABILITY. IF REDESIGN IS FEASIBLE AND DESIRABLE, TO OFFER A SERIES OF RECOMMENDATIONS REGARDING DESIGN CHANGE.

METHODS OF EVALUATIONS :

A TEAM COMPRISED OF ONE HEALTH MANAGEMENT SPECIALIST AND ONE EPIDEMIOLOGIST WILL BE FIELDDED TO CONDUCT AN EVALUATION OF THE CCCD PROJECT IN COTE D'IVOIRE.

A. STUDY RELEVANT REFERENCE DOCUMENTS AT THE CENTRAL AND REGIONAL LEVELS.

B. VISIT SELECTED SERVICE DELIVERY UNITS AND OTHER HEALTH INSTITUTIONS IN RURAL AND URBAN AREAS OF A REPRESENTATIVE NUMBER OF REGIONS OF THE COUNTRIES.

C. REVIEW SURVEY DATA.

D. INTERVIEW RELEVANT PROJECT IMPLEMENTING AGENTS.

EVALUATION COMPONENTS :

PROJECT PLANNING ADMINISTRATION AND MANAGEMENT.

A. REVIEW THE DEVELOPMENT OF PLANS OF OPERATIONS AND THE ADEQUACY OF THOSE PLANS TO GOVERN AND SUPPORT FIELD ACTIVITIES.

B. DESCRIBE AND REVIEW THE CAPACITY OF GOVERNMENT MANAGEMENT AND ADMINISTRATIVE STRUCTURES TO MANAGE AND ADMINISTER A PROGRAM INCORPORATING IMMUNIZATIONS, ORT AND MALARIA TREATMENT.

C. REVIEW THE AID AND CDC ADMINISTRATION AND SUPPORT TO THE PROJECT AND ADEQUACY OF PROCEDURES ESTABLISHED FOR PROJECT SUPPORT.

D. REVIEW COUNTRY PROJECT EXECUTIVE MANAGEMENT STRUCTURE AND FUNCTIONS WITH PARTICULAR EMPHASIS ON RELEVANT CCCD PROJECT AND EXECUTIVE COMMITTEES, AS WELL AS DONOR COORDINATION ACTIVITIES.

PROJECT SUPPORT:

A. REVIEW EPIDEMIOLOGIC AND HEALTH SERVICES STATISTICS IN ORDER TO DETERMINE IF THE CCCD PROJECT HAS EXERTED AN INFLUENCE ON LOWERING MORBIDITY, MORTALITY OR INCREASING THE AVAILABILITY OR QUALITY OF PRIMARY HEALTH CARE SERVICES IN THE RESPECTIVE COUNTRY.

B. REVIEW THE ADEQUACY OF INFORMATION SYSTEMS CURRENT AND PLANNED TO PROVIDE DATA NECESSARY TO DETERMINE PROJECT IMPACT.

PROGRAM OPERATION:

A. REVIEW THE DELIVERY SYSTEM (CURRENT AND PROPOSED) TO BE UTILIZED TO DELIVER CCCD SERVICES, (SUPERVISION, LOGISTICS AND SUPPLY, COMMUNICATIONS, PERSONNEL COVERAGE, CONTROL OF FUNDS AND SUPPLIES).

EPI PROGRAM COMPONENTS:

A. REVIEW IMMUNIZATION POLICIES AND SCHEDULES.

B. REVIEW COVERAGE OF IMMUNIZATIONS AND REVIEW IMMUNIZATIONS PRACTICES WITH SPECIAL EMPHASIS ON STERILIZATION OF EQUIPMENT, IMMUNIZATION OF ILL CHILDREN AND FREQUENCY OF IMMUNIZATION CLINICS.

ORT PROGRAM COMPONENTS:

A. REVIEW NATIONAL ORT POLICY.

B. REVIEW POPULATION COVERAGE OF ORT.

C. REVIEW ORT PRACTICES WITH SPECIAL EMPHASIS ON CONTINUING USE OF I.V., ADEQUACY AND FREQUENCY OF USE OF ORS AND ADEQUACY OF PUBLIC INFORMATION REGARDING ORS.

MALARIA:

A. REVIEW NATIONAL MALARIA TREATMENT AND ANTIMALARIAL CHEMOPROPHYLAXIS POLICIES.

B. REVIEW POPULATION COVERAGE OF MALARIA TREATMENTS; AND

C. REVIEW MALARIA TREATMENT AND CHEMOPROPHYLAXIS PRACTICES WITH PARTICULAR EMPHASIS ON AVAILABILITY OF CHLOROQUINE, ADHERENCE TO NATIONAL POLICIES, AND FREQUENCY OF ANTIMALARIAL CHEMOPROPHYLAXIS IN PREGNANT WOMEN.

TRAINING:

A. REVIEW TYPES AND MAGNITUDE OF TRAINING PROVIDED.

B. REVIEW TRAINING MATERIALS DEVELOPED.

C. REVIEW NUMBERS AND TYPES OF PERSONNEL TRAINED AND EVALUATION OF THEIR PERFORMANCE; AND

D. REVIEW TRAINING PLAN OR REMAINDER OF PROJECT.

HEALTH EDUCATION:

A. REVIEW THE CURRENT HEALTH EDUCATION STRUCTURE, PLAN OF EXECUTION AND ACTIVITIES TO DATE.

B. REVIEW STAFFING AND INSTITUTIONAL CAPACITY FOR DELIVERING HEALTH EDUCATION SERVICES, AND

C. REVIEW THE ADEQUACY OF TECHNICAL ASSISTANCE PROVIDED FOR SUPPORT TO HEALTH EDUCATION ACTIVITIES.

FINANCING:

A. REVIEW SOURCES AND AMOUNT OF FUNDING FOR CURRENT PROGRAM ACTIVITIES.

B. REVIEW GOVERNMENT'S NORMAL BUDGET, AND AUTO FINANCING.

C. REVIEW USAID BILATERAL FUNDS, REGIONAL FUNDS, AND COUNTERPART FUNDS.

6. ABOVE SOW IS AMBITIOUS. ONCE TEAM IS IN COUNTRY, THIS GENERIC SOW CAN BE MODIFIED TO FIT PROJECT NEEDS.

7. WE APOLOGIZE FOR THE DELAY IN SENDING THIS CABLE.

SHULTZ

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Persons Contacted

The Honorable Dennis Kux	U.S. Ambassador to Côte d'Ivoire
Prof. Alphonse Djedje Mady	Minister of Health
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**Technical Officer,
CCCD Project**

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