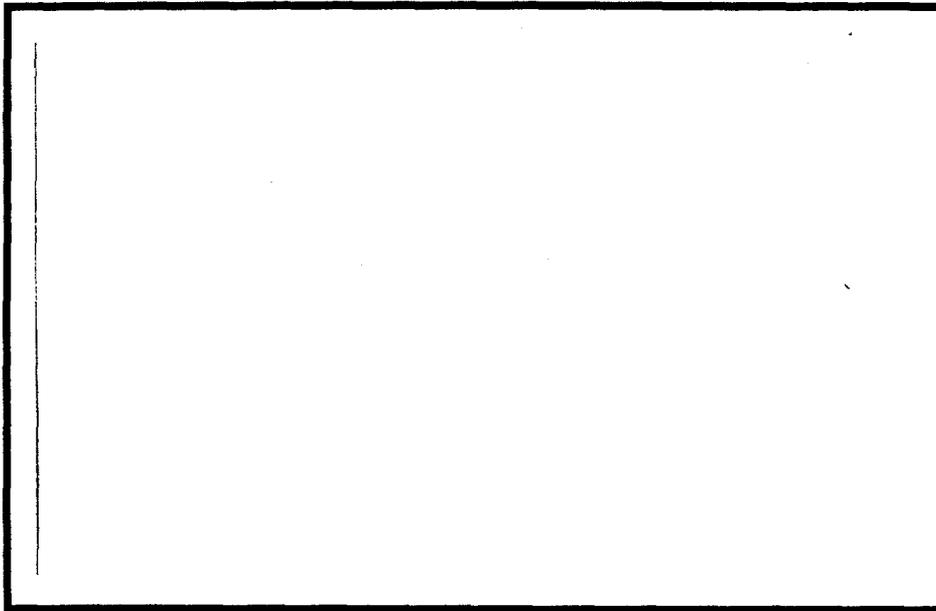


PD-ABP-954
95940

ADRA / Rwanda
PDC-0500-A-00-5112-00
8/85 - 8/93



PRITECH

Technologies for Primary Health Care

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PD-ABP-954

FINAL EVALUATION
ADRA/RWANDA
CHILD SURVIVAL PROJECT
1985 - 1989

PDC - 0508 - A - 00 - 5/12 - 00

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During The Period:
FEBRUARY 20 - MARCH 12, 1989

TECHNOLOGIES FOR PRIMARY HEALTH CARE (PRITECH) PROJECT
Supported By The:
U.S. Agency For International Development
CONTRACT NO: AID/DPE-5969-Z-00-7064-00
PROJECT NO: 936-5969

AUTHORIZATION:
AID/S&T/HEA: 4/13/90
ASSGN. NO: HSS 032-RW

A

ADRA/Rwanda Child Survival Project: Final Evaluation

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ABBREVIATIONS AND TERMINOLOGY

ADRA	Adventist Development and Relief Agency
AID	U.S. Agency for International Development, Washington, DC
ASSAR	Association des Services de Santé Adventistes au Rwanda
BUFMAR	Bureau des Formations Medicales Agreees au Rwanda
CCCD	Controlling Communicable Childhood Diseases, an AID project in Rwanda from 1984 to 1988
CHW	Community Health Worker/Agent de Santé Communautaire - trained and paid by ADRA under the CS Project
Clinic	Term used in this report for ADRA health facilities including dispensaries, and health centers
CS	Child Survival
DIP	Detailed Implementation Plan
GOR	Government of Rwanda
MCH	Maternal and Child Health
MG	Matching Grant from AID to ADRA, 1983-86, 1987-89
MOH	Ministry of Health and Social Affairs (MINISAPASO)
NGO	Non-Government Organization (PVO)
ONAPO	Office National de Population
ORS	Oral Rehydration Salts - premixed packets or mixed at home
ORT	Oral Rehydration Therapy - the use of ORS
PVO	Private Voluntary Agency (NGO)
Titulaire	Clinic director, usually a Medical Assistant; responsible for both curative and preventive health
Umaganda	1/2 day/week work, required weekly of all Rwandese
UNICEF	United Nations Childrens Emergency Fund
USAID	Agency for International Development, Rwanda
VHW	Voluntary Health Worker/Agent de Santé de Base; member of the Cell Committee responsible for health
WFP	World Food Program

RWANDA'S ADMINISTRATIVE STRUCTURE

<u>Number</u>	<u>Division</u>	<u>Civil Authority</u>	<u>Health Authority</u>
1	Nation	President	Minister of Public Health
10	Prefectures	Prefet	Regional Medical Director
143	Commune	Bourgmestre	Titulaire/Clinic Director
1400	Secteur	Conseiller de Secteur	CHW
11,000	Cellules	Chef de Cellule	VHW

ACKNOWLEDGEMENTS

The authors are very grateful to the CS project staff who took time to explain and demonstrate their work for their candor and patience, and to the members of the Adventist community in Rwanda who welcomed us into their lives, for their remarkable hospitality.

C

EXECUTIVE SUMMARY

ADRA's Child Survival (CS) Project in Rwanda, funded by AID from 1985 to 1989, was an expansion of several health and nutrition programs carried on by Adventists in Rwanda with AID support since 1980. ADRA has worked closely with the Ministry of Health (MOH), Adventist institutions, and other PVOs in providing a range of maternal and child health services reflecting MOH priorities. AID support has generated Adventist funds for CS and strengthened Adventist programs. Many dedicated Adventist workers reach underserved areas and extend the clinic outreach.

A prime objective was to improve the quality and availability of CS services provided by eight Adventist clinics. Community outreach was provided by newly trained Community Health Workers (CHWs) and Volunteer Health Workers. Following an MOH priority, ADRA mobilized up to 63 CHWs to provide sharply increased vaccination coverage. ADRA's data, annexed to this report, show mostly steady increases in vaccination session attendance. Measles vaccinations of under ones, for example, increased by 55%, while measles cases decreased sharply nationwide. Numbers of people learning about immunization from ADRA nearly tripled. A study in Mudende of complete vaccination coverage for under fives showed 78% coverage for 1988. These successes resulted from the hard work of ADRA staff and MOH support in communication and vaccine supply.

Other CS results were less clear. Diarrheal deaths reported by Adventist clinics declined sharply, but the numbers of children reported to have been treated with ORT, and children hospitalized because of complications from diarrhea did not improve appreciably. Confused MOH policy concerning ORT, lack of community organization, and shortages of ORS contributed to ADRA's difficulties in areas like nutrition, growth monitoring, and child spacing, all of which require more community and family participation than ADRA could generate in this relatively brief project.

The MOH had been expected to take over CS activity, but 22% (14) of CHWs remain employed by the Adventists; none are being paid by the MOH. ADRA is hopeful that community self-financing will eventually allow clinics to support CHWs without relying on governmental or foreign support.

A. PRIMARY FOCUS AND USE OF FUNDING

1. Background

The goal of this project, according to the revised logical framework (1987), was to improve the health status of children and mothers in Rwanda by reducing infant mortality, measles, and dehydration, by training Community Health Workers and volunteers, and by improving EPI, ORT, PL480 feeding, family planning/child spacing, and sanitation services in Adventist clinics.

The ADRA/Rwanda CS Project was funded by AID/Washington in September 1985. Field activities got under way in Rwanda when the Project's National Coordinator was hired in January 1986 to train and supervise new health workers. Selection and training of Community Health Workers (CHWs) began in March, 1986; AID-supported child survival services to mothers and children were provided after CHW training was completed in May 1986 and ended in May 1988.

The CS Project was an expansion, not an innovation: under a Matching Grant from AID, ADRA had already been providing maternal and child health (MCH) care since 1984, with 28 CHWs (known as "Vaccinators"). The CS Project more than doubled the number of CHWs to 63 and widened the number and location of MCH services provided by ADRA. ADRA's CS activities, sanctioned by and coordinated with the MOH, took place at the same time as major vaccination and ORT programs were being expanded throughout Rwanda.

CS activities were evaluated in the Midterm Evaluation (October 1987) and in this Final Evaluation, and were appropriately part of a national effort. ADRA's achievements, particularly in high vaccination coverage, and its difficulties in preventing malnutrition and dehydration, reflected the situation in Rwanda as a whole, as well as ADRA's activities.

The full range of CS Project health services lasted about two years. In May 1988 all CHWs were laid off because ADRA had overspent its budget by overpaying CHWs. The Project Director continued reporting and monitoring activities until February 1989, and 14 of the 63 CHWs were rehired (at half premium pay, in keeping with comparable government workers) by ASSR to continue CS work, particularly vaccination.

2. Primary Focus

The Project focused on the support and delivery of community outreach services from ASSAR's two health centers, five dispensaries, and one hospital throughout Western Rwanda. These eight health facilities have been operated by ASSAR for many years prior to ADRA's involvement, serving a total population estimated in 1988 at about 200,000 (3% of Rwanda's total population), of whom about 50,000 (25%) are women of childbearing age (15-45), 10,000 - 12,000 (5-6%) are pregnant women, 40,000 (20%) are under age five, and 10,000 (5%) are under one.

The ADRA project was the only PVO CS Project supported by FVA/PVC in Rwanda and was an important experiment in strengthening the provision of CS services in rural areas. The MOH has provided substantial material support to the CS Project and is interested to know its results.

ASSAR's eight health facilities are integrated into the national network of MOH health facilities, with partial supervision and supplies from the MOH. Instead of duplicating health services in any area, ADRA supplements and extends MOH health services by providing primary health care in areas not served by other facilities. ADRA's CS Project was not intended to train or supervise MOH staff.

3. Use of Funding

The major activities of the CS Project were to hire, train, and supervise 38 paid Community Health Workers (CHWs) to vaccinate children and pregnant women, do home visiting, teach and supply ORT, provide growth monitoring, nutrition education, and family planning services to mothers, and train and work with Volunteer Health Workers (VHWs). (The other CHWs were paid by Matching Grant funds.)

Specific outputs and verifiable indicators are cited throughout this evaluation report and in the Logical Framework and End-of-Project Status. At the end of the CS Project, 14 CHWs are still providing CS services, with emphasis on vaccination and ORT. They are paid by the Adventist health system, not ADRA. As in other areas of Rwanda, vaccination coverage increased sharply in CS Project areas (Figures 1 to 5.) Improvements in preventing dehydration and malnutrition, however, are difficult to measure.

The CS Project enabled ADRA to train, mobilize, supervise, and pay CHWs to provide improved outreach services and to increase community awareness of the four major CS interventions. Thus the CS Project improved the delivery of existing services in areas where ADRA was already providing health care under the Matching Grant (or, before 1983, mostly curative care.)

B. ORGANIZATIONAL DEVELOPMENT

1. Human Resources

a. Community Health Workers

To provide health services in eight areas to more than 200,000 people - including 10,000 infants - ADRA and ASSAR maintained eight facilities¹ and many workers during and after the CS project:

COMMUNITY	TYPE OF FACILITY	TOTAL POP. ('88)	CS CHWs	POST-CS CHWs	VHWS
1. Gitwe	H. Center	38,000	11	2	310
2. Rwankeri	H. Center	36,000	13	2	215
3. Mudende	Dispensary	21,000	9	4	275
4. Kinunu	Dispensary	19,000	5	2	115
5. Karora	Dispensary	10,000	3	-	65
6. Nyarwungo	Dispensary	12,000	5	1	180
7. Karambo	Dispensary	14,000	2	-	85
8. Mugonero	Hospital	<u>49,000</u>	<u>15</u>	<u>3</u>	<u>415</u>
		200,000	63	14	1660

Thirty-eight new CHWs were hired with CS funds in 1986 and were trained and supervised by the National Coordinator. They were trained along with refresher training for 27 CHWs (known as "Vaccinators") existing from the MG. The one course lasted for four weeks in April 1986, and covered such topics as health and sanitation education; elementary anatomy, entomology, and epidemiology; ORT and nutrition; vaccination; and family planning (See CHW Course Outline, Annex 11). Old and new CHWs had a chance to discuss experiences, and reconsider ways of reaching people with CS services.

Based on the evaluators' discussions with staff and analysis of curriculum the CHWs/Vaccinators appear to have been adequately trained, particularly in vaccination. Although the midterm evaluation (8-10/87) found some problems in cold chain maintenance, there were few evident technical problems. However, it does appear that CHWs were not adequately trained or experienced in methods of outreach, techniques for communicating and mobilizing VHWS and women at the cell level (see F.2).

¹ "Health Center" as defined by MOH in Rwanda provides curative in-patient out-patient services, maternity service(s), nutrition rehabilitation and education as well as preventive services like immunization and family planning. "Dispensaries" are limited to curative out-patient services.

b. Volunteer Health Workers

1660 local government-appointed Volunteer Community Health Workers (VHWS) supported the outreach work of CHWs into each of the 336 cells covered by ADRA. Before the CS Project was designed, VHWS had been selected by the cell leadership under the auspices of the cell committee, the basic officially sanctioned unit of Rwandan community leadership.

Originally it was planned by the MOH that five VHWS would be active in every cell, and would form the "Cell Health Committee". However, the actual development of community level health activity has been confused and has fallen short of this plan. Instead of having an active health committee, each cell now has one VHW, usually a male and usually a member of the cell committee (known as the "fourth member"), who is responsible for matters of health promotion and hygiene. VHWS are paid by the GOR on a sliding scale, according to how hard and how well they work, from about 100 FRW (US\$ 0.75) per month and up. (In this report, we refer to them as "volunteers" because they are paid very little and are not paid extra for their health work). The 1660 VHWS in ADRA areas were trained in 1986 and 1987 by the CS Project for four days in large groups on such topics as vaccination, ORT, nutrition, family planning, hygiene, sanitation, and latrines. ADRA does not monitor the VHWS so their level of activity has not been measured, but it appeared to CHWs interviewed that only a fraction of the 1660 originally trained are still active in 1989 (for various reasons; see Section F).

c. ADRA/Rwanda Management

The quality and effectiveness of the CS staff is impressive at the top, but appears to diminish in the lower ranks. The National Coordinator, Naphthal Rucibwa, is a hard-working Rwandan Adventist who was trained in government schools for four years as a Medical Assistant and for three additional years in public health in Rwanda, with additional AID-supported training in MCH/FP for two months at Santa Cruz in California. He was recruited by ADRA to run the CS project after several years work experience in the MOH, thus is technically skilled in CS interventions, trains CHWs and VHWS effectively, knows and communicates well with the MOH, and is a dedicated and affable personality as well. He needs, and deserves, more training in PHC management and health information systems, so ADRA will be supporting his studies overseas in future.

The former ADRA/Rwanda Director, who directed both ADRA and ASSAR from 1985 until his dismissal in 1987, was responsible for all CS field operations. He had little experience or interest in

PHC, no prior experience with public health in Africa, and no French language skills. He did not pay much attention to the CS Project, and reportedly did not support efforts to monitor and supervise CS activities. His priorities were Outreach Grant and Food For Work projects such as brick making and road-building. According to Dr. Jean-Marc Michel, the physician appointed as a technical advisor to ADRA and ASSAR, the Director effectively excluded him from the project.

The Director's lack of involvement with the CS project was illustrated by his not visiting field sites with the mid-term evaluation team in 1987. That evaluation coincided with his dismissal from ADRA. The current ADRA/Rwanda Director, in contrast, is a competent manager and a lifelong African development specialist. He has worked hard with the help of his wife, a nurse, to analyze and present CS reports in a clear, useful way, trying to turn CS data into practical management tools.

d. ADRA/International Backstopping

The following personnel from ADRA/International visited the Rwanda project, most of them to design the project or to organize international workshops, between October 1985 and February 1989:

<u>DATE</u>	<u>NAME</u>	<u>PURPOSE</u>
10/85	David Syme, MPH, RN	Country Analysis
10/85-3/86	Barry Wecker, MD	Ongoing Support
2-3/86	Gordon Buhler, MPH, PhD	Workshop preparation
2-3/86	Marie Alexander, MPH	Health consultancy
8-9/86	David Syme, MPH, RN	CS/MG/EG Workshop
	Ken Hart, MD	
	Sharon Tobing, MPH	
	Gordon Buhler, MPH, PhD	
	Bob Ford, MPH, PhD	
7/87	Gordon Buhler, MPH, PhD	Francophone CS Workshop

2. Use of Technical Resources

a. Outside Technical Assistance

Technical assistance from outside ADRA prior to the mid-term evaluation consisted of one consultancy, Agnes Guyon, MD, in early 1987. She assisted in planning the CS Workshop for Francophone Africa, later held at Gitwe in July 1987, and

provided the CS project with some helpful suggestions. During the Gitwe workshop Mary Carnell, MD, a CS trainer, provided feedback on the Detailed Implementation Plan which had been submitted to AID.

Two outside evaluators (Betsy Stephens and Nick Danforth) and the one ADRA/International evaluator (Rudy Maier) who joined forces to do the Mid-term Evaluation (completed in October 1987) provided some recommendations for improved information systems and increased training and support in community outreach. There is little evidence that these concerns were addressed subsequently. The report was completed in November 1987, a time when ADRA/Rwanda's management was in transition. Full scale CS operations continued for only six more months; such concerns might have been addressed more effectively if the CS project had survived a full three years.

Although ADRA/Rwanda sought to comply with every new request or guideline from ADRA/International or AID/Washington, certain CS policy changes and changes in CS reporting requirements were found to conflict with GOR health policies.²

b. Internal Technical Assistance

Another important potential source of high quality technical assistance was available within the Adventist organization itself in Kigali, but was not used until the second half of the project: Dr. Jean-Marc Michel, the Rwandan Union Mission (RUM) Health and Temperance Director, a skilled pediatrician and Oxford graduate with years of primary care experience in Africa, is now director of four northern clinics near Mudende area (while directing the Public Health program at the Adventist University of Central Africa) and backstopped all health activities in that area. His early exclusion from CS project management before late-1987 set back the project.

c. Workshop Attendance

A positive achievement of this project in using external technical support was the participation of Adventist staff in

² Two examples: (1) In the start-up phase ADRA did considerable vaccinating of children (up to age five) to comply with GOR requirements, although not an AID priority; thus, ADRA/Rwanda had to "catch-up" with the AID policy of vaccinating infants (under one year of age); (2) AID recommends TT vaccination of all women; only pregnant women are to be vaccinated under GOR policy. ADRA therefore provides TT coverage to pregnant women, not to all women.

three CS workshops.³

3. Health Information Systems

The project's information system was not very useful for management. While ADRA/International sought to be responsive to AID/Washington's CS reporting requirements, which changed after 18 months, the National Coordinator tried, usually single-handedly, to keep up with the reporting requirements. Little of the extensive data collected was used in reorganizing or retraining staff or in redesigning the program.

The attempt at a baseline survey, for example, was seen by health workers and management to be a frustrating waste of time and funds for all those involved, and results were not useful. Several project staff perceived that such survey and reporting problems originated at AID/FVA.

In any case, technical assistance, for which AID funds were available, to set up a useful, efficient health information system, was not obtained. Should there have been objections to outside consultants who try to sell unnecessary services, a skilled international network of Adventist health information systems experts is available instead, at AID's expense.

a. Baseline Survey

According to the National Coordinator, he was requested by ADRA/International to complete a large sample survey to produce CS baseline data, including training of survey staff, in three weeks. When the survey was done in January 1986, translated directly from English into Kinyarwanda and implemented without pretesting, the results were unreliable and ignored. Fortunately the whole exercise took up only one month of the time of the CS co-ordinator, the CHWs, and many VHWs, and it emphasized the well-known lesson: do not attempt surveys which are not

3

8-9/86: Mudende workshop conducted by ADRA/International on community organization, nonformal education methods, and specific PHC interventions;

8/87: Gitwe workshop on CS management and information for PVO CS grantees, managed by ADRA;

10/87 India workshop for CS III managers and technical staff, managed by ADRA. Mr. Rucibwa and Dr. Michel participated as trainers here as in Gitwe, adding a multi-regional view to their CS perspective.

carefully designed and tested in the field.

b. Clinic Record System

Data was collected every month from each of the eight health facilities from March 1986 through May 1988. On the whole this data compared to other African health system data appears to be relatively complete and accurate. It is reviewed and collected on time every month when each Titulaire (clinic director) comes to ADRA's Kigali headquarters to receive salaries for the clinic personnel. The National Coordinator has worked hard with the CHWs to provide ADRA and AID with the data requested. The records summarized in this report illustrate the major effort made by all staff concerned.

However, a great deal of information is still collected despite complaints from the staff and strong recommendations in the Midterm Evaluation to cut down reporting requirements. Long, laborious lists are kept in several registers (to satisfy MOH or ADRA requirements) and to serve the dispensary staff. While some records, for example birth and vaccination registers, help in the follow-up of dropouts and in estimating future demand for services, others do not seem useful.

A glaring example of unnecessary data required by the MOH is a monthly report by each CHW of visits he is supposed to make to every home in his area. It requires him to report, for example, the state of every latrine every month, hardly priority information for a CHW who should be visiting all high risk children and mothers. Annual or semi-annual inspections of latrines and water supplies should suffice (except in emergencies or epidemics).

c. Use of Data

The individual notations in each of the registers are supposedly used to follow up dropouts or high risk cases, or to verify individual patient records (e.g. if immunization cards are lost). Most of the time it is only the total number treated every day, week, or month which is of interest to the Titulaire who runs the clinic, and to his supervisors who receive reports in ADRA (the National Co-ordinator) and in the MOH (the Regional Medical Directors). Monthly totals of vaccinations, diarrhea cases treated, family planning registrations, and the like are of some use at the clinic level in verifying the productivity of staff and in planning work schedules, projecting future demand for vaccines, ORS, and other supplies. Sometimes the MOH Regional Medical Director distributes comparative summaries of health information back to Titulaires to show them how their

clinic compares with others in his prefecture. But because of the inaccurate population baselines this comparison may be misleading (see below and Annex 10).

A deficiency in ADRA's health information system, is the lack of accurate target population data in some areas. The target populations - the numbers of people, mothers aged 15 - 45, children, infants, or births in each cell, sector, commune, and prefecture appear significantly underestimated. The CHWs and VHWs were not trained or mobilized to count the people in their areas. According to senior health staff and the evaluator's observations, underestimates also occur because:

- official population figures are outdated: most population estimates still in use through 1989 are projections based on the 1978 census; the 1988 census figures have apparently not yet been published. Calculating the number of infants as 5 to 6 % of the total population projected since 1978 gives questionable targets today.
- many mothers bring children from other catchment areas to ADRA clinics. Because of the popular reputation of the Adventist clinics, their cordial "accueil" (atmosphere), their skilled staff, their effort to eliminate long waits, their well-stocked pharmacy, and especially the availability of contraceptives (not provided in many Catholic clinics), many families prefer the Adventist clinics to the clinics they were assigned to for geographical reasons by the GOR - despite the higher fees charged by Adventist clinics.
- many births are not registered because the mothers fear punishment or censure for having an "illegitimate" child, because a tax must be paid within a month after birth to the commune, and because of the tradition that infants are not to be shown or named for eight days after birth, thus delaying registration (and under reporting of neonatal deaths).
- polygamous households tend not to register births: although not very common (about 10%), polygamy is illegal and such families fear censure.

The results of the underestimation of target populations is that clinic records often show well over 100% vaccination coverage. Such figures would be useful only if taken as baselines for setting future targets, but this has not been done by ADRA or the MOH to date. Therefore in this evaluation we show only the numbers of children and mothers involved in each CS activity and are unable to estimate the percentage of targets

covered.³

C. PROJECT DESIGN AND IMPLEMENTATION

1. Actions Taken at Community and Household Level

The CS Project was designed with sound community-based PHC principles in mind, focusing (after the start-up period) on universal vaccinations of infants under one year old, access to information and ORS in cases of diarrhea, nutrition counselling for faltering children, and family planning. All of these activities, it was hoped, would involve at least some health education and services directly to the family in the home, as follows:

a. Vaccination

Most mothers in ADRA areas are told about the schedule and location of the vaccination sessions being held at the sector nearest their cell; those mothers not appearing as scheduled are usually visited at home by the CHW or VHW to encourage attendance. In reality, this follow-up of dropouts has become more difficult in the last year because of the decrease in numbers of CHWs. Moreover, not all clinics have outreach vaccination at sector level. According to government criteria women are expected to walk up to three hours for health services, hence vaccination outposts are not considered necessary and some regional medical officers are not in favor of decentralization.

³ Typical example of the problems faced in Rwanda in estimating CS coverage is the Regional Medical Directors report on immunization coverage in the prefecture of Gikongoro for the last 11 months of 1988. This chart, which was promptly completed and distributed to the health workers in Gikongoro, illustrates both a strength and a weakness in the Rwandan reporting system. To his credit the Medical Director congratulated five health teams including the ADRA staff in Nyarwungo (who are ranked No. 1) for reaching their objectives, illustrating the importance in health management of positive feedback and appreciation based on reality. On the other hand, with vaccinations for Polio 3 and Measles more than 35% over 100% of the target, it is questionable whether these targets are realistic. Moreover, the ranking does not take into account the number of staff the extent of the target area and travel time involved in doing vaccinations; the Nyarwungo clinic has a far smaller target population than nearly all the others, thus can be assumed to rank No. 1 if other factors are not considered.

b. ORT

Originally diarrhea and ORT education and demonstration sessions for mothers attending both vaccination and growth monitoring at clinics were to be strengthened and supplemented by home visits for high risk children. In 1986 and 1987 the MOH had not yet clarified its current policy emphasizing the premixed UNICEF ORS packets, so many mothers were taught, with considerable success according to the Mid-term Evaluation, to mix ORS at home. Moreover VHWS and other community-based volunteers who might have stored and distributed packets in the cells were often not permitted to do so. Home visits by CHWs for ORT and nutrition education of high risks seem to have been more common early in the CS Project but have not been sustained since then because the remaining CHWs emphasize vaccinations over ORT, and because effective nutrition-related education is more difficult to achieve than immunization education (see below).

c. Nutrition

Fortunately inadequate breastfeeding is not a significant problem in Rwanda, but in many areas ignorance and the lack of sufficient quantities and varieties of different foods does lead commonly to sudden weaning. This is usually associated with a new pregnancy and malnutrition often occurs after six to 12 months of age. Home visiting could have been a very important part of the CS Project - particularly because seven of the eight clinics originally had active nutrition centers. The groundwork was laid for home visiting for nutrition follow-up in 1986 and 1987: growth monitoring was emphasized; nutritionists were active at all clinics; and VHWS were being trained to follow up faltering children. MG gardening activities were theoretically coordinated with growth monitoring: ADRA encouraged families with malnourished children to grow at least three vegetables in home gardens (although it was unclear whether that was an effective strategy to combat malnutrition); Food for Work Projects, though not planned to provide nutritional benefits to malnourished children, were an additional attempt to involve underserved families in efforts to improve their welfare and diet.

In reality the growth monitoring/nutrition education component of the CS Project intended for community outreach has not been as successful as vaccination. This appears largely because both household and community level involvement in nutrition has been more difficult to achieve. Rwandan homes are built some distance apart; the strong sense of community cooperation found in some African cultures is lacking here; many mothers with malnourished children are supporting themselves by working in other people's gardens, cannot afford to feed their children properly and are not easily reached by home visiting;

soon after sunrise many people go to the fields; children may be left older siblings. Also there is a severe shortage of arable land. It is difficult to introduce new foods into diets of poorer families consist mostly of maize, potatoes, or sorghum (depending on area). Thus home and community level nutrition education is not seen to be very useful and does not get much support at any level. "Why should we talk to these families about proper diet," is the standard health worker question, "when there is so little they or we can do to change it."

d. Family Planning

Cultural pressures and anti-contraception teaching in some clinics have combined to limit family planning acceptance in Rwanda, despite MOH support, to under 5% in non-urban areas. ADRA's clinics attract acceptors unable to get services from other clinics, but little is done at the community level to improve the supply and demand for contraceptives. (See Annex 9.) Levels of family planning activity depend largely on motivation of individual health workers. Even condoms need to be prescribed at health facilities at the moment.

2. Appropriateness and Targeting of Activities

In an effort to work closely with the MOH in addressing important causes of child morbidity and mortality, ADRA's CS Project activities are generally appropriate in Rwanda. Immunization is the top PHC priority to the MOH and is well supported by MOH vaccines and supplies. ADRA's CS Project has been helped in Rwanda because it has had strong support from the MOH in providing services and in building community and family participation.

ORT is also important because it addresses dehydration from diarrhea, one of the top three causes of death in infants. However, ORT has not had as much national support because of MOH indecision about ORT policy on packets vs home mixing, because of lack of community-based distribution of packets, and because the clinics do not currently have enough packets to be stored at the community level. Nutrition problems are serious and are potentially addressed in the CS Project. Family planning acceptance is low, but ADRA's support for family planning seems to be the largest of any PVO in Rwanda and reflect MOH and AID priorities. The level of family planning acceptance is directly related to the percentage of protestant health facilities in any particular region, thus ADRA's leading role in providing contraceptives, even to relatively few acceptors, sets an important example throughout the nation.

After 1986, according to MOH policy, infants were targeted by ADRA for vaccination within the first two years of life; but all children up to age 5 were vaccinated nonetheless throughout the project to meet all MOH requirements. In fact, 90% of children vaccinated were under age one. After the initial high levels of vaccinations of children over a year old in 1986, the great majority of vaccinations were of infants.

Under MOH policy, pregnant mothers receive TT1 and TT2 during prenatal clinic visits. Until 1986, the MOH recommended one TT injection after the seventh month of pregnancy. Since 1987, the MOH recommended pregnant women to receive two

injections. However, TT coverage is low because women do not seek prenatal care; 80% or more deliver their babies at home with help from traditional midwives, most of whom get some MOH training and kits. A high percentage seeks prenatal care in some areas but there are not enough beds for delivery in maternity units. Some woman fear that TT is a form of contraceptive. A strong preference for home deliveries also helps explain why many births and neonatal deaths go unreported, and why early vaccinations (BCG and Polio 1) may not be done within the first week of life as desired.

ORT and nutrition education was not targeted to children under age three as it should have been; weighing many low risk children aged four and five undoubtedly hampered the effectiveness of other key CS activities. However, because mothers did not bring children to clinics primarily for weighing, but for vaccination, most growth monitoring was de facto for children under age one during the critical weaning period.

3. Specific Interventions

a. Immunization

The Logical Framework contains immunization objectives, which were in line with MOH guidelines. The targets set, however, were not phased during the three year project period; annual targets were not written or discussed because of unknown target populations. Percentage coverage targets were not used in clinic reports.

MOH vaccination objectives and strategies, like those for ORT, have been changed in recent years. 80% of children 0 - 2 were to be fully vaccinated in 1987, according to current MOH policy; before 1987, all children up to age five were to be vaccinated. The MOH's TT objectives have also changed: 80% of new (first pregnancy) mothers were to be fully vaccinated with TT; and 60% of all pregnant women were to be fully vaccinated. But through 1986 TT was to be given only in the ninth month; later it was to be given anytime during pregnancy.

In any case, the key immunization objective of 80% coverage for children 0 - 2 appears to have been well understood by CS staff and appears to have been reached or exceeded on time; however, ADRA did not collect population data, preventing ADRA and the evaluators from specifying percentage coverage for most ADRA areas. Only TT goals have definitely not been achieved.

The most accurate coverage statistics are available for the Mudende dispensary target population. The Public Health Department of the Adventist University of Central Africa, using a standard WHO design, conducted a 30 cluster survey of coverage

November 1988 using medical students. The results were in close agreement with estimated coverage based on doses provided of each vaccine. Among children aged 13-23 months, the survey found that about 70% were completely vaccinated (survey results are shown in Figure 4.)

ADRA's (and Rwanda's) success in vaccination resulted in doubling coverage between 1983 (before the MG) and 1987. According to the recent CCCD evaluation, Rwanda has seen a 52% decline in Measles and 87% decline in Pertussis during the same four year period. ADRA's vaccination coverage was high because of its well trained staff of CHWs and vaccinators, an organized network of facilities, a functioning cold chain and portable equipment, and clear, long-term MOH support in public education, in clinic supervision, and steady supplies of vaccines. MOH coordination with PVOs through BUFMAR appears effective with regard to vaccination. Also, ADRA had ensured regular sector by sector vaccination sessions, announced by cell committees, Bourgmestres, and Sector Counsellors, accessible to most mothers.

Coverage would be even higher except that some Rwandese still believe, despite even the President's personal assurances in the media, that vaccines are poisonous (poisons used for vengeance being both a real and an imagined health problem in traditional Rwandese families). Indeed, vaccines often do make children feverish. Sometimes overworked CHWs do not allow enough time between vaccinations. There are several other apparent reasons for vaccination no-show and drop-outs.⁴

⁴ Dr. Michel lists the following reasons:

- families do not understand why a perfectly healthy child needs to go to a clinic;
- even in Rwanda, the most densely populated African nation, a woman must often walk up to three hours to the nearest clinic, a tedious journey no matter how concerned she is;
- in most clinics fewer mothers come for vaccinations because food was not being given away during nutrition education/growth monitoring sessions;
- mothers want to attend sessions but do not understand the schedule or location written on the card or told to her by the vaccinator;
- mothers are sometimes fined up to 300 FRW (US\$ 4) in some clinics (although the official MOH fine prescribed is only 20 FRW) if their vaccination card is lost or destroyed, so some do not bother returning;

b. ORT

The original Logical Framework objective in ORT was unclear and was revised in 1987. Originally MOH policy was also unclear, encouraging both home mixing and ORS packets through 1986. In 1987 the MOH encouraged the use of packets only; since mid-1988, while packets are emphasized and are sometimes available free from clinics, they are not yet available from VHWS or any community based sources and in many clinics must now be purchased. So the MOH again recognizes home mixes as an alternative when packets are unavailable.

Despite this fluctuation in policy, between March 1987 and March 1988 ADRA reported a three-fold increase in the number of mothers using ORT. Reflecting ADRA's support of MOH policy, all ADRA clinics are now stocked with enough packets for clinic-based distribution, but not for community-based distribution. CHWs, who appear adequately trained in ORT, teach mothers how to use packets during frequent education and demonstration sessions, and some of them follow up cases of severe diarrhea with home visits. However, because of a misunderstanding, annual reports to AID contained greatly exaggerated numbers of health workers who had been "trained in ORT" by the CS Project; all mothers, not CHWs, taught ORT were reported (nearly 13,000 in 1987 and 11,000 in 1988).⁵ This is, however, a significant effort, if reported accurately; the number of mothers taught ORT each year was about the same as the number of women who have had a child during the past year.

Another difficulty in the ORT program was the confusion about the correct recipe for ORS prepared at home; even top CS

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- poor attitudes of health workers toward mothers ("accueil"), particularly after staffing and wage cuts in 1988;
 - some decreases occurred in 1987 when the six-month MOH media campaign ended; a new campaign was undertaken in 1988 and raised awareness again.

⁵ There was also confusion over reporting numbers of cases of diarrhea. Throughout the CS Project, CS staff understood they were being asked by ADRA/International headquarters to report at the end of each quarter (trimester) how many cases of dehydration had been brought to the clinic during the last two weeks of the quarter. They did not report, as intended, how often a mother recalled cases of diarrhea in her child during the two weeks prior to her being interviewed.

staff were not sure of the correct mix half way through the project during the CS workshop in July 1987. Adding to the confusion, the standard UNICEF one liter packet was inappropriate in Rwanda where the standard vessel for mixing is the Primus beer bottle of about 3/4 liter. Since 1988, UNICEF has provided appropriately sized packets, but these early programming problems may have delayed the development of an effective national ORT program.

The new sized packets are distributed free to PVOs and can be purchased from BUFMAR, but insufficient packets are available in the cells and homes. Such shortages may explain several indications that ORT is not yet widely used even though most mothers do appear aware of it. In part this is because women, like ADRA itself, must now purchase packets formerly given for free. Moreover, UNICEF acknowledges that the new small packets are not yet available in sufficient quantity for community-based distribution, i.e. for every family to have at least two packets on hand, and/or for the VHWS to have sufficient supplies for their cell. Clinics visited for this evaluation complained about having too few packets to provide for outreach beyond the clinic.

A draft ORT study by PRITECH found that less than 5% of the potential demand for ORS packets is currently being met.⁶ The Final Evaluation of CCCD cites that national "hospital data do not show a decline in incidence or deaths from diarrhea", suggesting the need for "more efforts in training, health education, and supervision".⁷ Indeed it does appear that dehydration does remain a serious problem in Rwanda, despite a tradition of continuing breastfeeding and giving fluids during bouts of diarrhea, despite few reports of death from dehydration from ADRA clinics, and despite indications that many mothers are using ORT.

c. Nutrition and Growth monitoring

Malnutrition occurs often in Rwanda because of improper weaning, insufficient arable land, improper diets, frequent diarrhea, and a variety of social and cultural factors. For example, breast milk is traditionally considered spoiled, thus the cause of Kwashiorkor, when the mother becomes pregnant with a fetus of the opposite sex from the child who is breastfeeding. Perhaps the most basic problem after lack of proper diet is the mother's lack of time for child care.

⁶ PRITECH/Richard Roberts, "Distribution and Production of ORS in Rwanda", Feb. 1989, Kigali.

⁷ Pragma Corporation, "Rwanda CCCD End of Project Evaluation", May 1988, Falls Church, VA.

Solving nutrition problems in Rwanda, in the word of a UNICEF official, is a "nightmare". Yet ADRA's CS staff were as well trained and well equipped as any health workers to provide growth monitoring for under threes and to focus nutrition education for faltering children. Under the CS grant some of this was done both during vaccination sessions and at nutrition education sessions, as long as adequate CHWs were available to do weighing and follow-up, and as long as food was given away. Recently, however, little effective growth monitoring is under way in many clinics because:

- food is no longer given away to mothers with malnourished children coming to clinics or nutrition centers for growth monitoring or vaccination;
- mothers are not interested in lectures on proper nutrition if they receive no food and do not perceive any way to change their diet;
- once their infants are fully vaccinated - now by age one, around the time when children are at highest risk of diarrhea and malnutrition - mothers have no further incentive to return to the clinic;
- there are too few CHWs to devote adequate time to both vaccination and growth monitoring.
- growth monitoring charts are often filled out hurriedly and improperly by CHWs, and are in any case not often explained to mothers - thus serving very little purpose;
- the recommended monthly visits for weighing all children are unnecessary and are too frequent for busy mothers, particularly those living far from clinics;
- MOH policy requiring weekly clinic visits for malnourished children to educate mothers to prepare food does not appear very effective because mothers do not find it worthwhile;
- children over age three need growth monitoring much less than younger children; mothers learn to reject MOH policy in this area (and thus in other areas).
- the policy at one clinic (Mudende) of keeping malnourished children as in-patients in the nutrition center for a month, with their mother, does not appear likely to provide the mother with the means to prevent a recurrence or likely to be affordable in other clinics. (However, further study and follow-up of this

program would reveal why some children who have attended this center show "spectacular weight gain".)

- because of the cut in CHWs last year there is very little community or household follow-up of high risk cases.

d. Family Planning

In Rwanda "planning familiale" - spacing pregnancies and having no more than four children - is supported by the government. ADRA's program is coordinated with the MOH National Population Office (ONAPO). There was some confusion among ADRA staff when the CS reporting forms requested data on "high-risk births" and did not explain how such activities differs from family planning activities. GOR support for family planning is maintained despite the opposition to "unnatural" methods among the local Catholic hierarchy.

ADRA's family planning acceptance rates reached 5% in 1988 which was less than its CS objective. The revised CS Project objectives in family planning were to increase the number of acceptors 10% annually during the project, and to include at least 80% of all women in one family planning "training session". Family planning services have been offered under the CS Project at all ADRA clinics; all contraceptives, including several types of birth control pills, are available. Health education sessions to large groups generally include at least some discussion of family planning. "Natural" methods are explained but are rarely used.

There are no special family planning clinic sessions; women prefer privacy concerning family planning and do not wish to be seen attending sessions specifically for family planning. Depo-Provera injections, providing protection from pregnancy lasting three months, are the choice of two-thirds of ADRA's acceptors. The other one-third use pills; very few have IUDs, condoms, and tubal ligation.

D. COOPERATION WITH OTHER AGENCIES

1. Ministry of Health

Support from the MOH (MINISAPASO) to the CS Project was essential to the progress of the vaccination effort to date and will be essential in future efforts to sustain or expand vaccination coverage. MOH support is important, but less essential, to the continuation and expansion of activities in ORT, growth monitoring, and family planning.

As reported in the Mid-term Evaluation, ADRA has maintained a cooperative and communicative working relationship with the MOH from the beginning of the CS Project design period. The National Coordinator previously worked in MCH at the Ministry and is well placed to link the CS Project to MOH policies and support. He visits the MOH often and keeps it updated on ADRA plans and progress.

ASSAR provides curative and preventive care to communities with 200,000 of Rwanda's 7,000,000 citizens. It is the second largest PVO health provider after the Catholic Church. For its part, the MOH supplies the eight ADRA clinics, which it designates as the government-approved health facilities in those areas, with most vaccines and cold chain equipment, some of which must be bought by ADRA. The MOH also helps with in-service training of ADRA's Medical Assistants (Titulaires) in quarterly seminars for MOH and PVO health workers at no cost to ADRA. The MOH Regional Medical Directors or their deputies supervise ADRA clinics directly, visiting each clinic once a month and using a thorough checklist to ensure quality control of services. A MOH official in Kigali told the evaluators of his visit to an ADRA clinic where he found competent staff and an impressive community outreach effort using CHWs.⁸

There is still room for improving the ADRA/MOH partnership. MOH involvement in planning the original CS Project appears to have been minimal and should be intensified in all future collaboration. There is a continuing need to improve communication among all Rwanda's health organizations combined: PVOs and BUFMAR, UN agencies, and private practitioners. ADRA should follow the lead of the MOH in using the new MOH checklist for monthly clinic supervision to ensure quality and to conform to MOH standards.⁹ ADRA would also benefit greatly from closer ties to the MOH's Health Education Office. The office has a skilled staff and produces quality education materials which

⁸ Three other examples of clinic-specific MOH support to ADRA are from Mudende, Rwankeri and Gitwe. At Mudende, the Regional Medical Director based in Gisenyi pays close attention to a study now in progress of 100 malnourished children and is anxious to learn lessons he can apply in regional planning. In Gitwe the MOH pays two nurses to work in the ADRA clinic to supplement what it sees as the area's most important health facility. In Rankeri the Regional Medical Office uses the ADRA clinic as an STD test site because he trusts the medical assistant in charge.

⁹ There are six checklists for vaccination activities (organizing education programs, cold chain maintenance, sterilization, surveillance, monitoring and evaluation, and social mobilization) and one each for ORT, malaria, growth monitoring, and staff training.

could be developed and tested jointly with ADRA - the major PVO involved in community-level PHC - and then used in ADRA activities. (The Adventist Church which is also anxious to increase its distribution of health education materials would also do well to collaborate with the Health Education Office, though this must be done separately from ADRA or AID-funded activity.)

Most important, the Rwanda Government's role in stimulating community level involvement can be improved in a joint effort with ADRA (see next section).

2. Local Community Institutions

In its 1986 CS Annual Report, ADRA claimed that the results of its efforts with the VHWS were "exceptional", and that the MOH was "interested in adopting a similar [VHW] program nationwide." To what extent was this early optimism about VHWS proven justified? The evaluators believe that more community-level work could have been done under CS funding. GOR support, both political and financial, for expanding community health institution-building is inadequate and likely to remain so. Thus there is a need for ADRA to support such activities.

In planning CS Project activities and training, ADRA made an effort to work with local leaders on the prefecture level (Prefet), the commune level (Bourgmestre), and sometimes at the sector level (Counseiller). Some VHWS seemed too young and too well educated to be fully respected by the average family.¹⁰ TBAs or ladies from local clubs or church groups could have been used, but given the various limitations involved, it was at least appropriate that some effort was made to have VHWS selected by mid-level leaders.

In principle, ADRA's CHWs, working from their clinic base, would be supported by VHWS in each cell. In the ideal cell, four VHWS would be trained and would function together as the cell health committee. In fact ADRA did briefly train at least 4 VHWS in each of its 336 cells in the second part of 1986. A total of 1660 VHWS had been trained by the end of 1986, each of them to support the CHW among cell families numbering from 50 to 150.

Written job descriptions, prepared for higher level CS staff, were not prepared for VHWS--even though most were literate. Although VHWS were trained and paid by the MOH, ADRA inspired and led the effort in Rwanda to strengthen village-

¹⁰ Possible selection criteria include the requirement that the VHW be a married mother with fully immunized children, that she have use of a clean, working latrine, cultivate a composted garden, have no history of alcoholism.

level health care, and could be expected to promote job descriptions and checklists for them.

The important tasks for VHWS were to announce vaccination, ORT, growth monitoring, and family planning sessions to the cell and follow-up with home visits those who did not participate and those families with mothers or children at risk. ADRA's VHWS were also supposed to help the CHW in preparing the lengthy monthly checklist of every household's water supply, latrine, etc. Ideally these VHWS would be well rewarded - in kind, not dependent on foreign aid - and would be deeply involved with tradition leaders, healers, midwives and other community groups.

As the CS Project progressed, instead of the increase in VHW involvement foreseen in the 1987 Midterm Evaluation, there was less and less activity. Instead of four active VHWS in each cell - the number originally trained - at best only one cell committee member (usually known as "the Fourth Member") was involved in cell health work in 1988 and 1989.

VHWS resented the CHWs' high salaries; VHWS, often older than CHWs, expected to be paid extra for working on CS activities. They also resented that they were being asked to report to, and follow orders from, younger and lesser known CHWs selected and trained "outside."

Some of the VHWS still do help organize vaccination sessions; the evaluators saw them with their own registers of home visits, separate from clinic registers, showing how many drop-outs from vaccination were followed-up at home. They also record births and deaths. Some inspect latrines (and report those without latrines to the GOR, which can impose fines). Some other VHWS only plan umaganda. But many do nothing. In ADRA communities now, without the supervision and support from the CHWs they had from 1986 to 1988, only a few "Fourth Members" are active in each sector, and their activity seems to relate mostly to vaccination only.

The community does not contribute directly toward the services of the cell committee, but each family does pay taxes which indirectly support the committee. Mothers do pay fees directly to some CHWs for services, whether vaccinations or other clinic visits. Several studies about self-financing of health services in MOH clinics, where services are free but drugs are often unavailable, have been completed or are under way. All point to the need for the MOH to follow the Adventist fee-for-service approach; this strategy should be extended to include fees paid to VHWS as well as to CHWs.

F. SUSTAINABILITY

1. Cuts in Staff and Salaries

Regrettably a costly system of CHWs was used from 1986 to 1988 (see next section.) There has been opposition to paying the costs of CHWs in Rwanda ¹¹; although it was not one of the project's objectives, demonstrating that CHWs could become self-financing and cost-effective might have been an important project spin-off.

The end of CS funds resulted in the reduction in number of CHWs from 63 to the current 14, and a consequent decline in many CS services. This can be a success: there are 14 more CHWs than there were before the Matching Grant in 1983. But discussions with many staff indicate considerable disappointment that the project has been cut to a fifth of the size it might have been had it become self-sustaining.

The few CHWs remaining not only have to cope with about half their original wages but must work much harder to provide even the most minimal CS services, usually only vaccination plus some growth monitoring. In all site visits the evaluators were told that the quantity and quality of services, and outreach from the dispensaries to the community, had declined during the past year because of the shortage of personnel. At the dispensaries, fewer staff are left behind to cope with long lines of mothers and children when vaccination teams visit the sectors.

At the sector level, the few CHWs have to work much harder than in the past to do vaccinations, and are far less likely to do adequate growth monitoring/nutrition counselling and supervise VHWs, much less follow up vaccination or growth monitoring dropouts.¹² At the community (cell) level, VHWs are mostly unsupervised and unsupported by the CHWs who used to visit and train them more often. Now only a few VHWs seem active: some cell committee members help mobilize mothers for vaccination, and a few actually accompany mothers to the dispensary on vaccination days. They are the exception, unfortunately.

¹¹ For example, an important article opposing CHWs, on the grounds that they are too costly, difficult to train and supervise, and unnecessary given the easy access to clinics in Rwanda, appeared in the Revue Medicale Rwandaise in 1986.

¹² In the words of one titulaire, "We are neglecting very sick patients, even some high risk deliveries, because we must keep up with the vaccination schedule".

2. Community Motivation and Participation

Cutbacks in CHW outreach are worsened by the low level of interest in community-based services which seems to permeate the Rwandan health system, and by transport problems. While Rwanda is small and very densely populated compared to the rest of Africa, the "country of a thousand hills" includes cells inaccessible to an overworked, underpaid staff. With fewer cell and home visits, fewer vaccination drop-outs are found, fewer ORS packets are delivered to dehydrated children, and less antenatal care and TT vaccination is being provided.

At the local government level Cell Health Committees no longer appear active, if they ever were. Local "Social Mobilisation Committees" have also been conceived by the MOH, as part of a planned "social mobilisation" effort, to support vaccination campaigns, distribute "mobilisation" materials, and report on committee meetings - but there is little evidence that such committees are active either. Said one staff member, "there is no community participation here. People accept help [in the ADRA areas] but they do not work...or raise local funds."¹³

The lack of community participation reflects the national situation: there is generally inadequate emphasis on community-based PHC throughout the Rwanda health system. But ADRA too paid insufficient attention to community outreach in the CS training: community participation in planning and implementing CS activities is not among the 18 topics emphasized in training, and community participation got far less emphasis in the course than epidemiological and clinical matters.

It also appears that few efforts were made to orient the CHWs early in training and in their work to do community assessments; immunization sessions, for example, were held monthly by sector throughout the 54 sectors, each including an average of six cells. The sector, not the cell, was thus considered the lowest level of organized health activity. The baseline survey was not useful in developing a cell-based system, and transportation difficulties, especially before bicycles were bought in 1988, prevented effective supervision of VHWs by CHWs.

¹³ An exception in terms of local financing is at Gitwe, where the commune leadership uses local (not national) revenues to pay two nurses who work at the Adventist clinic. But elsewhere the community leaders apparently feel that they are not obliged to contribute to Adventist health activities beyond paying fees for service. "The Adventist mission is rich," said one Rwandan.

Thus the CHWs, though well trained clinically, do not appear to have been very effective in mobilizing community-level activities other than vaccination. While vaccination acceptance was high, the interventions requiring greater community and family support, such as nutrition and family planning, were less successful.

This was partly because CHWs' support and supervision was inadequate, partly because they were poorly equipped. Neither ADRA nor the MOH provided enough portable scales to enable CHWs to do community-based growth monitoring; ORT packets were not made available outside clinics for community-based ORT because of shortages and the initial MOH support for home mixing of ORS.

Other community-level activities attempted by ADRA include efforts to encourage growing more nutritious foods. Gardening activities were not funded by CS, but nonetheless were an innovative part of ADRA's integrated multifaceted approach to child health (and received considerable attention in the Mid-term Evaluation). They have also suffered from the funding cuts even though agriculture is still the highest priority for AID/Rwanda. Smaller staffs at Adventist dispensaries and nutrition centers have less time to encourage families to grow and eat more than two vegetables, key to reducing childhood malnutrition (despite early indications of success before CS in promoting more varied cultivation.)

Some clinics have initiated small enterprises to help pay for more CHWs. These include provision stores and animal husbandry services to the community. In the evaluations in 1987 and early 1989, it was not yet clear whether these schemes would financially support health activities or improving nutrition standards, but there is hope.¹⁴

¹⁴ These schemes are promising. In mid-1989, after the final evaluation visit, the ADRA/Rwanda Director wrote:

"At four dispensaries small farms were introduced [for] nutritional support to malnourished children and to cover costs of CHWs. A plan for community service...animal husbandry...a store...and a grain mill has been partially implemented with the idea of [paying health] staff [and] all the free medical care required by the GOR. Within a twelve month period ASSAR hopes to have increased its CHWs back up to its original level as these other community services begin to generate some income."

Such community financing would be unusual; it merits ADRA's and AID's support to document and demonstrate results.

3. MOH Commitment

The MOH, which had been supporting and watching ADRA's CS activities to learn more about community outreach, is now concerned that the end of the CS project means that fewer lessons about CHWs will be learned, much less applied nationwide. The MOH does not appear to know whether the ADRA CS Project has been cost-effective but is aware of it. Some MOH staff regret that ADRA has not reported more "Lessons Learned." The MOH has not made any commitment to fund ADRA CS activities despite AID cuts.

G. FINANCES

AID policy since 1985 emphasizes child survival as AID's primary focus in health, and puts special emphasis on "encouraging LDCs to develop sustainable and cost-effective programs."¹⁵ ADRA/Rwanda, as AID's only CS grantee in that small country, was in a good position to test and develop viable, self-supporting, community-based systems for PHC; this would have made a suitable, achievable objective. The Adventists do have a fee-for-service system in place and do recover 40% of total recurrent health care costs. While fees-for-service are in place in ASSAR facilities and now pay the wages of 14 CHWs, community financing (e.g., funds from the cell or sector level) was not paying the costs of CHWs at the time of this evaluation. The project's focus, on training and managing CHWs for child survival, was neither planned nor implemented so as to become self-financing.¹⁶ The project may have introduced new recurrent costs which cannot be met now that AID funds have ended.¹⁷

¹⁵ "Health Financing Guidelines", AID/Washington, 1986.

¹⁶ In general it is important to note that the overall cost of this CS project is comparatively low, around \$300,000 for two years, compared to many AID-funded CS projects. But ADRA policy encourages innovative ways to control recurrent costs and increase cost-recovery, so this project's overpayment of CHWs and lack of community financing experiments reflect lost opportunities.

¹⁷ Overpayment of CHWs seems to have resulted because:

- testing new funding strategies to pay the CHWs was not a stated objective of this project, designed in 1985 (although

H. LESSONS LEARNED AND RECOMMENDATIONS

1. CS Project an Important Learning Process

In general the CS grant was important in generating both AID and Adventist funds for maternal/child health, and for strengthening Adventist programs in CS. In Rwanda ADRA works comfortably within the MOH system, and strengthens Adventist clinics. ADRA's multisectoral approach with four AID grants meant health problems could be addressed in several ways: MCH services, gardening, school health education, churches, etc. Improvements in health care occurred but are hard to measure. Specifically, ADRA had good vaccination coverage aided by strong GOR support from secteur to cell level, good supplies of vaccine, and wide access to clinics.

2. Planning for Community-Supported Sustainability

In hindsight, some deficiencies in this project can be traced back to a design which did not put adequate emphasis on sustainability. It seems that little if any planning for sustainability was done with the MOH or at community level. ADRA did not design this project: (a) with enough input from beneficiaries; (b) to involve the community (local leaders, women's groups, school teachers, traditional birth attendants and healers, etc.) in a substantive, lasting manner in implementing the CS activities; or (c) with host government or community financing so that CS services would continue to be provided after the project's end.

AID policy since 1986 has been that "criteria for assuring project viability will be rigorously applied during the design of all new AID projects");

- CHW wages, over \$70 per month, were much higher than comparable worker's wages and too costly to be continued by the Adventists or the MOH; some CHWs, perhaps all CHWs at some time, were paid sacks of rice and other PL480 foods, making it difficult to sustain the CHWs after food aid ended.

The GOR had been expected to "take over, without doubt, the CS Project Activities"¹⁸ but this has not happened. As in other countries testing community level health workers, only a fraction of the CHWs remain now because most CHWs' high compensation, including the now terminated PL480 food, could not be sustained by the GOR, by ASSAR, or by the communities served.

Neither the project's logical framework nor the Detailed Implementation Plan were used for project management or monitoring, and no intermediate targets were set. Neither clinic administrators nor CHWs were given targets; few knew the size of their target population.

After several years of matching grant activity followed by two years of the CS project, the potential for health financing through small enterprises, community gardens, prepayment plans, and the like, was promising. Because of pressure from donors to produce quick results in EPI and ORT coverage, ADRA, understandably, did not emphasize testing of self-financing schemes. But because of its experiences in many sectors and countries, ADRA is suited to do such testing.

RECOMMENDATION: The DIP could include concrete objectives for community organization, participation, and financing. Also helpful: targets used for planning and reporting community activity for the information system.

3. Community participation

Local leaders did not play much role in planning the project, selecting and supporting CHWs and VHWs, financing, health education, etc.

RECOMMENDATION: AID should require CS grantees to design projects which involve local grassroots individuals and organizations in organizing, delivering, financing, evaluating, and continuing CS activities after AID funding ends. ADRA can spend more time at the start of a CS Project to diagnose the community and test community involvement strategies. Ultimately the people will make or break the program; their cell committees or other local volunteers are the key to mobilizing mothers and families.

¹⁸ Memo by National Coordinator, Gitwe, 8/87.

4. Supervision by ADRA/International and ADRA/Rwanda.

Such problems as excessive compensation for CHWs and failing to address community participation and sustainability might have resulted in part from a lack of oversight in Kigali and Washington. For example, the first ADRA director made little use of data in management, failed to involve own staff in planning and management, lacked interest in health, etc. Several observers in Rwanda, including Adventist leaders, believe that such problems could have been (and in other ADRA country programs are) detected or prevented earlier. More technical support was also needed.

RECOMMENDATION: Better supervision of field staff is needed if ADRA is to develop effective and sustainable CS systems. A senior health specialist in-country or consulting often from outside Rwanda, preferably from the Adventist community, was needed. Technical assistance in such areas as information systems or community participation would have been helpful.

5. Information Systems

CS reporting and supervision of CHWs did not involve setting goals or interim targets. Monthly reports were not used in planning work schedules, rewarding staff, prioritizing, analyzing work of CHWs, etc. The Logical Framework and DIP were not used in project management.

RECOMMENDATIONS: The Logical Framework and DIP can be used in setting targets and priorities. CS information need to be better used as a tool to plan, manage, and evaluate CS projects, and to feed back to health workers, community leaders and beneficiaries. ADRA staff know collecting statistics merely to report to external authorities has little use. ADRA and AID might urge CS projects to use the information they collect about their programs in both project management and community motivation, and to report regularly and specifically how data are analyzed and utilized in these two ways. ADRA can improve collection of information about community participation and financing which can be used for supervision and motivation of CHWs and Titulaires by the Coordinator. Cell Committees could be directly involved in data collection and use: ADRA could encourage and enable the cell committees to feed back information to the community.

6. Use of Food Aid

ADRA is concerned about misuse of PL480 food for paying ADRA staff and CHWs. Legalities aside, ADRA recognizes that paying CHWs with food, even if authorized or even promoted by AID, led to costly, unsustainable compensation, resentment among unpaid volunteers who received little or nothing for similar efforts, and raised expectations of mothers as well as health workers and community leaders that "rich" Adventists should pay health costs.

RECOMMENDATION: Future ADRA CS activities in Rwanda will want to pay greater attention, even before the project begins, to building a program which can be sustained mostly by local resources (e.g., fees for health services or community contributions) after external funding ends. Encouraging dependence on foreign food to pay CHWs is not in anyone's longterm interests.

7. Multisectoral Integration of CS

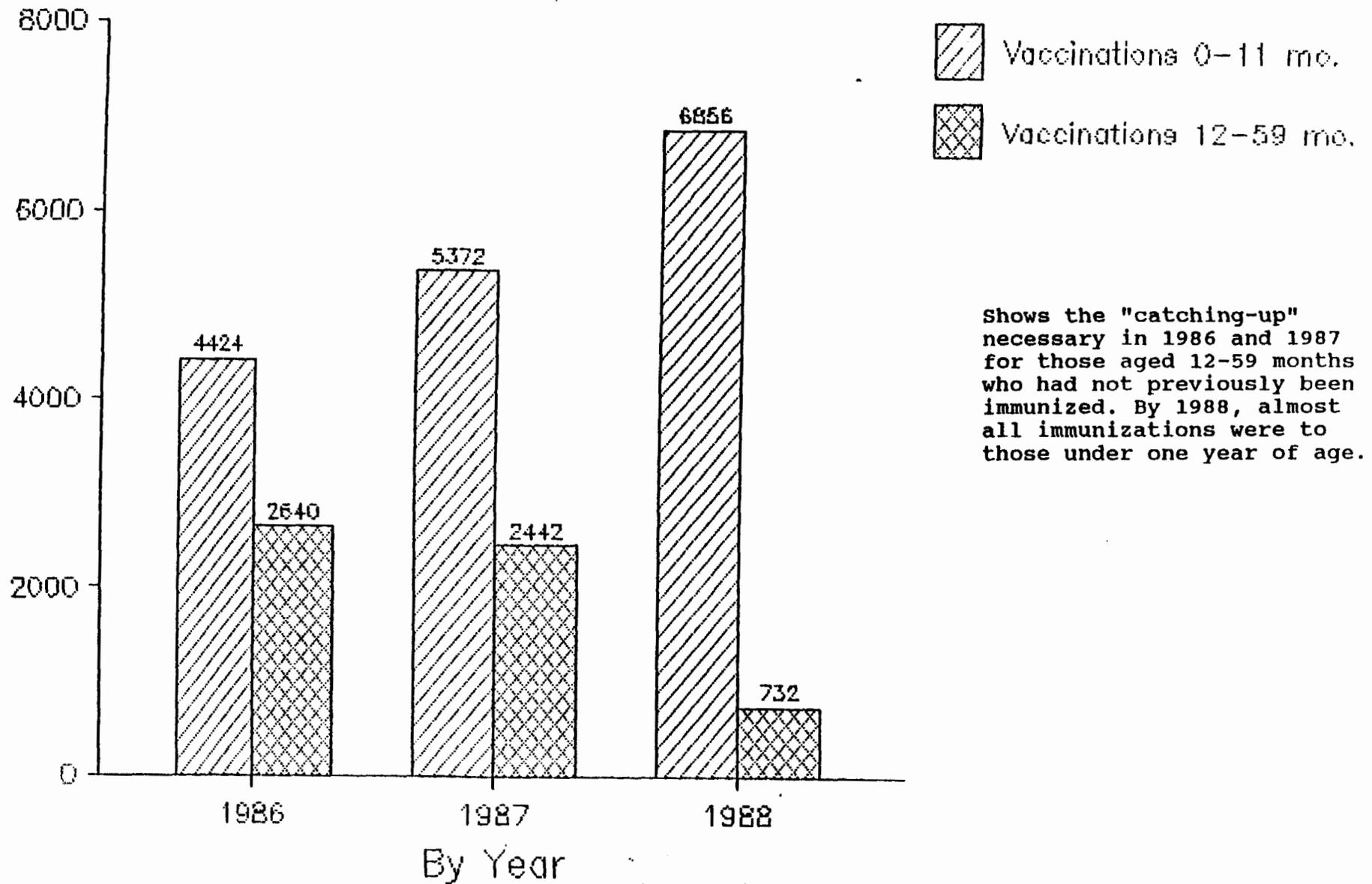
The project could have brought together a range of Adventists focused on CS through farms, vocational training, schools, the university, churches, women's groups ("dorcass ladies"), book sales ("colporteurs"), small businesses, radio, etc., as well as through the Adventist health system. ADRA was in a position to do so with four different AID grants related to family health and welfare, and this ability to approach health through varied sectors was one factor in AID's decision to support ADRA in the first place.

RECOMMENDATION: AID and ADRA should make full use of the wide range of health-related Adventist activities, and not limit health activities solely to traditional PHC delivered by health workers.

FIGURES

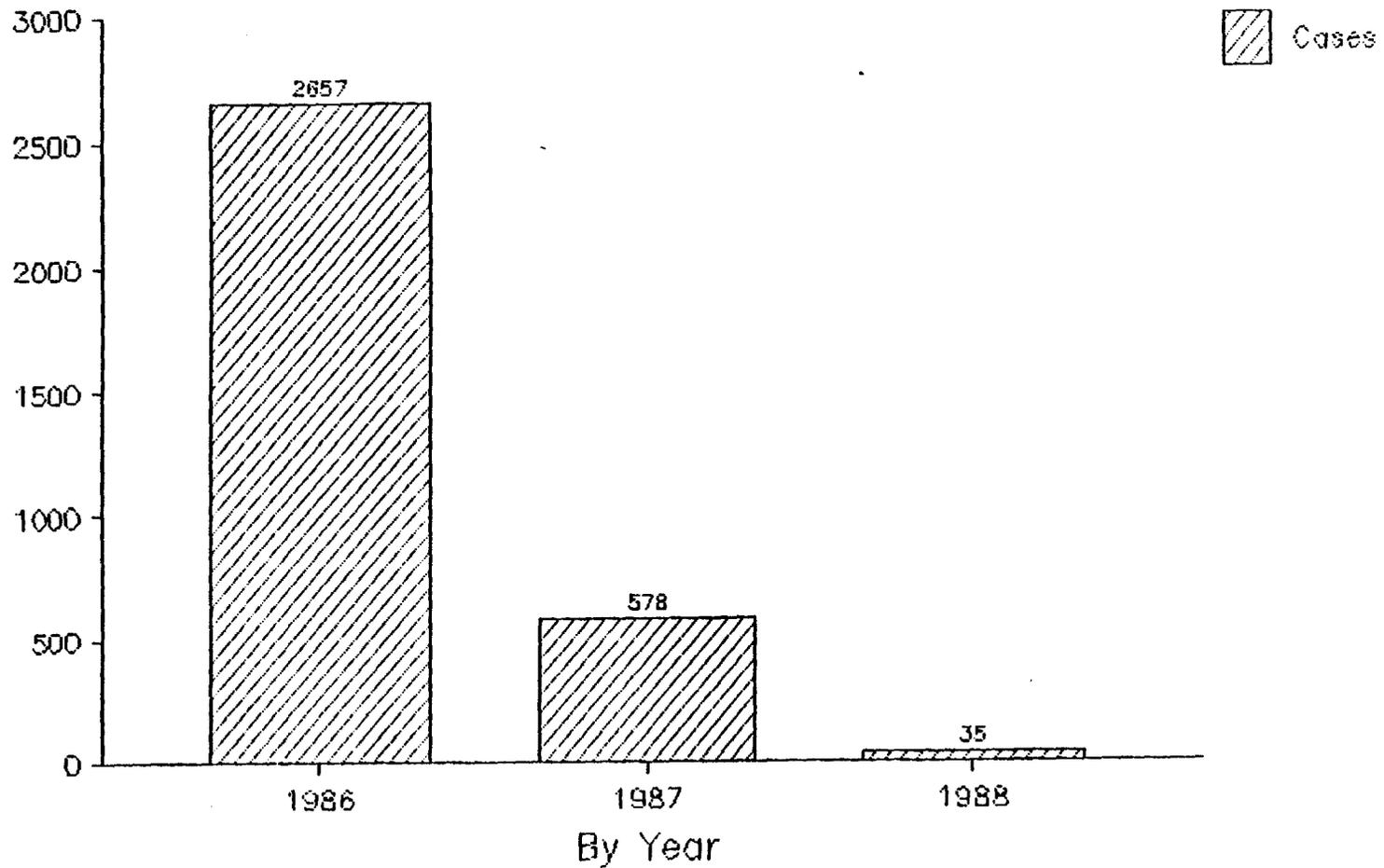
1. Measle Vaccinations, 1986 - 1988
2. Measles Cases. 1986 - 1988
3. No. of People Attending Immunization Education, 1986-88
4. Sample Vaccination Coverage, Mudende, 1988
5. ORT Activities, 1986 - 1988
6. Diarrheal Deaths, 1986 - 1988

Fig. 1
Measles Vaccinations, 1986-1988



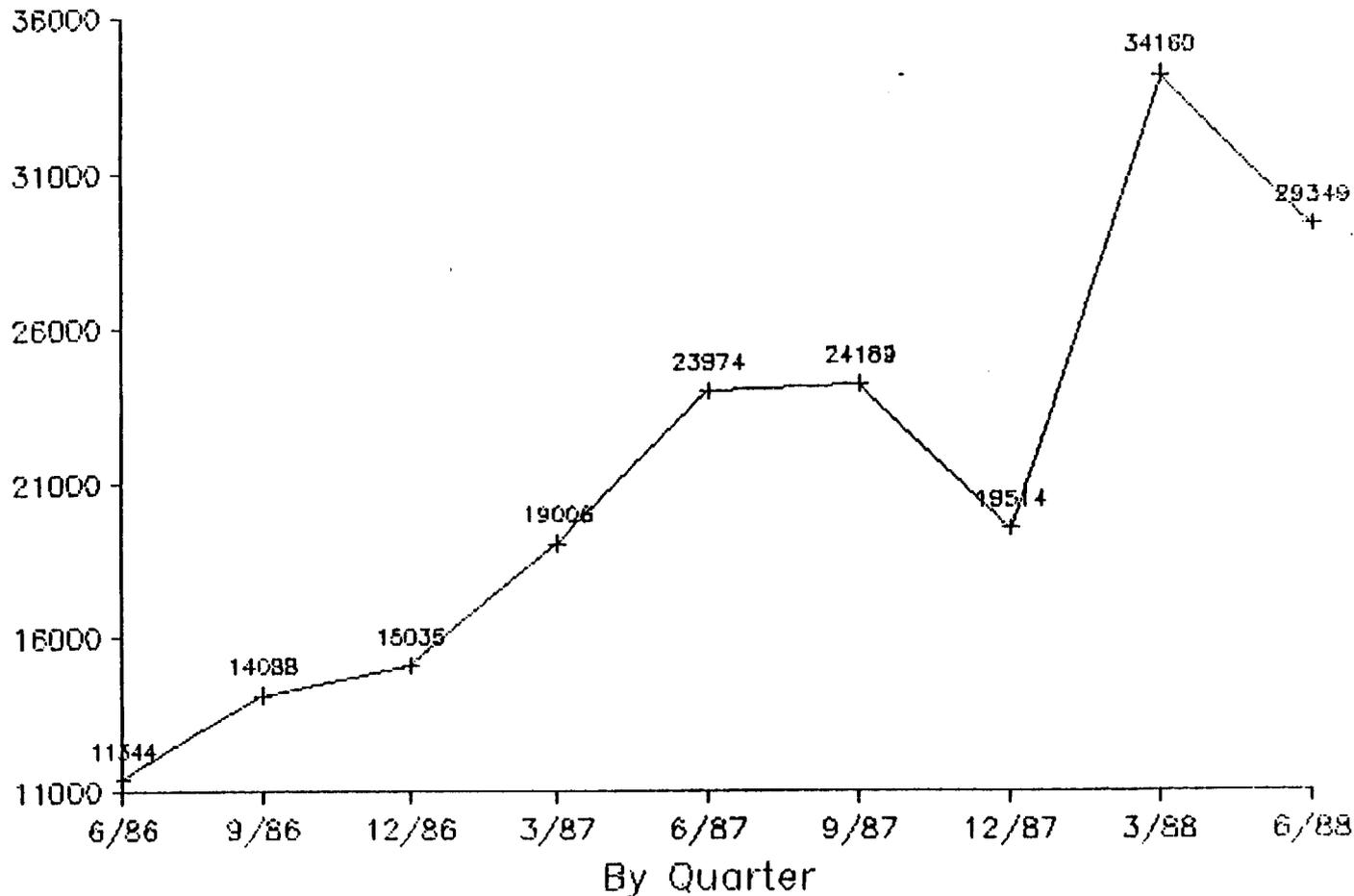
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Fig.2 - Reported Measles Cases
1986-1988



Paralleling the increase in measles vaccinations is the dramatic decrease in reported cases of measles as reported in the ADRA Clinics in Rwanda. Both health workers and community members confirmed the dramatic decrease in cases of measles.

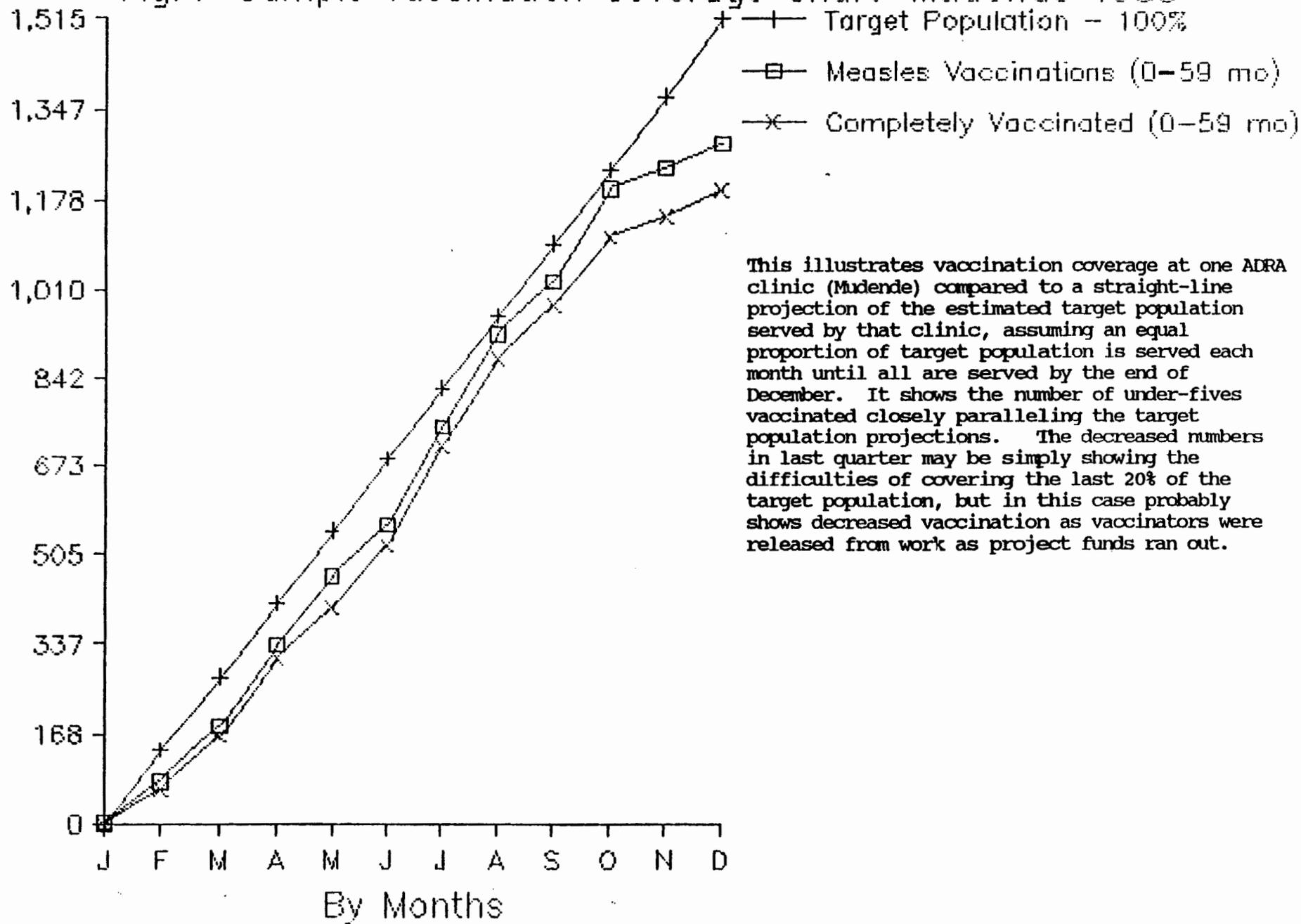
Fig. 3 - Number of People Attending
Immunization Education Sessions, 1986-1988



This graph gives a visual indication of the numbers of people attending immunization sessions as reported in the quarterly reports. It illustrates increasing confidence of the community and their attendance at the static and mobile immunization clinics. The decrease in last quarter of 1987 is unexplained, but it should be noted that attendance is still greater than in last quarter of 1986.

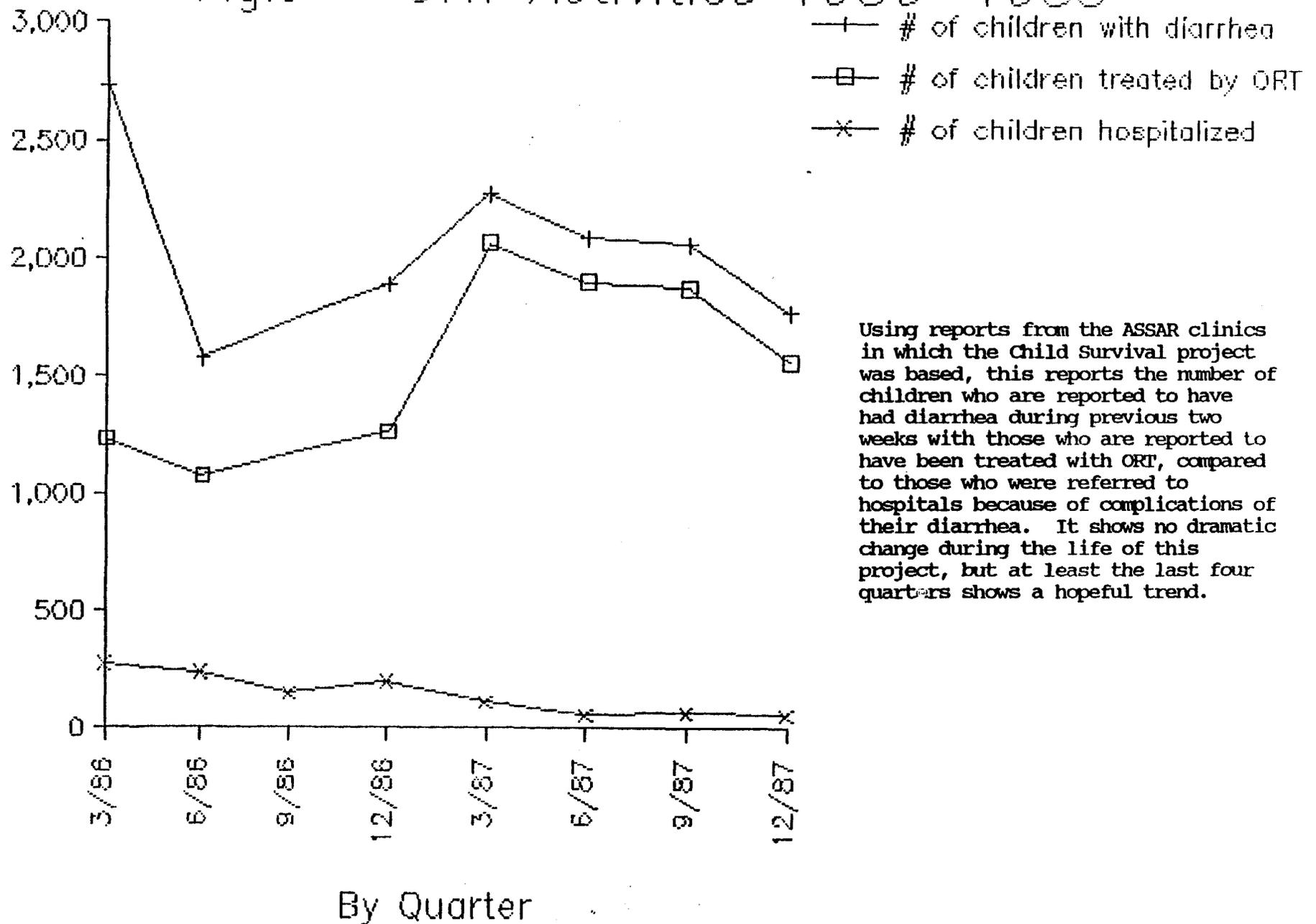
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Fig.4—Sample Vaccination Coverage Chart—Mudende 1988



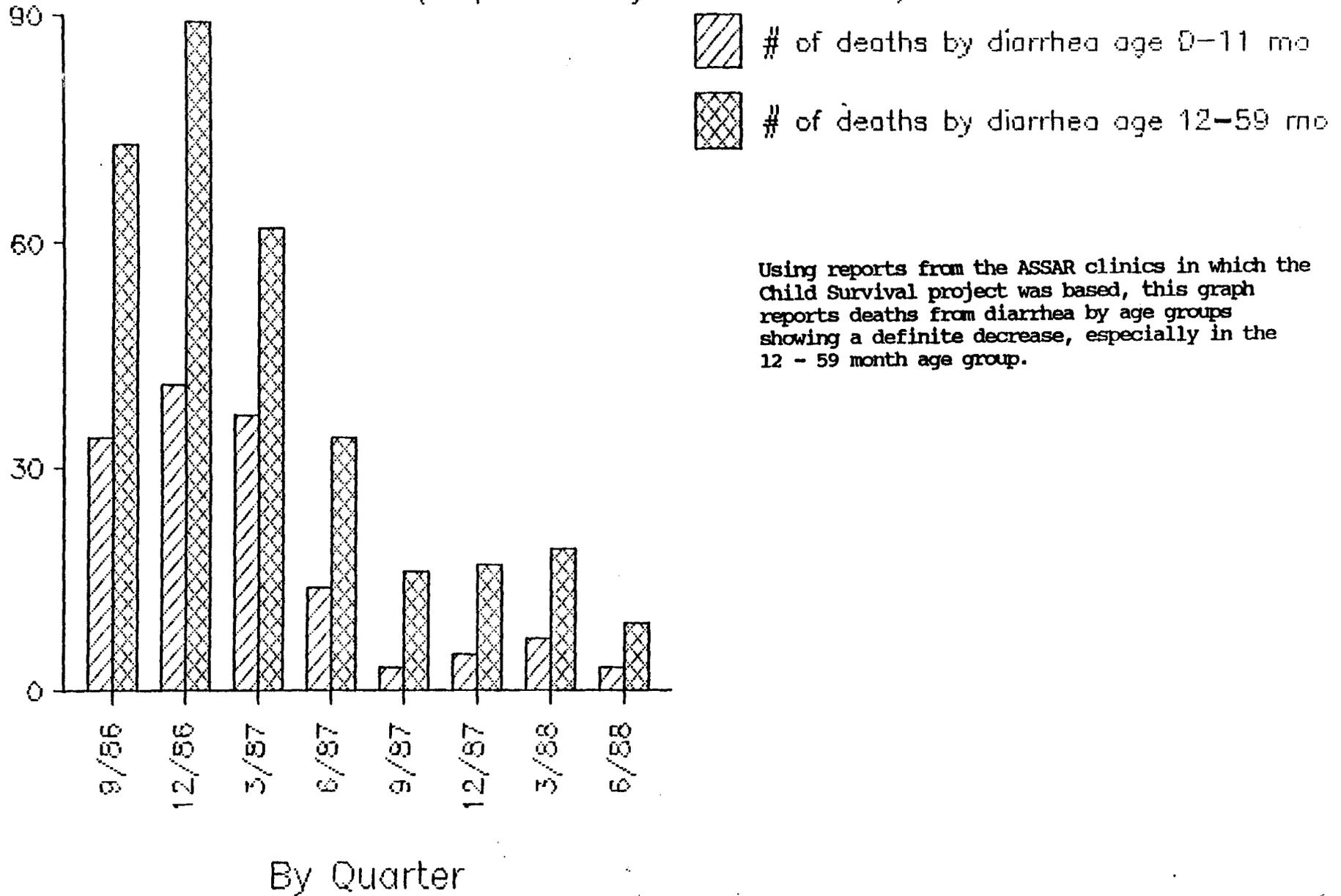
36:

Fig.5 - ORT Activities 1986-1988



Using reports from the ASSAR clinics in which the Child Survival project was based, this reports the number of children who are reported to have had diarrhea during previous two weeks with those who are reported to have been treated with ORT, compared to those who were referred to hospitals because of complications of their diarrhea. It shows no dramatic change during the life of this project, but at least the last four quarters shows a hopeful trend.

Fig. 6 - Diarrheal Deaths, 1986-1988
 (Reported by ADRA clinics)



85.