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**AFRICAN CHILD SURVIVAL INITIATIVE (ASCI)  
COMBATTING CHILDHOOD COMMUNICABLE DISEASES (CCCD)**

**CDC/IHPO STAFF MEETING: BURUNDI PRESENTATION  
Meeting CCCD Morbidity and Mortality Reduction Targets.**

**Unicoi, Georgia, U.S.A.**

**March 30 - April 3, 1987.**

## TABLE OF CONTENTS

Country Summary.	p. 1
Country Background Information.	p. 2
Map of Burundi.	p. 3
I MAJOR ACHIEVEMENTS TO DATE:	p. 4
a. Morbidity/ Mortality Reduction.	p. 4
Most Significant 1986 activities (in EPI, CDD and Malaria) which contribute to morbidity/ mortality reduction.	p. 5
b. Progress Towards Adoption of National Policy and Plan on Sterilization and Injection Practices.	p. 5
c. Status of ORT Demonstration and Training Center (s) and Institution of ORT in Health Facilities.	p. 6
d. Ensuring Sustainability:	p. 6
1. Training.	p. 6
2. HIS.	p. 6
3. Operations Research.	p. 7
4. Health Education.	p. 7
5. Cost Recovery Mechanisms to Cover Recurrent Costs.	p. 7
II MAJOR CONSTRAINTS:	p. 7
a. Technical.	p. 7
b. Managerial.	p. 8
c. Other.	p. 8
III TOP THREE PROGRAM PRIORITIES FOR 1987.	p. 9
CONCLUSION	p. 9
APPENDIX	p. 10

## APPENDIX CONTENTS

### MIS GRAPHS TO ILLUSTRATE THE PRESENTATION:

- GRAPH A (Surmeas): Measles Cases Reported by Year.
- GRAPH B (Surpol): Polio Cases Reported by Year.
- GRAPH C (Diar3): Diarrhea, Cases and Deaths Hospitalized Children Under 5 Years.
- GRAPH D (Malar3): Malaria, Cases and Deaths and Deaths Hospitalized Children Under 5 Years.
- GRAPH E (DPT2): DTP, First Doses < 12 Months and Total Doses.
- GRAPH F (MEAS2): Measles Vaccinations, < 12 Months and Number of Live Births.
- GRAPH G (TT2): Tetanus Toxoid, First Doses and Number of Live Births.
- TABLE : National Coverage Survey, Burundi. (October 1986)

### OTHER SIGNIFICANT EPI SERVICE INCREASE DATA:

- OVERALL ANALYSIS. (GRAPHS H to L)
- GRAPH H (DPT1): DTP, First and Third Doses, All Ages
- GRAPH I (DPT3): DTP, Doses < 12 Months and Total Doses.
- GRAPH J (MEAS1): Measles Vaccinations, Doses < 12 Months and Total Doses.
- GRAPH K (TT1): Tetanus Toxoid, First and Total Doses Given to Pregnant Women.
- GRAPH L (TT3): Tetanus Toxoid, Cumulative First Doses and Women of Childbearing Age.

COUNTRY SUMMARY

Country : BURUNDI Annual Report : 1986 Calendar Year

Population 4,782,407 (mid year estimate)

Estimated Number 215,208  
of live Births

Dates :

Project Agreement : AUGUST 8, 1985  
 End of Project : JANUARY 8, 1988  
 First Project Review : NOVEMBER 4-7, 1986  
 First Evaluation : OCTOBER 5-26th, 1987  
 Second Project Review : UNKNOWN  
 Second Evaluation : UNKNOWN

Annual and Cumulative Funding by Sources :

Source	Current Annual Funding	Cumulative Funding To Date
National Government	\$ 233,000	
USAID	\$ 834,000	\$ 834,000
UNICEF	\$ 1.340,000	\$ 750,000

National CCCD Program Manager: Dr. F. Bizimana, Dept Chief Med. Officer

National EPI Director: Dr. F. Bizimana, "

Diarrheal Disease Director (if different): "

Malaria Director (if different) : "

Technical Officer : Mr Cyril Pervilhac

### Country Background Information:

Burundi, the 12 th CCCD country started its CCCD activities in the second trimester of 1986. Burundi is a small, hilly, landlocked country located in the heart of Central Africa, sharing borders with Zaire to the west, Rwanda to the north, and Tanzania to the south and east. About the size of Maryland, its population is slightly more numerous than in that state, making it one of the countries with the highest population density in Africa (158 per km<sup>2</sup>) with a high 45 per 1000 birth rate. Approximately 95 % of its 4.9 million inhabitants live in the rural areas primarily in dispersed, individual homesteads on the hillsides. The majority of the population, about 90% is involved in agriculture. Bujumbura, the capital and largest city, is located on the northern shores of Lake Tanganyika and has a population of approximately 175, 000 inhabitants.

Relevant demographic data based on 1979 census information include an under 5 population of approximately 19%, an estimated infant mortality rate of 130/ 1000 live births, a life expectancy of 43 years and a literacy rate of 25%.

Within the Ministry of Public Health (MOH), the CCCD program is in the EPI Section, under the Department of Hygiene and Prevention. Health services are offered by government facilities (65%) and religious missions (35%). In 1986, there were 4 medical regions (Bujumbura, Bururi, Gitega, and Ngozi) which were divided into 18 health sectors. In the first trimester of 1987, the recent restructuring of the medical geographical division decentralized the structure into 15 health provinces with 25 health sectors. Health facilities are subdivided into 3 levels : hospitals, health centers, and dispensaries. There are 32 hospitals in country.

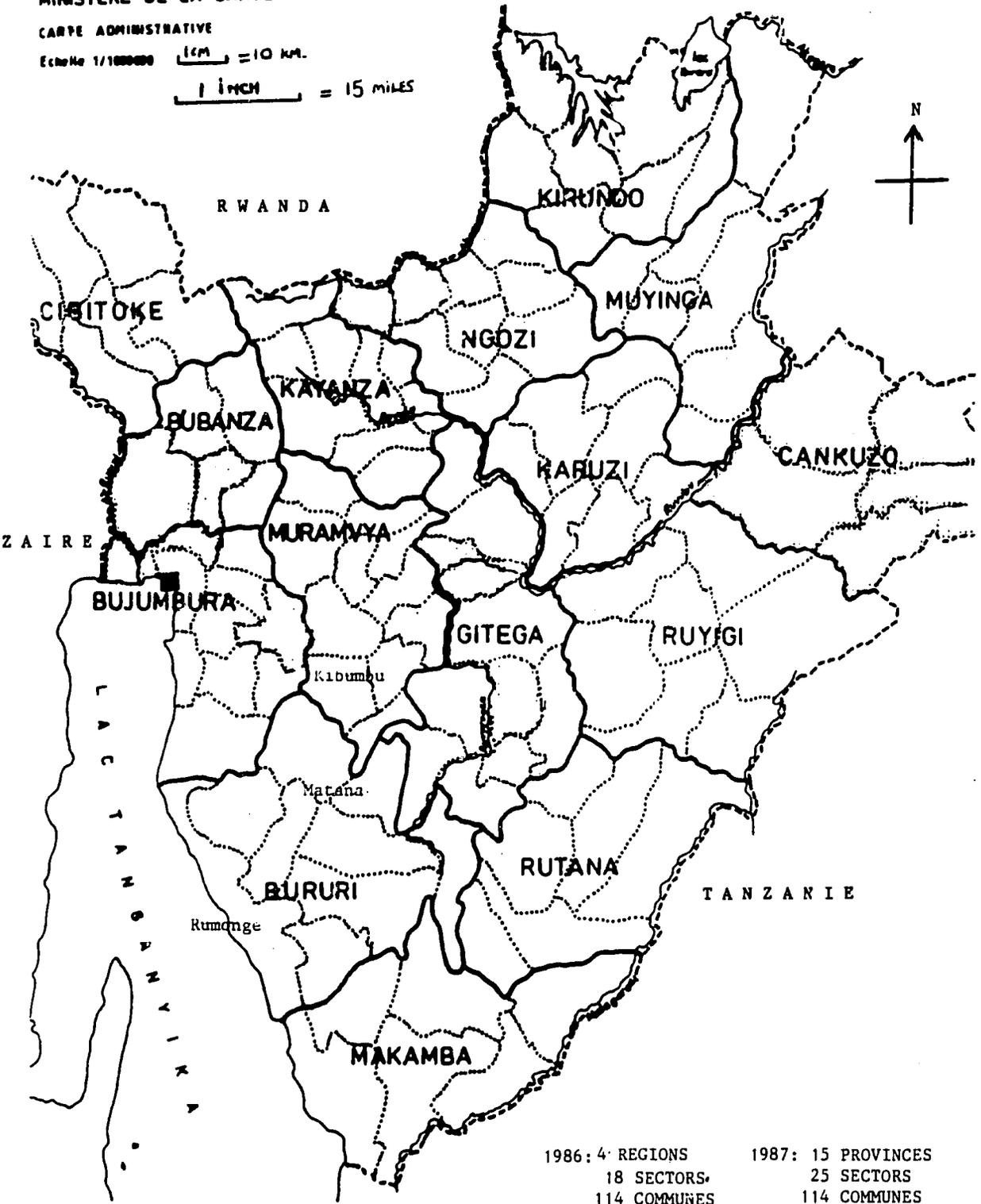
From surveillance system reports, the four most frequently reported causes of childhood morbidity are malaria, diarrheal diseases, influenza, and measles. The four leading causes of mortality are diarrheal diseases, measles, malaria, and tetanus.

REPUBLIQUE DU BURUNDI  
 MINISTRE DE LA SANTE PUBLIQUE

CARTE ADMINISTRATIVE

Echelle 1/100000  $1 \text{ cm} = 10 \text{ km}$ .

$1 \text{ INCH} = 15 \text{ MILES}$



1986: 4 REGIONS	1987: 15 PROVINCES
18 SECTORS	25 SECTORS
114 COMMUNES	114 COMMUNES

## I. MAJOR ACHIEVEMENTS TO DATE:

### a. Morbidity/ Mortality Reduction:

#### 1) Number of Cases of Measles Reported per Year: (Graph A)

- A 33 % increase in number of cases for 1986 in comparison to 1984 (comparison with the last year of low number of cases).

- Identical proportion of number of cases for 1986 (a 1 % increase) in comparison to 1985. The impact of the 1986 increase in EPI activities should be more visible in 1987.

- Seasonal peaks of measles morbidity: 1981, 83, 85. Within each year increased numbers of cases around the small dry season period (November through February).

#### 2) Number of Cases of Polio Reported per Year: (Graph B)

- Approximately the same number of cases from 1982 to 1986, with a decreasing trend for the last 2 years.

#### 3) Number of Cases and Deaths of Diarrhea for Hospitalized Children Under Five: (Graph C)

- Steady increase of cases and deaths from 1982 to 1985. Case fatality rates are consistently low (less than 1%) making it difficult to draw any conclusions. No age breakdown of data is available yet for 1986.

#### 4) Number of Cases and Deaths due to Malaria for Hospitalized Children Under Five Years: (Graph D)

- Steady increase of cases and deaths from 1982 to 1985. Case fatality rates are consistently low (less than 1%) making it difficult to draw any conclusions. No breakdown of data by ages is available yet for 1986.

#### 5) Number of First Doses of DTP to Children Less Than 12 Months and Number of Live Births: (Graph E)

- 30 % increase of first doses for 1986 in comparison to 1985.

- The gap between live births and first doses was decreased by 13%, in 1986 (63%) in comparison to 1985 (50%).

#### 6) Number of Measles Vaccination of Children Less than 12 Months and Number of Live Births: (Graph F)

- 36% increase of measles doses for 1986 in comparison to 1985.

- The gap between live births and measles doses was decreased by 10%, in 1986 (40%) in comparison to 1985 (30%).

7) Number of First Doses (TT1) Given to Pregnant Women Compared To Number of Live Births: (Graph G)

- 78% increase of TT1 doses for 1986 in comparison to 1985.
- 25% increase of TT1 doses in bridging the gap to cover the live births in 1986 (59%), in comparison to 1985 (34%).

MOST SIGNIFICANT 1986 ACTIVITIES (including first trimester 1987):

1) EPI:

- Advanced strategy: outreach activities for populations at higher risk of epidemics with less access to services. New role of Health Centers.

ex.: 8% of measles vaccine given to all ages in 1986 was delivered through that strategy.

- New EPI Policy: MOH official Note to all EPI Centers in country, encouraging personnel to use all opportunities to immunize.

2) CDD:

- Setting up of one ORT Unit: in the capital city, Sept. 1986.

3) Malaria:

- A standard therapeutic treatment policy has been accepted and included in various training sessions for MOH personnel.

- A national Plan of CCCD Malaria Activities with another T.O.'s input during a short term consultation was drafted, and is being presently circulated for approval.

b. Progress Towards Adoption of National Policy and Plan on Sterilization and Injection Practices:

- A National Policy has been accepted in the Detailed Plan of Activities for EPI for 1987 (Feb. 1987), based upon the Lesotho model.

- Procurement and reception of materials through UNICEF was accomplished in late 1986.

- Measures to train, distribute, and correctly use the materials are being put into place. (March 1987)

- An evaluation of the practices (Practice Survey) has been planned for the last semester of 1987. (Nov. 1987) Partial evaluation of practices was done during the needs assessment of training activities. (March 1987)

c. Status of ORT Demonstration and Training Center(s) and Institution of ORT in Health Facilities:

- One ORT Unit, set up in 1986 with consultant input, is still in the process of strengthening its services.

- 2nd trimester 1987: promotion of the ORT Unit activities through an advertisement and promotion campaign.

- All 32 hospitals are presently using ORT.

- Unknown number of Health Centers and dispensaries are using ORT. During a recent needs assessment for training (March 1987), all 10 health centers visited had ORS packages.

- Unknown number of all facilities using ORT correctly.

- 1 other Unit planned to be opened in 1987, upcountry.

- CDD Head of ORT Unit to be trained in Zaire training workshop, per WHO/CCCD Agreement. (Mar. 1987)

d. Ensuring Sustainability:

1) Training:

- CCCD works closely with the MOH Training Section (consultants' visits, planning of training activities, reviewing of materials).

- UNICEF and WHO technicians were involved in some planning and specific training activities.

18 peripheral health staff were trained in a 2 day seminar on ORT with consultant input. (Sept. 1986)

- Peripheral Health Staff: 6% life of project target realized in training activities. In 1987, peripheral level training is planned for all CCCD components. Needs assessment prior to training has been carried out with consultant input.

- 45 mid level managers were trained in a 10 day MLM course on EPI/CCCD management with three consultants' input. (Oct. 1986)

- Mid Level Managers: 100% life of project target realized in training activities.

## 2) HIS:

- CCCD works closely with the Epidemiology and Statistics Section of the MOH, in addition to the EPI Section which also analyzes data.
- One health technician was assigned to the MOH in Nov. 1986 when the HIS/CCCD was set up (Nov. 1986) with consultant input. This brings the staff to 2 technicians in the Epidemiology and Statistics section.
- The HIS/CCCD has been set up to analyze data by Sectors in order to better follow objectives by areas, and to respond to the MOH new policy on the decentralization of activities.
- A national EPI coverage survey was carried out (Oct. 1986) using WHO methodology, including T.T. antigen; EPI coverage surveys were also carried out in 4 individual health sectors.

## 3) Operations Research:

- The O.R. Review Committee had their first meeting on Dec. 18, 1986. Six physicians are part of the committee. The procedures and role of the committee have been defined.
- 1 protocol on long term outcome of hospital measles cases completed on 12/08/86 by Dr. F. Ntareme of University of Burundi.
- 2 protocols are presently under design: the first, on neonatal tetanus incidence and practice, and the second on the search for an appropriate home fluid for ORT.

## 4) Health Education:

The role and the procedures to develop training materials at the Health Education Unit at the MOH have been narrowed down during a consultant's visit.

UNICEF is taking the lead in coordinating health education activities with its communication specialist for specific CCCD activities planned in 1987, and also including UNICEF water sanitation program.

## 5) Cost Recovery Mechanisms:

- Accounting system which reflects the expenses of USAID, UNICEF and MOH funds is being developed.
- Study of Health Care financing planned to start in mid 1987 with the MOH Department of Inspection and Planning and the World Bank in 2 or 3 communes of the country.

## II MAJOR CONSTRAINTS:

### a) Technical:

- a.1. Lack of technical coordinators in CDD and malaria.

ACTION: recommendations to assign these coordinators were made through all donors (USAID, UNICEF, WHO).

- a.2. Health technicians (nurses) assigned to work with the EPI/CCCD are too few with ill defined tasks.

ACTION: recommendations to assign more technicians made to the MOH, and description of tasks of each member of the team of 4 narrowed down.

- a.3. Too few children accepted in the ORT Unit at the hospital because of financial constraints.

ACTION: Advertisement, promotion campaign of the ORT Unit activities being launched by stressing the benefits of buying the Medical Insurance cards.

- a.4. Lack of priorities over some antigen interventions (measles, polio, T.T.) in comparison to the overall EPI activities, and the epidemiological data.

ACTION: Proposed priorities to the MOH. Some emphasis may be given in health education activities. 50 copies of Donald Hopkins French version of the article on "Beyond Smallpox Eradication" will be distributed at the central level, and was given to all Medical Chief of Sectors during MLM.

- a.5. Weakness of the existing epidemiological surveillance system.

ACTION: Setting up of sentinel sites, and planned investigation of measles and diarrheal diseases (including shigellosis) outbreaks, and improvement in the analysis/feedback component of the HIS.

### b) Managerial:

- b.1. Some weakness in managerial capacity (central and sector level).

ACTION: MLM course was geared towards management activities. Plans of Sectors by trimester requested from each Medical Chief of Sector.

- b.2. Lack of follow-up on managerial recommendations for MLM course.

ACTION: Follow up with specific letters to Chief of Sectors, and supervision.

- b.3. Supervision targets of central team very low.

ACTION: Promoting the importance of supervision with the central team. Designing a specific supervision calendar. Solving logistics difficulties.

c. Other:

In 1986, 3 Projects (WHO, World Bank, CCCD) started early in the year with:

- c.1. Scarce human resources at the MOH being overburdened with tasks and demands from different projects (supervision, consultants' visits, working groups, etc...)

ACTION: Calendar of consultants' needs designed between all CCCD partners including UNICEF. Priority of intervention and time spent in the field instead of at the central level for the CCCD team, and T.O. Better information circulating between different projects in order to avoid conflicts in activities of MOH personnel.

- c.2. USAID vehicles not yet in service hampering supervision and field activities from the central level.

ACTION: Mission's support to solve the insurance, and assignment of vehicles difficulties with the MOH.

III TOP THREE PROGRAM PRIORITIES FOR 1987.

- EPI improvement in the quality of the cold chain, and in the implementation of the Plan on Sterilization and Injection Practices, and on the management aspects.

- ORT Unit at the hospital in the capital to improve in the quality of its services with the training and demonstration activities to be added.

- Health Education messages and materials to support CCCD objectives to be developed and used.

CONCLUSION:

ACSI - CCCD Burundi has found excellent ground work already existing in the MOH structure and services which has facilitated the implementation of CCCD strategies in 1986.

Morbidity and mortality reduction trends, in the first year of the ACSI - CCCD Burundi implementation phase are, as yet, not highly visible. However, indirect indicators (for ex.: EPI number of doses or coverage surveys) demonstrate clear evidence that important steps towards planned reduction targets are being accomplished presently.

The second phase of the Project (1988-9) should allow for the impact of CCCD activities to be measured.

\*\*\*\*\*

OVERALL ANALYSIS. (GRAPHS H TO L)

1) Number of First and Third Doses for All Ages: (Graph H)

- 34% increase of first doses of DTP for all ages in 1986 in comparison to 1985.
- 62% increase of third doses of DTP for all ages in 1986 in comparison to 1985.
- The gap between third doses (full coverage of DTP), and first doses, was decreased by 16%, in 1986 (10%) in comparison to 1985 (26%).

2) Number of Doses of DTP for Children less than 12 Months and Total Doses: (Graph I)

- 36% increase of total doses for children less than 12 months in 1986 in comparison to 1985.
- 44% increase of total doses of DTP for children less than five years of age in 1986 in comparison to 1985.
- The target population of less than 12 months has not caught up proportionately with the increase in total coverage in 1986 (26%), in comparison to 1985 (22%).

3) Number of Dose of Measles Vaccine for Children less than 12 Months and Total Doses: (Graph J)

- 36% increase for children less than 12 months in 1986 in comparison to 1985.
- 52% increase for children less than 5 years of age in 1986 in comparison to 1985.
- The target population of less than 12 months has not caught up proportionately with the increase in total coverage in 1986 (39%), in comparison to 1985 (32%). The advance strategy targeted to children less than 5 years old may explain this widening gap.

4) Number of First Doses of Tetanus Toxoid and Total Doses Given to Pregnant Women: (Graph K)

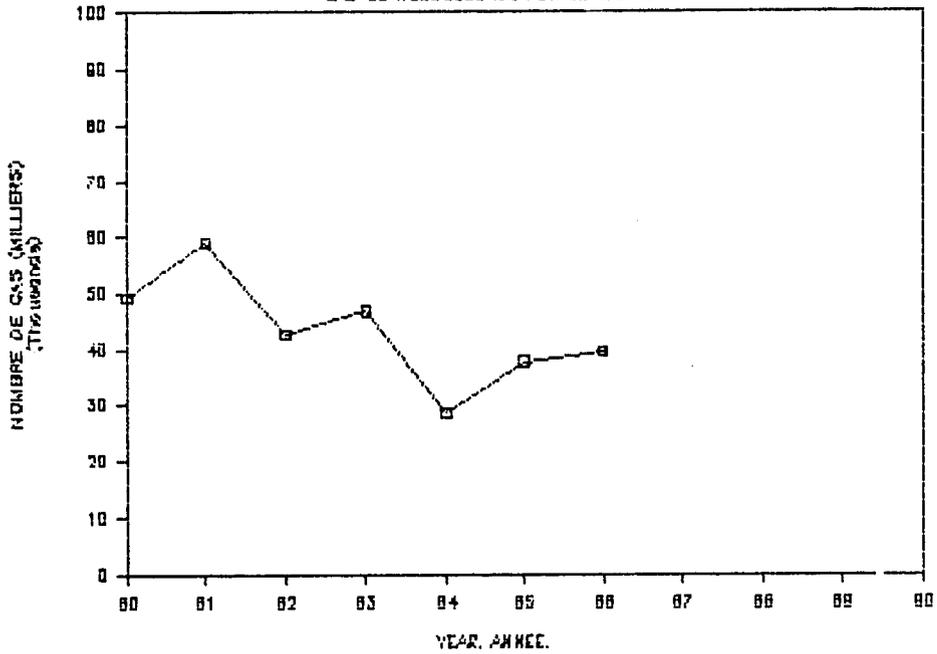
- 78% increase for first doses in 1986 in comparison to 1985.
- 78% increase for total doses in 1986 in comparison to 1985.
- This high ratio of increase may also be attributed to women of childbearing age counted in that category, in addition to the emphasis on that antigen. The new policy to immunize all women of childbearing age was effective in the second trimester of 1986, and the recording system to distinguish this larger target population from pregnant women was poor.

5) Number of Cumulative First Doses of Tetanus Toxoid and Women of Childbearing Age: (Graph L)

- 34 % increase in cumulative first TT doses received in 1986.
- Decreasing gap between the number of first doses given and the number of women of childbearing ages in 1986 in comparison to 1985. This may be attributed to the change in policy to immunize all women of childbearing age.

GRAPH A (SURMES)

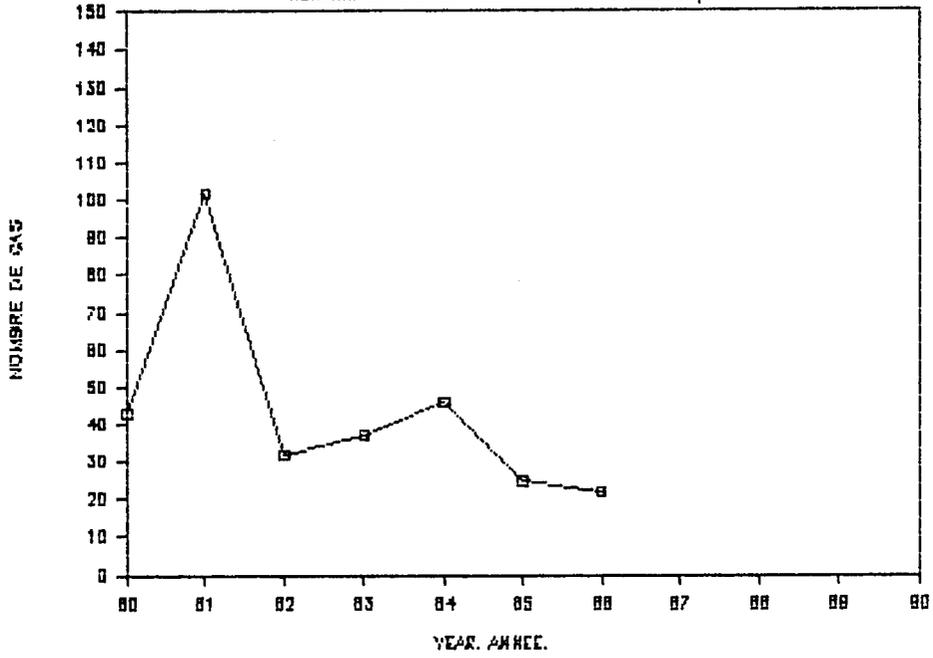
MEASLES CASES REPORTED BY YEAR  
CAS DE ROUGEOLE RAPPORTES PAR AN



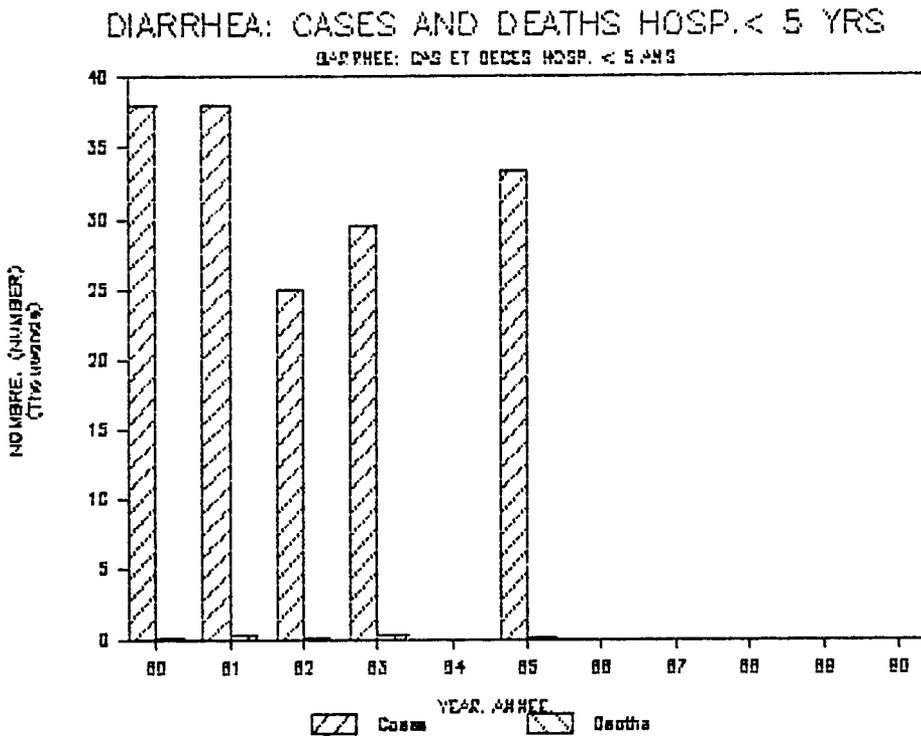
GRAPH B (SURPOL)

POLIO CASES REPORTED BY YEAR

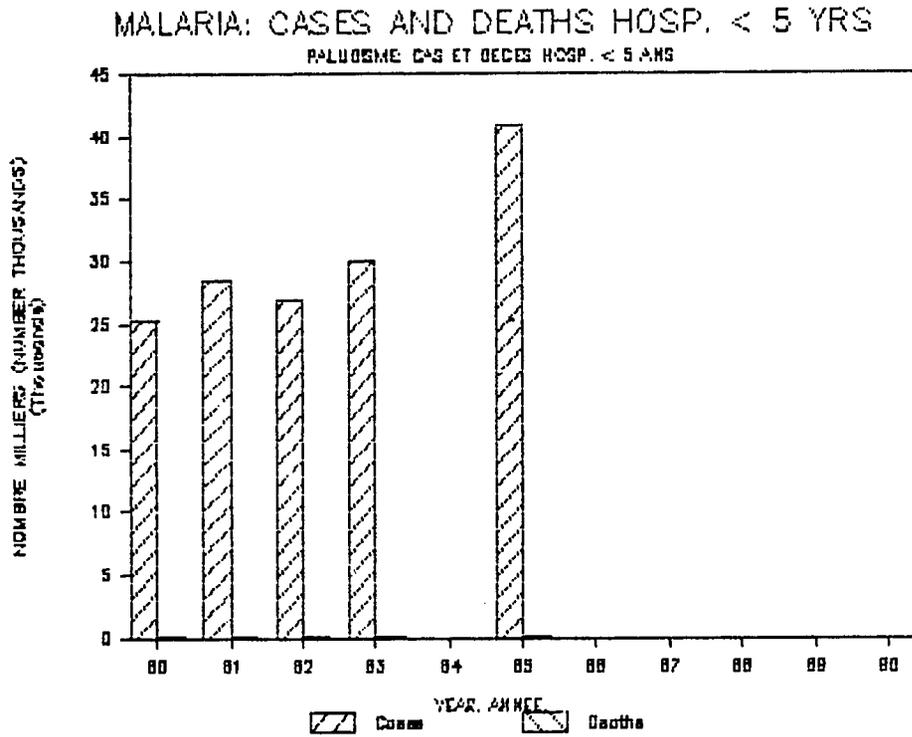
NUMBRE DE CAS DE POLIO RAPPORTES PAR AN



GRAPH C (DIAR 3)



GRAPH D (MALAR 3)

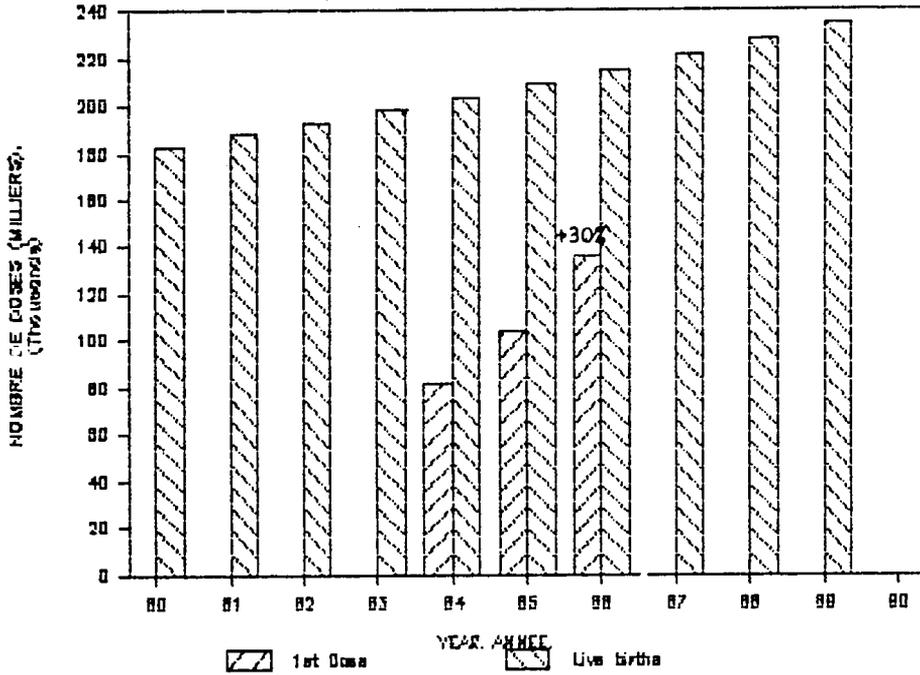


13

GRAPH E (DPT 2)

DPT: 1ST DOSES < 12 MO AND NB LIVE B.

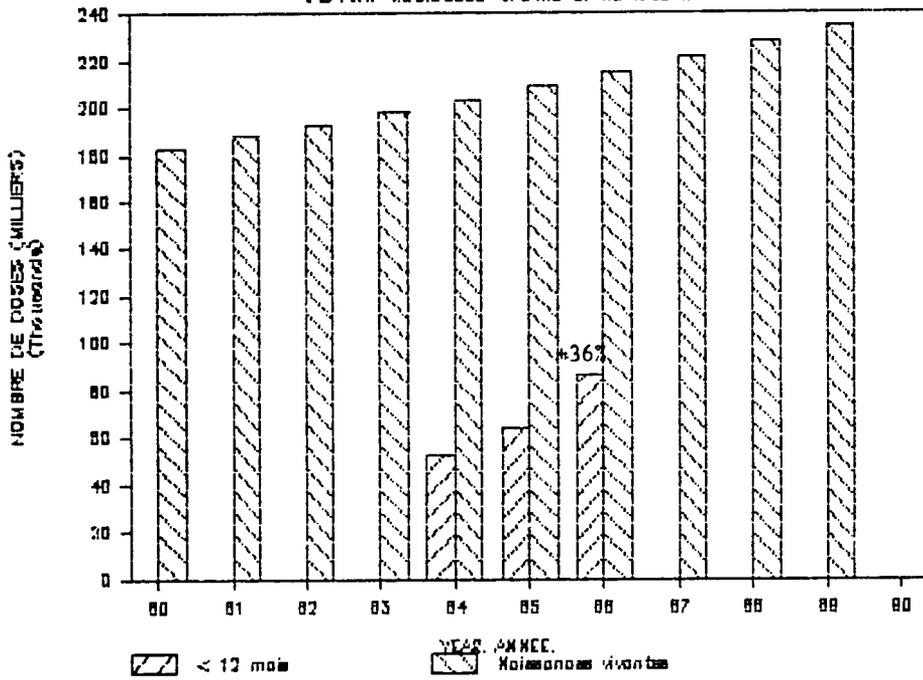
ETD: 1ERE DS < 12 MO ET NB NAISS. VIV.



GRAPH F ( MERS 2)

MEASLES VAC: DOSES < 12 MO AND NB L. B.

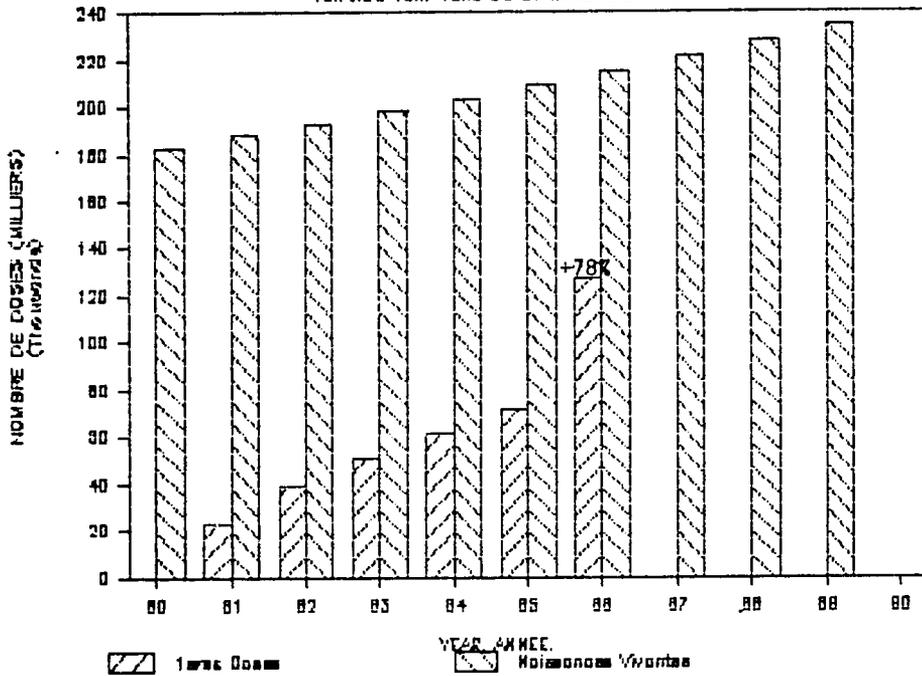
VAC ANT-ROU:DOSES <12 MO ET NB MRS M



GRAPH G (TT2)

TETANOS TOX: 1ST DO AND NB LIVE BIRTHS.

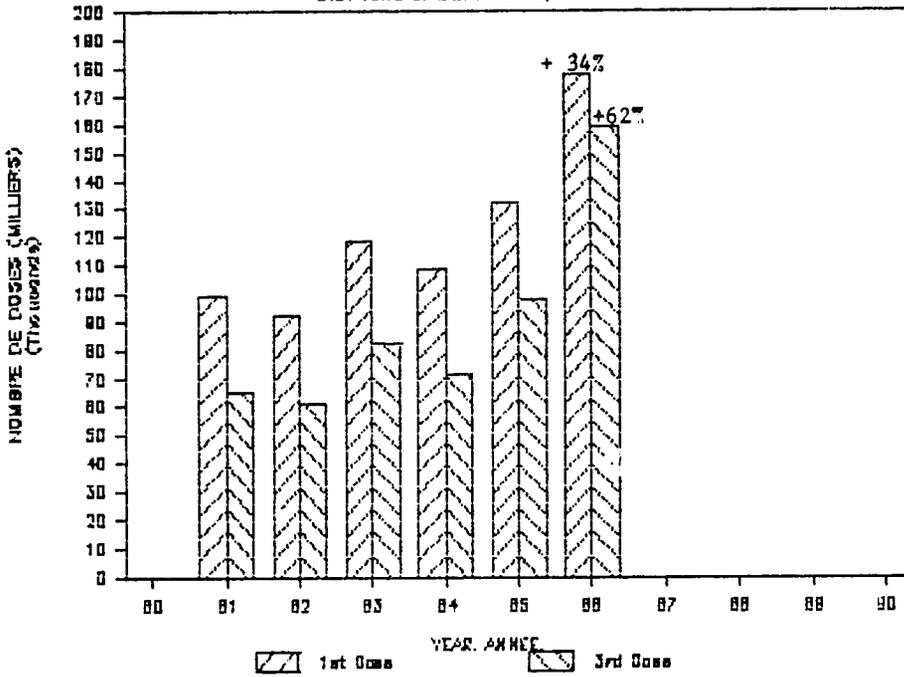
TETANOS TOX: 1ERE DO ET NBRE NBS VIV.



GRAPH H ( DPT 1 )

DPT: First and Third Doses, All Ages

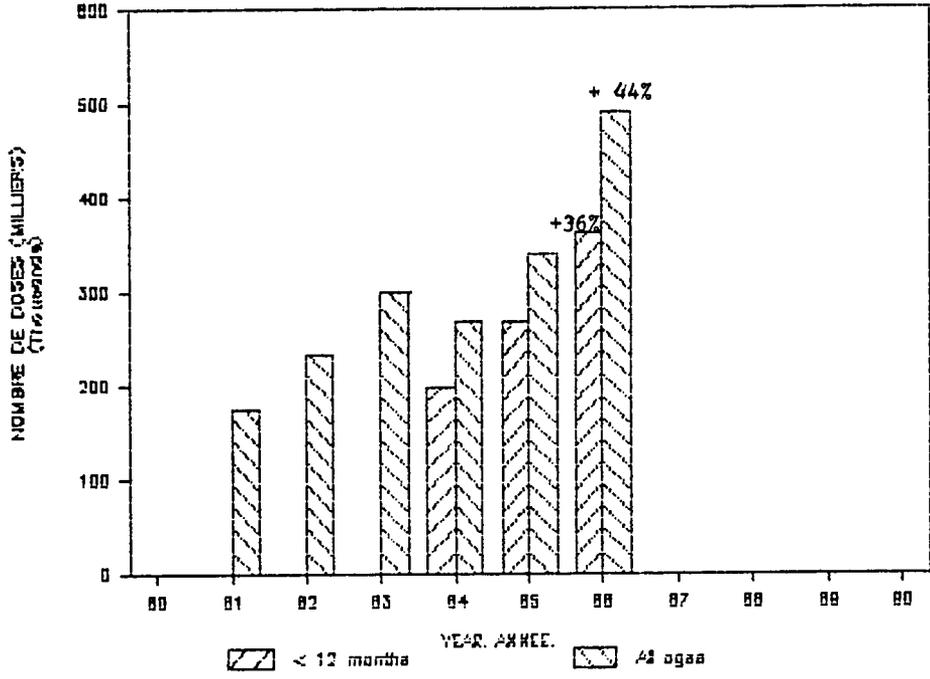
DTD: 1ERE ET 3EME DOSES, TOUS AGES.



GRAPH I (DPT 3)

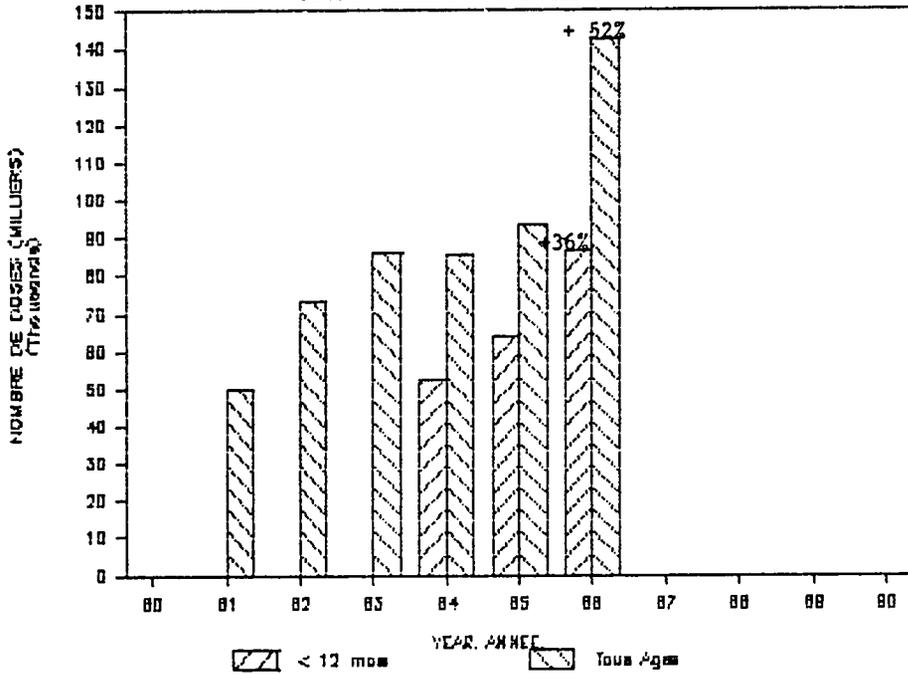
DPT: DOSES < 12 MO. AND TOTAL DOSES.

DTD: DOSES < 12 MO. ET DOSES TOTALES.



GRAPH J (MEAS 1)

MEASLES VAC: DOSES <12 MO. AND TOTAL DO  
VAC. ANTI-ROUB: <12 MO. ET DOSES TOTALES

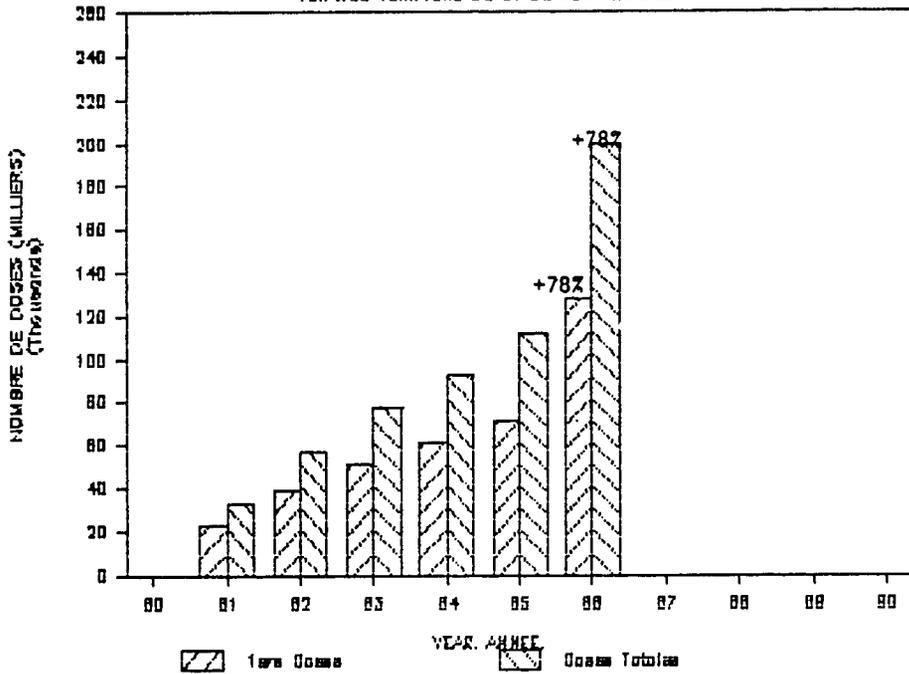


221

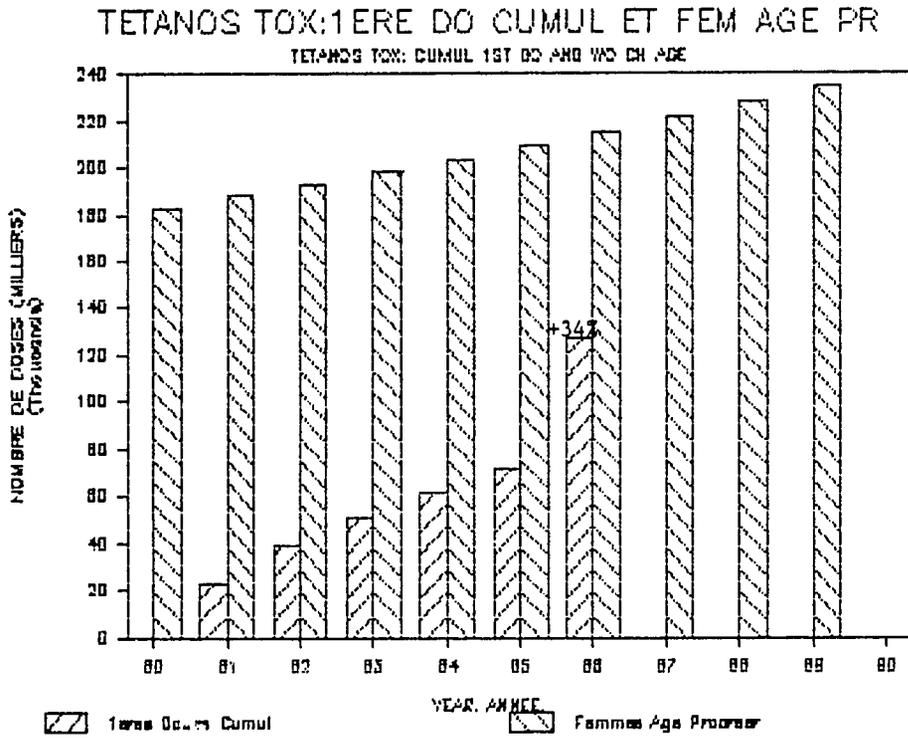
GRAPH K (TT 1)

TETANOS TX:1ST DO AND TOT DO PGNT WOM.

TETANOS TOX.:1ERE DO ET DO TOT FEM ENC.



GRAPH L (TT3)



A1: PR 'W65

READY

	A	B	C	D	E	F	G	H	I	J	K
1			Estimated	Number of Live Births Derived from the							
2				Population and Birth Rate							
3											
4							Birth		Number		
5							Rate		of Live		
6			Year	Population			per 1000		Births		
7			-----	-----			-----		-----		
8			1980	4,065,908			45.0		182,966		
9			1981	4,170,022			45.0		187,651		
10			1982	4,280,341			45.0		192,615		
11			1983	4,397,105			45.0		197,870		
12			1984	4,520,576			45.0		203,426		
13			1985	4,649,457			45.0		209,226		
14			1986	4,782,407			45.0		215,208		
15			1987	4,922,083			45.0		221,494		
16			1988	5,068,792			45.0		228,096		
17			1989	5,222,857			45.0		235,029		
18			1990						0		
19											
20											
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A21: PR 'W65

READY

	A	B	C	D	E	F	G	H	I	J	K
21			Doses of Diphtheria-Pertussis-Tetanus (DPT) Vaccine								
22			Administered by Year								
23											
24			First	Third		Total		First		Total	
25			Doses	Doses		Doses	0	Doses		Doses	
26			(all ages)	(all ages)		(all ages)	0	((12 mo.)		((12 mo.)	
27			-----	-----		-----	0	-----		-----	
28			1980				0				
29			1981	99,493	65,258	172,861	0				
30			1982	92,597	61,305	232,105	0				
31			1983	118,856	82,500	299,771	0				
32			1984	108,342	71,099	266,554	0	81,261		198,570	
33			1985	132,096	97,909	340,807	0	104,414		266,600	
34			1986	177,427	159,081	490,331	0	135,450		361,860	
35			1987				0				
36			1988				0				
37			1989				0				
38			1990				0				
39			::								
40											
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24

A41: PR \*W66

READY

	A	B	C	D	E	F	G	H	I	J	K
41	Doses of Measles Vaccine Administered by Year										
42											
43											
44					Total	0	Doses				
45	Year				Doses	0	((12 mo.)				
46	-----				-----	0	-----				
47	1980					0					
48	1981				50,126	0					
49	1982				73,252	0					
50	1983				86,033	0					
51	1984				85,257	0	52,539				
52	1985				93,618	0	63,764				
53	1986				142,598	0	86,433				
54	1987					0					
55	1988					0					
56	1989					0					
57	1990					0					

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A61: PR \*W66

READY

	A	B	C	D	E	F	G	H	I	J	K
61	Doses of Tetanus Toxoid Administered by Year										
62											
63											
64					First		Total		Cumulative		
65	Year				Doses		Doses		First		
66	-----				-----		-----		Doses		
67	1980								0		
68	1981				23,097		33482		23097		
69	1982				39,064		57410		62161		
70	1983				50,683		77496		112844		
71	1984				60,857		92946		173701		
72	1985				71,716		112205		245417		
73	1986				127,760		199837		373177		
74	1987								373177		
75	1988								373177		
76	1989								373177		
77	1990								373177		

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AB1: PR \*W65

READY

	A	B	C	D	E	F	G	H	I	J	K
81	Surveillance for Vaccine-Preventable Disease										
82	Number of Reported Cases of Measles, Polio, Pertussis and Tetanus										
83											
84		Number of								Cases of	
85		Reporting				Cases of	Cases of	Cases of		Neonatal	
86	Year	Unit				Measles	Polio	Pertussis		Tetanus	
87	-----	-----				-----	-----	-----		-----	
88	1980					49,227	43	9,613			
89	1981					58,970	102	9,352			
90	1982					42,501	32	5,892			
91	1983					46,739	37	5,775			
92	1984					28,587	46	5,564			
93	1985					37,740	25	4,516			
94	1986					39,634	22				
95	1987										
96	1988										
97	1989										
98	1990										
99											
100											
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A141: PR \*W65

READY

	A	B	C	D	E	F	G	H	I	J	K
141	Cases and Deaths Due to Diarrhea in Hospitalized										
142	Children under Five Years of Age										
143											
144		Number				Cases of	Deaths due				
145		Hospitals				Diarrhea	to Diarrhea				
146	Year	Reporting				(( 5 yrs)	(( 5 yrs)				
147	-----	-----				-----	-----				
148	1980					38065	26				
149	1981					38042	177				
150	1982					24916	18				
151	1983					29440	210				
152	1984										
153	1985					33299	155				
154	1986										
155	1987										
156	1988										
157	1989										
158	1990										
159											
160	::										
	01-Jan-80	12:10 AM									

A181: PR \*W65

READY

A	B	C	D	E	F	G	H	I	J	K
181	Cases and Deaths Due to Malaria in Hospitalized									
182	Children under Five Years of Age									
183										
184		Number		Cases of		Deaths due				
185		Hospitals		Malaria		to Malaria				
186	Year	Reporting		(( 5 yrs)		(( 5 yrs)				
187										
188	1980			25357		23				
189	1981			28461		52				
190	1982			26888		28				
191	1983			30062		75				
192	1984									
193	1985			40893		111				
194	1986									
195	1987									
196	1988									
197	1989									
198	1990									
199										
200										
01-Jan-80 12:10 AM										

A201: PR \*W65

READY

A	B	C	D	E	F	G	H	I	J	K
201	Estimated Number of Women of Childbearing Age									
202										
203						% Pop. of		Number of		
204						Childbearing		Women of		
205		Year		Population		Age		Childbearing		
206								Age		
207		1980		4,065,908		22.4		910,763		
208		1981		4,170,022		22.3		929,915		
209		1982		4,280,341		22.2		950,236		
210		1983		4,397,105		22.2		976,157		
211		1984		4,520,576		22.1		999,047		
212		1985		4,649,457		22.1		1,027,530		
213		1986		4,782,407		22.0		1,052,130		
214		1987		4,922,083		22.0		1,082,858		
215		1988		5,068,792		21.9		1,110,065		
216		1989		5,222,857		21.9		1,143,806		
217		1990		0				0		
218										
219										
220										
01-Jan-80 12:11 AM										

COUNTRY SUMMARY

Country : RWANDA Annual Report : 1986 Calendar Year :

Population 4,782,407 (mid year estimate)

Estimated Number 215,208  
of live Births

Dates :

Project Agreement : AUGUST 8, 1985

End of Project : JANUARY 8, 1988

First Project Review : NOVEMBER 4-7, 1986

First Evaluation : OCTOBER 5-26th, 1987

Second Project Review : UNKNOWN

Second Evaluation : UNKNOWN

Annual and Cumulative Funding by Sources :

Source	Current Annual Funding	Cumulative Funding To Date
National Government	\$ 75,815	\$ 75,815
USAID	\$ 584,000	\$ 834,000
UNICEF	\$ 750,000	\$ 1,835,000

National CCD Program Manager: Dr. F. Bizimana, Dept. Chief Med. Officer

National EPI Director: Dr. F. Bizimana, "

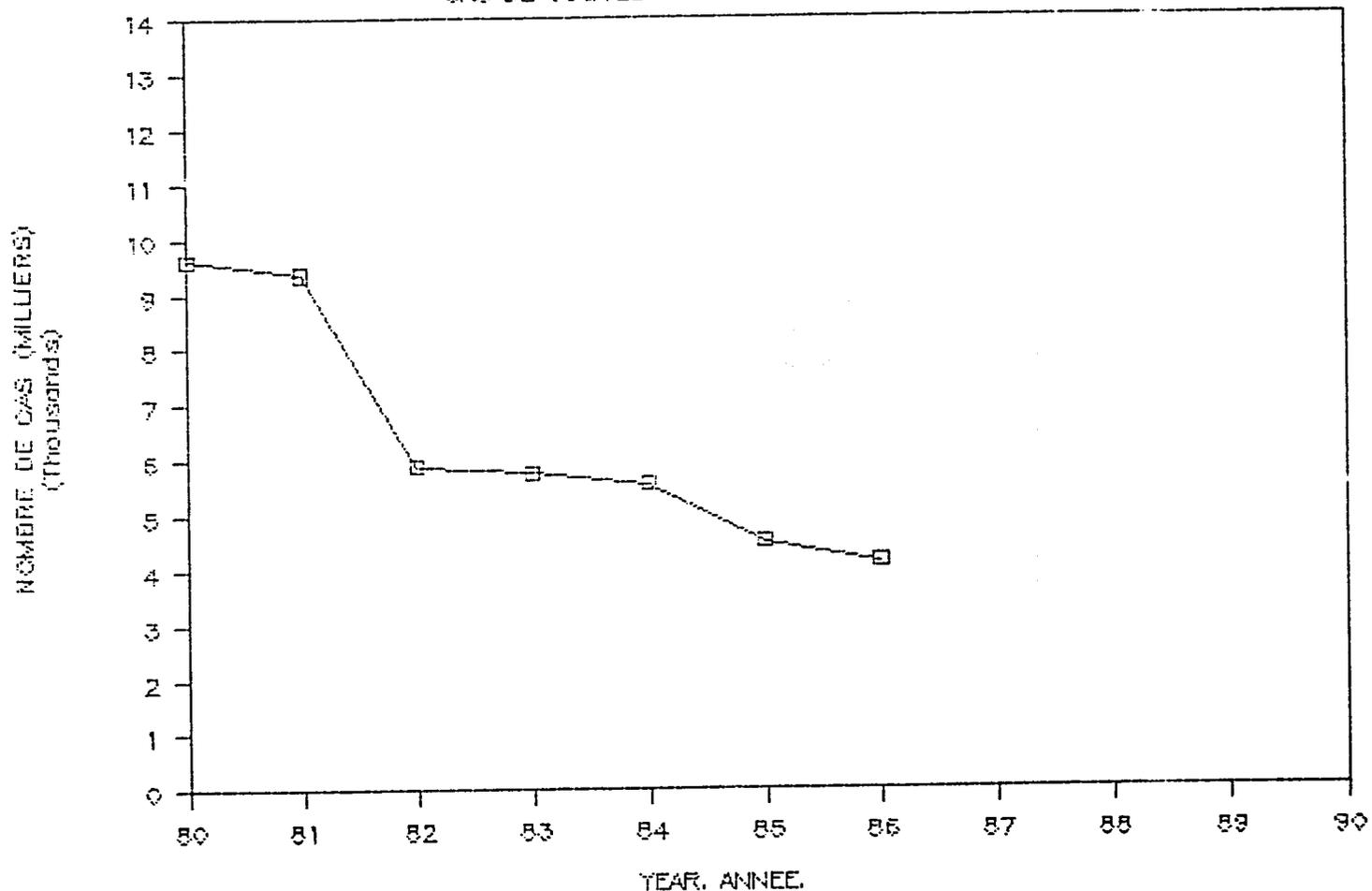
Diarrheal Disease Director (if different): "

Malaria Director (if different) : "

Technical Officer : Mr Cyril Pervillac

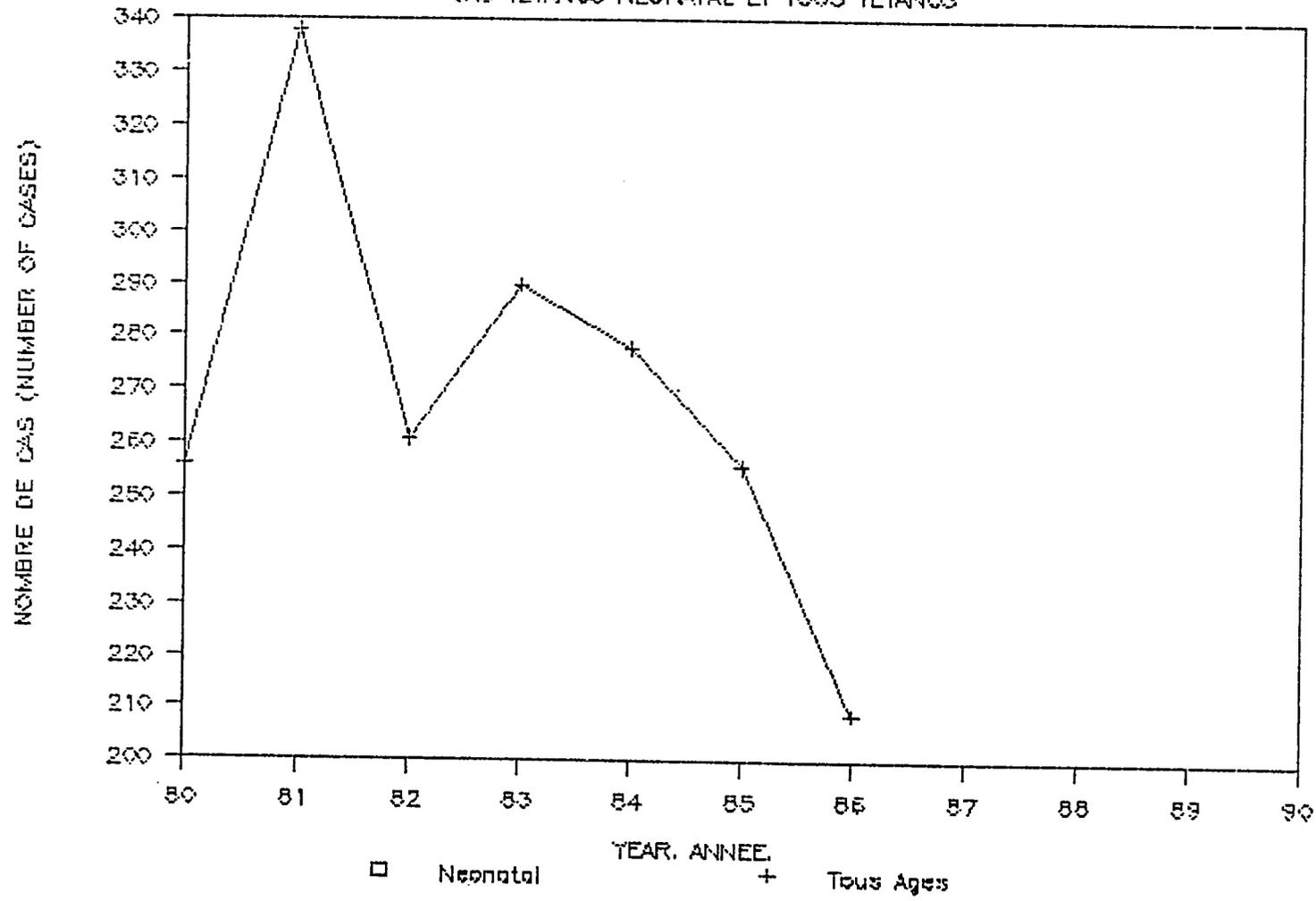
# PERTUSSIS CASES REPORTED BY YEAR

CAS DE COQUELUCHE RAPPORTES PAR AN



# NEONATAL AND ALL TETANUS CASES REPORTED

CAS TETANUS NEONATAL ET TOUS TETANUS



En

EPI NATIONAL COVERAGE SURVEY (10/14//1986)

CHILDREN (12 - 24 MONTHS)									WOMEN OF CHILDBEAR. AGE
BCG	POLIO I	POLIO II	POLIO III	DTC I	DTC II	DTC III	MEASLES VAC. (ANTI- ROUG.)	TOTAL IMMUNIZ. (VACCIN.)	T.T 2 (V.A.T.2)
79,5 %	73 %	70 %	61 %	75 %	69,5 %	60 %	57 %	46 %	16.5 %



TOTAUX DU NOMBRE D'ENFANTS TRAITES A L'UNITE TRO DE L'HPRC

SEP. 86	OCT.86	NOV.86	DEC.86	JAN.87	FEV.87	MAR.87	AVR.87	MAI 87	J 87	J 87	A 87	SEP.87	OCT.87	NOV.87	DEC.87
58	171	139	135	109	84										

33

NOMBRE DE PLANS DE TRAITEMENTS TRO PAR MOIS A L'UNITE DE L'HPRC

NOMBRE  
D'ENFANTS  
TRAITES

100

80

60

40

20

0

Sept. 86

Oct. 86

Nov. 86

Déc. 86

Janv. 87

Fév. 87

MOIS

AS 1113-68

30 X 10 TO THE HALF INCH

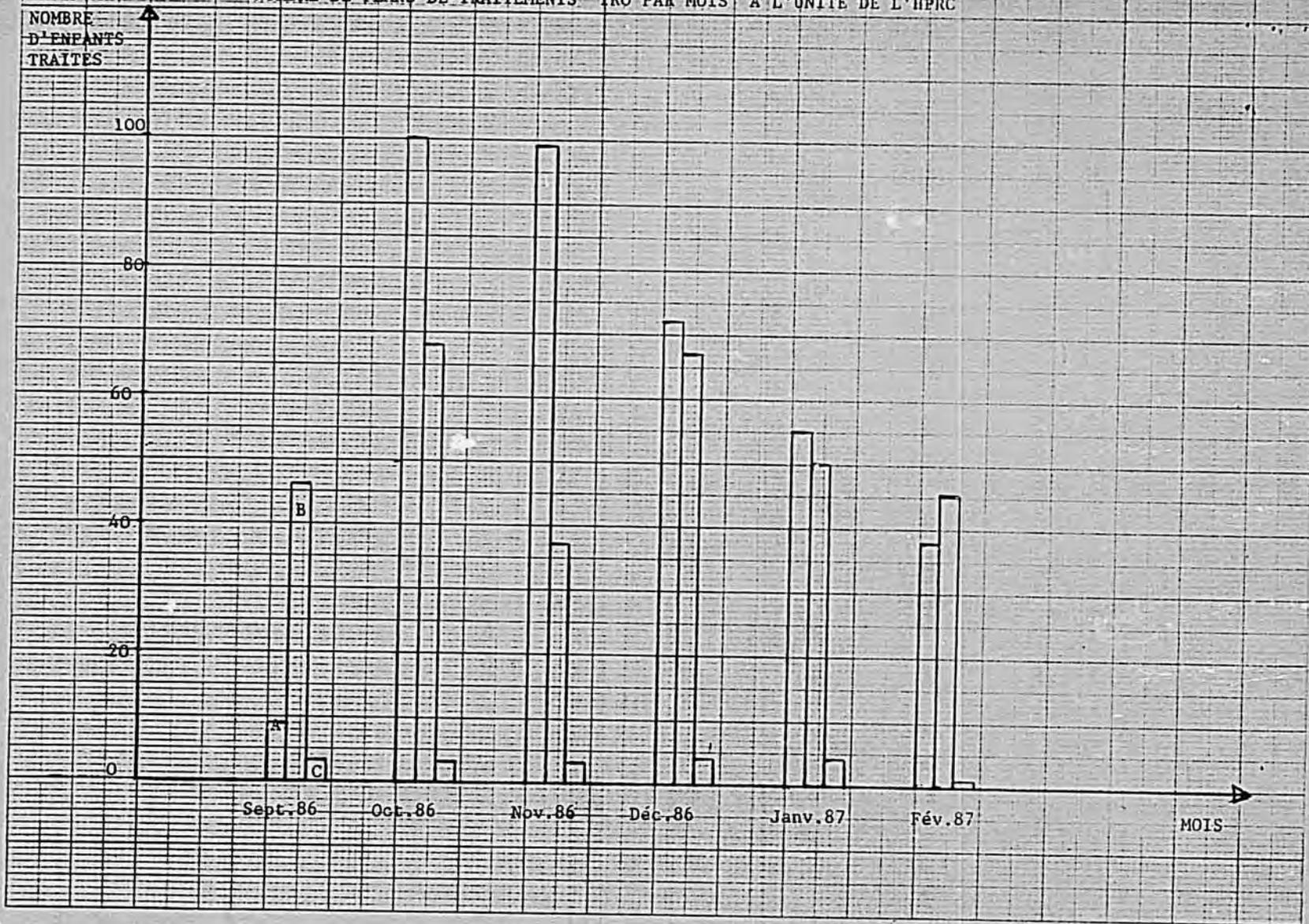
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NEW YORK, N.Y. 10017  
PRINTED IN U.S.A.

GRAPH PAPER

APPDX B

12



NOMBRE DE PLANS DE TRAITEMENTS TRO PAR MOIS A L'UNITE  
DE L'HPRC.

EP.86	OCT.86	NOV.86	DEC.86	JAN.87	FEV.87	MAR.87	AVR.87	MAI 87	J 87	J 87	A 87	SPT.87	OCT.87	NOV.87	DEC. 87
A = 9	100	99	74	55	38										
B = 46	68	37	57	50	45										
C = 3	3	3	4	4	1										

27

**Listing of Training Courses**

Date	Course Title	Personnel	Number of Participants	Course length Days
10 86	mlm course epi/cccd	mid-level managers	45	10
9 86	seminar on ort	peripheral health staff	18	2

**Technical Cooperation with WHO**

Date	Number of Working Days	Country	Consultant(s)	Program Area	Remark/Results
10 1986	20	Bujumbura	one	train	- One WHO National Burundi Bureau Staff participated in the MLN training activities for the management aspect of the course.

**Health Information System**

Date	Activities
11 1986	- assessment of the moh his in relation to cccd needs - mis set up - his/cccd set up by medical sectors - plan for dvlpt of 30 sentinel sites
11 1986	- assessment of the moh his in relation to cccd needs - mis set up - his/ cccd set by medical sectors - plan for dvlpt of 30 sentinel sites

### Coverage Surveys: Immunizations

Dates	Children		Percent Coverage of Children											Number of Women	% Coverage of Women During Last Pregnancy			Area
	Age (Months)	Number	CARD	BCG	DPT1	DPT2	DPT3	POL1	POL2	POL3	MEAS	FULLY	CARD		TT1	TT2		
10 1986	12-24	210	78	79	75	69	60	73	70	61	57	46	210	54	28	16	national	

### Health Education

Type of Activity	Dates	Target Type	Population	CCCD Inputs	Remarks/Results
assat/strat dev	6 86	woc chlbrg und5	5738988	technical	cccd health education plan of activities

### Operations Research

Title of Protocol	Principal Investigator and Institution	Date First Subait	Date & Place Action Taken	Status	Date Started	Completion Date	Date of Final Report	Source of Funding	Level of Funding	Number of Public.
appropriate home fluids for ORT	Mr. Pabanel, RDES Research Ct	CU 12/18/86	// Bujumbura	Under Design	//	//	//		0	0
Neonatal Tetanus Incid & Pract	Dr. Gacukuzi, CH of Sector	M 12/18/86	// Bujumbura	Under Design	//	//	//		0	0
long term outcome hosp measles	Dr. F. Ntareze, U of Burundi	08/18/82	07/15/83 Bujumbura	under publication	07/24/84	12/09/85	04/30/87	cccd regnl	10000	0