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DEPARTMENT OF SOCIAL & PREVENTIVE MEDICINE
UNIVERSITY OF THE WEST INDIES, MONA

REPORT FOR THE PERIOD MARCH 28 - JULY 21, 1980 TO
BE PRESENTED FOR JOINT EVALUATION BY DSPM/UWI,
MOHSS, USAID

PROJECT NO. 532-0040 - Health Improvement
for Young Children in Cornwall County, Jamaica

USAID Contract No. 532-79-12

A. Background

This is the second progress report of the project which started in October 1979. The aims of the project are, with respect to Cornwall County,

- (i) to evaluate the training of personnel serving in Type I health centres,
- (ii) to devise methods for continuing use in measurement of effectiveness of primary health care services,
- (iii) to assess the efficiency of the primary health care services.

The first progress report described the techniques which had been devised and pre-tested with respect to (i) and (ii) above. Actual data collection had not started. Work on (iii) had not started.

B. Activities during Current Period

(i) Evaluation of Training

Much of the period has been spent in data collection in the 5 parishes of the region. Data collection is now complete for 2 parishes and almost complete in the remaining 3. The work has entailed extensive travelling, and has proceeded as planned, and health personnel have cooperated willingly in responding to interviews.

Preliminary analysis of some data has been made or is in progress.

On July 9, 1980, results of preliminary analyses for the parish of Trelawny were presented to a meeting of health personnel for that parish in Falmouth. The report which was presented to the meeting, and handouts based on the report, are attached (Appendix 1). The report was received with interest and useful discussion followed.

(ii) Effectiveness of Services

In the course of designing a method for continuous evaluation of effectiveness of services, preliminary data have been collected in all five parishes, and this phase of the work is complete in all except one parish.

This aspect of the study, which has also entailed extensive travelling, has also proceeded as planned and has met with good cooperation by personnel involved. The method of data collection is by extraction from records at health centres.

Preliminary results for the parish of Hanover were also presented at the meeting on July 9, described above (Appendix 2). The report stimulated a useful discussion and was felt to have been very worthwhile.

Although the method of data collection is intended eventually to be used by regular staff, rather than project personnel, it is too early to comment on whether its use will be feasible and satisfactory.

(iii) Efficiency of Services

Project staff are in the course of designing this aspect of the study.

C. Future Plans

1. (a) Completion of fieldwork re training of staff and effectiveness of services ((i) and (ii) above) during July/August.
(b) Analysis of data for remaining 4 parishes during July/August/September, and presentation of preliminary results at convenience of Cornwall staff.
2. Completion of design of efficiency of services aspect of study ((iii) above), August/September.
3. Data collection re efficiency, September/October.
4. Completion of analyses and reports, November/December.

D. Staff and their Activities during Current Period

1. Dr. C. Mulraine, Director of Project, continued to take overall responsibility for the project. He visited Cornwall - 3 times during the period.

2. Mrs. P. Desai, Coordinator, continued duties; and visited the Research Assistants ~~twice~~ in Cornwall during the period.
3. Dr. A. D'Souza, Senior Medical Officer (Health), Cornwall, resigned from this position and discontinued his role as representative of Cornwall County Health Administration on the Project as from the end of June 1980.
4. Dr. B. Wint became Acting Senior Medical Officer (Health), and assumed Dr. D'Souza's responsibilities with respect to the project from June 1980.
5. Mr. B.F. Hanna and Mr. B. Melville, Research Assistants, have continued to live in Cornwall and have undertaken all the fieldwork and much of the analysis of data to date. They have visited Kingston for consultation with supervisors as needed.
6. Dr. S. Ismail of Tropical Metabolism Research Unit, UWI, visited the Research Assistants once in Cornwall in the capacity of consultant to the project, assisting in design of analyses and interpretation of results, especially in the nutrition components.
7. Dr. K. Kumar (DSPM/UWI) visited the Research Assistants once in Montego Bay, in the capacity of consultant to the project, with respect to the proposed assessment of efficiency of services. It is hoped that Dr. Kumar will continue to give guidance with respect to assessment of efficiency during the next few months.

E. Other Matters

1. Secretarial Help. So far, no secretary has been appointed to the project. Secretarial help has been obtained, as needed, from CCHA staff. During the rest of the project, it is foreseen that greater amounts of secretarial help will be needed and efforts are being made to appoint someone to the project.
2. Financial Aspects

Although some expenditure (travelling, salaries) have been of the order of that anticipated during the present phase, it is estimated that underexpenditure relative to the original plans still remains owing to low expenditure in the early months of the project.

The Bursary, UWI, continues to handle the account, and claims have been made routinely from USAID for reimbursement of costs incurred.

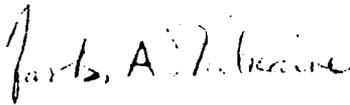
3. Outside Help

Owing to the help received from Dr. Kumar recently, there are no plans at the moment to seek outside advice regarding assessment of efficiency of services.

4. General

Work during the period has progressed smoothly, and preliminary results have been received with interest.

We especially wish to thank all staff in Cornwall who have been involved in the project for their willing cooperation, and the Research Assistants who have continued to work so actively.



CARLOS A. MULRAINE
PROJECT DIRECTOR



P. DESAI (Mrs.)
PROJECT COORDINATOR

July 22, 1980

Appendix 1

Evaluation of Training

Preliminary Report

Trelawny

(Presented to a group of health personnel in Trelawny on July 9, 1980 by B. F. Hanna)

PART I

- AIM - to describe attendance at training sessions in Trelawny, 1978-79, by staff of type I health centres, and to find reasons for non-attendance.
- METHODS - by interviewing a sample of district midwives and community health aides to see which sessions they had attended.
- SAMPLE - all district midwives and community health aides in pilot area type I health centres, and all midwives and aides in 3 other type I health centres randomly chosen from non-pilot areas in Trelawny (Total = 16 persons).

RESULTS - NUMBERS OF PEOPLE ATTENDING EACH OF THE TRAINING SESSIONS

TRAINING SESSION	No of persons attending (N = 16)
Communication	16
Family Planning	16
General Nutrition	13
Dental Health & Nutrition	13
Interpersonal Relationships	10
Interviewing	10
Visual aids	9
Management	8
Poisons & Accidents	7
Growth & Development	6
Gastroenteritis	4
Diabetes & Hypertension	4
Child Care & Protection	4
Structure, Function & Care of the Breasts	4
Mental Retardation	1
Ethics	1
Medical Terms	0
Layette & Clothing	0
MEAN (PER PERSON)	77.9

Appendix I, cont'd

It may be seen that some sessions had been attended by all persons in the sample, and some by none. The mean number of attendances was 7.9 per person (out of 18).

The main reasons given for non-attendance were that notices were not received (12 replies) or were received late (4 replies). Other reasons (11 replies) included being on leave (3), being unable to leave duties at the time (3), and problems with transport (2).

COMMENTS

Some training sessions well attended, others not attended by anyone in the sample.

? Better notification procedures needed for training sessions.

PART II - ASSESSMENT OF KNOWLEDGE OF SELF

- AIM - To assess knowledge of staff of type I health centres on topics covered by training sessions in Trelawny, 1978-79.
- METHODS - by questionnaire, covering the 18 topics of the training sessions, containing 135 questions.
- THE SAMPLE - 16 district midwives and community health aides, as described in Part I.

RESULTS

The persons in the sample gave from 65-107 correct replies out of 135, with a mean of 90. The midwives scored, on average, slightly higher than the community health aides (means 100, 85 respectively). There was very little difference between pilot and non-pilot areas. The table shows the levels of knowledge on various topics, in approximate order from topics most well known to least well-known.

Appendix I, cont'd

LEVEL OF KNOWLEDGE OF VARIOUS TOPICS, BY SAMPLE OF 16 STAFF

LEVEL OF KNOWLEDGE	TOPIC
<p>(i) Most well known (75-100% completely correct answers).</p>	<p>Growth & development of the young child General nutrition Interpersonal relationships Communication Structure, function & care of the breasts Ethics</p>
<p>(ii) Moderate (50-74% completely correct answers).</p>	<p>Gastro-enteritis Diabetes & hypertension Layette & clothing</p>
<p>(iii) Well known (less than 50% completely correct answers)</p>	<p>Interviewing Visual aids Medical terms & their meanings Child care & protection Mental retardation Poisons & accidents Dental health & nutrition Family planning Management</p>

There was no correlation between total scores of persons in the sample and the number of workshops that they had attended. Neither was there any correlation between the number of attendances at any particular workshop and the level of knowledge on that topic.

COMMENTS

It may be useful to have further training sessions on those topics listed in part (iii) of the table, which were the least well known.

It is difficult to interpret the lack of correlation between level of knowledge and number of workshops attended. Whilst recognising that 'a person's knowledge has been derived from many sources - basic training, experience, books, radio, T.V., etc - one may have thought the influence of the training sessions would have been more obvious.

PART III - APPLICATION OF NUTRITIONAL KNOWLEDGE

- AIM - To assess training by assessing the skills of staff at type I health centres in applying nutritional knowledge.
- METHODS - (i) Three questions on the questionnaire described in Part II, concerned application of nutritional knowledge. Staff replies to these questions were assessed.
- (ii) Attendances at child welfare clinics by mothers of young children (aged 0-24 months) were used. After consultation with midwives at the child welfare clinic, the mothers were interviewed to find out what nutritional advice they had been given. The information given by the mothers was judged for its appropriateness with regard to the age of the child, its present feeding regime, and its nutritional status, as they appeared on the child health record card filled in by the midwife.
- THE SAMPLE - (i) 16 persons, as described in Parts I & II.
- (ii) 47 mothers/children attending child welfare clinics in pilot areas and 60 mothers/children attending child welfare clinics in non-pilot areas. The mothers/children chosen were those who happened to attend on the days chosen by the investigator for his visit, according to his own convenience and the monthly schedule of clinics.
- RESULTS - (i) One of the questions by which application of nutritional knowledge was assessed was, 'How would you treat a 6-month old child with grade I malnutrition?' A partially correct reply to this would be to give the child supplementary feeding, and a fully correct answer would be to describe, in addition, that appropriate supplementary feeding would be thick porridge, food from the family pot, and an adequate amount of breast milk, cow's milk or skimmed milk powder.

All 16 persons give at least a partially correct answer, and 7 of them gave fully correct answers.

Another question was, 'On a home visit, what advice would you give to the mother of a 5-month old child with grade I malnutrition?' A partially correct answer would be to give supplementary feeding, a fully correct answer would be to describe this as continued breast feeding, thick porridge made with milk and fed by cup and spoon, and fruit juice given regularly.

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Appendix I, cont'd

All 16 persons gave replies which were at least partially correct, and 9 gave fully correct replies.

Considering the two above questions together, there were no consistent differences between persons in pilot and non-pilot areas. Community health aides gave fully correct replies slightly more often (69%) than district midwives (33%), although in view of the smallness of the sample, these results may not be very reliable.

The third question was, 'If, on one of your home visits, you found a child with grade III malnutrition, what would you do?' The correct reply (refer it to a type III health centre) was given by all 6 midwives and 7 out of the 10 community health aides.

RESULTS

- (ii) These results refer to nutritional advice as remembered by mothers, judged in relation to age, weight and feeding regime of child.

APPROPRIATENESS OF NUTRITIONAL ADVICE GIVEN BY DISTRICT MIDWIVES TO MOTHERS OF CHILDREN 0-24 MONTHS WHO ATTENDED CHILD WELFARE CLINICS, TRELAWNY.

AREA	APPROPRIATENESS OF ADVICE			TOTAL
	GOOD %	FAIR %	POOR %	
PILOT (n = 47)	28	64	9	(101)
NON-PILOT (n = 60)	15	80	5	(100)
TOTAL	21	72	7	(100)

COMMENTS

Fair knowledge of nutrition by all staff, as assessed by these methods.

However, in view of its importance, staff should be given the opportunity to revise and refresh their knowledge on this topic. In particular, a small number of staff were under the impression that children with grade III malnutrition should be helped by advice and demonstrations in the health centres, and this misunderstanding should be corrected.

B. F. Hanna
July, 1980

PRELIMINARY REPORT ON THE EVALUATION OF THE PRIMARY HEALTH CARE PROGRAMME
IN CORNWALL COUNTY, JAMAICA.

JUNE, 1980.

This report is for the parish of Trelawny.

The main purpose of the study was to determine the success of the Primary Health Care Programme in Cornwall County by looking at both Pilot and Non-Pilot districts of each parish.

MATERIALS AND METHODS

Several indicators were used to evaluate the effectiveness of the Primary Health Care Programme in Cornwall County. The indicators were developed after close examination of the Child Health and Maternal Health cards used in the County. Only indicators that could be extracted from the cards were selected. After close monitoring of the indicators, the following were eventually selected for the evaluation.

POST-PARTUM INDICATORS

1. Percentage of babies getting first D.P.T./Polio and B.C.G. within six months of birth.
2. Percentage of young children who have had at least three D.P.T./Polio immunizations by two years.
3. Nutritional status of children based on Gomez classification at 6 months and 1 year of life.
4. (i) Percentage of children who attended Child Welfare Clinic before six months of age.
(ii) Percentage of children who did not attend Child Welfare Clinic until after six months of age.

ANTE-NATAL INDICATORS

1. Age of gestation at first visit.
2. Number of visits by pregnant women to Ante-natal Clinic.
3. Percentage of women who have had tests for anaemia and V.D.R.L. during pregnancy.
4. Number of pregnant women completely immunized against tetanus.
5. Number of pregnant women attending Ante-Natal Clinic whose weights and urine examination were carried out.

Three environmental health indicators were also developed. These include:-

1. Number of homes inspected and found free of mosquito larvae by parish.
2. Percentage of homes with satisfactory sanitary facilities by parish.
3. Percentage of homes with piped water supply by parish.

The information on the three environmental health indicators has already been collected.

A questionnaire was also devised to determine why certain basic child health and maternal health activities were not conducted regularly at the health centres. The questionnaire was given to the midwife and one Community Health Aide (C.H.A.) of each Type I Health Centre. Ten Community Health Aides and seven Midwives were questioned. More than one reason was usually given.

Information was collected from records of clinic attenders only. Clinic records of children born between 1st January 1977 and 31st August 1979 were used in the study. Only records of children who lived in the area served by the Health Centres were used. Data was collected from clinic records of all pregnant women where first visit was earlier than 1st July 1978 and whose date of delivery was before 1st March 1980 - only maternal health cards with complete information on date of last menses were used.

All Type I Health Centres in the Pilot districts were used in the evaluation. Sampling of the Health Centres in the Non-Pilot districts was determined by the number of Type I Health Centres in the Pilot district. A list of all Type I Health Centres in both the pilot and non-pilot districts was obtained from the Senior Public Health Nurse, Trelawny. Health Centres that were not offering Type I services were eliminated. Since there were more Health Centres in the non-pilot district than in the pilot district, Health Centres in the Non-Pilot district were selected by random sampling. The Lottery method was used. Ten Health Centres in both the Pilot and Non-Pilot districts of Trelawny were used in the study.

Data collection started in March. The actual survey took about two (2) days at each Health Centre. The Community Health Aides and Midwives helped in selecting the maternal and child health clinic records from which the data was extracted. At the end of each day when all records were completed the Community Health Aides helped to reassemble the cards.

RESULTS

The results are set out in tables I - XXI

AGE OF GESTATION AT FIRST VISIT.

TABLE I

HEALTH CENTRES	AGE OF GESTATION AT FIRST VISIT					
	0 - 16 Weeks		17 - 28 Weeks		29 - 40 Weeks	
	No.	%	No.	%	No.	%
<u>PILOT</u>						
Rio Bueno	4	14.8	18	66.7	5	18.5
Brampton	3	14.3	15	71.4	3	14.3
Sawyers	4	14.3	20	71.4	4	14.3
Stewart Town	4	12.5	24	75.0	4	12.5
Sherwood Content	8	14.5	38	69.1	9	16.4
TOTAL	23	14.1	115	70.5	25	15.3
<u>NON-PILOT</u>						
Troy	9	15	47	78.3	4	6.7
Lowe River	8	15.1	34	64.2	11	20.7
Ulster Spring	9	15.5	45	77.6	4	6.9
Deeside	15	27.8	35	64.8	4	7.4
Burkars Hill	6	18.2	21	63.6	6	18.2
TOTAL	47	18.2	182	70.5	29	11.2

TABLE II

NUMBER OF VISIT MADE BY PREGNANT WOMEN IN THE STUDY TO ANTE-NATAL CLINIC

HEALTH CENTRES	NO. OF VISITS DURING PREGNANCY					
	1 - 2		3 - 4		5 or More	
	No.	%	No.	%	No.	%
<u>PILOT</u>						
Rio Bueno	11	40.7	12	44.4	4	14.8
Brampton	5	23.8	6	28.6	10	47.6
Sawyers	14	50.0	12	42.9	2	7.1
Stewart Town	12	37.5	11	34.4	9	28.1
Sherwood Content	16	29.1	20	36.4	19	34.5
TOTAL	58	35.6	61	37.4	44	27.0

TABLE II CONTINUED

<u>NON-PILOT</u>						
Troy	16	26.7	33	55	11	18.3
Low River	16	30.2	13	24.5	24	45.3
Ulster Spring	18	31.0	27	46.6	13	22.4
Deeside	19	35.2	24	44.4	11	20.4
Bunkers Hill	14	42.4	8	24.2	11	33.3
TOTAL	83	32.2	105	40.7	70	29.1

TABLE IIIPERCENTAGE OF PREGNANT WOMEN WHO HAVE HAD TEST FOR V.D.R.L.

<u>HEALTH CENTRES</u>	<u>NO.</u>	<u>PERCENTAGE</u>
<u>PILOT</u>		
Rio Bueno	18	66.7
Brampton	19	90.5
Sawyers	21	75.0
Stewart Town	20	62.5
Sherwood Content	45	81.9
TOTAL	123	75.5
<u>NON - PILOT</u>		
Troy	59	98.3
Low River	23	43.4
Ulster Spring	54	93.1
Deeside	26	48.1
Bunkers Hill	29	87.9
TOTAL	191	74.0

TABLE IV

PERCENTAGE OF PREGNANT WOMEN WHOSE V.D.R.L WAS TAKEN BUT THE RESULT WAS NOT RETURNED TO THE HEALTH CENTRE.

<u>HEALTH CENTRE</u>	<u>NO.</u>	<u>PERCENTAGE</u>
<u>PILOT</u>		
Rio Bueno	7	38.9
Brampton	9	47.4
Sawyers	10	47.6
Stewart Town	12	60.0
Sherwood Content	35	77.8
<u>TOTAL</u>	<u>73</u>	<u>59.3</u>
<u>NON-PILOT</u>		
Troy	25	42.4
Lowe River	17	73.9
Ulster Spring	40	74.1
Deeside	13	50.0
Bunkers Hill	24	82.7
<u>TOTAL</u>	<u>119</u>	<u>62.3</u>

TABLE V

PERCENTAGE OF PREGNANT WOMEN COMPLETELY IMMUNIZED AGAINST TETANUS

<u>HEALTH CENTRES</u>	<u>NO.</u>	<u>PERCENTAGE</u>
<u>PILOT</u>		
Rio Bueno	18	66.7
Brampton	17	81.0
Sawyers	17	60.7
Stewart Town	25	78.1
Sherwood Content	34	61.8
<u>TOTAL</u>	<u>111</u>	<u>68.1</u>
<u>Non-PILOT</u>		
Troy	47	78.3
Lowe River	25	47.2
Ulster Spring	40	69.0
Deeside	31	57.0
Bunkers Hill	20	60.6
<u>TOTAL</u>	<u>163</u>	<u>63.2</u>

TABLE VI

PERCENTAGE OF PREGNANT WOMEN WHO HAD URINE TEST AND HAEMOGLOBIN DONE AT FIRST VISIT.

HEALTH CENTRES	HB AT FIRST VISIT		URINE AT FIRST VISIT	
	NO.	%	NO.	%
<u>PILOT</u>				
Rio Bueno	14	51.9	8	29.6
Brampton	3	14.3	12	57.1
Sawyers	16	57.1	15	53.6
Stewart Town	19	59.4	12	31.5
Sherwood Content	40	72.7	32	58.2
TOTAL	92	56.4	79	48.5
<u>NON-PILOT</u>				
Troy	50	83.3	59	98.3
Lowe River	2	3.8	28	52.8
Ulster Spring	49	84.5	45	77.6
Deeside	15	27.8	49	79.7
Bunkers Hill	10	30.3	16	48.5
TOTAL	126	48.8	197	76.3

TABLE VII

NUTRITIONAL STATUS OF CHILDREN AT SIX MONTHS IN TRELAWNY BY WEIGHT FOR AGE

HEALTH CENTRES	NORMAL		NORMAL		GRADE I		GRADE II	
	NO.	%	NO.	%	NO.	%	NO.	%
<u>PILOT</u>								
Rio Bueno			15	60	9	36.0	1	4
Brampton	1	7.7	21	84.6	1	7.7		
Sawyers			20	67	4	27	1	7
Stewart Town			7	70	2	20	1	10
Sherwood Content			16	88.9	2	11.1		
TOTAL	1	1.2	59	72.8	18	22.2	3	3.7
<u>NON-PILOT</u>								
Troy	1	4.8	14	66.7	5	23.8	1	4.8
Lowe River			13	62.0	7	33.3	1	4.7
Ulster Spring			18	64.3	10	25.7		
Deeside	2	8.3	14	58.4	8	33.3		
Bunkers Hill	3	16.7	9	50.0	5	27.8	1	5.6
TOTAL	6	5.4	68	60.7	35	31.3	3	2.7

TABLE VIII

NUTRITIONAL STATUS OF CHILDREN AT ONE YEAR IN TPELAWNY BY WEIGHT FOR AGE

HEALTH CENTRE	NORMAL		NORMAL		GRADE I		GRADE II	
	NO.	%	NO.	%	NO.	%	NO.	%
<u>PILOT</u>								
Rio Bueno			9	64.3	4	28.6	1	7.1
Brampton			8	72.7	2	18.2	1	9.1
Sawyers	1	5.9	5	29.4	8	47.0	2	17.6
Stewart Town			8	53.3	7	46.7		
Sherwood Content			11	73.3	4	26.7		
TOTAL	1	1.4	41	56.9	25	34.7	5	6.9
<u>NON-PILOT</u>								
Troy			12	70.6	3	17.6	2	11.8
Low River			6	54.5	4	36.4	1	9.1
Ulster Spring			10	66.7	4	26.7	1	6.7
Deeside			6	42.9	8	57.1		
Bunkers Hill	1	5.9	11	64.7	4	23.5	1	5.9
TOTAL	1	1.4	45	60.8	23	31.1	5	6.7

TABLE IX

PERCENTAGE OF BABIES IN THE STUDY GETTING B.C.G. WITHIN SIX MONTHS OF BIRTH

HEALTH CENTRES	NO. OF CHILDREN	PERCENTAGE
<u>PILOT</u>		
Rio Bueno	25	78.1
Brampton	12	66.7
Sawyers	21	70.0
Stewart Town	17	77.3
Sherwood Content	15	68.9
TOTAL	90	72.6
<u>NON-PILOT</u>		
Troy	10	29.4
Low River	16	66.7
Ulster Spring	23	67.7
Deeside	18	72.0
Bunkers Hill	8	40
TOTAL	75	58.1

TABLE X

PERCENTAGE OF BABIES IN THE STUDY GETTING FIRST D.P.T./POLIO WITHIN SIX MONTHS OF BIRTH.

HEALTH CENTRE	D.P.T.		POLIO	
	NO.	%	NO.	%
<u>PILOT</u>				
Rio Bueno	28	87.5	28	87.5
Brampton	12	66.7	12	66.7
Sawyers	23	76.7	23	76.7
Stewart Town	17	77.3	17	77.3
Sherwood Content	20	91.0	20	91.0
TOTAL	100	80.6	100	80.6
<u>NON-PILOT</u>				
Troy	30	88.2	30	88.2
Lowe River	22	91.7	22	91.7
Ulster Spring	32	94.1	32	94.1
Deeside	23	92.0	23	92.0
Bunkers Hill	18	90.0	18	90.0
TOTAL	125	91.2	125	91.2

TABLE XI

PERCENTAGE OF CHILDREN IN THE STUDY WHO HAVE HAD AT LEAST 3 D.P.T./POLIO IMMUNIZATIONS BY 2 YEARS OF BIRTH.

HEALTH CENTRE	D.P.T.		POLIO	
	NO.	%	NO.	%
<u>PILOT</u>				
Rio Bueno	25	83.3	25	83.3
Brampton	18	100.0	18	100.00
Sawyers	23	79.3	23	79.3
Stewart Town	22	100.0	22	100.0
Sherwood Content	22	100.0	22	100.0
TOTAL	110	90.9	110	92.0
<u>NON-PILOT</u>				
Troy	24	75	24	75
Lowe River	21	87.5	21	87.5
Ulster Spring	29	87.9	28	84.8
Deeside	22	88.0	22	88.0
Bunkers Hill	17	85.0	17	85.0
TOTAL	113	84.3	112	83.6

TABLE XII

PERCENTAGE OF CHILDREN IN THE STUDY WHO ATTENDED CHILD WELFARE CLINIC BEFORE SIX MONTHS OF AGE.

<u>HEALTH CENTRE</u>	<u>NO.</u>	<u>PERCENTAGE OF CHILDREN</u>
<u>PILOT</u>		
Rio Bueno	28	87.5
Brampton	16	88.9
Sawyers	27	90
Stewart Town	20	90.9
Sherwood Content	20	91.0
<u>TOTAL</u>	<u>111</u>	<u>89.5</u>
<u>NON-PILOT</u>		
Troy	29	85.3
Low River	21	87.5
Ulster Spring	31	91.2
Deeside	23	92.0
Bunkers Hill	17	85.0
<u>TOTAL</u>	<u>121</u>	<u>88.3</u>

TABLE XIII

PERCENTAGE OF CHILDREN IN THE STUDY WHO DID NOT ATTEND CHILD WELFARE CLINIC UNTIL AFTER SIX MONTHS OF AGE.

<u>HEALTH CENTRE</u>	<u>NO</u>	<u>PERCENTAGE OF CHILDREN</u>
<u>PILOT</u>		
Rio Bueno	4	12.5
Brampton	2	11.1
Sawyers	3	10.0
Stewart Town	2	9.1
Sherwood Content	2	9
<u>TOTAL</u>	<u>13</u>	<u>10.5</u>
<u>NON-PILOT</u>		
Troy	5	14.7
Low River	3	12.5
Ulster Spring	3	8.8
Deeside	2	8.0
Bunkers Hill	3	15.0
<u>TOTAL</u>	<u>16</u>	<u>11.7</u>

TABLE XIV REASONS GIVEN BY COMMUNITY HEALTH AIDES AND DISTRICT MIDWIVES FOR NOT RECORDING WEIGHT OF CHILDREN & PREGNANT WOMEN AT EACH VISIT.

REASONS	CHA'S	% OF TOTAL	DM'S	% OF TOTAL
No scale	6	60	7	100
Problems with children during weighing	1	10	1	14.3
Scale out of order	1	10		
Weight	2	20		

TABLE XV REASONS GIVEN BY CHA'S AND DM'S FOR NOT TESTING URINE AT ALL VISITS

REASONS	CHA'S	% OF TOTAL	DM'S	% OF TOTAL
No materials for testing urine	7	70	6	85.7
1. No clinitest or uristix				
2. No lamp				
3. No alcohol for lamp				
4. No tubes				
No specimen	8	80	4	57.1

All midwives stated that blood pressure is usually taken.

TABLE XVI REASONS GIVEN BY DM'S FOR NOT DOING V.D.R.L

REASONS	DM'S	% OF TOTAL
No place for storage	1	14.3
No material for taking blood samples	7	100
1. No tubes		
2. No syringes and needles		

All midwives said that failure to return V.D.R.L. results to the Health Centres is due to personnel at the laboratory.

TABLE XVII REASONS GIVEN BY DM'S FOR NOT DOING Hb AT FIRST VISIT

REASONS	DM'S	% OF TOTAL
It is usually done	5	71.4
No material for doing Hb	2	28.6
1. No copper sulphate solution		

TABLE XVII CONTINUED

REASONS	DM'S	% OF TOTAL
2. No capillary tubes for taking blood samples		
3. No tubes for holding copper sulphate solution.		

TABLE XVIII

REASONS GIVEN BY DM'S AND COMMUNITY HEALTH AIDES FOR NOT GIVING COMPLETE D.P.T./POLIO BY 1 YEAR ASSUMING APPROPRIATE VISITS BY MOTHER AND BABY.

REASONS	CHA'S	% OF TOTAL	DM'S	% OF TOTAL
No D.P.T./Polio vaccine	3	30	2	28.6
Contraindications	7	70	5	71.4
1. Heavy Cold				
2. Scabies				
3. Rash				
4. Vomiting				
5. Diarrhoea				
6. High Fever				
7. Respiratory tract infection				

TABLE XIX

REASONS GIVEN BY DISTRICT MIDWIVES FOR NOT GIVING COMPLETE TETANUS TOXOID IMMUNIZATIONS FOR PREGNANT WOMEN WHO WERE NOT IMMUNISED PREVIOUSLY AND BOOSTER TO PREGNANT WOMEN WHO RECEIVED COMPLETE IMMUNIZATION DURING THEIR PREVIOUS PREGNANCIES.

REASONS	DM'S	% OF TOTAL
Contraindications - asthma	1	14.3
Irregular attendance by pregnant women to antenatal clinic.	2	28.6
No tetanus toxoid vaccine	4	57.1
Some mothers are reluctant to receive tet-tox-immunization.	1	14.3
Some mothers claim that they were previously immunized.	2	28.6

TABLE XIX CONTINUED

REASONS	DM'S	% OF TOTAL
Mothers usually get tetanus toxoid immunization	2	28.6

All midwives said that they did not encounter any problems in taking accurate birth weight of babies.

TABLE XX

PERCENTAGE OF COMMUNITY HEALTH AIDES AND DISTRICT MIDWIVES WHO RECORDED HOME VISITS IN THEIR DIARY ONLY.

COMMUNITY HEALTH AIDES		DISTRICT MIDWIVES	
NO.	%	NO.	%
10	100	7	100

TABLE XXI

NUMBER OF SCALES AT EACH HEALTH CENTRE.

HEALTH CENTRES	SCALE FOR WEIGHING CHILDREN UP TO 30 LBS.	SCALE FOR WEIGHING CHILDREN > 30 LBS AND PREGNANT WOMEN
<u>PILOT</u>		
Rio Bueno	1	1
Brampton	1	0
Sawyers	1	0
Stewart Town	0	0
Sherwood Content	1	1
<u>NON-PILOT</u>		
Troy	1	1
Lowe River	1	0
Ulster Spring	1	1
Deeside	0	0
Bunkers Hill	0	0

PROBLEMS RELATED TO THE PRIMARY HEALTH CARE PROGRAMME

1. Shortage of drugs and materials for dressing.
2. Disposal of rubbish.
3. No sewage disposal facilities (Sherwood Content)
4. No water.

PROBLEMS RELATED TO THE PRIMARY HEALTH CARE PROGRAMME CONTINUED.

5. Transportation problem
6. Sanitation problem - Birds are reared in the cellar (Sawyers)
7. Shortage of scales for field work.
8. Building not secured and leaks during rain. (Stewart Town).
9. Poor communication between Public Health Nurses and Community Health Aides
Information on seminars and workshops are not received in time.
10. Community Health Aides have to collect supplies from Falmouth Type IV
Health Centre. This is very inconvenient. (Bunkers Hill).

DISCUSSION

From the results, it seems that there is no difference between the Pilot and Non-Pilot districts in Trelawny. Maybe not much emphasis was placed in developing the Pilot districts of Trelawny. The first visit tends to be late in pregnancy. 70.5% of pregnant women attending clinic in both Pilot and Non-Pilot districts made their first visit between 17 - 28 weeks of pregnancy (Table I). The number of visits to the clinic is inadequate. Only 27% of the pregnant women in the Pilot district and Non-Pilot districts made five or more visits (Table II). 75.5% of pregnant women attending clinic in the Pilot district had test for V.D.R.L. (74% in the Non-Pilot district). The percentage of V.D.R.L. results returned to the Health Centres is not satisfactory. (59.3% in the Pilot district and 62.3% in the Non-Pilot districts, Table IV); The percentage of pregnant women completely immunized against tetanus is unsatisfactory, 68.1% in the Pilot district and 63.2% in the Non-Pilot district (Table V). The percentage of pregnant women who had urine test and haemoglobin done is also inadequate. 56.4% of pregnant women in the Pilot district had haemoglobin taken at first visit (48.8% in the Non-Pilot district). 48.5% of pregnant women in the Pilot district had their urine done at first visit (76.3% in the Non-Pilot district) Table VI.

The nutritional status of children attending clinic showed that at six months, 21% of the children in the Pilot district fell in Gomez I and II and this rose to 39% at 1 year. There were no children in Grade III. In the Non-Pilot district 38% of the children fell in Grade I & II. It remained at 38% at 1 year. (Tables VII & VIII). The percentage of children getting B.C.G. at 6 months of life is unsatisfactory (72.6% in the Pilot district and 58.1% in the Non-Pilot district) - Table IX. The percentage of babies getting D.P.T./Polio within six months of birth, and the percentage of children who get at least 3 D.P.T/Polio is satisfactory (more than 80% in both Pilot and Non-Pilot districts), Tables X & XI. The percentage of children who attend Child Welfare Clinic before six months of age is also satisfactory (over 80% in both Pilot and Non-Pilot districts) Table XII. Only 11% of the children in both Pilot and Non-Pilot districts did not attend Child Welfare Clinic until after six months.

RECOMMENDATIONS

1. Make more scales available at the Health Centres for weighing children
/ 30 lbs, > 30 lbs and pregnant women.
2. More regular supply of materials for testing urine and V.D.R.L.
3. A refrigerator should be in all Type I Health Centres for storage of
vaccine and blood samples.
4. Efforts should be made to expand laboratory facilities at the Cornwall
Regional Hospital in order that V.D.R.L. can be done for Trelawny.
5. More regular supply of D.P.P.T./Polio and tetanus toxoid vaccine.
6. Community Health Aides need training to adequately plot weights of
children on Gomez Chart.
7. A special book is needed at all centres to record number of referrals
and home visits by midwives and Community Health Aides on a daily
basis.
8. Effort should be made to improve sewage disposal sanitation and
water problems at the Health Centres.
9. Communication between Public Health Nurses and Community Health Aides
should be improved in order to facilitate attendance to seminars
and workshops on time.

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