COMPARISON OF SELECTED CHILD SURVIVAL INDICATORS

IN CHILDREN AGED 0-23 MONTHS LIVING IN

A) THE HERRERA SECTOR (SANTO DOMINGO, DOMINICAN REPUBLIC)
-TARGET AREA OF THE PLAN/SANTO DOMINGO CHILD SURVIVAL V PROJECT-

AND

B) THE ALTAGRACIA AND CRISTO REY SECTORS (SANTO DOMINGO, D.R.)
-AREAS NOT WORKED BY THE CHILD SURVIVAL PROJECT-

DURING THE:

1) MIDTERM EVALUATION (JULY, 1991)

AND

2) FINAL EVALUATION (JULY, 1992)

OF THE PLAN/SANTO DOMINGO CHILD SURVIVAL V PROJECT

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I. *OBJECTIVES OF THE STUDY*

PLAN International (formerly known as Foster Parents Plan International) is an international organization which provides sponsorship-based development assistance to more than 500,000 children, their families and communities through 81 field offices located in 27 developing countries. Its funding base comprises 8 national organizations in developed countries, including the United States.

Since 1986, PLAN has been working in the periurban slums of the Herrera sector which surround the city of Santo Domingo, Dominican Republic. In 1989, PLAN was awarded a 3-year grant by the United States Agency for International Development to design and implement a child survival project targeted to the under-five population in the Herrera sector.

The project centered on infant/child immunizations, oral rehydration therapy, infant/child nutrition and the promotion of breast-feeding. A community-based strategy based on the use of volunteer health promoters, and close cooperation links with the MOH's immunization authorities were two highlights of their service delivery strategy. A mid-term (external) evaluation of this project was carried out in July 1991, and the final evaluation (also external) in July 1992.

The reports of this project's mid-term and final evaluations (Tam et al, 1991; Schneider et al, 1992) provide additional information on the project's organization and strategies.

The OBJECTIVE OF THE PRESENT STUDY is to estimate the effectiveness of the PLAN/Santo Domingo Child Survival V Project (1989-92) using a set of 4 sample surveys to children aged 0-23 months administered to the following populations:

a) A convenience (but representative) sample of children living in the Herrera sector (Santo Domingo, D.R.), which is a periurban slum and the target area of this CS project. The survey was administered during the CS project mid-term evaluation (July, 1991). Herrera will be called the project area.

b) A convenience (but representative) sample of children living in the Altagracia and Cristo Rey sectors (Santo Domingo, D.R.) which are periurban slums of similar characteristics to the Herrera sector but not worked by the CS project. This survey was also administered during this midterm evaluation (July, 1991). Altagracia and Cristo Rey will be called the control area.

c) A random sample of children living in the Herrera sector (Santo Domingo, D.R.), surveyed during the CS project final evaluation (July, 1992).

d) A random sample of children living in the Altagracia and Cristo Rey sectors (Santo Domingo, D.R.), surveyed during this final evaluation (July, 1992).

The comparisons of the results (i.e. USAID tier II CS indicators) in these 4 populations allow for an estimation of the project effectiveness.

II. METHODS

Survey design

The evaluation method used at the midterm and final evaluations of the PLAN/Santo Domingo Child Survival V Project was a pre-intervention/post-intervention set of 4 surveys, administered to a population sample of project beneficiaries and control subjects. Given that the sampling methods and questionnaire content used in the baseline survey (1989) were different to those used in the final evaluation (post-intervention, 1992), the survey carried out during the midterm evaluation (1991) was used as the source of the pre-intervention data.

The surveys included questions on the household management of childhood diarrhea, infant/child nutritional status, breast-feeding status and infant/child immunization coverage.

Given that the survey questionnaire was almost identical in the 4 populations surveyed (project beneficiaries and control subjects, at the midterm and final evaluations), this evaluation method allows for an estimation of the project's effectiveness which takes into account the changes not due to the project's efforts (i.e., the comparison of control subjects between the midterm and final evaluations). This possibility has to be considered, because in some instances, a significant portion of the pre-post changes are due to these extraneous factors.

For example, the MOH may have implemented a strong immunization effort in the city of Santo Domingo (including the project and control areas) and without the project's support. If the survey data from the control area is lacking, it is not possible to ascertain what percent of the increase of the immunization coverage in the project area is due to the project's activities and what percent is due to the MOH's.

Unit of interview

In the 4 surveys, the unit of interview and analysis was the youngest child in the household visited, if less than 2 years old.

Sampling method

During the mid-term evaluation (July, 1991), a convenience

sample was taken from both the control and project areas. These samples were taken from 5 barrios in the project area and 6 barrios from the control area. In each barrio, the interviewers were distributed far from each other, so that the results could be the most representative possible. Despite the non-randomness of the samples in both areas, the results in the control area were similar to those reported in the literature (i.e. the 1986 Demographic and Health Survey, DHS, and the 1990 UNICEF State of the World Children), suggesting that the results were representative.

During the final evaluation (July, 1992), 32 clusters were randomly selected in the project area. Each cluster was the area worked by one volunteer health promoter and covered about 40 families. In the control area, 16 clusters were randomly selected in Altagracia and 16 in Cristo Rey. These clusters were the MOH immunization areas and their identification was possible using the MOH's immunization maps. In each cluster of the control and project areas, a total of 12 children aged 0-23 months were interviewed.

The questionnaire

The questionnaires and weight/age tables used in the mid-term and final evaluations' surveys are shown in Annexes #1 and #2. They are almost of identical content and ask for specific CS behaviors at the household level (immunization coverage, household management of diarrhea, nutritional status, breast-feeding behavior), in order to obtain the USAID tier II CS indicators.

Selection and training of interviewers and supervisors

During the midterm evaluation (July, 1991), 8 project members and 8 volunteer health promoters were trained during 3 days by the to be interviewers or their supervisors by the external evaluators and/or the PLAN/Santo Domingo health coordinator. Thirteen interviewers and three supervisors were chosen from this group. The training stressed how to approach the mother during the interview, how to fill out the form properly, a review of weighing procedures and how to use the weight/age table. Role playing and group work were actively used during these 3 days. During the last day of training, a pre-test of the form and the interview procedures were made with a sample of children in a section of the Herrera sector.

During the final evaluation (July, 1992), 14 project members and 7 volunteer health promoters were also trained during 3 days to be interviewers or their supervisors. Many of the participants in the midterm evaluation's survey were recruited again for this assignment. Seventeen interviewers and four supervisors were chosen from this group. The training was similar to the midterm's and a field test was done during the third day in Herrera.

Collection of data

During the mid-term evaluation, 906 children aged 0-23 months were interviewed in the project (442) and control (464) areas.

During the final evaluation, 794 children aged 0-23 months were interviewed in the project (399) and control (395) areas.

During both the midterm and final evaluations:

* each interviewer (project member or volunteer) was assigned to a cluster not worked by him/her during his project duties, and
* each interview took 5 to 12 minutes, depending on the occurrence of diarrhea, and the presence of a vaccination card and/or of the child (for weighing).

In both the midterm and final evaluations, the data collection phase was completed in 3 days. The family characteristics in the control and project areas were similar in both cases, as shown by Tables #II.1 and #II.2.

After each interview form was completed, it was reviewed by the supervisor for accuracy and completeness. At that moment, the weight/age table was also used to answer the last question (#35) of the form. A final review was made by the evaluators and/or health coordinators.

Processing of data

The data from the midterm and final evaluations were processed separately.

In both cases, the data were entered and processed using EPI-INFO version 5 (Dean, 1990) at the PLAN/Santo Domingo computer center. Each record was entered in 30-45 seconds. The checking routine of EPI-INFO was used to identify some types of data problems (e.g. children who were immunized before birth).

Analysis of data

Basic analysis: The USAID tier II indicators for ORT, immunizations and nutrition were obtained using the data manipulation characteristics of the EPI-INFO software package. Tests of statistical significance were obtained for the control and project areas in the midterm and final evaluations.

For the calculation of the immunization coverage indicators in the project and control areas, the children without vaccination cards were arbitrarily classified as non-immunized. Moreover, only the vaccination dates from the cards were considered valid, i.e.

maternal recall was not accepted.

Tables #1.1 to #3.5 show the results in the 4 populations surveyed. Relevant results are also graphed in Figures #2.1, #3.1, #3.2 and #3.3.

Advanced analysis: For the following events (i.e. their occurrence is at a defined period in the life of a child):

* administration of DPT1 vaccine,
* administration of DPT3 vaccine,
* administration of measles vaccine,
* continuation of exclusive breast-feeding, and
* continuation of breast-feeding,

life tables and occurrence curves were built, using the survival module of the SYSTAT software package (Steinberg, 1990).

Life tables and occurrence curves show the cumulative probability of the occurrence of an event at an specific point in time. For the present study, they depict the probability of occurrence of each of the 5 above mentioned events at any age of the child in the 4 populations surveyed.

Figures #1.1, #1.2 and #1.3 depict the occurrence curves for the administration of DPT1, DPT3 and measles vaccines. Children without vaccination cards were arbitrarily classified as non-immunized and counted as part of the target population.

For example, the following table depicts the probability of being immunized with measles vaccine at 12 months of age (Figure #1.3) as compared with the percent of children aged 12-23 months immunized with measles vaccine before 12 months of age (Table #1.7), i.e. the standard USAID indicator:

POPULATION	PROBABILITY IMMUNIZATION AT 12 MONTHS OF AGE	% CHILDREN AGED 12-23 M. IMMUNIZED BEFORE 12 M.
PROJECT, FINAL EVALUATION	60%	62%
CONTROL, FINAL EVALUATION	36%	39%
PROJECT, MIDTERM EVALUATION	30%	36%
CONTROL, MIDTERM EVALUATION	27%	31%

In this example, the probability of immunization at 12 months is similar to the standard immunization indicator. However, for the 3 vaccines under study, the occurrence curves are more descriptive and efficient than the standard USAID tier II CS indicators (Tables

#1.5 to #1.7) because:

* They describe the age pattern of the occurrence of the event since the birth of a child. For example, Figure #1.3 depicts that in the 4 populations, most of the measles immunizations take place between 9 and 12 months of age. On the contrary, for the estimation of the standard USAID indicators, we have to take an average of the immunization coverage within an age range (e.g. 12-23 months).

* They allow for the use of infants (0-11 months) in the estimation of the probability of immunization, given that a censoring variable is included in the calculations. This is an important factor for programs which have recently begun (12 months or less before the survey) strong efforts to immunize infants. These efforts might not be reflected in the standard USAID indicators because they only use the children aged 12-23 months for their estimation.

Figures #2.2 and #2.3 depict the occurrence curves for the continuation of exclusive breast-feeding and of breast-feeding, i.e. the probability of continuation of these events at any age of the child. As in the case of the immunization indicators, both curves are more descriptive and efficient than the indicators depicted in Tables #2.1 and #2.2, because of the reasons explained above.

For example, the following table depicts the probability of continuing breast-feeding at 12 months of age (Figure #2.3) as compared with the percent of children aged 0-11 months currently breast-feeding (Table #2.2):

POPULATION	PROBABILITY OF BREAST-FEEDING CESSATION AT 12 MONTHS OF AGE	% CHILDREN AGED 0-11 M. CURRENTLY BREAST-FEEDING
PROJECT, FINAL EVALUATION	35%	57%
CONTROL, FINAL EVALUATION	30%	47%
PROJECT, MIDTERM EVALUATION	39%	54%
CONTROL, MIDTERM EVALUATION	33%	49%

In this example, the standard indicator in the 4 populations overestimates the life table probability of breast-feeding continuation at 12 months of age. While the former indicator is an average obtained from an age range (0-11 months), the latter is a probability at a specific age (12 months).

TABLE #I.1

MIDTERM EVALUATION (JULY, 1991)

COMPARISON OF FAMILY CHARACTERISTICS

IN THE PROJECT AND CONTROL AREAS

CHARACTERISTIC	PROJECT AREA (N=442)	CONTROL AREA (N=464)	P
Age of the child (months)	12.0	11.7	0.51
Age of the mother (years)	26.0	25.6	0.57
Maternal education (years)	6.9	6.8	0.79
Number of alive children per household	2.6	2.4	0.20
Number of dead children per household	0.19	0.20	0.62
Percent of households where the father contributes financially	92%	91%	0.80

TABLE #I.2

FINAL EVALUATION (JULY, 1992)

COMPARISON OF FAMILY CHARACTERISTICS

IN THE PROJECT AND CONTROL AREAS

CHARACTERISTIC	PROJECT AREA (N=399)	CONTROL AREA (N=395)	P
Age of the child (months)	10.5	11.2	0.13
Age of the mother (years)	26.4	25.6	0.06
Maternal education (years)	7.8	7.7	0.69
Number of alive children per household	2.4	2.2	0.12
Number of dead children per household	0.08	0.13	0.08
Percent of households where the father contributes financially	90%	89%	0.53

III. RESULTS

1. INFANT/CHILD IMMUNIZATION INDICATORS

1. Possession of vaccination cards

TABLE #1.1 Percent of children aged 0-11 months with vaccination cards

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	65% (160/246)	63% (175/275)	0.73
FINAL EVALUATION (July/92, N=794)	90% (219/243)	74% (160/215)	0.01
DIFFERENCE (FINAL - MIDTERM)	25%	11%	

2. Ever immunization in children aged 12-23 months

$$\text{FORMULA:} \quad \frac{\text{\# children aged 12-23 months ever immunized with the antigen}}{\text{\# children aged 12-23 months interviewed (having or not a vaccination card)}} \times 100$$

NOTE: Only data obtained from the vaccination cards were considered valid.

TABLE #1.2 Percent of children aged 12-23 months ever immunized with DPT1

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	60% (117/196)	52% (98/189)	0.12
FINAL EVALUATION (July/92, N=794)	88% (137/156)	63% (112/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	28%	11%	

TABLE #1.3 Percent of children aged 12-23 months ever immunized with DPT3

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	48% (94/196)	39% (74/189)	0.08
FINAL EVALUATION (July/92, N=794)	81% (127/156)	47% (84/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	33%	8%	

TABLE #1.4 Percent of children aged 12-23 months ever immunized with measles vaccine

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	46% (90/196)	38% (71/189)	0.12
FINAL EVALUATION (July/92, N=794)	77% (120/156)	51% (90/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	31%	13%	

3. Timely immunization in children aged 12-23 months

FORMULA:

$$\frac{\text{\# children aged 12-23 months receiving the antigen before 12 months of age}}{\text{\# children aged 12-23 months interviewed (having or not a vaccination card)}} \times 100$$

NOTE: Only data obtained from the vaccination cards were considered valid.

TABLE #1.5 Percent of children aged 12-23 months immunized with DPT1 before 12 months of age

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	56% (111/196)	49% (94/189)	0.12
FINAL EVALUATION (July/92, N=794)	84% (131/156)	59% (105/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	28%	10%	

TABLE #1.6 Percent of children aged 12-23 months immunized with DPT3 before 12 months of age

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	41% (81/196)	34% (64/189)	0.09
FINAL EVALUATION (July/92, N=794)	75% (116/156)	44% (77/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	34%	10%	

TABLE #1.7 Percent of children aged 12-23 months immunized with measles vaccine before 12 months of age

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	36% (71/196)	31% (59/189)	0.23
FINAL EVALUATION (July/92, N=794)	62% (96/156)	39% (69/177)	0.01
DIFFERENCE (FINAL - MIDTERM)	26%	8%	

TABLE #1.8 Drop-out rate for DPT3/DPT1 in children aged 12-23 months

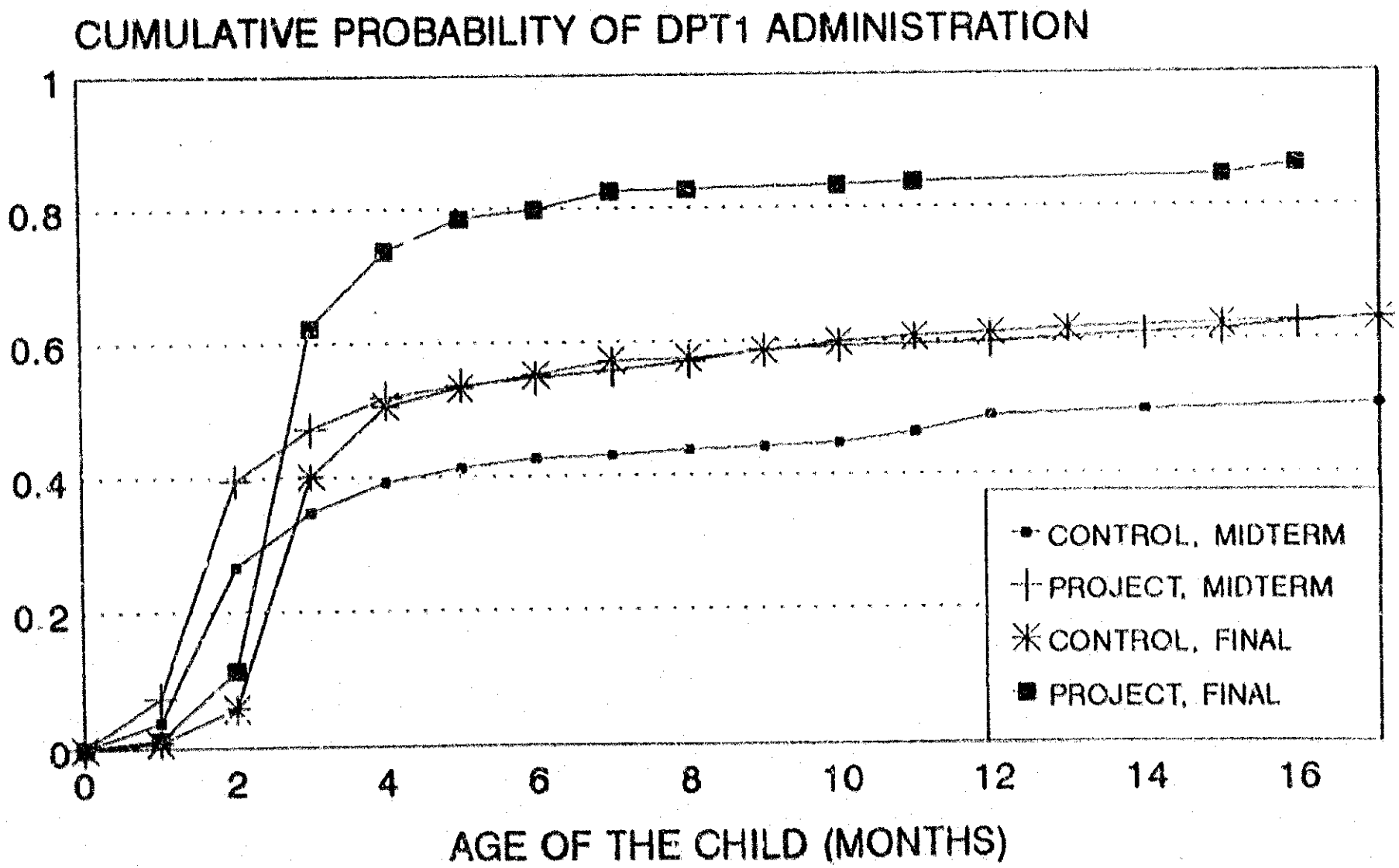
FORMULA:

$$\frac{(\text{\# children aged 12-23 months receiving DPT1 before 12 months of age}) \text{ minus } (\text{\# children aged 12-23 months receiving DPT3 before 12 months of age})}{(\text{\# children aged 12-23 months receiving DPT1 before 12 months of age})} \times 100$$

NOTE: Only data obtained from the vaccination cards were considered valid.

DATE	PROJECT AREA	CONTROL AREA
MIDTERM EVALUATION (July/91, N=906)	27% (30/111)	32% (30/94)
FINAL EVALUATION (July/92, N=794)	11% (15/131)	27% (28/105)
DIFFERENCE (FINAL - MIDTERM)	-16%	-5%

Fig #1.1 CUMULATIVE PROBABILITY OF DPT1 ADMINISTRATION BY AGE OF THE CHILD (MONTHS) IN PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATION



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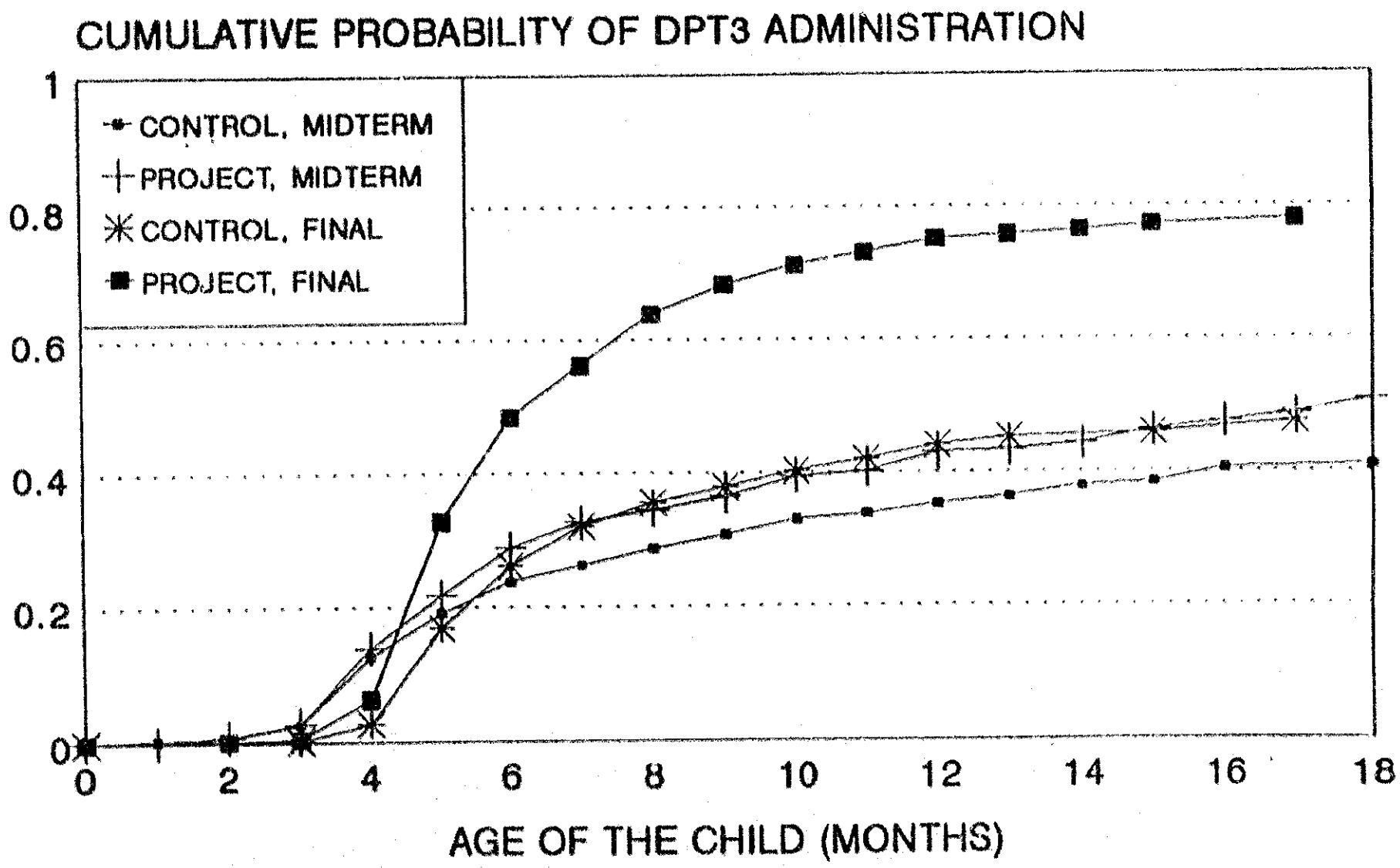
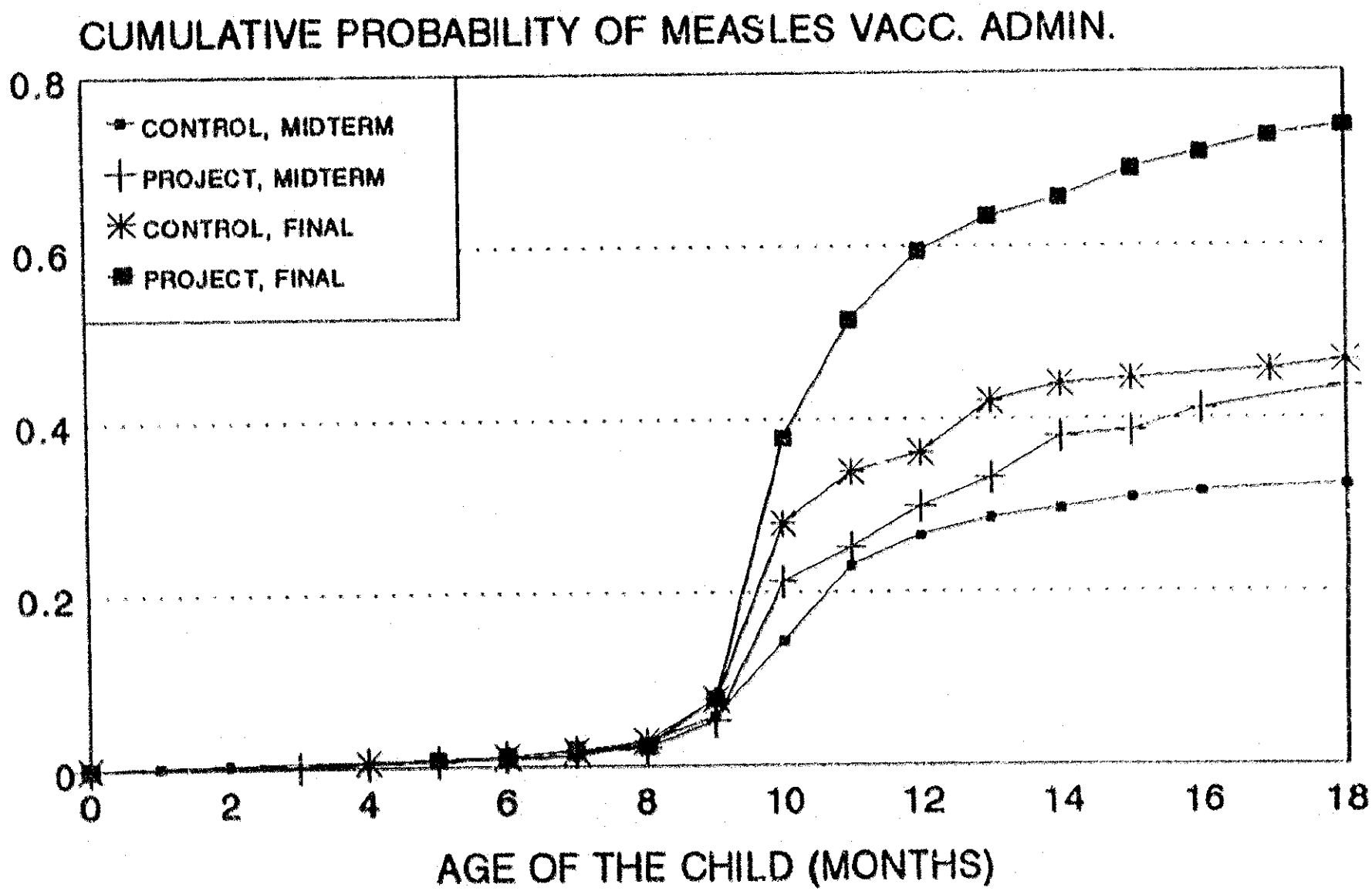
METHOD: LIFE TABLES

Fig #1.2 CUMULATIVE PROBABILITY OF DPT3 ADMINISTRATION BY AGE OF THE CHILD (MONTHS) IN PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATION



PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
METHOD: LIFE TABLES

Fig #1.3 CUMULATIVE PROBABILITY OF MEASLES VACCINE ADMINISTRATION BY AGE OF THE CHILD (MONTHS) IN PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS



PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT

TABLE #2.3 Percent of children aged 0-23 months below -2 standard deviations of the mean weight/age (NCHS standards)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	8.1% (36/442)	10.1% (47/464)	0.25
FINAL EVALUATION (July/92, N=794)	4.3% (17/393)	6.8% (27/394)	0.12
DIFFERENCE (FINAL - MIDTERM)	-3.8%	-3.3%	

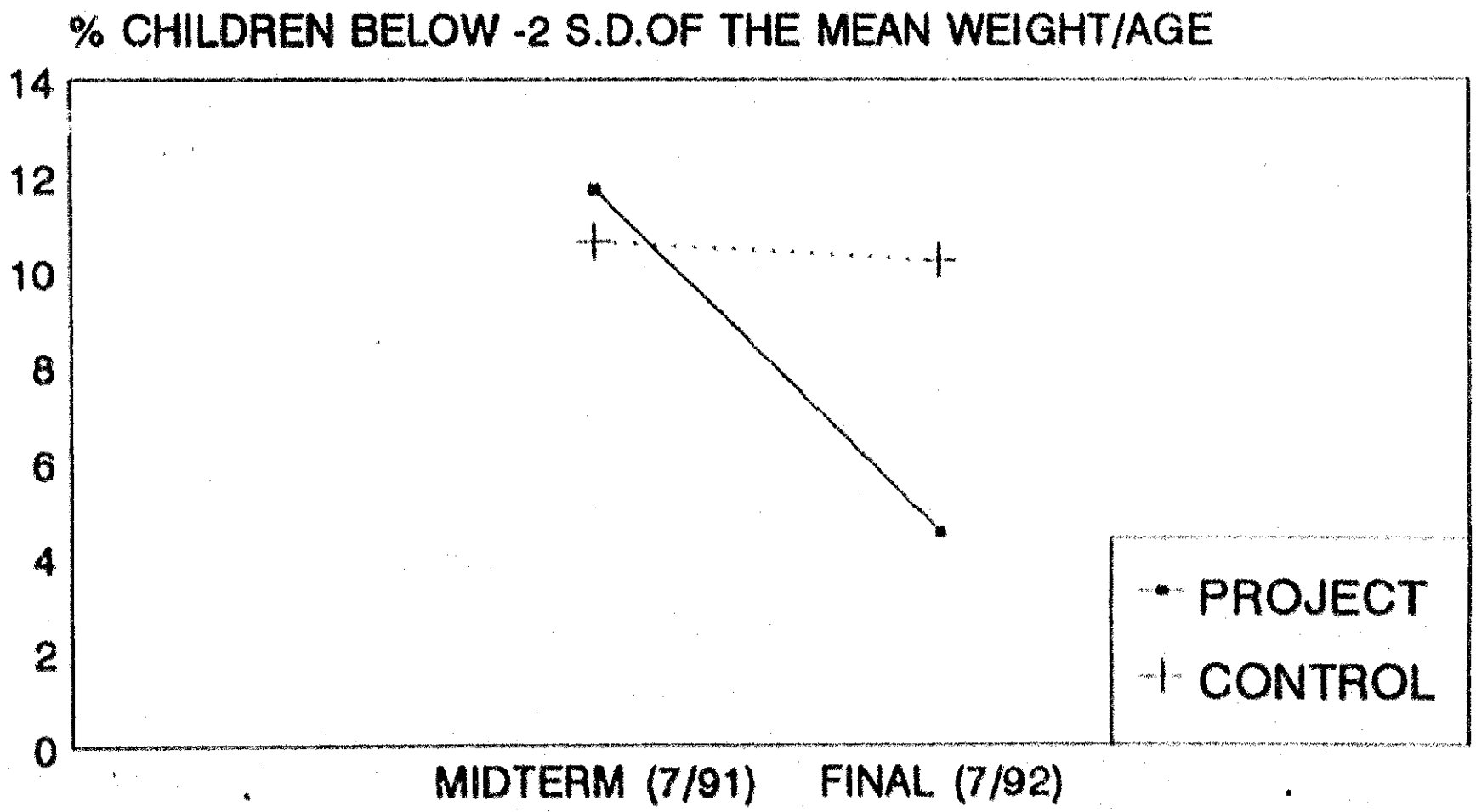
TABLE #2.4 Percent of children aged 0-11 months below -2 standard deviations of the mean weight/age (NCHS standards)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	5.3% (13/246)	9.8% (27/275)	0.05
FINAL EVALUATION (July/92, N=794)	4.2% (10/237)	4.1% (9/218)	0.96
DIFFERENCE (FINAL - MIDTERM)	-1.1%	-5.7%	

TABLE #2.5 Percent of children aged 12-23 months below -2 standard deviations of the mean weight/age (NCHS standards)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	11.7% (23/196)	10.6% (20/189)	0.72
FINAL EVALUATION (July/92, N=794)	4.5% (7/156)	10.2% (18/176)	0.05
DIFFERENCE (FINAL - MIDTERM)	-7.2%	-0.4%	

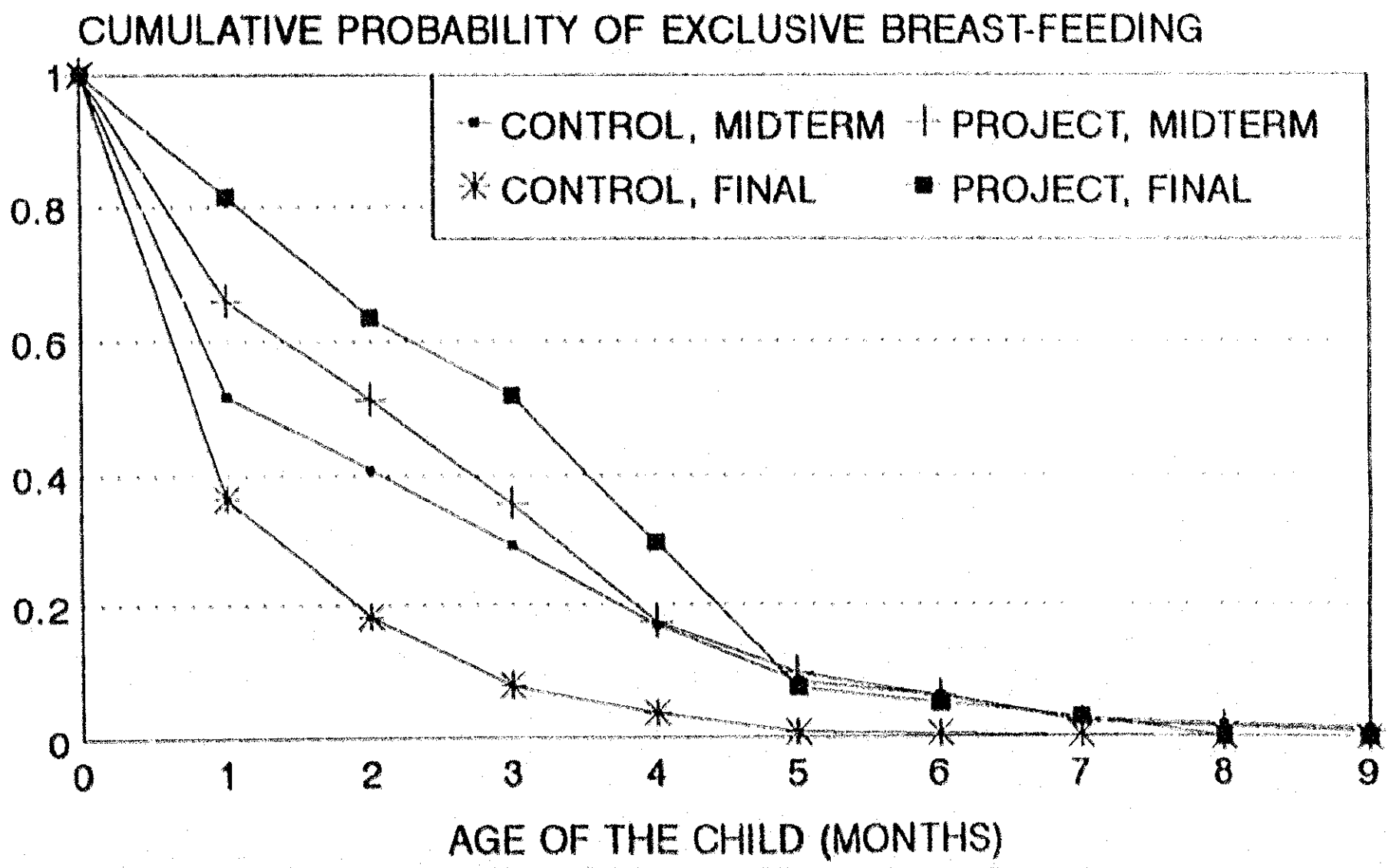
Fig #2.1 PERCENT OF CHILDREN AGED 12-23 MONTHS BELOW -2 STANDARD DEVIATIONS OF THE MEAN WEIGHT/AGE PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS



PROJECT		11.7	4.5
CONTROL		10.6	10.2

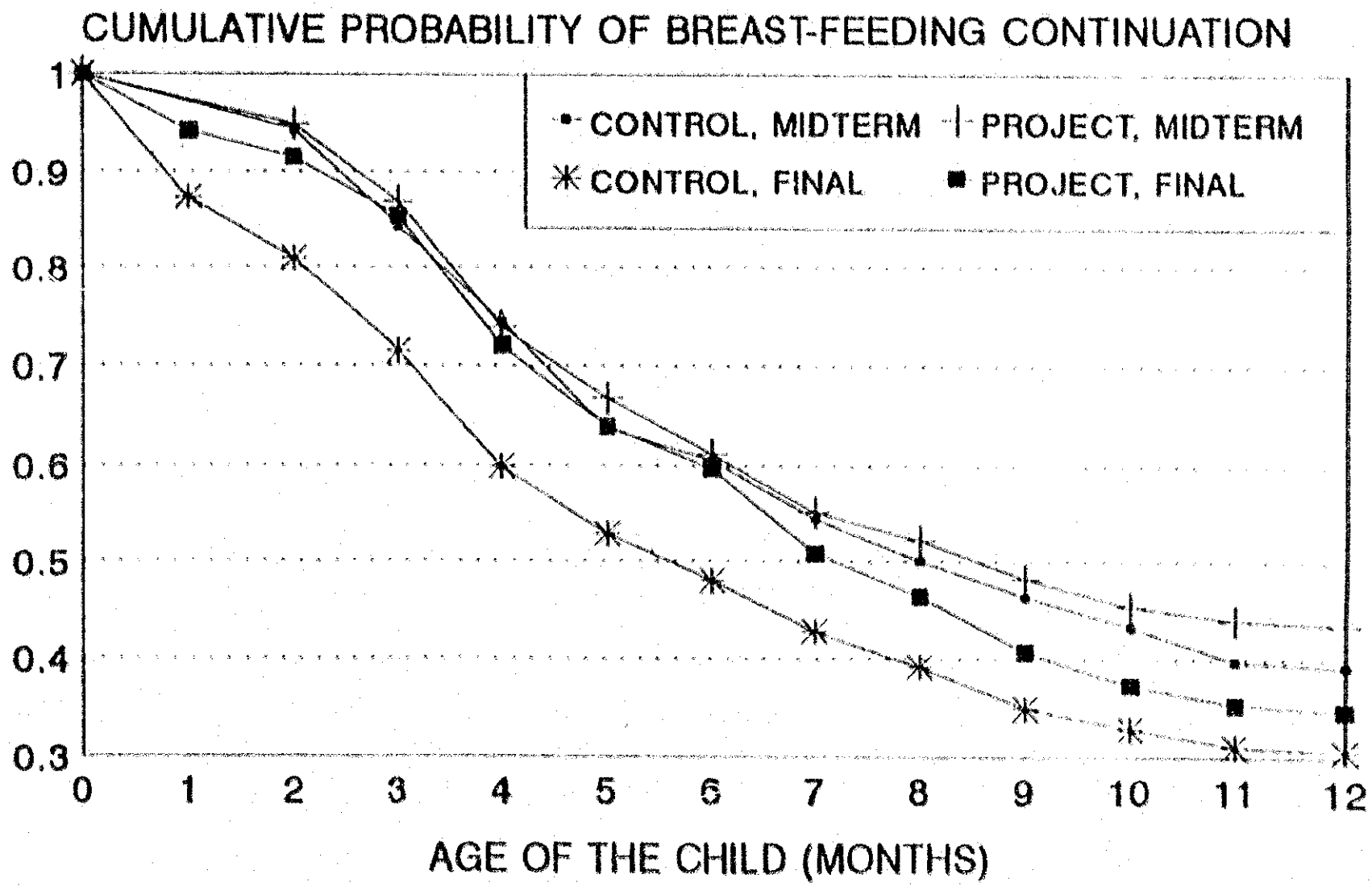
PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
TABLE #2.5

Fig #2.2 CUMULATIVE PROBABILITY OF EXCLUSIVE BREAST-FEEDIN BY AGE OF THE CHILD (MONTHS) IN PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATION



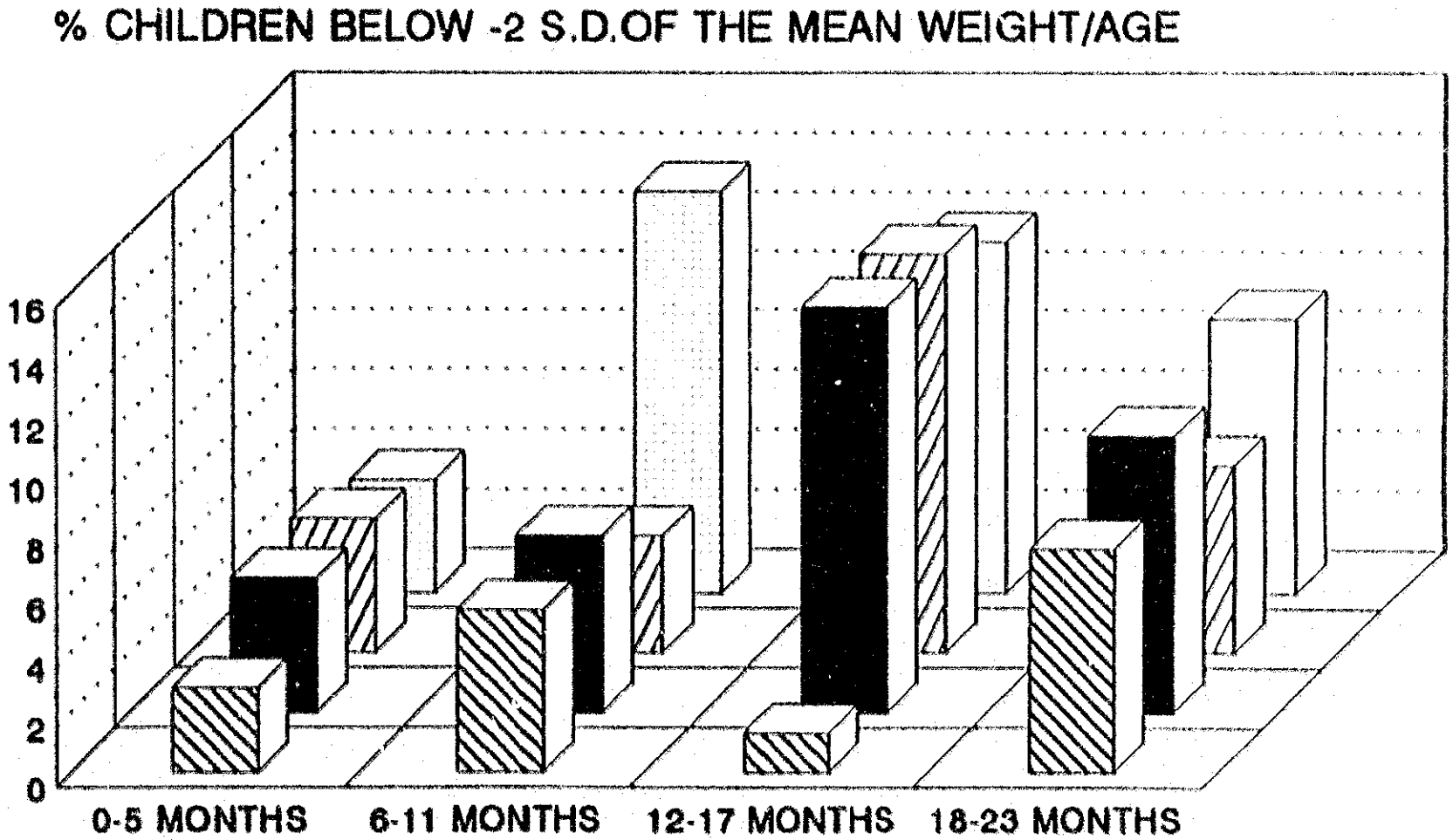
PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
METHOD: LIFE TABLES

Fig #2.3 CUMULATIVE PROBABILITY OF BREAST-FEEDING CONTINUATIO BY AGE OF THE CHILD (MONTHS) IN PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS



PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
METHOD: LIFE TABLES

Fig #2.4 PERCENT OF CHILDREN, BY AGE GROUP, BELOW -2 STANDARD DEVIATIONS OF THE MEAN WEIGHT/AGE (PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS)



PROJECT, FINAL ■ PROJECT, MIDTERM CONTROL, FINAL CONTROL, MIDTERM

PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT

3. CONTROL OF DIARRHEAL DISEASE INDICATORS

TABLE #3.1 Percent of children aged 0-23 months who had a diarrhea episode during the last weeks, including the day of the interview (i.e. two-week prevalence of diarrhea)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	38% (168/442)	41% (190/464)	0.37
FINAL EVALUATION (July/92, N=794)	24% (97/399)	28% (109/395)	0.29
DIFFERENCE (FINAL - MIDTERM)	-14%	-13%	

Diarrhea: three or more daily episodes of liquid/semiliquid diarrhea.

NOTE:

For the following indicators on the household management of diarrhea, the responses from the mother were obtained SPONTANEOUSLY by asking: What did you do when your child had diarrhea in the last two weeks?

TABLE #3.2 Percent of children aged 0-23 months who received ORS (packets) for the diarrhea episode occurring in the last two weeks (See also Figure #3.1)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	54% (91/168)	34% (64/190)	0.01
FINAL EVALUATION (July/92, N=794)	76% (74/97)	17% (19/109)	0.01
DIFFERENCE (FINAL - MIDTERM)	22%	-17%	

TABLE #3.3 Percent of children aged 0-23 months whose administration of liquids was increased for the diarrhea episode occurring in the last two weeks

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	82% (137/168)	63% (121/190)	0.01
FINAL EVALUATION (July/92, N=794)	91% (88/97)	50% (54/109)	0.01
DIFFERENCE (FINAL - MIDTERM)	9%	-13%	

TABLE #3.4 Percent of children aged 0-23 months who continued breast-feeding (in lactating children) for the diarrhea episode occurring in the last two weeks (See also Figure #3.2)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	47% (28/60)	39% (28/72)	0.36
FINAL EVALUATION (July/92, N=794)	72% (21/29)	41% (14/34)	0.01
DIFFERENCE (FINAL - MIDTERM)	25%	2%	

NOTE: * Only the lactating children were included in the estimation of this indicator.

TABLE #3.5 Percent of children aged 0-23 months who continued receiving food for the diarrhea episode occurring in the last two weeks (See also Figure #3.3)

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	41% (67/164)	39% (71/184)	0.67
FINAL EVALUATION (July/92, N=794)	72% (68/95)	31% (34/108)	0.01
DIFFERENCE (FINAL - MIDTERM)	31%	-8%	

NOTE: * Only children without exclusive breast-feeding were included in the estimation of this indicator.

TABLE #3.6 Percent of children aged 0-23 months who were brought to a health promoter for the diarrhea episode occurring in the last two weeks

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	9% (15/168)	3% (6/190)	0.02
FINAL EVALUATION (July/92, N=794)	8% (8/97)	2% (2/109)	0.03
DIFFERENCE (FINAL - MIDTERM)	-1%	-1%	

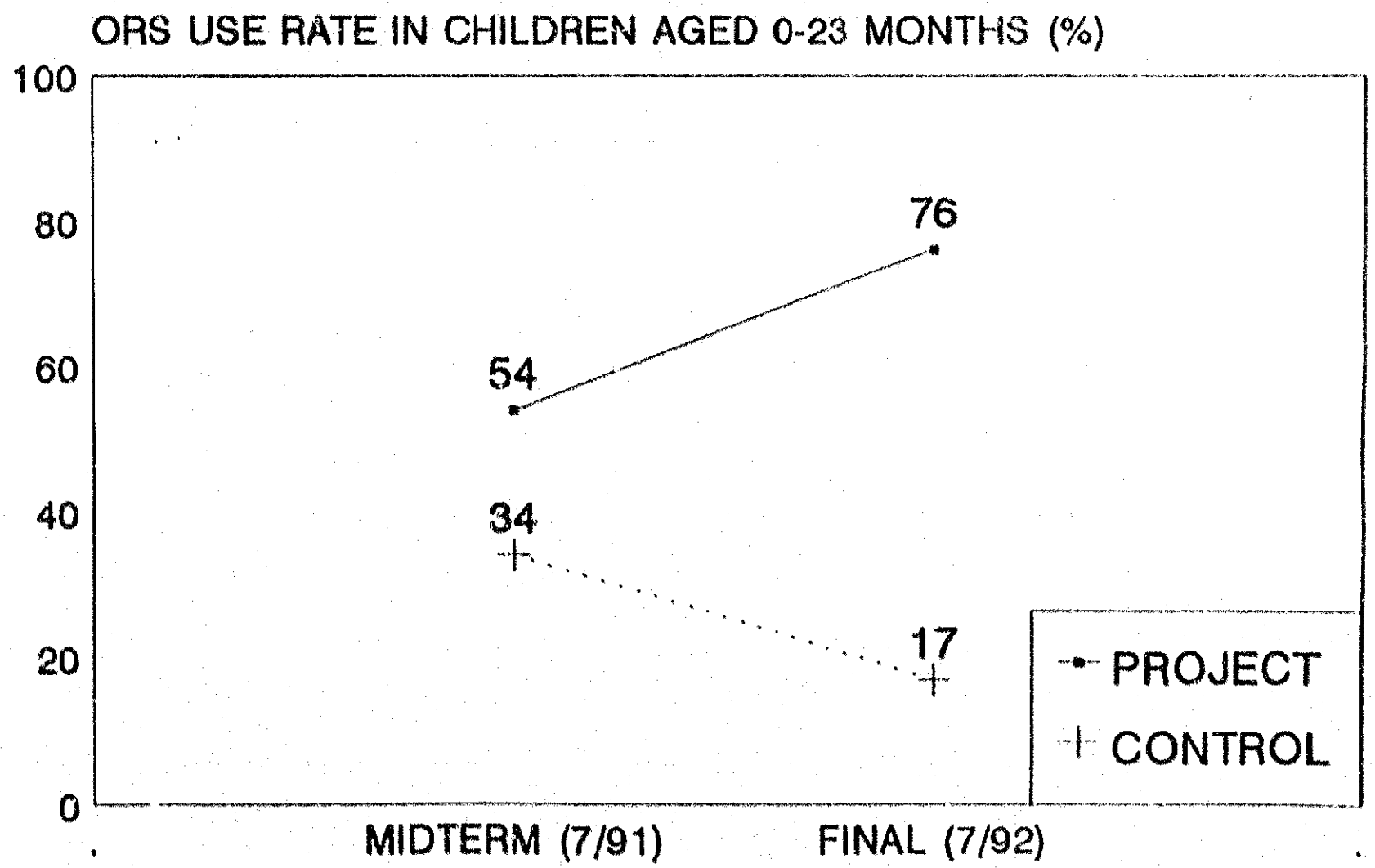
TABLE #3.7 Percent of children aged 0-23 months who received pills, syrups and/or injectables for the diarrhea episode occurring in the last two weeks

DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	36% (61/168)	43% (82/190)	0.19
FINAL EVALUATION (July/92, N=794)	28% (27/97)	48% (52/109)	0.01
DIFFERENCE (FINAL - MIDTERM)	-8%	5%	

TABLE #3.8 **Percent of children aged 0-23 months who were seen at a clinic, health center/post or hospital for the diarrhea episode occurring in the last two weeks**

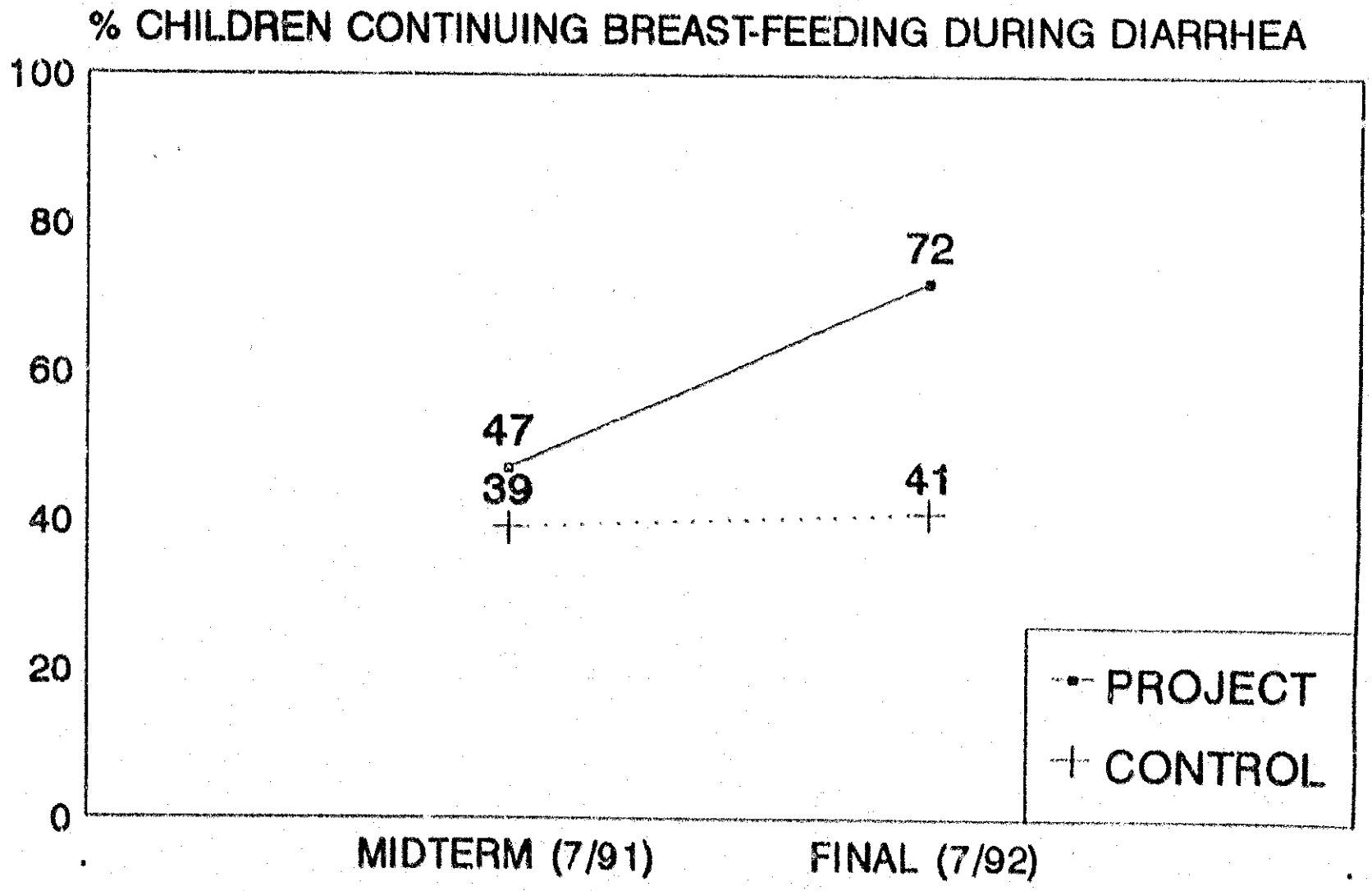
DATE	PROJECT AREA	CONTROL AREA	P
MIDTERM EVALUATION (July/91, N=906)	26% (44/168)	27% (51/190)	0.89
FINAL EVALUATION (July/92, N=794)	32% (31/97)	47% (51/109)	0.03
DIFFERENCE (FINAL - MIDTERM)	6%	20%	

Fig #3.1 USE OF ORS PACKETS IN CHILDREN AGED 0-23 MONTHS DURING THE DIARRHEA EPISODE OCCURRING IN THE LAST 2 WEEKS (PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS



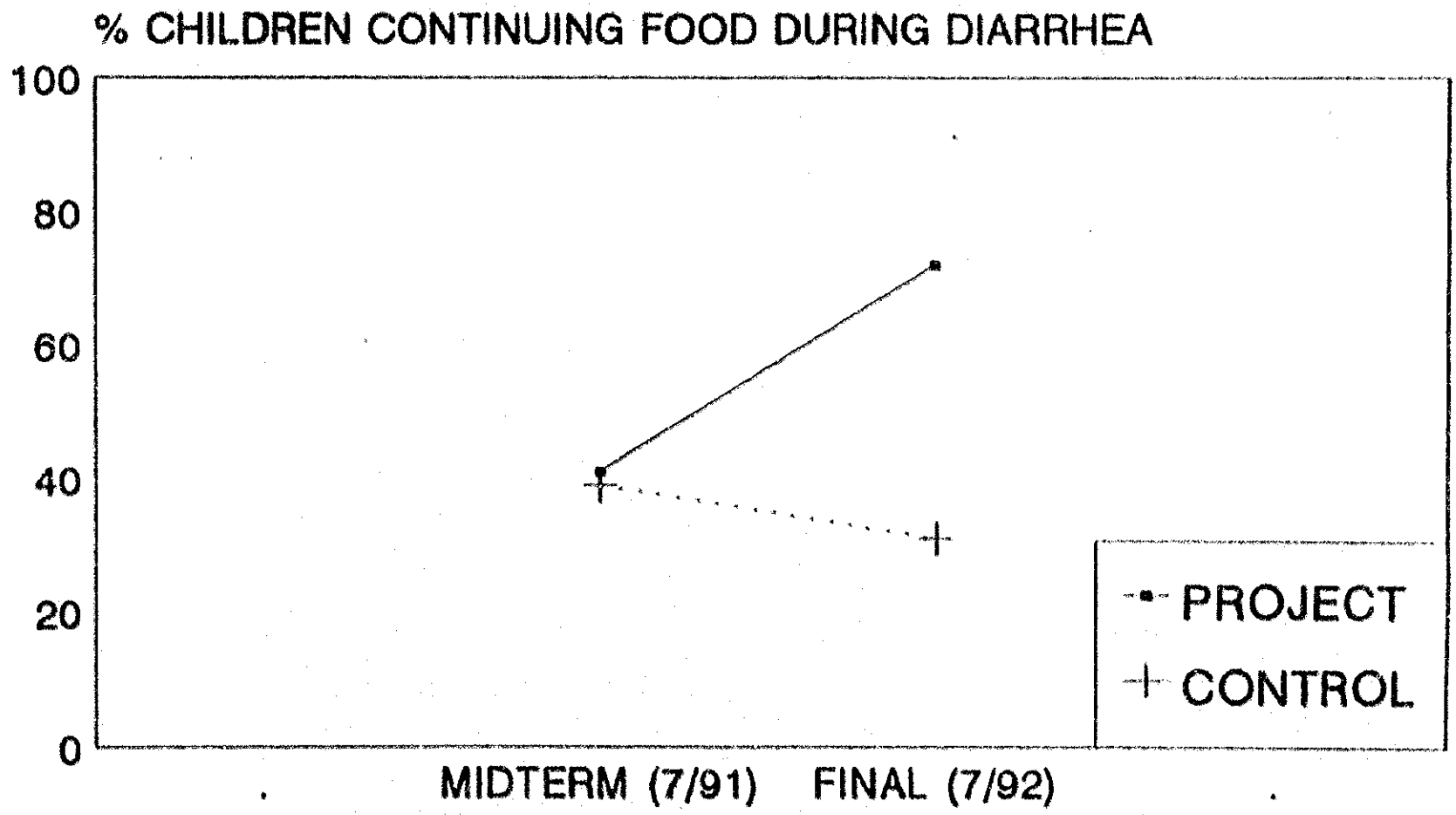
PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
TABLA #3.2

Fig #3.2 CONTINUATION OF BREASTFEEDING IN CHILDREN AGED 0-23 MONTHS DURING THE DIARRHEA EPISODE OCCURRING IN THE LAST 2 WEEKS (PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS)



PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
TABLE #3.4

Fig #3.3 CONTINUATION OF FEEDING IN CHILDREN AGED 0-23 MONTHS DURING THE DIARRHEA EPISODE OCCURRING IN THE LAST 2 WEEKS (PROJECT AND CONTROL AREAS, MIDTERM AND FINAL EVALUATIONS)



PROJECT		41	72
CONTROL		39	31

PLAN/SANTO DOMINGO CHILD SURVIVAL PROJECT
TABLE #3.5

IV. DISCUSSION

Immunizations

As compared with the children living in the control area, those living in the project area at the time of the final evaluation:

* were more likely to have an immunization card (Table #1.1),
* were more likely to be ever and timely immunized with DPT1, DPT3 and measles (Tables #1.2 to #1.7, Figures #1.1 to #1.3), and
* were less likely to drop-out between DPT1 and DPT3 (Table #1.8).

The project's objective and the Dominican MOH's goal of "80% immunization coverage in children aged 12-23 months before the first year of life" has been almost achieved in the project area: 75% for DPT3 (Table #1.6) and 62% for measles vaccine (Table #1.7). It is important to note that for the calculation of these indicators in the project and control areas: a) the children without vaccination cards were arbitrarily classified as non-immunized, and b) only data from the vaccination cards were considered valid.

The following table depicts the percent of children aged 12-23 months ever immunized at the time of the final evaluation, for: a) the project area, and b) the control area. These results are compared with the 1991 national averages:

VACCINE	PROJECT, FINAL EVALUATION	CONTROL, FINAL EVALUATION	1991 NATIONAL (*)
DPT1	88%	63%	67.8%
DPT3	81%	47%	35.6%
Measles vaccine	77%	51%	45.9%

(*) Data from the 1991 Immunization Coverage Survey, REACH.

The following table depicts the percent of children aged 12-23 months immunized before 12 months of age at the time of the final evaluation, for: a) the project area, and b) the control area.

These results are compared with the 1991 national averages:

VACCINE	PROJECT, FINAL EVALUATION	CONTROL, FINAL EVALUATION	1991 NATIONAL (*)
DPT3	75%	44%	23.4%
Measles vaccine	62%	39%	31.7%

(*) Data from the 1991 Immunization Coverage Survey, REACH.

Finally, the following table depicts the DPT1/DPT3 dropout rate at the time of the final evaluation, for: a) the project area, and b) the control area. These results are compared with the 1991 national averages:

VACCINE	PROJECT, FINAL EVALUATION	CONTROL, FINAL EVALUATION	1991 NATIONAL (*)
Dropout rate	11%	27%	30.1%

(*) Data from the 1991 Immunization Coverage Survey, REACH.

1991-92 immunization trends: Although both the project and control areas significantly improved the possession of cards, the immunization coverage and the DPT3/DPT1 dropout rates between the mid-term and final evaluations (1991-92), the improvements in the project area were much larger (i.e., compare the percents in the "Difference" row of Tables #1.1 to #1.7).

In conclusion, these results strongly suggest that the project has had a very significant and positive role in the achievement of the high immunization coverage in the Herrera sector.

Household management of diarrhea and use of oral rehydration therapy (ORT)

As compared with the childhood diarrhea cases occurring in the control area, those occurring in the project area at the time of the final evaluation:

* were more likely to use ORS packets (Table #3.2, Figure #3.1),
* were more likely to increase the administration of liquids (Table #3.3), and to continue breast-feeding (Table #3.4, Figure #3.2) and the administration of food (Table #3.4, Figure #3.3),
* were more likely to use the services of a health promoter (Figure #3.6),
* were less likely to use pills, syrups and injectables (Table #3.7), and

* were less likely to be brought to a medical facility (clinic, hospital or health center), Table #3.8.

The following table compares some results in the project and control areas at the time of the final evaluation with similar indicators from the 1986 Dominican Republic DHS:

	PROJECT FINAL EVALUATION	CONTROL FINAL EVALUATION	1986 D.R. DHS (*)
Used ORS packets	76%	17%	38%
Increased administration of liquids	91%	50%	15%
Used drugs	28%	48%	31%
Used medical facilities	32%	47%	29%

(*) These data refer to the national averages and to diarrhea episodes occurring in children aged 1-59 months.

These results demonstrate that the household management of diarrhea in the Herrera sector has achieved the project's objective and is also better than the Dominican national average.

1991-92 trends in the household management of diarrhea: A significant improvement in the use of ORS packets, the administration of liquids and foods and the continuation of breast-feeding have occurred in the project area between the midterm and final evaluations (see the "Difference" rows in these tables). These improvements have been accompanied with a decline in the use of pills/syrups/injectables and of medical facilities. The low use of the health promoters (8-9%) is in agreement with the project's conception of them as health educators and suppliers of ORS packets, but not as referral points for a diarrhea episode.

These results strongly suggest that a successful home management of the diarrhea episodes has been established in the project area, i.e. because many of the cases are well treated with ORT and adequate dietary practices at home, they don't need "out-of-household" resources (drugs and/or medical facilities).

On the other side, the household management of diarrhea in the control area have worsened between the midterm and final evaluations: the use of ORS packets have declined, while the practice of an adequate diet during diarrhea have been stable or worsened. Moreover, the use of medical facilities and pills/syrups/injectables have increased.

In conclusion, these results strongly suggest that the project has had a significant and positive role in the practice of an adequate household management of diarrhea in the Herrera sector, despite the worsening of these practices in the control area.

Infant/child nutrition

1. Breast-feeding practices

As compared with the children living in the control area, those living in the project area at the time of the final evaluation:

* were more likely to be exclusively breast-fed (Table #2.1, Figure #2.2), and
* were more likely to be breast-fed (Table #2.2, Figure #2.3).

1991-92 breast-feeding trends: While the exclusive breast-feeding practices have improved in the project area between the midterm and final evaluations, they have worsened in the control area (Table #2.1).

However, the continuation of breast-feeding have not changed in both areas between the midterm and final evaluations (Table #2.2).

In conclusion, these findings strongly suggest that the project has had a positive and significant role in the improvement of the exclusive breast-feeding practices in the Herrera sector, despite the worsening of these practices in the control area. It can also be suggested that the project has had a role in the continuation of breast-feeding, but the evidence in this regard is less conclusive.

2. Child nutritional status

The child nutritional status is one of the best indicators of the health status of the infant/child group in a population. Indeed, the public health community agrees that the occurrence of malnutrition is closely associated with an increased risk of infant/child death.

At the time of the final evaluation, the nutritional status of children aged 0-23 months was marginally better in the project area than in the control area, i.e. the prevalence of malnutrition in Herrera was 4.3% vis-a-vis 6.8% in the control area, $p<0.12$ (Table #2.3).

The following table compares the nutritional status in the project area at the time of the final evaluation with similar indicators from the 1986 Dominican Republic DHS:

PERCENT OF CHILDREN BELOW -2 STANDARD DEVIATIONS OF THE MEAN WEIGHT/AGE (NCHS STANDARDS)

	PROJECT FINAL EVALUATION	CONTROL FINAL EVALUATION	1986 D.R. DHS (*)
Children aged 6-11 months	5.4%	3.9%	6.7%
Children aged 12-23 months	4.5%	10.2%	12.7%

(*) These data refer to the national averages.

These results show that the nutritional status in the project area at the time of the final evaluation is better than the Dominican national average and the control area, especially among the 12-23 month age group (Table #2.5, Figure #2.1).

1991-92 trends in the nutritional status: Significant improvements of the nutritional status in the project area between the midterm and final evaluations mainly occurred among the 12-23 month age group. On the other side, the nutritional status of children aged 12-23 months living in the control area was roughly equivalent to the national average and didn't change significantly between both evaluations (Table #2.5, Figure #2.1).

In conclusion, the results suggest that the project has had a positive and significant role on the improvement of the nutritional status among the children aged 12-23 months living in the Herrera sector.

V. CONCLUSION

The results of this pre-post/project-control survey strongly suggest that the PLAN/Santo Domingo Child Survival V Project (1989-92) has made a strong and significant contribution to the health status of the children aged 0-23 months living in the periurban slums of the Herrera sector (Santo Domingo, Dominican Republic).

The project has achieved its stated objectives on immunizations, household management of diarrhea (including ORT), the nutritional status of children aged 12-23 months and the practice of exclusive breast-feeding. These achievements are also significantly better than those existing in equivalent control areas. When comparisons are possible, the project's results are also better than the Dominican national averages.

ANNEX #1

QUESTIONNAIRE AND WEIGHT/AGE TABLE

USED DURING THE MIDTERM EVALUATION

(JULY 1992)

CUESTIONARIO PARA MADRES CON NIÑOS MENORES DE 2 AÑOS

IMPORTANTE:

1.SE DEBE ENTREVISTAR A LAS MADRES O A LAS PERSONAS ENCARGADAS DE LOS NIÑOS NACIDOS DESPUÉS DEL 20 DE JULIO DE 1989. **USAR EL CUESTIONARIO EN EL NIÑO MAS PEQUEÑO DE CADA MADRE O ENCARGADA.**
2.SI LA MADRE NO SABE LA RESPUESTA (POR EJEMPLO, "NO SABE CUANTOS AÑOS DE EDUCACIÓN TIENE"), DEJAR EN BLANCO EL CASILLERO. PERO, SI LA RESPUESTA ES "NO TIENE" O "NO HAY", (POR EJEMPLO, "NO TIENE NINGUN AÑO DE EDUCACION"), COLOCAR CERO (0) COMO RESPUESTA.
3.NO CORRIJA NI ALABE A LA MADRE EN NINGUNA RESPUESTA. PERMANEZCA NEUTRAL DURANTE LA ENTREVISTA.

LLENAR ANTES DE LLEGAR AL BARRIO:

1.Nombre del barrio: 1)_____

2.Es este barrio beneficiario del proyecto de Supervivencia Infantil? 2) No____Si_____

PRIMERA PARTE

DIGA: "SEÑORA, DESEAMOS CONVERSAR CON UD. SOBRE EL CUIDADO Y SALUD DE SUS HIJOS. QUEREMOS SABER LO QUE UD CONOCE Y HACE, PARA ASI MEJORAR NUESTROS CONOCIMIENTOS".

Nombre y apellido completo del niño.....

3. Fecha de nacimiento 3) ___/___/____ (día/mes/año)

DIGA: "SEÑORA. PRIMERO, NOS GUSTARIA CONOCER ALGO MAS SOBRE SU FAMILIA".

21. Qué edad tiene Ud. (en años)? 21) _____

22. Cuántos hijos vivos tiene o que están a su cargo.? 22) _____

23. Cuántos hijos suyos se han muerto? 23) _____

24. Escolaridad: ultimo curso aprobado? 24) _____

25. El papá del niño colabora económicamente con Ustedes? 25) No____Si___

2a. Ha estado el nino viviendo con Ud. durante el ultimo mes? 2a) No____Si____

NOTA: Si la respuesta es "NO", pasar directamente a la pregunta # 17. Si la respuesta es "SI", continuar con las siguientes preguntas.

4. Tiene diarrea HOY DIA? 4) No____Si___

5. Tuvo su hijo diarrea (más de 3 evacuaciones liquidas al día) EN LAS ULTIMAS DOS SEMANAS? 5) No____Si____

NOTA: Si las respuestas a las preguntas 4 y 5 es "NO", entonces continuar directamente con la pregunta 17. Si la respuesta es "SI" a CUALQUIERA de las dos preguntas anteriores (4 o 5), continue con las siguientes preguntas:

PREGUNTAR: "CUANDO SU HIJO TUVO DIARREA (O TIENE AHORA),

6. Tuvo (o tiene) su hijo los ojos hundidos? 6) No___Si___

7. Lloraba (o llora) su hijo sin lágrimas o con pocas lágrimas? 7) No____Si____

8. Tenía (o tiene) sed su hijo? 8) No____Si_____

PREGUNTAR: "SEÑORA, QUE HIZO O HACE UD. CUANDO SU HIJO ESTUVO (O ESTA) CON DIARREA?"

NOTA: Marque Ud. todas las respuestas <u>ESPONTANEAS</u> de la madre que coincidan con las preguntas 9 a la 16 . El Entrevistador debe repetir la pregunta: "Senora, que hizo Ud. cuando su hijo estuvo (o esta) con diarrea, <u>añadiendo "Y QUE MAS?" hasta por un máximo de 2 veces</u>. No debe insinuar ni corregir ninguna respuesta a la madre. Todas las respuestas dadas por la madre serán marcadas como SI. Todas las respuestas que no fueron dadas por la madre serán marcadas como NO.

9. Le dió (da) más liquidos? 9) No_____Si____

10. Le siguió (sigue) dando comida? 10) No_____Si____

11. Le siguió (sigue) dando el seno? 11) No_____Si____

12. Ha tomado el niño suero oral (sobres)? 12) No_____Si____

13. Ha tomado el niño suero casero ? 13) No____Si___

14. Le ha dado jarabes, pastillas o inyectables? 14) No____Si___

15. Ha llevado al niño para que lo examine la promotora de salud? 15) No_____Si____

16. Ha llevado al niño a una Clinica, Centro de Salud u Hospital? 16) No____Si_____

<u>SEGUNDA PARTE</u>

17. El nino ha nacido despues del 20 de Julio de 1989 (NINOS MENORES DE 2 ANOS)? 17) No____Si__

NOTA: Si el nino ha nacido DESPUES del 20 de Julio de 1989 (NINOS MENORES DE 2 ANOS), continuar respondiendo el resto del cuestionario. Si el nino ha nacido ANTES del 20 de Julio de 1989 (NINOS MAYORES DE 2 ANOS), terminar la entrevista AHORA.

DIGA: "SEÑORA, MUCHAS GRACIAS POR SUS RESPUESTAS. AHORA NOS GUSTARIA CONVERSAR SOBRE COMO ALIMENTA A SU HIJO".

18. Actualmente, le da el seno a su hijo? 18) No_____Si____

19. A los cuantos meses de edad le ha quitado el seno a su hijo? 19) _____
NOTA: Escribir "TOMA SENO" si le esta dando seno actualmente.

20. A los cuantos meses de edad ha empezado a darle otros liquidos aparte del seno (por ejemplo, leche de biberon, agua, agua de azucar, tizanas o jugos)? 20)_____
NOTA: Escribir "SOLO TOMA SENO" si le esta dando SOLAMENTE seno actualmente.

DIGA: "SENORA, AHORA NOS GUSTARIA REVISAR EL CARNET DE VACUNACION DEL NINO". PODEMOS VERLO?

26. Tiene el Carnet de Vacunacion ? 26) No_____Si____

NOTA: Si el niño no tiene el carnet de vacunacion, pasar directamente a la pregunta # 33. Si el niño tiene el carnet de salud, copiar los datos pedidos en las siguientes preguntas.

27. Ha recibido DPT1? 27) No_____Si___

28. Fecha de DPT1 28) ___/___/____ (día/mes/año)

29. Ha recibido DPT3? 29) No_____Si___

30. Fecha de DPT3 30)___/___/____ (día/mes/año)

31. Ha recibido antisarampionosa? 31) No_____Si___

32. Fecha de antisarampionosa 32) ___/___/____ (día/mes/año)

DIGA: "SENORA, AHORA NOS GUSTARIA PESAR A SU NINO. PODEMOS HACERLO?"

33. Sexo del niño
M=masculino F=femenino 33) M F

34. Peso (en kg. y décimas de kg.) 34) _____

NOTA: El supervisor responde la siguiente pregunta luego de terminada la entrevista:

35. Es el peso del nino igual o mayor al peso de la TABLA? 35) No_____Si___

DIGA: "MUCHAS GRACIAS POR SU AYUDA, SEÑORA"

TABLA PARA EL
EL INDICADOR (PESO/EDAD)

INSTRUCCIONES: Usando la fecha de nacimiento y el sexo del nino/nina, compare el peso obtenido con los valores en esta tabla.

Si el peso del nino/nina es igual o mayor al peso indicado en esta tabla, responder "SI" a la pregunta numero 35.
Si el peso del nino/nina es menor al peso indicado en esta tabla, responder "NO" en la pregunta numero 35.

FECHA DE NACIMIENTO (MES/ANO)		SEXO MASCULINO	SEXO FEMENINO
7/89	JULIO 1989	9.8	9.3
8/89	AGOSTO 1989	9.8	9.3
9/89	SETIEMBRE 1989	9.7	9.1
10/89	OCTUBRE 1989	9.5	9
11/89	NOVIEMBRE 1989	9.4	8.8
12/89	DICIEMBRE 1989	9.2	8.6
1/90	ENERO 1990	9.1	8.5
2/90	FEBRERO 1990	9	8.3
3/90	MARZO 1990	8.8	8.2
4/90	ABRIL 1990	8.7	8
5/90	MAYO 1990	8.5	7.8
6/90	JUNIO 1990	8.3	7.6
7/90	JULIO 1990	8.1	7.4
8/90	AGOSTO 1990	7.9	7.2
9/90	SETIEMBRE 1990	7.6	6.9
10/90	OCTUBRE 1990	7.2	6.6
11/90	NOVIEMBRE 1990	6.9	6.3
12/90	DICIEMBRE 1990	6.4	5.9
1/91	ENERO 1991	5.9	5.5
2/91	FEBRERO 1991	5.3	5
3/91	MARZO 1991	4.7	4.5
4/91	ABRIL 1991	4.1	3.9
5/91	MAYO 1991	3.5	3.3
6/91	JUNIO 1991	2.9	2.8
7/91	JULIO 1991	2.4	2.2

FUENTE: TABLAS DEL CENTRO NACIONAL DE ESTADISTICAS DE SALUD (NCHS), EUA, 1990

ANNEX #2

QUESTIONNAIRE AND WEIGHT/AGE TABLE

USED DURING THE FINAL EVALUATION

(JULY 1992)

CUESTIONARIO PARA MADRES CON NIÑOS MENORES DE 2 AÑOS

IMPORTANTE:

1.SE DEBE ENTREVISTAR A LAS MADRES O A LAS PERSONAS ENCARGADAS DE LOS NIÑOS NACIDOS DESPUES DEL 23 DE JULIO DE 1990. **USAR EL CUESTIONARIO EN EL NIÑO MAS PEQUEÑO DE CADA MADRE O ENCARGADA.**
2.SI LA MADRE NO SABE LA RESPUESTA (POR EJEMPLO, "NO SABE CUANTOS AÑOS DE EDUCACIÓN TIENE"), DEJAR EN BLANCO EL CASILLERO. PERO, SI LA RESPUESTA ES "NO TIENE" O "NO HAY", (POR EJEMPLO, "NO TIENE NINGUN AÑO DE EDUCACION"), COLOCAR CERO (0) COMO RESPUESTA.
3.NO CORRIJA NI ALABE A LA MADRE EN NINGUNA RESPUESTA. PERMANEZCA NEUTRAL DURANTE LA ENTREVISTA.

LLENAR ANTES DE LLEGAR AL BARRIO:

1. Nombre del barrio: 1)_____

2. Es este barrio beneficiario del proyecto de Supervivencia Infantill? 2) No____Si_____

PRIMERA PARTE

DIGA: "SEÑORA, MI NOMBRE ES : _____ SOY UN TRABAJADOR DE LA SALUD Y DESEAMOS CONVERSAR CON UD. SOBRE EL CUIDADO Y SALUD DE SUS HIJOS".

Nombre y apellido completo del niño.....

3. Fecha de nacimiento 3) ___/___/____ (día/mes/año)

9. Ha estado el nino viviendo con Ud. durante el ultimo mes? 9) No____Si____

NOTA: Si la respuesta es "NO", pasar directamente a la pregunta # 23. Si la respuesta es "SI", continuar con las siguientes preguntas.

DIGA: "SEÑORA. PRIMERO, NOS GUSTARIA CONOCER ALGO MAS SOBRE SU FAMILIA".

4. Qué edad tiene Ud. (en años)? 4) _____

5. Cuántos hijos vivos tiene o que están a su cargo.? 5) _____

6. Cuántos hijos suyos se han muerto? 6) _____

7. Escolaridad: ultimo curso aprobado? 7) _____

8. El papá del niño colabora económicamente con Ustedes? 8) No____Si_____

SEGUNDA PARTE

ALIMENTACION Y NUTRICION DEL NIÑO

23. Actualmente, le da el seno a su hijo? 23) No_____Si____

24. A los cuantos meses de edad le ha quitado el seno a su hijo? 24) _____
NOTA: Escribir "TOMA SENO" si le esta dando seno actualmente.

25. A los cuantos meses de edad ha empezado a darle otros liquidos aparte del seno (por ejemplo, leche de biberon, agua, agua de azucar, tizanas o jugos)? 25)_____
NOTA: Escribir "SOLO TOMA SENO" si le esta dando SOLAMENTE seno actualmente.

10. Tiene diarrea HOY DIA? 10) No____Si___

11. Tuvo su hijo diarrea (más de 3 evacuaciones liquidas al día) EN LAS ULTIMAS DOS SEMANAS? 11) No____Si____

NOTA: Si las respuestas a las preguntas #10 y #11 es "NO", entonces continuar directamente con la pregunta 26. Si la respuesta es "SI" a CUALQUIERA de las dos preguntas anteriores (10 o 11), continue con las siguientes preguntas:

PREGUNTAR: "CUANDO SU HIJO TUVO DIARREA (O TIENE AHORA),

12. Tuvo (o tiene) su hijo los ojos hundidos? 12) No___ Si____ No Sabe ____

13. Lloraba (o llora) su hijo sin lagrimas o con pocas lagrimas? 13) No____Si____ No Sabe ____

14. Tenía (o tiene) sed su hijo? 14) No____Si_____ No Sabe ____

PREGUNTAR: "SEÑORA, QUE HIZO O HACE UD. CUANDO SU HIJO ESTUVO (O ESTA) CON DIARREA?"

NOTA: Marque Ud. todas las respuestas <u>ESPONTANEAS</u> de la madre que coincidan con las preguntas 15 a la 22 . El Entrevistador debe repetir la pregunta: "Senora, que hizo Ud. cuando su hijo estuvo (o esta) con diarrea, <u>añadiendo "Y QUE MAS?" hasta por un máximo de 2 veces</u>. No debe insinuar ni corregir ninguna respuesta a la madre. Todas las respuestas dadas por la madre serán marcadas como SI. Todas las respuestas que no fueron dadas por la madre serán marcadas como NO.

15. Le dió (da) más liquidos? 15) No_____Si____

16. Le siguió (sigue) dando comida? 16) No_____Si____

17. Le siguió (sigue) dando el seno? 17) No_____Si____

18. Ha tomado el niño suero oral (sobres)? 18) No_____Si____

19. Ha tomado el niño suero casero ? 19) No____Si____

20. Le ha dado jarabes, pastillas o inyectables? 20) No____Si___

21. Ha llevado al niño para que lo examine la promotora de salud? 21) No_____Si____

22. Ha llevado al niño a una Clinica, Centro de Salud u Hospital? 22) No____Si_____

DIGA: "SENORA, AHORA NOS GUSTARIA REVISAR EL CARNET DE VACUNACION DEL NINO". PODEMOS VERLO?

26. Tiene el Carnet de Vacunacion ? 26) No_____Si____

NOTA: Si el niño no tiene el carnet de vacunacion, pasar directamente a la pregunta # 33. Si el niño tiene el carnet de salud, copiar los datos pedidos en las siguientes preguntas.

27. Ha recibido DPT1? 27) No_____Si___

28. Fecha de DPT1 28) ___/___/____ (día/mes/año)

29. Ha recibido DPT3? 29) No_____Si___

30. Fecha de DPT3 30) ___/___/____ (día/mes/año)

31. Ha recibido antisarampionosa? 31) No_____Si___

32. Fecha de antisarampionosa 32) ___/___/____ (día/mes/año)

DIGA: "SENORA, AHORA NOS GUSTARIA PESAR A SU NIÑO. PODEMOS HACERLO?"

33. Sexo del niño M=masculino F=femenino 33) M F

34. Peso (en kg. y décimas de kg.) 34) _____

NOTA: El supervisor responde la siguiente pregunta luego de terminada la entrevista:

35. Es el peso del nino igual o mayor al peso de la TABLA? 33) No_____Si___

DIGA: "MUCHAS GRACIAS POR SU AYUDA, SEÑORA"

Entrevistador :
NOMBRE :_____
NUMERO :_____
Supervisor :_____

TABLA PARA EL
EL INDICADOR (PESO/EDAD)

INSTRUCCIONES: Usando la fecha de nacimiento y el sexo del nino/nina, compare el peso obtenido con los valores en esta tabla.

Si el peso del nino/nina es igual o mayor al peso indicado en esta tabla, responder "SI" a la pregunta numero 35.
Si el peso del nino/nina es menor al peso indicado en esta tabla, responder "NO" en la pregunta numero 35.

FECHA DE NACIMIENTO (MES/ANO)		SEXO MASCULINO	SEXO FEMENINO
7/90	JULIO 1990	9.8	9.3
8/90	AGOSTO 1990	9.8	9.3
9/90	SETIEMBRE 1990	9.7	9.1
10/90	OCTUBRE 1990	9.5	9
11/90	NOVIEMBRE 1990	9.4	8.8
12/90	DICIEMBRE 1990	9.2	8.6
1/91	ENERO 1991	9.1	8.5
2/91	FEBRERO 1991	9	8.3
3/91	MARZO 1991	8.8	8.2
4/91	ABRIL 1991	8.7	8
5/91	MAYO 1991	8.5	7.8
6/91	JUNIO 1991	8.3	7.6
7/91	JULIO 1991	8.1	7.4
8/91	AGOSTO 1991	7.9	7.2
9/91	SETIEMBRE 1991	7.6	6.9
10/91	OCTUBRE 1991	7.2	6.6
11/91	NOVIEMBRE 1991	6.9	6.3
12/91	DICIEMBRE 1991	6.4	5.9
1/92	ENERO 1992	5.9	5.5
2/92	FEBRERO 1992	5.3	5
3/92	MARZO 1992	4.7	4.5
4/92	ABRIL 1992	4.1	3.9
5/92	MAYO 1992	3.5	3.3
6/92	JUNIO 1992	2.9	2.8
7/92	JULIO 1992	2.4	2.2

FUENTE: TABLAS DEL CENTRO NACIONAL DE ESTADISTICAS DE SALUD (NCHS), EUA, 1990

ANNEX #3

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