

I. PROJECT IDENTIFICATION

1. PROJECT TITLE CHILD NUTRITION - Targeted Malnourished Child Program SAWS/OFASA		APPENDIX ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3. RECIPIENT (specify) <input checked="" type="checkbox"/> COUNTRY <u>Chile</u> <input type="checkbox"/> REGIONAL <input type="checkbox"/> INTERREGIONAL		2. PROJECT NO. (M.O. 1025.2) 513-15-560-271
4. LIFE OF PROJECT BEGIN FY <u>1975</u> ENDS FY <u>1977</u>		5. SUBMISSION <input checked="" type="checkbox"/> ORIGINAL _____ DATE _____ <input type="checkbox"/> REV. NO. _____ DATE _____ CONTR./PASA NO. _____

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL EXCHANGE CURRENCY RATE: \$ US _____ (U.S. OWNED)					
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY		(A) JOINT	(B) BUDGET	
1. PRIOR THRU ACTUAL FY															
2. OPRN FY 1975	19.6	8.2					11.4								
3. BUDGET FY 1976	100.6	20.5					80.1								
4. BUDGET +1 FY 1977	120.6	20.5					100.1								
5. BUDGET +2 FY															
6. BUDGET +3 FY															
7. ALL SUBQ. FY															
8. GRAND TOTAL	240.8	49.2					191.6								

9. OTHER DONOR CONTRIBUTIONS See next page

(A) NAME OF DONOR	(B) KIND OF GOODS/SERVICES	(C) AMOUNT
Next page		23,421.4

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER Richard W. Offill Joyce King <i>Richard W. Offill</i>	TITLE Director SAWS/OFASA Technical Advisor	DATE 2/21/75 1/22/75
2. CLEARANCE OFFICER Stuart H. Van Dyke Carole Schaeffer <i>Stuart H. Van Dyke</i>	TITLE Director USAID/Chile Executive Secretary, CONPAN	DATE 1/22/75

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF.	SIGNATURE	DATE
CONPAN	<i>[Signature]</i>	3/3/75			

3. APPROVAL AAs OR OFFICE DIRECTORS

SIGNATURE	DATE	SIGNATURE	DATE

4. APPROVAL A/AID (See M.O. 1025.1 VI C)

SIGNATURE	DATE

TITLE _____ ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT NO. 513-15-560-271	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE	PAGE _____ of _____ PAGES
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Block 9 - Other Donor Contributions

(A) <u>Name of Donor</u>	(B) <u>Kind of Goods/Services</u>	(C) <u>Amount</u>
USAID/Santiago	Personnel Services and Comm ^{di} odities	10.15
GOC/SAWS/OFASA	Delivery of Commodities to recipient	190.5
CONPAN/NHS/Univesity	Personnel Services, commodities and NHS administrative costs	22,058.4
Title II - PL 480	Food	1,153.0
SAWS/OFASA	Private funding personnel	9.3
		\$ <u>23,421.35</u>

TARGETED MALNOURISHED CHILD PROGRAM

SAWS/OFASA

I. THE PROJECT GOAL

A. Statement of Goal

The program goal is to improve the social and economic well-being of the lower third of the Chilean population. The sector goal to which this project will contribute directly is to achieve and maintain an adequate diet for the most nutritionally vulnerable members of this target group, through programs with the best economic returns for benefits derived.

B. Measurement of Goal Achievement

The measures of goal achievement will be modified status of the lower third of the population: improved food consumption (quantity and quality); and decreased malnutrition, mortality and morbidity incidence, especially in the nutritionally vulnerable zero through 5 age group and pregnant and nursing mothers.

C. Basic Assumptions of Goal Achievement

Most important for goal achievement is overall economic stability and progress permitting the GOC to include in its economic policies improvements of the conditions of the neediest and most nutritionally vulnerable population.

Another assumption basic to goal achievement is success of food production and distribution initiatives, supported by US grant and loan projects, so that Chile's dependence on high-cost food imports is substantially reduced and its total domestic food production is increased to the extent that requirements of the neediest sectors can be met at reasonable prices.

II. THE PROJECT PURPOSE

A. Statement of Purpose

The overall purpose is to unite the resources and capabilities of SAWS/OFASA with those of the GOC's nutrition coordinating body, the Food and Nutrition Council, (CONPAN) and with the National Health Service (NHS) in developing and carrying out programs for the highest

nutrition priority group. This first collaborative effort is a program to supplement the feeding of malnourished children.

The specific purposes are 1) to test the cost-benefit effectiveness of an intervention program reaching targeted malnourished infants and children as the basis for an informed CONPAN decision on the program's relative efficacy in reducing malnutrition within this group and on whether to continue and/or expand the proposed program and 2) to improve the physical well-being of a substantial number of infants and pre-school children who are now in first and second degrees of malnutrition, and 3) to reduce the number of new entrants and re-entrants into the malnourished categories through nutrition education of the mother.

B. Conditions Expected at the End of the Project

Preliminary information from the pilot program undertaken in Antofagasta leads us to assume that 60% of the children will be returned to normal health, or reducing the incidence of malnutrition from 15.6% to 6.3% in the clinics where the SAWS/OFASA program is operating. Nationwide, this would suggest a reduction from 15.6% to 13.3% since one quarter of the children classified as malnourished will be in the program by the end of FY 75.

Interim evaluations will determine the project's life span.

March 1976: The first 13,000 children (Group I) entering the program in January 1975 will reach their sixth month of feeding in June 1975 and a preliminary analysis will be made in July 1975 of the number returned to normal health. A more complete study will be made when the children have been in the program for 12 months, in January 1976.

CONPAN will take into consideration actual program cost, effectiveness in attaining goals, then will decide whether or not to support the program at current or expanded levels, for the period subsequent to the end of USG financial support.

August 1976: By Dec. 1975 and June 1976, an additional 12,000 children (Group II) will have been in the program for 6 months and 12 months respectively. An analysis will be made of the project's effectiveness in bringing these children out of the malnourished category.

By June 1976, Group I will have been out of the program for six months and the results of program cutoff can be studied. We do not have facts on repeater rate at the present time but are assuming that it

will be less than 50% and that the number of sibling entrants will be less than 50%. The figures derived from this study will indicate the effectiveness of the training and education programs to modify practices of infant and child feeding and of hygiene and sanitation in the home.

The overall expectation of success, then, given a 60% improvement rate for children while in the program and an assumed 50% failure rate in repeaters and sibling entrants, is 30% among identified cases of first and second degree malnutrition in the clinics where the SAWS/OFASA program has been in operation. This would reduce the incidence rate of 15.6% to 10.9%.

This expectation is based on the fact that the supplemental food provided in the program (Title II WSB, CSB and rolled oats and GOC 26% b.f. milk) will supply 100% of the Recommended Daily Allowance in protein grams and from 38% to 75% of the RDA of calories (depending on the age group). See Table I for complete information on Nutritional Value of the Supplemental Foods and Section VI H. for full discussion.

While the primary goal is to reduce malnutrition in the 0 through five age group it is also assumed that there will be a reduction in child mortality and this information will be included in the analyses.

C. Basic Assumptions for Achieving Project Purpose

The most crucial assumption to achievement of project purpose is the full cooperation of the NHS clinics in understanding and promoting the program and in reinforcing the training aspects.

Other important assumptions are that the commodity inputs are actually consumed by the intended beneficiary and that other health problems do not interfere more than in normal years with general infant and child health.

III. THE PROJECT OUTPUTS

A. Specification of Project Outputs

The principal outputs are:

1. A coordinated interagency (SAWS/OFASA/NHS/CONPAN) program to the targeted malnourished designed and operating.
2. Title II food increasingly channelled to highest priority groups.

3. Feedback into program of information concerning home consumption and nutrition practices.
4. Data concerning cost-benefits effectiveness in targeted food distribution program developed and employed.
5. Clinic personnel trained or "reoriented" for more effective teaching of mothers of malnourished children.
6. Educational materials delivered to mothers of malnourished.

The magnitudes and expected timing of project outputs are shown in Table II.

B. Basic Assumptions

Most important to achievement of outputs is interagency cooperation that will improve and continue throughout the program and assurance that each participating agency will have or receive the means to achieve the desired results.

Other assumptions are that the results of the analyses and surveys will be adequate and will be applied to improving the program as it continues and that there will be the means to carry out expanded activities for the malnourished once there is a basis for an informed decision.

IV. PROJECT INPUTS

A. Specification of Project Inputs

The project inputs are shown in Table III.

Part of the incremental costs being requested for FY 75 from USAID/Santiago and those for the balance of FY 75, for FY 76 and FY 77 from AID/W central funds for voluntary agency development programs are summarized below. (in thousands of dollars)

<u>I. USAID</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>
<u>A. Personnel Services</u>			
1. Program Coordinator ^{a/}	.75		
2. Travel & Per Diem support of students ^{b/}	.4		
3. Travel & Per Diem support of trainers ^{c/}	.95		

<u>B. Commodities</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>
1. Sacks and bagging ^{d/} _{e/}	4.3		
2. Didactic materials ^{e/}	3.75		
	<u>10.15</u>		

II. Central Voluntary Agency Development Fund

A. Personnel Services

1. Program Coordinator ^{a/} _{f/}	.75	4.5	4.5
2. Technical Assistance ^{f/}	7.5	16	16
3. Travel & Per Diem for students ^{f/} _{c/}	.4	2.0	2.5
4. Travel & Per Diem for trainers ^{c/}	.95	7.6	23.6

B. Commodities

1. Sacks & bagging ^{d/} _{e/}	4.3	48.0	50
2. Didactic materials ^{e/}	5.75	22.5	9.0
	<u>19.65</u>	<u>100.6</u>	<u>105.6</u>

Notes on Budget

- a/ The Coordinator will be paid a local salary in line with SAWS/OFASA payment levels.
- b/ Transportation token per diem for six students, estimated at \$23 a month each.
- c/ Travel and \$10 per diem for two advisers (in FY 75, 10 weeks to cover 80 clinics would cost \$1,400 for per diem and allow \$500 for travel; in FY 76, covering an additional 320 clinics will require 40 weeks, at a cost of \$5,600 for per diem and allowing \$2,000 for transportation. By FY 77, clinics will become increasingly remote and it is estimated that plus 140 weeks of training will be required; and transportation will likely cost about \$4,000 for this year.
- d/ Estimated at \$.04 a kilo, the same price paid by the NHS for packaging of milk.
- e/ The design cost of a basic nutrition education pamphlet will be shared with CRS/CARITAS since both programs will use the same basic nutrition education booklet. The cost of printing four-color booklets with pictures is estimated at \$.10 each. Because materials must be ordered in advance and larger orders mean lower prices, it is planned to purchase 25,000 copies in FY 75 and 75,000 copies in FY 76. The cost of the posters and color control cards is estimated at \$.10 per person.

f/ Technical assistance will be in the form of contract services available to SAWS. It might be the assistance of a team to solve a special problem, or a person to serve as technical adviser in setting up the initial guidelines, or an expert in whatever aspect of the program needs attention. It is clear that this manpower along with the administrative Coordinator will be required if the program is to show the results expected - i.e., be a valid intervention test. The man months available to SAWS will depend on whether contractees are Chilean, or American, or are travelled from other areas of L.A.

Per capita costs are estimated as follows (based on average coverage of 50,000 in the program), (in thousand dollars)

I. Title II food (at FY 74 prices)	\$ 10.80
II. SAWS administration for delivery of food to recipient	1.30
III. USAID/USG	
Personnel services	.40
Sacks, bagging, sealing	1.32
Survey support	.04
Materials	.30
Support of trainers	.15
IV. GOC	
Evaluation	.12
	<hr/>
	\$ 14.43

Part of the FY 75 costs are to be met by the USAID under approved PROP #513-15-560-271, Child Nutrition. Requested herein for earliest consideration and funding prior to June 30, 1975, are the costs for the balance of FY 75, for FY 76 and FY 77. FY 77 costs, except for the above items and subsequent year programs, are to be funded under the GOC nutrition loan or other source. However, continuation of the program beyond FY 76 will depend on its cost-effectiveness during the first year and a half of operation.

B. Basic Assumptions

It is assumed that Title II commodities will be available at the programmed levels and that the GOC milk program or other commodity input will be continued at the present level. It is further assumed that AID/W central voluntary agency development funds will be approved at the requested level for FY 76 and that the nutrition loan to the GOC will be approved.

V. RATIONALE

A. The Problem

Nearly one out of 10 live births in Chile in 1973 ended in death before the age of one year (a rate of 88/1000 according to UN figures, among the highest in Latin America). Despite extensive pre-natal and vaccination programs, 20,000 under-one year olds die annually. While only 541 of these deaths were attributed to "nutrition related" diseases, in 1973, e.g., it is guessed that malnutrition working synergistically with the two identified disease killers, bronchial pneumonia and diarrhea, entered prominently in the causes of infant mortality. It is also believed that protein-calorie malnutrition (PCM) is more of a problem in Chile than either protein or vitamin deficiency. Of the 638,005* children under medical surveillance in the NHS clinics, 15.6%, or nearly 100,000 are classified in first, second, or third degrees of malnutrition. The highest percent of malnourished are in the 12-23 month age group-- 19.8%. In the 0-11 month age group, 16.5% are malnourished, and there are 13.9% malnourished in the 0-5 age group.

The highest inflation rate in the world, lag of income behind prices, unemployment, large family size, and other social, economic and political factors have resulted in an acute food supply problem for the lower income groups. The recently published Poverty Map reveals that extreme poverty extends more or less uniformly over the country in all the provinces rather than being concentrated in urban areas. It was found that two million persons, or one out of five, are living in extreme poverty.

B. The Approach

Long-term high investment undertakings such as improved environmental sanitation projects are needed to solve the underlying causes of child malnutrition. Such measures, along with short-term solutions such as targeted free food distribution, are being studied by CONPAN. This council was created in March, 1974, to conduct national nutrition planning.

CONPAN's action plan states its highest priority to be that of reducing the incidence of PCM in the 0 through five-year-old age group.

(*) This constitutes about 60% of the 0-6 year old group. The balance are seen by private physicians, in other health programs (Armed Services, etc.) and the rest, sporadically or not at all, in the NHS. There may be a substantial number without care of any kind. It is estimated that there are 30,000 more malnourished in Chile not being seen in the clinics.

The cost effectiveness of various interventions with good success potential is currently being analyzed. In this experimental phase, it is timely to draw on the capacity of new action programs such as the malnourished program proposed by SAWS/OFASA which can provide useful information on a distribution/education intervention.

The SAWS/OFASA preliminary operation in Antofagasta has distributed extra Title II food to malnourished children. There are good, but unanalyzed, indications of weight gain in these children and of commodity acceptability. Clinic personnel have shown great interest in carrying out this type of program. As a result of these findings SAWS/OFASA believes that it is ready to expand the program as soon as possible, improving certain aspects which require financial assistance, and evaluating properly the program's effectiveness.

1. The first improvement needed is in the food delivery system. In the past, Title II foods have been shipped in bulk to the clinics, where clinic personnel have repackaged it into unlabeled individual bags for distribution. Time spent in this occupation is desperately needed for giving more individual help to mothers and for training groups of mothers. Thus, future plans call for sacking the three commodities (WSB, CSB and SF Rolled Oats) in one-kilo polyethylene bags at the GOC milk packaging plant prior to distribution to the clinics.

These bags will be marked "For Children Only." (WSB will be packaged for infants up to six months of age and will be marked "For Babies Only"). This procedure is designed to solve an apparent problem encountered in delivering GOC milk: consumption of the food by other than the intended beneficiary.

2. The second need is for training and education. Unless home practices in sanitation, hygiene and purchasing habits are improved, even infants and children who have regained weight in the malnourished program will regress to the malnourished classification.

Assistance is required to fund a traveling team consisting of a nurse-nutritionist and a health educator who will work individually in the various clinics throughout the project area. Initially, only one such team will be needed, although more will be requested once the program expands.

This team will develop a teaching manual for clinic personnel. This manual will be used, along with resources such as slides, etc., for directing in-service training in the clinics.

A pamphlet directed to the mother will also be developed. This brochure will concentrate on basic problems of nutrition, hygiene and sanitation. It will be written in simple language and pictures, and each mother in the program will receive a free copy.

The team educators will travel separately, in order to provide the maximum teaching hours, to approximately 8 clinics per week.

Information gained from the Home Consumption Survey will be provided to the trainers and in turn to the clinic personnel so that the training message becomes increasingly aimed at the key home problems and the realities of solving them.

In summary, the malnourished program undertaken by SAWS/OFASA will 1) provide a pilot study for CONPAN (evaluations available in August, 1976, will include cost-effectiveness information on the delivery of training and education), 2) channel an increasing percentage of Title II foods to top priority recipients and 3) will reduce the incidence of malnutrition in the zero through five age group with statistical confirmation.

COURSE OF ACTION

1. Preparatory Work

During December, 1974, and January, 1975, SAWS/OFASA will undertake the following actions while awaiting funds for program implementation. These points must be accomplished prior to launching the full program reaching 13,000 malnourished children.

1. Estimate packing requirements and reach contractual agreement on delivery and costs of printed kilo sacks.

2. With CONPAN backing and coordination, request the university to recommend students for undertaking the Home Consumption Survey and decide on the desirable survey content.
3. Select from the university, or other source, a training team, preferably a nurse-nutritionist and a health educator, to train in the clinics. If a loan of personnel is not possible, salaries for this team should be requested from USAID and CONPAN and AID/W.
4. Arrange, in conjunction with NHS and CONPAN, for preparation and printing of training material to be used in clinics.
5. In collaboration with CRS/CARITAS, NHS and CONPAN, arrange for design and printing of educational materials for mothers.
6. Working with the CONPAN analyst, set up parameters of information gathering in the clinics for the January program and decide where food shifts, if required, should be made within the program.

B. Program Growth

January 1, 1975, is a realistic starting date for coverage of the number of malnourished children proposed. SAWS/OFASA has already made the initial contacts and explained the program in three of the four geographical areas where the January buildup will occur-- Antofagasta, Buin, Temuco and Santiago. There have already been satisfactory preliminary trials with the commodities.

Table II shows the reach of the program, both cumulative and in the rate of taking on new beneficiaries as former ones leave the program after one year, as well as the total number in the program during each of the fiscal year semesters.

C. Clinic Coverage

The program will be centered in the outpatient clinic nearest the child's home. There are approximately 2000 "polyclinics" and consultorios throughout the country with varying staff on board. A small one might have only a nurse auxiliary in charge, while larger ones have doctors, nurses, nutritionists, social workers and nurses aides. In the early stages, the number of clinics will be fewer in proportion to the numbers of children reached than later on in the program.

D. Diagnosis

A weight-for-age chart (standardized for Chile) is used for diagnosis. If the child is 10 to 25% below normal weight, he is classified as 1st degree malnourished (or leve); 26 to 49% below, as 2nd degree (or mediana), 50% or below, as 3rd degree (or grave). If a child is diagnosed as malnourished he will carry a colored tag indicating the degree of malnutrition. During each clinic visit, the child's classification is checked and if he gains or loses weight, and changes classification the tag color is changed. (Previous information on malnutrition is of course always available on a child returned to health). Since the first signs of malnutrition are weight lag for age, this is a valid, easy and inexpensive method of determining which children should be included in the program.

E. Training

The nurse-nutritionist and health educator will be able to cover an average of eight clinics a week to provide in-service training, hopefully, to all clinic workers, not just the professionals. This will help to build group approval of the program and to strengthen new ideas of implementation common to the particular situation. In turn, the clinic nutritionist or nurse will instruct the mothers on food use, ^{or} recommended infant and child feeding practices and improved hygiene and sanitation in the home. The teaching and general concepts of good nutrition will be reinforced with educational leaflets, information included with the food bag, informal lessons in the clinics, home visits, clinic posters and, where available, slides and movies. It will be suggested that the clinics arrange to see the children classified as malnourished on one scheduled day of the week to make the grouping of mothers easier. As an additional motivation, the mother will be given a weight-age card visually indicating the health status of her child. The clinic nurse will record on this card the same information as that kept in the clinic.

F. Duration of Coverage for the Malnourished Child

When the child has returned to normal weight for age (this will take an estimated nine months for second degree malnutrition, and six months for first degree),, has maintained this status for at least three months and is free from other complicating health factors, he is considered "cured" and out of the program.

The average length of time that a child will be in the program has been estimated to be 12 months. This will allow those children whose home conditions are considered hazardous to their health to remain in the program longer than the usual length of time. Such decisions will be made by clinic personnel.

G. Home Consumption Survey

The Home Consumption Survey will begin in the clinics, where mothers will be interviewed by a team of two workers and will answer a questionnaire designed to learn about family nutrition and hygiene practices.

These interviews will be followed by visits to selected homes. The number of homes visited by the surveyors will be minimal, but each visit will be an in-depth probing as to the family's sanitation practices (especially in regard to food preparation for infants and children), information about the water supply, hygienic practices, food purchasing patterns, family income, etc. Information gained from similar studies made in other Latin countries indicates that only one home per day can be surveyed.

The survey will continue for the length of the program, in order to spotcheck directly the effects of nutrition education, or the lack of it. There will be some return visits in order to compare pre- and post-education program practices.

H. Nutritional Value of the Food Rations

Table I shows the nutritional value of the now available Title II food when given with the currently distributed 28% b.f. GOC milk. It is fully recognized that the exceedingly large number of protein grams and the relatively few calories provided by the food and the milk are not the most desirable supplement for Chilean needs. It appears that children often receive no or few calories from outside the program. Present information indicates that the usual high amounts of carbohydrates assumed available in high-protein donation programs are not being consumed by the needy in Chile.

Future planned replacements for milk (Fortesan for up to two years old and Superchil for two through five years) will reduce the protein grams (e.g. Superchil provides 200 protein grams per kilo compared with 270 grams of protein in 26% milk) and will also reduce the calories (4200 in a kilo of Superchil and 4960 in a kilo of 26% milk).

More complete information on consumption of non-programmed food is vital for a determination of the best possible mix of Title II foods which the agency should be adding to available milk or blended foods. At the moment Title II unfortified cereals would seem to be the best addition available.

Although the program ration is not ideal, this should not hold up a program that is ready to expand to serve the most vulnerable part of the population. In all likelihood, protein is being wasted for energy, but this program is the only one presently available to put extra calories into the diets of malnourished infants and children in the NHS clinics.

There is also the possibility that the present milk product will be replaced by a blended high protein powder to be mixed with water. When blended foods become available in volume and are considered for this program, SAWS/OFASA in cooperation with the NHS and CONPAN will decide on recommended levels of supplementation. Rather than speculate on the likely nutritive content of these blends, we have based this program on Title II WSB, CSB and rolled oats, with the suggestion that unfortified cereals be considered for the future.

I. Effects of Phasing Out Title II Commodities

The concept of widescale food distribution to needy vulnerable groups is fully accepted by the GOC and various research efforts are directed to developing blended foods which are more economical than milk. The eventual phasing down and out of Title II programs will not curtail the program if it is shown to be an effective means of improving child health, and if Chile's economic picture is good.

J. Evaluation

The NHS records on children will be analyzed at six months intervals while children are in the program and after leaving it (up to one year). The first six months analysis will be completed by July or August 1975. These results will be the subject of a CONPAN/SAWS one or two day meeting no later than September, 1975, following which a brief written report will be prepared by SAWS/OFASA in collaboration with CONPAN and provided to the USAID and AID/W.

When the program has been in effect one year - or no later than February, 1976, a full evaluation workshop with participation of USAID, CONPANI, NHS, and SAWS/OFASA will be held in Santiago. Assessed will be the actual improvements in children's health status and the cost-effectiveness of the program during the first year. SAWS/OFASA with assistance from CONPANI and USAID will prepare a written report for AID/W to include sections on 1) results achieved and 2) recommendations for the future - continuation or not, need for redesign, other modifications.

If the program is continued, the above pattern of evaluation will be carried out, i.e., a CONPANI/SAWS/OFASA review every six months and a full evaluation workshop annually with all participating agencies.

K. Impact of the Project on Women:

This project is expected to influence favorably the professional standing of women health educators and nutritionists who will serve as trainers in the program since they will be in the role of upgrading nutrition training in the clinics. These are professional roles in Chile that merit higher prestige than they now seem to enjoy. Comment on the accuracy of this thesis will be included in the PAR.

TABLE INUTRITIONAL VALUE OF COMMODITIES IN PROGRAM

	<u>Daily grams of protein</u>	<u>Daily number of calories</u>
<u>0-5 months</u>		
Title II WSB, 1 kilo/month	6.6	120
GOC Milk, 26% 3 kilos per month	27	496
	<u>33.6</u>	<u>616</u>
Recommended Daily Allowance*	12.7	820
% of RDA	264%	75%
<u>6-11 Months</u>		
Title II WSB/CSB/Oats, 1 kilo/month	6.5	123
GOC Milk, 26%, 2 kilos/m	18	331
	<u>24.5</u>	<u>454</u>
Recommended Daily Allowance	12.7	820
% of RDA	193%	55%
<u>12-23 Months</u>		
Title II WSB/CSB/Oats, 3 kilos/m	19.6	370
GOC Milk, 26%, 2 kilos/m	18	331
	<u>37.6</u>	<u>701</u>
Recommended Daily Allowance	21.5	1360
% of RDA	174.8%	51.5%
<u>2-3 Years</u>		
Title II WSB/CSB/Oats, 3 kilos/m	19.6	370
GOC Milk, 26%, 1 1/2 kilos/m	15.8	205
	<u>35.4</u>	<u>575</u>
Recommended Daily Allowance	21.5	1360
% of RDA	164%	42.3%
<u>4-6 Years</u>		
Title II WSB/CSB/Oats, 3 kilos/m	19.6	370
GOC Milk, 26%, 1 1/2 kilos/m	15.8	205
	<u>35.4</u>	<u>575</u>
Recommended Daily Allowance	24.5	1830
% of RDA	145%	31.4%

(*) Based on "Requerimientos de Energías y Proteínas, FAO/OMS
Dra. M. Angélica Tagle 1973.

TABLE II

OBJECTIVELY VERIFIABLE INDICATORS

- Outputs -

<u>Indicators</u>	<u>FY 75</u>		<u>FY 76</u>		<u>FY 77</u>	
	<u>1st Sem.</u>	<u>2nd Sem.</u>	<u>1st Sem.</u>	<u>2nd Sem.</u>	<u>1st Sem.</u>	<u>2nd Sem.</u>
1. Coordinated Inter-agency Program for Malnourished Children in operation.						
a. Project designed	x					
b. USAID grant for begin. approved and funds avail.		x				
c. AID/W Volag funds avail.		x				
d. CONPAN approves continuation and funds program				x		
2. Title II increasingly channelled to highest priority group - 0 through 5.						
a. New beneficiaries in program		13,000	12,000	30,000	45,000	30,000
b. Cumulative reach			25,000	55,000	100,000	130,000
c. Total in program		13,000	25,000	42,000	75,000	75,000
d. % of total malnourished reached (out of present figures of 130,000)		10%	19%	42%	77%	100%
3. Home consumption survey						
a. NP houses checked		300		720		720
b. Periodic reports			x	x		x
4. Analyses of effects (at six month intervals) of						
a. Supplemental food on health of children			Group I Pfelim.	Group I 12 mos.	Group II Group I	Group III Group II
b. Nutrition education on mothers' practices						
5. Training						
Number of non clinics covered (cumulative)		80	200	400	715	1400

TABLE III

INPUTS

	<u>FY 75</u> <u>\$ 000 MM</u>		<u>FY 76</u> <u>\$ 000 MM</u>		<u>FY 78</u> <u>\$ 000 MM</u>	
I. <u>USAID</u>						
A. <u>Personnel Services</u>						
1. Program Coordinator, salary/benefits	.75	2				
2. Travel and Per Diem Support of students carrying out Home Consumption Survey.	.4					
3. Travel and Per Diem support of professional trainers	.95					
B. <u>Commodities</u>						
1. Sacks & bagging	4.3					
2. Didactic materials Design & printing of 2 booklets, control cards.	3.75					
	10.15					
TOTAL USAID GRANT						
II. <u>Central Volog Development Funds</u>						
A. <u>Personnel Services</u>						
1. Program Coordinator, salary/benefits	.75	2	4.5	12	4.5	12
2. Technical Assistance	7.5	3-12	16.	6-24	16.	6-24
3. Travel & per diem support of students	.4		2.0		2.5	
4. Travel & per diem support of professional trainers	.95		7.6		23.6	
B. <u>Commodities</u>						
1. Sacks & bagging	4.3		48		50	
2. Didactic Materials (Design & printing)	5.75		22.5		9.0	
	19.65		100.6		105.6	

TABLE III (Cont)

	FY 75		FY 76		FY 77	
	\$000	MM	\$000	MM	\$000	MM
III. Title II	63		352		738	
IV. GOC/SAWS/OFASA						
Support of SAWS/OFASA Budget for delivery of commodity to recipient, program management	15.5	45	75	123	100	210
V. GOC						
A. CONPAN/NHS/University						
1. <u>Personnel Services</u>						
a. Evaluation analyst and computer time (CONPAN)	2.0	4	6	8	6	8
b. University students	.4	24	1.2	72	1.2	72
c. Health Educator & Nurse Nutritionist	1.0	5	4.0	20	4.0	62
d. NHS administration	6000		6000		6000	
2. <u>Commodities</u>						
a. Milk program	370.6		1412		2200	
b. Bags & sacking					350	
VI. SAWS/OFASA, private funding personnel	1.8	14	3.6	42	3.6	63

BENEFICIARY COVERAGE

TABLE IV

	FY 75	FY 76	FY 77	FY 78
Group I 13,000	6 Mos.	6 Mos.		
Group II inc. 12,000		6 Mos. 6 Mos.		
Group III inc. 30,000		6 Mos.	6 Mos.	
Group IV inc. 45,000			6 Mos. 6 Mos.	
Group V inc. 30,000			6 Mos.	6 Mos.
Total Malnourished taught: 130,000	13,000 6 Mos. or equivalent of 6500 - 12 Mos. beneficia- ries.	13,000 6 Mos. 12,000 12 Mos. 30,000 6 Mos. or equivalent of 33500 - 12 Mos. beneficiaries	30,000 6 Mos. 45,000 12 Mos. 30,000 6 Mos. or equivalent of 75,000 - 12 Mos. benef.	30,000 6 Mos. or equivalent of 15,000-12 Mos. beneficiaries.

Average coverage period is 12 months.

TABLE V

TITLE II COMMODITY REQUIREMENTS

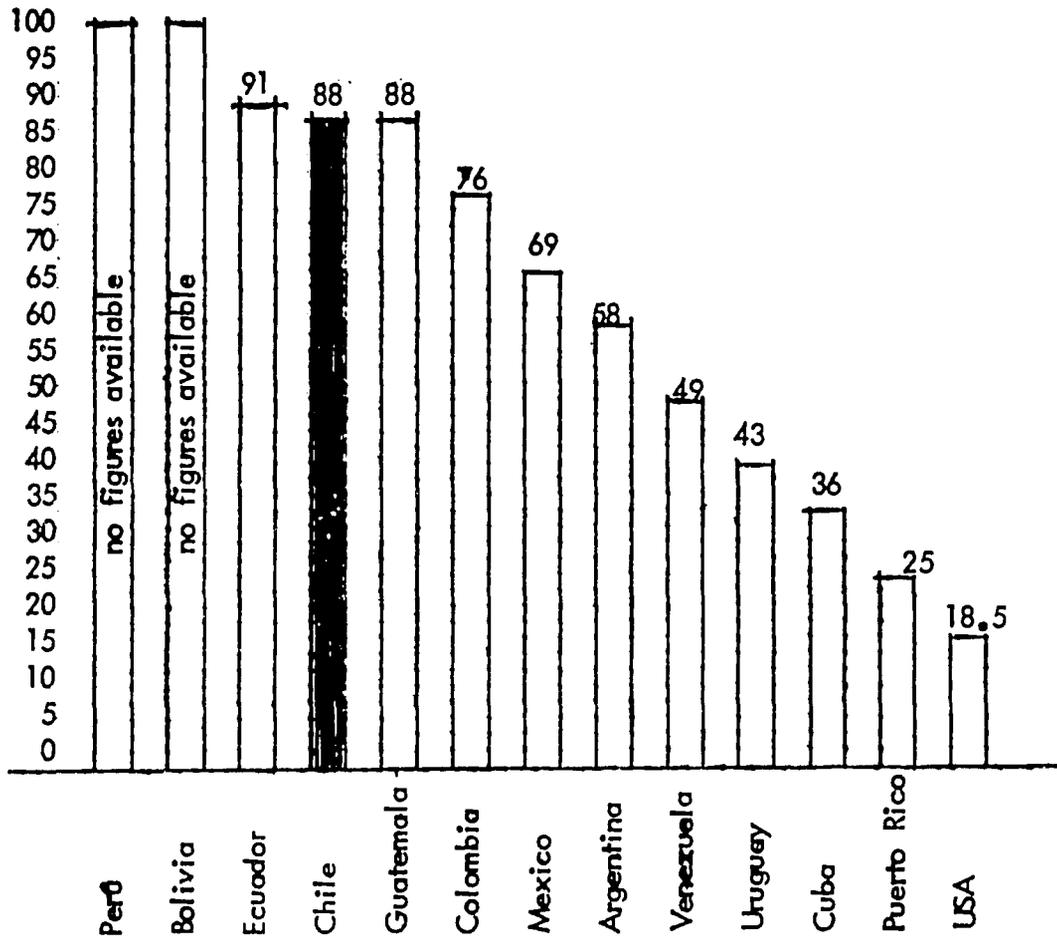
<u>SAWS/OFASA</u>			<u>MTS (a)</u>	<u>000 lbs.</u>	<u>\$000 (b)</u>
FY 75	2nd Half	13000	215	473	63
FY 76	1st Half	25000	420	2642	352
	2nd Half	42000	<u>780</u>		
FY 77	1st Half	75000	1260	5544	738
	2nd Half	75000	<u>1260</u>		
FY 78	1st Half	30000	504	1109	148

(a) Beneficiary ration as follows:

- 0-5 mos. (10% of group) 1 kilo per month
- 6 mos. through 5 (90% of group) 3 kilos per month.

(b) includes ocean freight, computed at FY 74 prices,
i.e., \$36 WSB \$26 for CSB and rolled oats.

Infant Mortality Rates in Selected American Countries



C O P Y

CHART B

Servicio Nacional de Salud
Departamento Técnico
Sub Depto. Fomento de la Salud
Sub Depto. Estadística

Zona: Chile

Area.....

Establecimiento.....

Abril Octubre 1974

EVALUACION SEMESTRAL DEL ESTADO NUTRITIVO

(Por peso - edad)

POBLACION Y ESTADO NUTRITIVO		Total (0-5 años)	De 0-11 meses	De 12-23 meses	De 2-5 años 11 meses	
Población Asignada (4)		1.102.474	195.340	151.216	723.344	
Población en Control (5)	Nº	638.005	125.000	127.548	283.248	
	%	57.9	64.0	85.4	53.1	
Estado Nutritivo Normal (Eutróficos)						
DESNUTRICION	TOTAL	Nº	99.677	20.625	25.570	53.482
		%	15.6	16.5	19.8	13.9
	LEVE (I Grado)	Nº	74.574	13.947	18.337	42.289
		%	74.8	67.6	71.7	79.1
	MEDIANA (II Grado)	Nº	19.984	4.749	5.532	9.703
		%	20.0	23.0	21.6	18.1
	GRAVE (III Grado)	Nº	5.119	1.929	1.701	1.490
		%	5.2	9.4	6.7	2.8

.....
Firma Estadístico

.....
Firma Director Del Establecimiento

Fecha:

.....
Firma Jefe Programa Infantil

RECOMENDACIONES DIARIAS DE ENERGIA, PROTEINAS, VITAMINAS Y MINERALES PARA DIVERSAS EDADES Y ESTADOS FISIOLÓGICOS

(Basado en: "Requerimientos de energía y proteínas" Informe de Comité de Expertos FAO/OMS Roma 1971: "Nutrición 73", Dra. María Angélica Tople, Santiago, Chile, 1973)

	ENERGIA k. cal	PROTEINAS g.	(VIT. A) Retinol ug.	Tiami- na mg.	Ribo- flavina mg.	Niacina EQUIVA- LENTE(3)	VIT. C mg.	Calcio mg.	Hierro mg.(4)					
0-1 año	820	12.74(1)	300	0.32	0.43	5.2	20	500-600	7					
1-3 años	1.360	21.5 (2)	250	0.54	0.74	8.9	20	400-500	7					
4-6 años	1.830	24.5 (2)	300	0.73	1.00	11.0	20	460-500	7					
7-9 años	2.190	31.0 (2)	400	0.87	1.20	14.4	20	400-500	7					
10-12 años	Hombre	Hombre(2)	575	0.99	1.36	16.3	20	600-700	Hombre					
	Mujer	Mujer(2)							Mujer					
	2.600	0.81 g/kg/día	0.76g/kg/día						7					
13-15 años	2.900	2.490	0.72	"	0.63	"	725	1.08	1.48	17.8	30	600-700	12	18
16-19 años	3.070	2.310	0.60	"	0.55	"	750	1.07	1.48	17.7	30	500-600	6	19
ADULTOS														
20-40 años	3.000	2.200	0.57	"	0.52	"	750	1.04	1.43	17.2	30	400-500	6	19
Embarazo	285	13 (2)	-	0.13	0.18	2.2	20	600-700	-					
Lactancia	550	24 (2)	450	0.20	0.28	3.3	20	600-700	-					

(1) Proteína con un UPN 95

(2) " " UPN 70

3) 1 equivalente = 1 mg. de niacina, o 60 mg. del aminoácido triptófano

(4) Se considera que entre el 10 al 25% de las calorías provienen de alimentos de origen animal.

5) Las recomendaciones calóricas disminuyen de acuerdo a la edad, en la siguiente forma:
 - de 40 a 50 años: al 95% ; - de 50 a 60 años: al 90%
 - de 60 a 70 años: al 80% ; - de más de 70 años: al 70%

PARA POBLACION CHILENA:

- Recomendación calórica per/cap./día:
2.362 Cal.

- Nivel seguro de ingesta proteica per/capita/día: 40 g. (UPN 70)