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UNCLASSIFIED

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D.C. 20523

BOLIVIA

PROJECT PAPER

SELF-FINANCING PRIMARY HEALTH CARE  
(Amendment # I)

AID/LAC/P-361&CR  
AID/LAC/P-172

Project Number:511-0569

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AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT DATA SHEET**

1. TRANSACTION CODE  
 A = Add  
 C = Change  
 D = Delete

Amendment Number 1

DOCUMENT CODE 3

2. COUNTRY/ENTITY Bolivia

3. PROJECT NUMBER 511-0569

4. BUREAU/OFFICE  
Latin America & the Caribbean 05

5. PROJECT TITLE (maximum 40 characters)  
Self-Financing Primary Health Care

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)  
 MM DD YY  
08 31 90

7. ESTIMATED DATE OF OBLIGATION  
 (Under 'B.' below, enter 1, 2, 3, or 4)  
 A. Initial FY 83 B. Quarter  C. Final FY 90

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY <u>83</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	( 150 )	( 50 )	( 200 )	( 1,962 )	( 138 )	( 2,100 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
1.						
2.						
Host Country (Proj. Generations)					2,342	2,342
Other Donor(s) <u>HC (Title III)</u>		20	20		590	590
<b>TOTALS</b>	150	70	220	1,962	3,070	5,032

9. SCHEDULE OF AID FUNDING (\$000)

A. APPRO- PRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) H	533	520		1,100		400		2,100	
(2) CS	533	520				600			
(3)									
(4)									
<b>TOTALS</b>				1,100		1,000		2,100	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	R/M	BS	DEL
B. Amount			

13. PROJECT PURPOSE (maximum 480 characters)

To establish a pilot self-financing primary health care delivery system, including a management support unit, to serve target low-income populations in the geographic area of Santa Cruz, Bolivia.

The USAID Controller has reviewed the financing procedures described herein and hereby indicates his concurrence.

*Steven G. Liapis, Controller*

14. SCHEDULED EVALUATIONS

Interim	MM	YY	MM	YY	Final	MM	YY
	05	96	09	88		05	90

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000  941  Local  Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a        page PP Amendment.)

This amendment adds \$1.0 million in grant funds and 3 years in time to the subject project. It increases the number of participating institutions/communities from three to six, and the estimated number of beneficiaries from 37,000 to 68,000. The amendment also expands the project's research component, the chief basis for decisions on possible replication of the program elsewhere in Bolivia.

17. APPROVED BY

Signature *David A. Cohen*

Title David A. Cohen  
Director, USAID/Bolivia

Date Signed MM DD YY  
03 30 87

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION  
 MM DD YY  
05 04 87

PROJECT AUTHORIZATION

(Amendment No. 1)

Name of Country: Bolivia  
Name of Project: Self-Financing Primary Health Care  
Number of Project: 511-0569

1. Pursuant to Part I, Chapter I, Section 104 of the Foreign Assistance Act of 1961, as amended, the Self Financing Primary Health Care Project was authorized on August 19, 1983. That authorization is hereby amended as follows:

Delete the first paragraph of the first page of the Authorization and insert in lieu thereof the following:

"1. Pursuant to Part I, Chapter 1, Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Self Financing Primary Health Care Project for Bolivia involving planned obligations of not to exceed two million one hundred thousand United States dollars (US\$ 2,100,000) in grant funds over a seven-year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D./OYB allotment process, to help in financing the foreign exchange and local currency costs of the project. The planned life of the project is seven years from the date of initial obligation."

Delete the second paragraph of the first page of the Authorization and insert in lieu thereof the following:

"2. The Project consists of establishing a pilot self-financing primary health care delivery system, including a management support unit, to serve target, low-income populations in the geographic area of Santa Cruz, Bolivia."

Except as expressly amended hereby, the Authorization remains in full force and effect.

  
\_\_\_\_\_  
David A. Cohen, Director, USAID/Bolivia

3-30-87  
Date

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Amended Project Authorization

SELF FINANCING PRIMARY HEALTH CARE PROJECT  
(511-0569)

Clearances:

PD&I: RJAsselin (in draft)

HHR: GBowers (draft)

CONT: SLiapis (draft)

DD:GAWachtenheim (draft)

GC/LAC: (State Cable 041170 dated February 12, 1987)

0253L

b

SELF-FINANCING  
PRIMARY HEALTH CARE PROJECT

(511-0569)

AMENDMENT No. 1

USAID/Bolivia  
February 1987

SELF FINANCING PRIMARY HEALTH CARE  
PROJECT PAPER

(Amendment No. 1)

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Glossary

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- E. Community Screening Models
- F. Waiver of Competition in Selection of Cooperative Agreement  
Recipient: State Cable 376625 dated 12/4/86

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Rec'd 2/12

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Reply due 2/18

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TAGS:

SUBJECT: AMENDMENT NO. 1 TO PROJECT AUTHORIZATION FOR  
BOLIVIAN SELF-FINANCING PRIMARY HEALTH CARE (SFPHC)  
PROJECT (511-0569)

REF: LA PAZ 01168

GC/LAC CLEARS AMENDMENT NO. 1 TO SUBJECT AUTHORIZATION  
WITHOUT COMMENT. SHULTZ

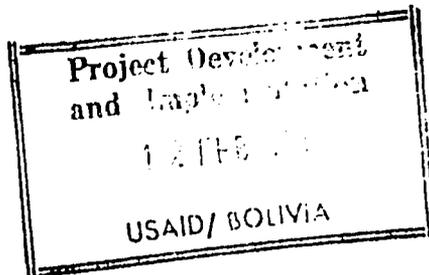
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SELF FINANCING PRIMARY HEALTH CARE PROJECT

Glossary

BCG	-	A vaccination against tuberculosis.
CIDA	-	Canadian International Development Agency.
CPI	-	Consumer Price Index.
DP	-	Office of Development Programs (USAID/Bolivia).
DPT	-	A triple vaccination in one injection: Diphtheria, polio, tetanus.
FEDECAN	-	Federación de Productores de Caña de Azúcar (The Federation of Sugar Cane Producers).
FENACRE	-	Federación Nacional de Cooperativas de Ahorro y Crédito (National Federation of Savings and Loan Cooperatives).
FIDES	-	Fundación Integral para el Desarrollo. (Consolidation of Colonization Project).
GOB	-	Government of Bolivia.
HHR	-	Office of Health and Human Resources (USAID/Bolivia).
INC	-	Instituto Nacional de Colonización (National Colonization Institute).
MACA	-	Ministerio de Asuntos Campesinos y Agropecuarios (Bolivian Ministry of Agriculture and Campesino Affairs).
MCC	-	Mennonite Central Committee.
MSH	-	Management Sciences for Health, a Boston-based non-profit entity, holder of a Cooperative Agreement for the Project since 9/30/85.
MSU	-	Management Support Unit.
MSW/PH	-	Ministry of Social Welfare and Public Health.
O.R.	-	Oral Rehydration.

O.R.S. - Oral Rehydration Salts.

O.R.T. - Oral Rehydration Therapy.

PD&I - Office of Project Development and Implementation (USAID/Bolivia).

PHC - Primary Health Care.

PRICOR - Primary Health Care Operations Research Project.

PROSALUD - Protección a la Salud. (Non-profit organization created under the Self-Financing Primary Health Care Project, whose legal status ("personería jurídica") was granted on August 21, 1985.)

PVO - Private Voluntary Organization.

UV - Unidad Vecinal - a neighborhood in Santa Cruz - each is numbered on the city's geographic plan.

WPI - Wholesale Price Index.

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SELF-FINANCING PRIMARY HEALTH CARE PROJECT

(511-0569)

Amendment Number 1

I. Summary and Recommendations

A. Summary

This Project Paper Amendment proposes adding one million dollars in additional grant funding and three years in project time to the Self-Financing Primary Health Care Project (511-0569), making this health care delivery and operational research program a US\$2.1 million, seven-year effort. This amendment also proposes increasing both the scope and resource share of the project's research component and the doubling of the number of institutions/communities receiving project-provided health services. The latter expansion of participant groups from three to six increases the number of project beneficiaries by 54%, to an estimated new total of 68,000 persons.

The original objectives of this project remain valid. The first is to test the financial and operational feasibility of establishing pilot, self-financing primary health care services for low-income persons in rural and semi-urban areas of the Department of Santa Cruz, Bolivia. The second is to establish a Management Support Unit (MSU) which will have responsibility for overall management of the project and for post-project activities. A third objective remains the testing of various health care "menus" (service packages) in order to arrive at the most acceptable ones from the individual patient, client group, care-giver, and financial points of view, and to provide a dependable basis for possible replication.

This project has important implications for A.I.D.'s health care portfolio in the future, as well as for future Ministry of Health (MOH) and other donor activities. When the self-financing goal of the project is met, and the concurrent base of financial information on various combinations of health services, costs, and fees has been generated, a basis will exist for providing additional self-financing health care systems in Bolivia. A.I.D. may consider funding a replication or further expansion of the project, based on the above-mentioned data/experience, and this self-financing information will also be made available to other donors and the MOH for possible use in their own health care activities. MSH has already had inquiries from two European assistance agencies in regard to the PROSALUD system, and the MOH has publicly endorsed PROSALUD as an emergent model of health care provision in Bolivia. As a final point, the health services component of the project has major child survival elements (see Section IV.B.1.c., page 32), which should help the MOH meet its ambitious goal of reducing child mortality/morbidity rates within the groups it serves by 50% by 1990.

Start-up of the Self-Financing Primary Health Care (SFPHC) Project was delayed two years (from August 1983 until August 1985) because of unresolvable disputes among the original three participating groups: the La Merced, San Julian, and Minero cooperatives. These disagreements eventually led to the cancellation of the grant agreement with the lead cooperative, La Merced; the withdrawal of the other two cooperatives; and the execution of a replacement Cooperative Agreement with Management Sciences for Health (MSH), a Boston-based, non-profit health services entity. During the approximately 18 months since MSH assumed responsibility for the project, substantial progress toward project objectives has been made. An important event during this

period was the transformation of the original Management Support Unit (MSU) - the project's health resources provider which was once located within La Merced Cooperative - into an independent legal entity called PROSALUD (Protección a la Salud). Having gained its official legal status, (personería jurídica), PROSALUD was able to enter directly into binding agreements to provide other organizations with health services.

Taking advantage of its new legal status, and advised by MSH and USAID, PROSALUD established pre-paid and fee-for-service programs in two rural communities (El Pailon and Cotoca) and one peri-urban area (Villa Pillín) in Santa Cruz Department. These three communities replaced the three cooperatives of the original project (with some major changes, as described in the Project Background and Revised Project Description Sections). Under the extension, PROSALUD will identify three additional participant groups, all institutions, to be recruited and served by mid-1988. This expanded participant configuration will allow comparisons between the three community-based groups and the three institution-based groups, adding an expanded research focus to the project. The extension's doubled number of partner organizations also raises the number of project beneficiaries by 54% - from 37,000 to 68,000.

A mid-term project evaluation conducted in May 1986 concluded that the objectives of the project could be attained, but that the original project design - and initial delays - allowed insufficient time and resources to achieve them. The evaluation consequently recommended an extension of the project, including the incorporation of design and implementation improvements arising from the project's experience during its 18 months of actual operations.

These latter changes would include the introduction of stronger marketing, management and research activities. The project extension described herein will enable PROSALUD and MSH to implement the recommendations of this evaluation, and thereby test the feasibility of establishing private-sector-based, self-financing health care services in Bolivia.

Of the one million dollars provided by the extension, \$600,000 is drawn from the child survival account, and \$400,000 from the PDS-Health account. The funds are commingled: approximately 63% will fund the delivery of health services, 9% the operations research element, and 28% the institutionalization of PROSALUD as a health delivery organization. Sixty-five percent of the personnel time and monetary resources of the health delivery unit will be spent on child survival-related activities.

This Project Paper Amendment calls for the extension of the life of the project through August 1990, for a total LOP of seven years, FY 1983 - FY 1990. The actual period of project operations, however, will be five years, FY 1985-90, considering the project's setbacks during its first two years.

The total AID contribution to the project will be \$ 2.1 million in grant funds, including \$1,100,000 provided under the original FY 1983 Project Authorization, and \$1,000,000 to be provided under Authorization Amendment No. 1. These funds will be complemented by host country contributions of \$592,000 in PL 480 Title III resources (292,000 FY 1985-87 and \$ 300,000 FY 1989-90), and \$2,341,570 to be generated by beneficiary purchases of project health services. The total cost of the project is US\$5,031,570.

A Summary Project Budget follows:

TABLE 1

SUMMARY PROJECT BUDGET

CATEGORY	A I D (GRANT)			HOST COUNTRY (HC)			GRAND <u>TOTAL</u>
	FX	LC	TOTAL AID	Title III	Project	TOTAL HC	
				LC	Revenues LC		
1. Technical Assistance	882,000	-	882,000	-	-	-	882,000
2. Training	42,000	-	42,000	60,730	-	60,730	102,730
3. Operating and Development Costs	339,146	51,066	390,212	489,236	1,667,519	2,156,755	2,546,967
4. Commodities	516,613	29,675	546,288	8,550	510,508	519,058	1,065,346
5. Operations Research	25,000	50,000	75,000	18,500	-	18,500	93,500
6. Contingencies	157,476	7,624	164,500	12,984	163,543	176,527	341,027
7. Total	1,962,235	137,765	2,100,000	590,000	2,341,570	2,931,570	5,031,570

B. Recommendations

The USAID/Bolivia project committee has determined that the proposed project extension is technically, administratively, socially, and financially feasible within the revised life-of-project period. The project was evaluated in May 1986 by a three-person evaluation team recruited by Resources for Child Health (REACH), an AID/W-funded contractor organization, and the amended project reflects the changes proposed by that evaluation. It is recommended that the project amendment be approved and that an additional AID grant for US\$ 1,000,000 be authorized, increasing total LOP funding for this project to \$ 2.1 million.

## II. Amendment Background

This pilot project will test the feasibility of establishing self-financing primary health care systems, to serve low-income populations, in communities and institutions in the Santa Cruz Department. Its long-term goal is to produce both the information base for, and tested models of, self-financing health systems, leading to the establishment of the same or similar systems for additional groups. The project will also provide 68,000 beneficiaries with curative, preventive, and child survival health services during the three-year extension period.

The original Project Paper's descriptions of the geographic, economic and health backgrounds for the project remain valid since the project environment is essentially unchanged. Section A below describes, in summary fashion, the evolution of the project during the period between project approval in August 1983 and the mid-term evaluation in May 1986. Section B summarizes the findings/recommendations of the intensive May 1986 evaluation. Section C outlines project activities in the period following the evaluation to the present (February 1987).

### A. Project Implementation, August, 1983 - May 1986:

#### A Summary\*

The Self-Financing Primary Health Care (SFPHC) project was designed as a pilot project to improve the delivery/availability of basic health services to low-income rural and semi-urban people in parts of the Department of Santa Cruz. Services provided under the

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\* Annex B contains a detailed account of the project's initial period.

project were to be established on a self-financing basis to help ensure their continuation beyond the life of the project. The SFPHC project was approved by USAID/Bolivia in August 1983, but did not begin preliminary activities until July 1984, when a "Management Support Unit" (MSU) was organized within the original project grantee, La Merced Cooperative in Santa Cruz. La Merced was one of three cooperatives - the others being two largely rural organizations in San Julian and Minero - which had originally agreed to participate in the project. However, serious inter-organizational differences among the three cooperatives eventually caused the paralysis of their working agreement. San Julian Cooperative withdrew from the project in mid-1984, leaving the other two Cooperatives, La Merced and Minero, and the new MSU, as the institutional participants. The situation deteriorated further in late 1984 in the face of unrealistic demands, including one for complete project control, which La Merced presented to USAID. In January 1985, USAID concluded that implementation of the project with La Merced Cooperative as the grantee would not be possible. This was communicated to La Merced, and steps were taken 1) to locate an alternative grantee and 2) to begin the requisite deobligation/reobligation process. Meanwhile, USAID continued project initiation work with the Management Support Unit (MSU), at that time still located within the general structure of La Merced Cooperative.

In January 1985, a contract representative of Management Sciences for Health (MSH) arrived in Bolivia to serve as technical advisor to the MSU. In August-September 1985, when the AID/W process to effect the deobligation/reobligation of funds had been completed, USAID officially terminated the La Merced cooperative agreement and executed a new cooperative agreement with MSH to continue the project. From that time on, MSH played a dual role - as project grantee and as provider of technical assistance to the

MSU/PROSALUD. The MSU was withdrawn from its parent body, the La Merced Cooperative, and on August 21, 1985 was granted independent legal status (personería jurídica) as a non-profit organization called "Proteccion a la Salud" or "PROSALUD."

Between the arrival of the MSH representative in early 1985 and September of that year, the MSU/PROSALUD was staffed and re-organized and completed virtually all pre-operational aspects of the project. Several community organizations were screened to replace the original cooperatives, and a number of them were subsequently invited to participate in the project as sponsors of Primary Health Care (PHC) service delivery modules. The project began its operational phase in February to June 1986 by establishing PHC services in three communities, one semi-urban and two rural.

Between October 1985 and the evaluation of May 1986, the project continued to develop on the basis of a close collaboration between MSH and PROSALUD. Among the important achievements during this period were:

- 1) The completion of the development of management and logistical systems designed to support the operation of primary health care service modules.
- 2) The obtention from the Unidad Sanitaria (local office of the Ministry of Health) of authorization to organize and operate primary health care services in the department of Santa Cruz. This authorization included a provision by which the Unidad Sanitaria could delegate the operation of some of its own facilities to PROSALUD under self-financing arrangements.

- 3) The completion of final planning for, and the initiation of health care services in, two areas: one in El Pailon, a rural town located about 60 kilometers from the city of Santa Cruz, and one in the peri-urban Santa Cruz neighborhood of Villa Pillin.\*

B. Mid-Term Project Evaluation, May 1986: Key Findings and Recommendations

In May 1986, an intensive, three-week evaluation of the project was carried out by a three-person evaluation team under an AID/W-funded contract to Resources for Child Health (REACH). The scope of work for the evaluation called for a review of the project's design, organization, management and implementation; an assessment of the feasibility of attainment of project objectives by the termination date of the project; and the presentation of specific recommendations concerning needed changes in project design, funding and scheduling. The main findings of the evaluation were the following:

1. The original project design failed to address the conflicting interests among the three original participating cooperatives.

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(\* The third participating community, rural Cotoca, began receiving services after the evaluation in May 1986.)

2. The operations research inputs to the project, expected from the PRICOR/FIDES contract, had not materialized, creating an information deficit. (This contract was a parallel effort, funded separately from the project but essential to it. The contract holder failed to perform.)
  
3. The de-obligation/re-obligation procedure of September 1985 retained the original goal and objectives of the project, while introducing important changes in strategy (i.e., the delegation of increased responsibility to an independent MSU, and the opening up of project participation to new types of community organizations). However, the issues inherent in these changes were not fully addressed in the September 1985 cooperative agreement with MSH. For instance, the recruitment of an institution's entire membership via a single contract was no longer likely to be the chief characteristic of the beneficiary population; the need to establish a research capability within PROSALUD, given the failure of the PRICOR/FIDES, effort was not planned for, and a need to define with more precision the long-term nature of the relationships between PROSALUD and beneficiary communities/organizations was not mandated.

The main recommendations arising from these findings were the following:

1. Several key aspects of the project should be defined/redefined on the basis of the project's past experience, and current, more realistic expectations. These include:
  - a) Need for a more precise definition of the role of PROSALUD -- as, for example, a direct provider of health care services; a support/management agency for health care modules that belong to cooperatives or community organizations; a consulting/advisory firm that develops and manages health care services, etc.
  - b) Analysis and reconsideration of the long-term nature of PROSALUD in relation to MSH. If PROSALUD is to be an independent, self-sustaining entity, then a schedule for gradual disengagement should be contemplated.
  - c) As a pilot activity intended to demonstrate the feasibility of self-financed medical services, the project should include a research component, and this research role should be assumed by PROSALUD (i.e. To replace the defunct, separate PRICOR-FIDES effort).

- d) A need to distinguish between the economic self-sufficiency of health delivery systems ("modules") established by PROSALUD, and the economic self-sufficiency of PROSALUD itself. Specifically, the evaluation team recommended that the project be extended in two stages -- an initial stage (3 years) to determine the organizational and financial feasibility of the health care modules, and a second stage, contingent upon the results of the first, to determine the financial viability of PROSALUD.

(Note: This evaluators' recommendation for a two-stage extension of the project was the basis of modest disagreement between USAID, MSH and PROSALUD on one hand, and the REACH evaluation report on the other. While the former parties believed that a three-year extension of the project provided ample time to test both the feasibility of PROSALUD and the ability of the service-delivery systems to attain financial self-sufficiency, the evaluation recommended the above described two-stage extension of the project.

USAID, PROSALUD and MSH have concluded that, given PROSALUD's post-evaluation decision to serve as owner/manager of the health care systems, PROSALUD must itself be considered a significant cost element of the health care system. Therefore, it cannot be evaluated separately and sequentially. The program redesign and extension reflect this conclusion.)

2. Project management should be reinforced as follows:
  - a) The appointment of an Executive Director of PROSALUD. (Accomplished in July 1986.)
  - b) Development of a PROSALUD Advisory Board including persons of prominent leadership position in the community. (Accomplished July-September 1986.)
  - c) Strengthening personnel recruitment procedures, improving time and task management at the main office and field posts, and refinement of the management information system. (Underway.)
3. The marketing effort with communities and community organizations should be improved by: a) revising the current marketing plan; and b) recruiting a full-time marketing specialist. (Both tasks completed August-September 1986.)
4. The health promotion and preventive care components of the project's health benefits package should be reinforced. (In process.)
5. The project should be extended, at least until mid-1990, to introduce the foregoing changes, and to allow ample time for reasonable observation and analysis of alternative approaches to self-financing health care. (This Amendment.)

Project activities following the evaluation, and the project redesign reflected in this PP Amendment, incorporate all of the evaluation's recommendations, except for the two-stage project extension, explained earlier.

C. Project Activities, April 1986 - January 1987

1. Health Care Services Delivered, April - December 1986

Three community-based health care systems were phased into service between April and October 1986. Members are still being added to these systems, but the present coverage is approximately 10,000 people. Eighteen service months were rendered by the three systems during the period April-December 1986. During those months, the following services were elected by project beneficiaries: (Full health care statistics are available in USAID/Bolivia files.)

a. Child Vaccinations: Innoculations against common childhood diseases are given free to dependents of all system enrollees. This is an inducement for the target population to join the system, and also addresses the MOH and USAID goals of reducing child mortality and morbidity rates by 50% by 1990. The two vaccination campaigns carried out so far were great successes - with almost 100% of the appropriately-aged children appearing for all three doses of the anti-polio and triple vaccines. In the first case, the numbers were 1,558, 1,524, and 1,529 for the three

injections. In the second, 1,644 children began the series, and 1,246 completed it. According to health workers, these numbers - especially in a vaccination series and in low-income populations unused to keeping appointments - are extremely high and indicate two things: the interest of the community in the basic health care services offered, and the success of PROSALUD's promotional efforts.

b. General Health Visits: 5,914 general health consultations were carried out.

c. Maternal and Child Health Care: 304 prenatal checkups were given, and 90 infants were delivered. (300 pregnant women are receiving care in February 1987.) In the same period, 958 child growth monitoring consultations took place.

d. Adult Vaccinations: 1,950 adult vaccinations were given.

Now that the three health systems are largely in place, health visits are expected to rise dramatically. In Year III of the Project Extension, with six HC systems in place, yearly health visits/interventions are expected to reach 212,000, based on a beneficiary population of 68,000.

2. Post-Evaluation Implementation Steps -  
May 1986-January 1987

As noted in the previous section, following the evaluation, all but one of the evaluation suggestions were either implemented, or a basis laid for their implementation. The three partner organizations which had been recruited in 1986, all community based, began to receive primary level health services, and additional recruitment efforts to expand the number of enrollees within these communities were undertaken. The projected financial statistics of the project were largely reworked on the basis of the new community memberships, which showed a preference for fee-for-service enrollment over the pre-paid alternative, changing original project projection assumptions which had rested on a pre-paid cooperative membership base. A decision was taken to limit future partner organizations to institutions, no more than three in number, so that the results of offering similar services to both community-based and institution-based groups could be compared. Discussions were begun with the union of municipal employees of Santa Cruz and with other membership-based institutions to recruit the three remaining clients. In addition, regular project activities (pharmaceutical purchases, refurbishing of facilities, enrollment of community members, etc.) continued at a heightened pace.

In summary, a continuing effort during this post-evaluation period has been the redesign of the project to extend it for three years, improve its operations research component, refine the PHC/administrative support service base, and otherwise tighten project planning, as reflected in the Project Description Section (Part IV, page 27) of this Revised Project Paper. As this design work progressed, it was decided that USAID would solicit a new proposal from the present Project Cooperative Agreement Holder (or another entity) to reflect both the extended period and the proposed new content of the Self-Financing Primary Health Care Project. In State Cable 376625 dated December 4, 1986, USAID/B was given permission by the AA/LAC to seek continued support for the project from MSH, via an amendment to the Cooperative Agreement which that organization presently holds.

### III. Project Goal, Purpose and Strategy

#### A. Goal

The overall goal of the project remains as presented in the original Project Paper. It is:

To improve the health status, and thereby the productivity, of (low income) rural and semi-urban agricultural and industrial workers and their families. Specifically, the project will attempt to reduce infant and early childhood (ages 1-4 years) mortality rates, as well as to reduce school-age (5-14 years) and adult morbidity levels. (Page 19 of the original PP.)

#### B. Purpose

The original project purpose was stated as follows:

"To establish a pilot self-financing primary health care delivery system to service target populations located in geographic areas influenced by the existing cooperatives, Minero, San Julian and La Merced. In addition, the project will develop and test a management support unit responsible for carrying out project activities that can be adopted and used by other institutions for replication of the self-financing primary health care system."

This purpose remains valid except for the reference to cooperatives. It has, therefore, been restated as follows:

"to establish a pilot self-financing primary health care delivery system, to service target, low-income populations in Santa Cruz Department. In addition, the project will develop a Management Unit and a Health Services Delivery Unit, which will be responsible for carrying out project activities and which can be adapted and used by other institutions for replication of the self-financing primary health care system."

### C. Project Strategy

#### 1. Introduction

The implementation strategies for each of the project's three components are given in the following section C.3.

The project's overall strategy is to use operations research and actual models to test the ability of the private sector in Bolivia to deliver non-subsidized health care to low-income Santa Cruz residents. Success in this area is expected to lead to the replication of the project in other parts of Bolivia, using funds supplied by AID, the MOH, and/or other donors.

It is the opinion of one of the consultants from the AID/W-funded State University of New York (SUNY) team, which will provide advice on the self-financing element of the project, that not more than 15% of Bolivia's population below the middle class can afford the kind of self-financed health care, including preventive as well as curative services, offered by PROSALUD. One task of the operations research component of the project will be to identify the

characteristics of those communities/institutions which are liable to want, and able to afford, the project's "pure" (i.e., non-subsidized) self-financing health care model, providing a basis for predicting success in replicating the model.

Another output of the operations research component of the project could be to establish the size of a subsidy needed to include additional, lower income customers in the project's three-tier health delivery system. For instance, two dollars per covered person per year might be sufficient to cover a community of 100,000 people, if each participant could pay the remainder of the full cost (one model developed by the system.) This kind of information could influence the way the MOH, financially overextended, could choose to deploy its health care resources. It could also influence how an employer, union or other holder of resources might elect to help employees/members obtain health care.

In this particular project, the goal is health delivery "system" self-sufficiency. It should be obtained for the health systems of the six participating communities/institutions and for PROSALUD by project closure in August 1990. To reach this system financial independence, cross-subsidies may be employed, depending on the results of experience and data collection. However, a superior outcome would be to have each component of the system be self-financing, so that any expansion of the system could be based on independent modules.

It should be noted that to replicate this project's health system, or parts thereof, past 1990, continued subsidies will be necessary. However, these subsidies will be less than those being provided by the project initially, since substantial money and time are being expended in experimentation and research in this pilot effort. In any future project, the subsidies needed should be less and known in advance.

## 2. Relation to Mission and GOB Strategies

This pilot health scheme has important implications for the USAID health and human resources program, and for the activities of the Bolivian Ministry of Health and other donors.

Despite ambitious goals for extending primary health care services to all Bolivians and reducing child mortality by 50% by 1990, the GOB's budget for 1986 devoted only 2% of its resources to health services. With the recent collapse of the tin market and the fall in prices of other commodities, especially petroleum-related products, the GOB is unlikely to be able to increase its net outlays for health care for some time. Meanwhile, a great percentage of the poorer population of Bolivia, especially in rural areas, has minimal or no access to regular health care, including preventive care.

This project will address Bolivia's health needs in two ways. (1) It will deliver preventive and curative care to approximately 68,000 low-income customers. (2) More importantly, it will collect data on, and fashion functioning models of, self-financed primary health care services. This data and

descriptions of these service modules will be available to AID, the MOH, and other donors to help in the design of other, similar self-financing programs.

While it appears that the project's self-financing goals can be achieved by carefully choosing participant communities/institutions, it is also possible to design complementary models where poorer people can be provided with the same services for a modest outside subsidy - that is at far less cost per person than the poorly functioning Social Security System could hope to achieve. This data is an additional output of this project.

The project also tests the ability of the private sector to promptly and effectively fill a gap left by the public sector. In this regard, the program has the approval of the Bolivian Government which has endorsed the program as a new and promising model for the delivery of health care in Bolivia. In addition, the Santa Cruz Unidad Sanitaria has signed an agreement with PROSALUD under which the latter organization could take over some of its MOH health care facilities under self-financing arrangements.

Three of USAID's major action goals (of 15) in Bolivia are addressed by this project: improving health and health services; reducing infant and child mortality; and strengthening the private sector (minor impact).

3. Strategies for Project Components

a. Installation of a Three-Tiered Health Delivery System (to serve as both PHC outlet and financial base)

The elements of the three-tiered health delivery system are described in the Project Description Section and in Annex C. Essentially, they are:

Level I: Two part-time health promoters, elected from the beneficiary population by their peers, operating out of their homes or from a room provided by the sponsoring institution/community.

Level II: Two nurses attending patients at an equipped health post; referring any complex cases to a Level III clinic.

Level III: A fully staffed clinic, with doctor, nurses, a mini-laboratory, and patient beds. Complex cases are referred to MOH hospitals at Levels IV and V (non-project).

(Charts of PROSALUD and Health Service Levels I, II, and III are found on pages 26, 27 and 28)

The Project will establish six health care delivery systems, each based on the three-tiered MOH service hierarchy, and each representing a community or an institution. These will deliver

the Project's health services, generate the Project's revenue base, and form the basis for the operations research component of the Project. These six systems must eventually earn enough income to cover both their own expenses and those of PROSALUD. The self-financing model described in Section VII, C. meets this goal of financial independence by project closure.

ILLUSTRATIVE  
ORGANIZATION CHART

PROSALUD (Health Centers)

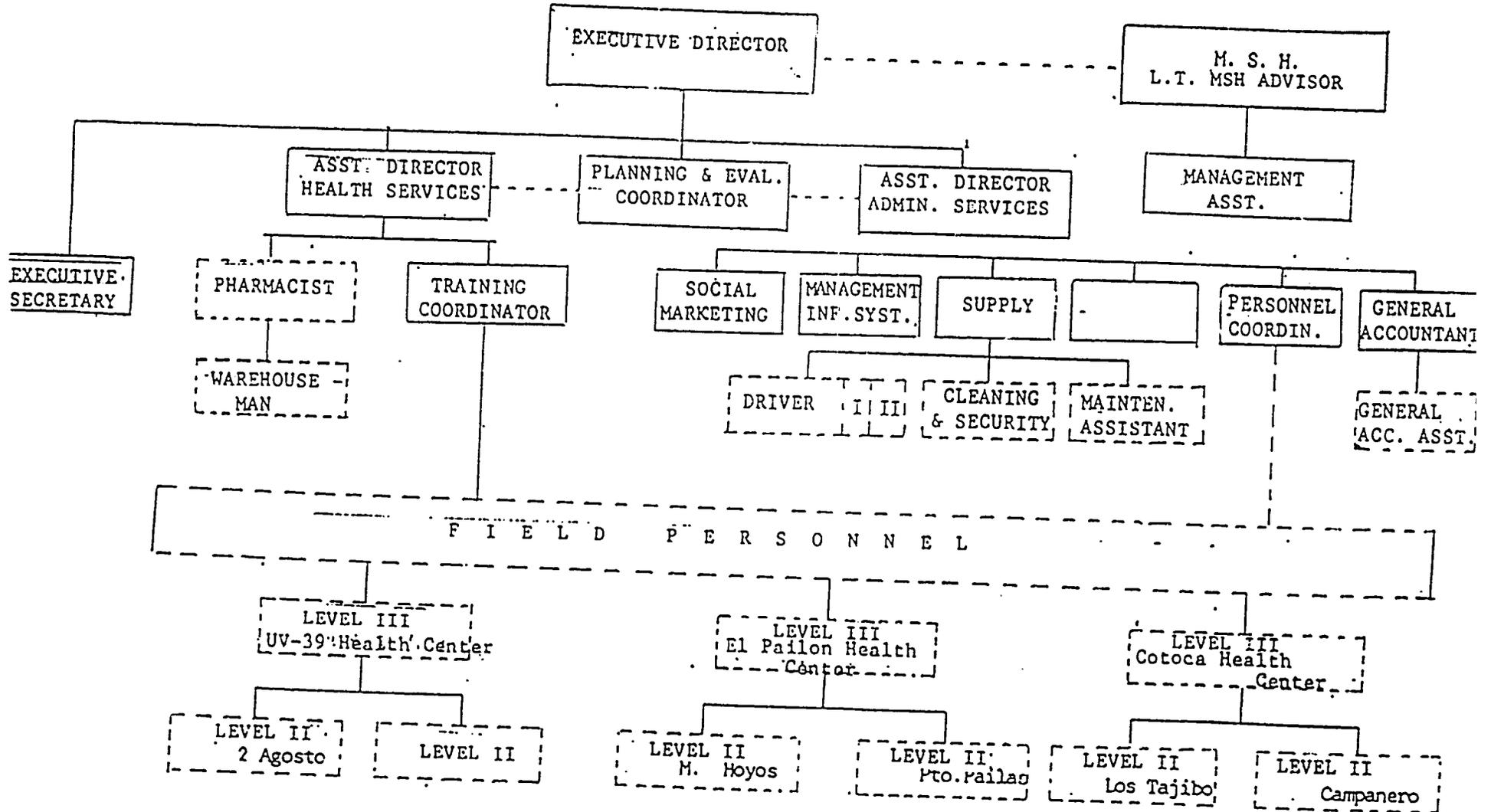


Chart prepared by  
Management Sciences for Health

ILLUSTRATIVE  
ORGANIZATION CHART  
LEVELS I AND II

LEVEL I (95 sites)

Two Health Promoters per local, each working out of his/her home or from a room provided by the community for this purpose.

LEVEL II (15 health pcsts)



Chart prepared by Management  
Sciences for Health

ILLUSTRATIVE  
ORGANIZATION CHART  
LEVEL III

COTUCA HEALTH CENTER (one of six)

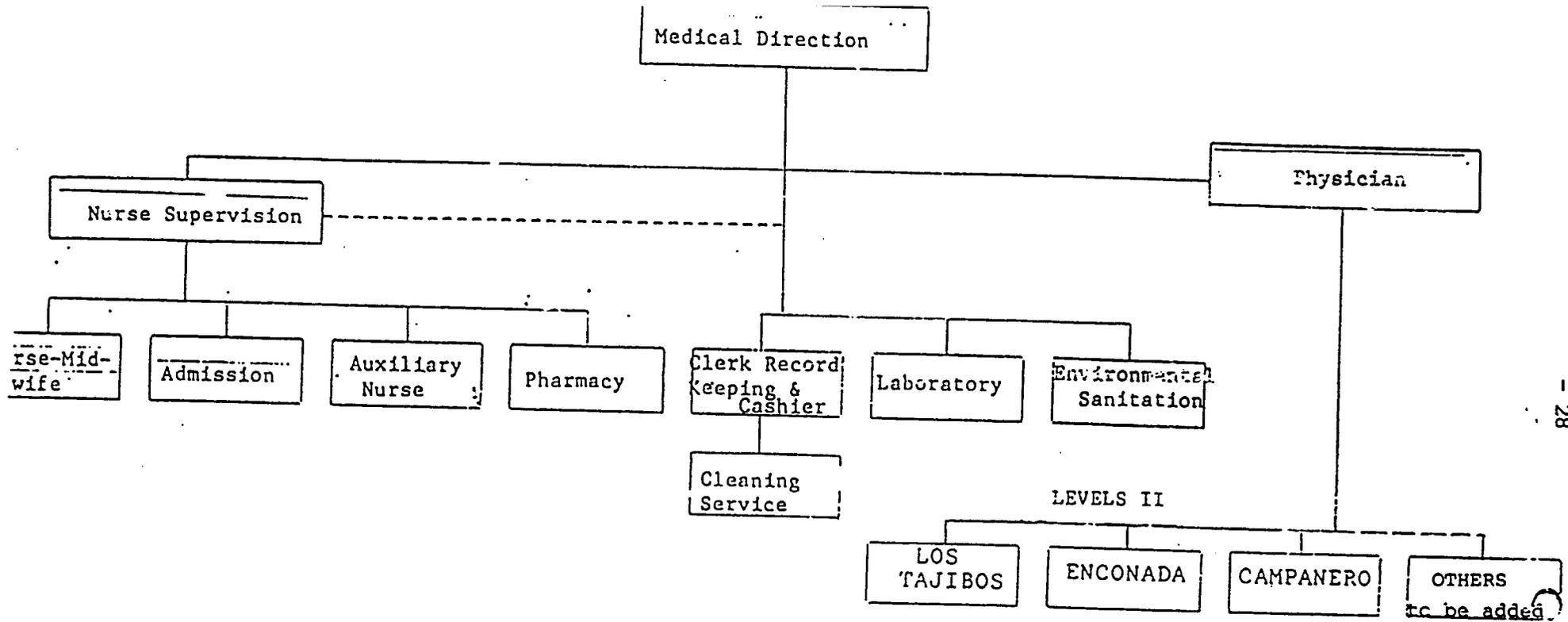


Chart prepared by Management  
Sciences for Health

b. Development of PROSALUD as a Health Provider Organization

The REACH evaluation proposed that PROSALUD define its specific role among various alternatives.\* In consultation with USAID/Bolivia and MSH, PROSALUD concluded that its most effective function would be as owner/manager of health care services, patterned generally on the U.S. health maintenance organization (HMO) model. Health facilities currently operated in the three communities of El Pailon, Cotoca and Villa Pillin, for example, are PROSALUD controlled\*\* facilities, with PROSALUD responsible for the financing of operating costs as well as the disposition of project revenues accruing from the HC services. PROSALUD negotiations with institutional participants will similarly be conducted on the premise that PROSALUD will establish/manage/control the facilities, unless participants insist otherwise. Given this expanded role elected by PROSALUD for the project extension period, technical assistance will be particularly important. MSH will provide this

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\* In the original PP, PROSALUD (then MSU) was seen as likely to be a consultant entity, helping clients to establish their own, self-financing health care systems which would stand alone and independent at project closure. The MSU would then close down - or go on, with new funding, to counsel other groups.

\*\* It should be noted that the present buildings are owned either by the community or by the Ministry of Health. PROSALUD has repaired and equipped the premises for use as health care centers, according to contracts that grant building use and control to PROSALUD.

assistance, placing special emphasis on the development of PROSALUD staff skills in financial management, cost and resource projection, logistics, and the successful achievement of the project's research objectives.

c. Establishment/Comparison of Community-Based and Institution-Based Service Delivery Models

The original PP strategy noted that the administrative structures of the La Merced, Minero and San Julian cooperatives would be the main vehicles for gaining access to the beneficiary population. Under the project extension, PROSALUD will serve as the administrative center for project activities, and will gain access to the beneficiary population by executing agreements with community organizations, cooperatives and other private institutions. Lacking the original cooperatives' advantage of pre-existing membership, PROSALUD has created a marketing mechanism to promote the purchase of community, institutional and individual memberships in its health care system.

PROSALUD has already executed three such agreements with as many communities (El Pailon, Cotoca and Villa Pillin). These are agreements not between PROSALUD and existing institutions (trade associations, unions, etc.), but are rather agreements between PROSALUD and committees (typically health and water committees) which represent entire communities. These community committees assist PROSALUD in carrying out recruitment activities and promote PROSALUD's health program. Individuals or families who join the health plan are offered the option to participate on a pre-payment or fee-for-service basis.

Under the project extension, PROSALUD will negotiate agreements with three institutional affiliates (e.g. the Federation of Sugar Cane Growers (FEDECAN)) to permit an assessment of a predominantly pre-paid approach to health care, and to produce cost/revenue comparisons with the community-based systems currently in operation. Presently negotiations with the Municipal Workers' Union of Santa Cruz are nearing completion and the FEDECAN talks are showing promise. All three institutional plans will be in place by mid-1988, and two are likely to be functioning by December 1987.

PROSALUD, moreover, will terminate efforts to obtain either community or institutional affiliates once it has executed agreements to establish three community-based systems (complete?) and three institution-based systems (underway). This suspension of further marketing activities will prevent any over-extension of PROSALUD management resources, while allowing PROSALUD/MSH to concentrate on the operations research aspect of the project, i.e., the close examination of the cost, revenue, and logistics of six systems and their respective impacts on the health status of their beneficiary populations.\*

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\* Although a total of six health care "systems" will be developed, i.e., one system for each community/institutional partner, several of these systems will in fact share the same health facilities. This will be the case particularly with regard to Level III health clinics. In total, the project will establish 95 Level I, 15 Level II and six Level III health facilities to serve all six health delivery systems. See Annex C for a description of the services offered at each kind of health facility.

As an exception to this limit to new memberships, private individuals will be permitted to subscribe to the services of the health systems, albeit at a higher price than members recruited through community or institutional agreements. It is anticipated that such individual memberships will represent a significant portion of the revenue of Level III (health clinic) facilities, which will generally be placed at bus terminals, markets, crossroads, etc., where the size of the transient population will be relatively high.

#### IV. Revised Project Description

##### A. Introduction

Most sections of the Project Description in the original PP remain valid, particularly the extensive discussion of each of the components of the project's health system (Levels I, II, and III). Changes in the project's description arise from project experience over the last 18 months and the May 1986 evaluation. These include:

1. The need for an extension in project duration to compensate for a delay of almost two years in project start-up, and to provide a more realistic period for health system design, operation and assessment.
2. A decision, currently being implemented, to include communities - acting through quasi-official community bodies - as project participants along with institutional affiliates.
3. A re-emphasis on the operations research objectives of the project, after the collapse of a companion research effort undertaken by PRICOR and FIDES.
4. A special focus on child survival activities, reflecting a) the USAID/Bolivia and MOH commitment to improving child health, and b) the source of 60% of project funding for the extension period.

The following sections describe the revised elements of the project.

B. Project Components

1. Health Delivery System - This consists of a "mixed model" approach based on community and institutional affiliations, with minor modifications of the MOH hierarchical system of Levels I, II, and III. (As described in the original PP, p. 17.) Approximately US\$763,000 of the one million dollar extension period funding will be spent on this project component.

a) Community Model

With the collapse of the initial agreements to work with the La Merced, San Julian and Minero Cooperatives, PROSALUD first sought alternative institutional affiliates. These included San Martin de Porres, Jesús de Nazareno, Guapay, FEDECAN, etc. The most promising of these prospective clients was FEDECAN, but the August 1985 removal of GOB price supports for the cooperative's sugar dramatically affected FEDECAN's plans for financial commitment to the proposed health care system. PROSALUD-FEDECAN negotiations continue, but in terms of a more modest health care program.

Given the project's limited success with institutional partners, PROSALUD, MSH and USAID jointly agreed that PROSALUD/MSH should attempt to establish health care services on the basis of agreements with community and civic organizations as well as with institutions. Once this decision had been made, several potential community affiliates indicated interest in establishing PROSALUD-sponsored health services systems. PROSALUD has screened

the candidate communities (those expressing interest), choosing the ones which possess stable and responsible representative bodies with which to negotiate the terms of an agreement to establish and support a health care system. These include the Civic Committee of El Pailon, the Health Committee of Villa Pillin, and the Municipal Health Committee of Cotoca. (Profiles of these communities are available in USAID/B files.)

Upon selection of each community-participant, PROSALUD conducted a health resources survey and a pre-marketing survey. The former activity inventoried existing health facilities, personnel, etc., and collected basic information on community health status. The latter study collected socio-economic and demographic information about the client population. Tentative decisions were then made concerning the locations of Level I, II, and III facilities.

In each community, PROSALUD and the co-sponsoring community organization have held community assemblies to introduce/discuss the project, to develop coalitions between project co-sponsors and their potential clients, to obtain the cooperation of local authorities and volunteers, and to gain feedback on the proposed health care plan. Following additional community assemblies, as needed, PROSALUD has hired and trained enrollment agents to make house visits to recruit individual and family clients. These clients are issued I.D. cards and entered onto a patient registry which permits verification of patient eligibility and service utilization, and records the location and type of

service rendered. Health posts and clinics - often abandoned MOH facilities - are being refurbished, equipped and staffed by PROSALUD health personnel. (These personnel are competitively recruited by PROSALUD and are paid - at least initially - with PL-480 Title III funds.)

As the original project design anticipated, (Sec. II B, "Social Analyses"), the majority of clients enrolled under the community-based model have preferred a "fee-for-service" method of payment, reflecting the clients' general lack of experience with alternative payment schemes (e.g., health insurance plans). From an economic perspective, pre-payment plans are more beneficial to the system. Obtaining sums of money in advance permits the establishment of an interest-bearing account which can generate additional revenue for the system. It also enables system managers to make more confident projections of costs and system revenues. PROSALUD and their local counterparts are consequently giving greater emphasis to pre-payment, but do not expect that acceptance of this method of payment will grow rapidly.\*

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\* The advantages of a pre-paid system will become more apparent as users compare data. For example, between April and December 1986, 304 pre-natal visits were made to PROSALUD facilities by patients, and 90 babies were delivered. (300 pregnant women are receiving care in February 1987.) Of the 90 assisted deliveries, only 19 were pre-paid and 71 mothers paid a \$25 fee-for-service for pre-natal, delivery, and post-partum care. The cost for an individual enrollment for all health services for a year is only \$20 (Couples, small families and large families have higher schedules of payment). Over time, as fee-paying users compare costs on childbirth and other common health services, they are expected to switch over to the pre-paid system, assuming their income status continues to permit this advance investment.

The population currently being served under the "community model" totals 10,000, including 2,000 in El Pailon (rural); 3,500 in Cotoca (rural); and 4,500 in Villa Pillin (semi-urban). Additional members are being recruited daily.

b. Institutional Model

The original project design limited participation to three institutions: the La Merced, Minero and San Julian Cooperatives. An implied premise of the project was that a positive demonstration of the health system's feasibility in these institutional environments would establish a firm basis for broader replication of the project in other private sector institutions elsewhere in Bolivia. Despite the project's difficulty to date in establishing such institutional relationships, the original logic remains valid. Institutional affiliates would bring special advantages to a client-supported health care system: institutional stability, a pre-existing membership which could be recruited as a body; guaranteed acceptability for the program with only modest promotional costs; and the institution's experience in the sale of goods or services and the collection and disposition of members' funds. Institutions, moreover, are much more likely than community-based clients to participate in health care programs on a pre-paid basis. For the reasons mentioned in Sec. IV.B.1. above, this mode of payment has important advantages for the attainment of financial self-sufficiency by a health care system. Thus, notwithstanding the project's relative success in securing agreements to establish community-based health services, USAID,

PROSALUD and MSH concur that a test of the feasibility of institution-based health services must remain a key objective of the project. As noted earlier, PROSALUD/MSH efforts to execute agreements with FEDECAN and other cooperatives were disrupted in large measure by the August 1985 New Economic Program. Over the coming year (1987), the bases for establishing such relationships with institutional partners are expected to emerge with more clarity. With this objective, PROSALUD/MSH negotiations with potential client-institutions, particularly with FEDECAN, are continuing.

The institutional service delivery model will be implemented much as was described in the original PP, with the key difference being that the participating institutions would generally have a client/buyer relationship with PROSALUD, rather than serve as the owners of health services administered by the MSU. This approach may, however, be revised to allow PROSALUD to serve as advisor to, or manager of, institution-owned health delivery services if the latter is the only approach acceptable to potential affiliates. No more than three institution-based systems will be established during the LOP. These three systems will provide an ample test of the institution-based model, while limiting their number will prevent placing excessive management requirements on PROSALUD.

PROSALUD screening/selection procedures for community and institutional participants in the project are summarized in Annex E.

c. Child Survival Activities

Sixty percent of extension period AID funds will be provided from the Child Survival Account. These funds are commingled with Health Account funds to pay for technical assistance, training, commodities, and support costs. However, at the operational level, sixty-five percent of personnel time and financial resources will be devoted to child survival activities. Because of the structure of the model, this high percentage should continue after project closure.

The child survival activities within the three tiers of the health delivery system are:

1. Direct Activities: Antitetanus shots for pregnant women.  
Assisted deliveries.  
Promotion of breast feeding.  
Oral rehydration.  
Vaccinations.  
Child growth monitoring.  
Supplemental feeding advice.
2. Indirect Activities: Promotion of birthing in an institutional setting.  
Promotion of basic sanitary practices, including food handling and latrine installation and use.  
Nutrition education activities.  
Training of Level I, II, and III personnel in child survival activities.

An illustrative sequenced set of services for an expectant mother and later her child is the following:

1. Prenatal monitoring.
2. Pre-birth vaccination to avoid neonatal tetanus.
3. Institutional delivery.
4. Attention to the newborn and recently-delivered mother to avoid post-partum complications.
5. Child growth monitoring.
6. Child vaccinations: Polio, triple, BCG, measles.
7. Home visits/preventive care.
8. Sick child attention:
  - a. Treatment for diarrhea (ORT, antibiotics).
  - b. Treatment for acute respiratory infections.
  - c. Treatment for other childhood illnesses.
  - d. Home visits, curative.
  - e. Medical attention for child's caretaker.

This list illustrates that the SFPHC service menu, in both its preventive and curative aspects, focuses heavily on mother and child health.

2. Operations Research (O.R.) (This component will absorb 9% of the AID funds provided by the Cooperative Agreement Amendment.)

A sound, comprehensive O.R. strategy is especially important for this project given:

The innovative nature of self-financing (and particularly pre-paid) health services in Bolivia. Since no previous experience in this area exists, the lessons from this project's experience will be critically important in developing alternative health care systems in the future.

- The continuous need for information upon which to measure progress and/or execute mid-course corrections.

In the original project design, the function of executing research and analytic tasks central to all aspects of the project was not incorporated into the structure of the project, nor supported by the project budget. Instead, responsibility for developing financial planning, program evaluation instruments and community analyses was assigned to PRICOR/FENACRE, later PRICOR/FIDES. It eventually became clear that FIDES lacked the capability to do the work it had contracted to carry out (e.g., develop service packages and cost estimates), leaving the project without the information it needed to make key decisions regarding project location, structure and financing.

To the present, therefore, PROSALUD has suffered from insufficient information, and lacked the resources and mandate to collect, analyze and apply research data adequately. Under the project extension, PROSALUD's capacity to implement these essential O.R. tasks will be developed through augmented technical assistance, with the specific objectives of creating systematic operational monitoring of performance, and specific criteria for decision-making

by PROSALUD. Special attention will be given to the refinement of PROSALUD data collection instruments for determining the potential demand for, and use of, health services in communities and institutions. High priority will be given to comparisons of cost-and-revenue experience among the various community/institutional affiliates, and, especially, between the predominantly fee-for-service structure of the "community" model and the predominantly pre-paid structure of the "institutional" model. Means to estimate the impact of service interventions on the health status of the target populations will also be established. The Implementation Schedule includes a draft schema of the data collection and analysis tasks to be undertaken over the next three years.

Given these increased O.R. responsibilities, USAID, PROSALUD and MSH noted the need to place a specific limit on the number of health systems to be implemented under the project, i.e. a number and variety sufficient to produce valid lessons and comparisons, but without over-burdening the administrative carrying capacity of PROSALUD. As noted previously, the parties to the project have agreed to set this combined limit/target to include the three community-based systems currently in operation plus the three institution-based systems to be developed in 1987-88. Upon establishment of these six systems, PROSALUD and MSH will concentrate their efforts, through the remaining life-of-project, on the implementation and assessment of the comparative performance of these six systems.

3. Institutional Development of PROSALUD (Twenty-eight percent of the AID funds provided under the project amendment will support this activity.)

The original project design envisaged a somewhat different nature and role for the MSU/PROSALUD. The Management Support Unit was expected to be a temporary, administrative technical assistance body within the lead institution (La Merced Cooperative), serving this and the two other partner cooperatives during the life of the project. At project closure, it would probably have been dissolved, leaving a functioning health care system in place.

Over the period January 1985 - October 1986, PROSALUD's role evolved with more clarity, forced in part by the dissolution of the agreement with the three original cooperatives, and in part by the conscious decisions of USAID, PROSALUD and MSH. As a result of these developments, PROSALUD now exists and functions as an independent entity, which has been accepted in the Santa Cruz area as an important new force in the development and delivery of alternative health care services. Indeed, the Ministry of Public Health in La Paz - itself instrumental in facilitating the granting of legal status (personería jurídica) to PROSALUD - has frequently cited the "PROSALUD Model" as an important component of national efforts to extend primary health care to low-income populations.

Behind the image of an independent PROSALUD has been the very strong role of MSH as both provider of technical assistance to PROSALUD and as grantee for project resources. During the project extension, MSH will continue to play this dual role; but it

will also implement measures designed to strengthen PROSALUD's managerial responsibilities, while progressively diminishing its own. To this end, MSH will provide a resident technical adviser for only the first eighteen months of the three year extension, plus approximately eleven person months of short-term technical assistance throughout the three-year extension period. The major tasks of these MSH personnel will be to complete the technical training of PROSALUD staff in program management, finance, logistics, and operations research to the point where PROSALUD will be capable of functioning independently by the end of the project. Also, and in variance from procedures observed under the current (1985-1987) Cooperative Agreement between USAID/Bolivia and MSH, the grantee (MSH) will execute a sub-agreement with PROSALUD whereby the latter will be responsible for administration of project funds in support of PROSALUD salary costs, operating expenses, local purchases of commodities, rent, utilities, etc. As project grantee, MSH will be ultimately responsible to USAID for these funds; but the MSH-PROSALUD sub-agreement mechanism will provide PROSALUD with the added experience of managing virtually all financial resources with the exception of those for technical assistance. This arrangement will prepare PROSALUD for its anticipated role as a direct counterpart to USAID or other donors pursuant to post-project decisions to replicate self-financing health care programs elsewhere in Bolivia.

To support activities within all three project components, MSH will provide short-term specialists for approximately 11 months. These experts will both address system needs directly (design financial systems, help plan promotional campaigns) and, simultaneously, train PROSALUD management. The PROSALUD employees will, in turn, train others in their fields of specialization. The specialists provided by MSH will primarily address 3 areas: financial management, operations research, and marketing.

C. End of Project Status

With regard to each of the major components, the following primary objectives will be achieved by the end of the project:

1. Health Delivery Systems

Six pilot, comprehensive health care delivery systems consisting of three graduated levels (I, II, III) will be in place and serving the needs of an estimated 68,000 low-income persons (57% of the estimated 120,000 population of the probable six institutional/community partners). The beneficiaries of these six systems will consist of: a) individual enrollees from three rural and peri-urban communities and b) the members of three institutions in Santa Cruz Department. Health services provided by these systems will be available on a pre-paid and fee-for-service basis.

2. Operations Research

Based upon an assessment of the cost, revenue and health impact of the six operating health delivery systems, conclusions will be drawn about the respective advantages and disadvantages of the various approaches to health care delivery. These conclusions will provide the basis for decisions by USAID, PROSALUD and other donors regarding replication and extension of the self-financing health care models in Bolivia.

3. PROSALUD

An independent entity, PROSALUD, will exist and be fully capable of promoting, managing and evaluating self-financing health care delivery systems in Bolivia.

D. Reports, Audits, and Evaluations

1. Reports

a. PROSALUD

PROSALUD will submit the following reports on a quarterly basis to both USAID/Bolivia and MSH:

i. A progress report including: (1) a narrative on achievements in health services delivery; (2) statistical measurements of levels of actual performance; (3) notation of special events such as major publicity gained, expressions of interest by other donors or would-be participants, etc.; and 4; project activities planned for the next quarter.

ii. A financial report showing: (1) costs and revenues in relation to the projected budget, including a chart showing progress toward self financing; (2) fee structure breakouts (including a comparison of pre-paid and fee-for-service systems); and (3) projections of costs and revenues for the coming quarter.

b. MSH

MSH will send USAID/Bolivia a semi-annual report to include the following sections: (1) a technical narrative on progress toward project objectives, including identification of any obstacles to project output realization, and plans taken or to be taken to resolve them, (2) a financial report, and (3) projections of technical assistance to be given, objectives to be reached, and estimated costs for (a) the next six months and (b) the period to Cooperative Agreement closure.

Following the Letter of Credit method of financing, MSH will provide USAID/Bolivia with a cumulative monthly expenditures summary, similar to that submitted to the MSH head office in Boston.

2. Evaluations and Audits

During the project extension period, the following evaluations will be performed: 1) an external evaluation in September 1988 and 2) an end-of-project evaluation in May-July 1990.

The September 1988 evaluation will carefully assess both the delivery of health services and the related costs in order to evaluate progress and suggest mid-course corrections. The EOP evaluation will not only measure project achievements in relation to targets, but will make recommendations on whether extension/replication of the project should be considered.

Two external audits will be conducted, one in December 1988 and the other at the end of the project in August 1990.

V. Implementation Plan

A. Introduction

The current USAID-MSH Cooperative Agreement expires in April 1987. This agreement will be extended for three years, May 1987 - April 1990, with funding to be added in FY 1987 and FY 1988. The PACD of the Project will be August 31, 1990. However, the goal is to reach project objectives by April 1990, providing four months for consolidation and final tailoring of the health care systems/choices.

The three community-based systems were put in place between April and December 1986, and will continue to operate through the life of the project. The three institution-based systems will be established by mid-1988 and will also continue in operation through the life of the project. These systems will actually continue beyond project closure as self-financing operations, albeit with those adjustments needed to reflect their actual cost/revenue structures. An important outcome of the cost/revenue comparisons between systems, moreover, will be decisions regarding the necessity/possibility of maintaining money-losing services using revenue surpluses produced by other services.

Major implementation steps will include the completion of the installation of the various modules (Levels I, II, III) which comprise the full delivery system for each participating community/institution; staff training, placement and supervision; ordering of commodities; and execution of the project's research/analysis tasks. The chronology of these tasks is given in Section V.C., page 44, "Implementation Schedule."

B. Participant Responsibilities

The three major organizations responsible for project implementation and success are USAID, the Cooperative Agreement holder Management Sciences for Health, and the local non-profit entity Protección a la Salud (PROSALUD). During the extension period, the groups will divide project responsibilities as follows:

USAID: USAID/Bolivia representatives in the Health & Human Resources Office will continue to take a direct management role in the project, participating in all major project decisions, carrying out frequent site visits, receiving and monitoring PROSALUD-generated information closely and providing feedback. USAID/Bolivia staff in the Project Implementation Office will prepare internal project documents and those in the Controllers' Office will approve project budgets and effect disbursements. The method of disbursement will continue to be via Letter of Credit (LOC) as is the case under the present Cooperative Agreement ending April 30, 1987. In terms of funding, AID will grant 1 million dollars to the project over the 3-year period.

MSH: Management Sciences for Health will continue to play a dual role during the extension period - as grantee and as technical assistance provider. The US\$1 million granted by USAID for project extension activities will be funneled through MSH, and this organization will retain full responsibility for the proper use of these funds - despite any subagreements it may make. MSH will provide long and short-term technical assistance to PROSALUD in Bolivia in administration, financial management, health care

delivery, service pricing, and operations research, as well as appropriate backstopping in Boston (including some computer analysis of proposed modules/service packages.) An on-site project director will be hired by MSH to serve for the first 18 months of the period February 1987-April 1990. MSH will also provide eleven person months of short-term technical assistance during the project extension period, as scheduled between PROSALUD and MSH, with USAID approval. During the extension period, MSH will gradually reduce its management role in PROSALUD affairs, so that the latter entity will be in a position to operate completely independently after April 1990.

#### Protección a la Salud (PROSALUD)

Created legally in August 1985, and only 1-1/4 years old, PROSALUD has grown rapidly in size, expertise, and the ability to take independent action. This organization will continue to receive intensive technical assistance during the next 18 months, and diminishing T.A. help thereafter, as it assumes more and more control of local project activities. Its management unit will become leaner as initial planning and installation tasks are completed, while its field staff is likely to grow as the number of health posts expands. PROSALUD will carry out all facets of the management and delivery of health care services, including recruiting system members, delivering health services, conducting operations research, setting fees, and allotting revenues, first under MSH/USAID supervision and by April 1990 independently.

C. Implementation Schedule

1987

- February - Final PP and Authorization Amendments prepared.
- Promoters training course (UV-39)\* given.
  - Annual Physical Inventory of Fixed Assets completed.
  - USAID, Title III and PROSALUD budgets approved by USAID.
  - Health Services Agreement signed with one new institutional enterprise.
  - Leadership and community organization course given at Cotoca.
  - Campanero facility remodelled.
  - Equipment maintenance plan evaluated.
  - Review of personnel policies, hiring conditions (curriculum), and salary policies completed.
  - Schedules prepared for supervision by areas and levels, and for field staff meetings (annual).
  - Training plan for central and field staff finished.
  - Pre-Marketing surveys module developed.
  - Marketing and publicity plan prepared.
- 

\* A "UV" is a Unidad Vecinal- a neighborhood in Santa Cruz - each is numbered on the city's geographic plan

1987 (continued)

- February (cont)
- New MSH Resident Advisor arrives and original one departs.
  - Proposal for a revised Cooperative Agreement submitted by MSH. A Cooperative Agreement Amendment negotiated by RCO/Lima.
  - First MSH short-term advisor for operations research arrives.
  - Hiring and training of personnel for U.V.-28 completed.
  - Promoters training (Cotoca Area) completed.
  - Refresher course on leadership and community organization completed.
  - Second equipment and drugs order arrives: Its reception, storage, inventory and distribution completed.
- 

- March
- PP and Authorization Amendments approved.
  - MSH/PROSALUD subagreement on institutional relationship/responsibilities signed.
  - Health status diagnosis of Area I completed.
  - Level III Area 2 facility inaugurated.
  - Marketing in project areas strengthened.
  - Leadership and community organization course given in Cotoca area (Cotoca, Campanero, Los Tajibos and Enconada).

1987 (continued)

- Facility at Area 1 (UV-28) remodelled.
  - Equipment, drugs and supplies delivered to Level III facility, U.V.-28.
  - External patient referral system implemented.
  - Plan and policy for acquisition of imported drugs and supplies prepared.
- 

- April
- Bi-annual evaluation of membership recruitment rate done.
  - Schedule of income capture by pre-payment system reviewed.
  - Pre-marketing in area 2 (U.V.-51) completed.
  - Personnel for Area 2 hired and trained.
  - Health status diagnosis, U.V.-39, finished.
  - Financial Plan review completed.
  - Marketing in project areas strengthened.
- 

- May
- Budget Control: USAID, Title III and PROSALUD income reviewed.
  - Course on leadership and community organization in Area 2 given.
  - Level III facility, (UV-51), remodelled.
  - Furnishings, drugs and supplies delivered to Level III, UV-5.
  - Level III in Area 2 inaugurated.
  - Service/cost packages and income capture evaluated.
  - Administrative support system evaluated and adjusted.
  - Local Advisory Committee to MESA/PROSALUD nominated.
  - Third order for equipment and medical supplies placed.
  - Increased emphasis on Child Survival program reflected in service packages.
-

1987 (continued)

July

- Pre-marketing activities in Area 3 completed.
  - Area 3 facility remodelled.
  - Personnel for Area 3 hired and trained.
  - Equipment, drugs and supplies delivered to Area 3.
- 

August

- Services in Area 3 inaugurated.
  - Health status diagnosis at El Pailon area completed.
- 

September

- Second Operations Research advisor arrives.
  - Short-term consultancy on community organization begins.
- 

October

- Periodic (bimonthly) meetings with community board of directors initiated.
  - Plan prepared for Health Promoters training in project area.
  - Evaluation/revision of promoters' handbook completed.
  - Reception, storage, inventory and distribution of third order of drugs, equipment and supplies, completed.
- 

1988

January - March

- Third Operations Research consultancy begins.
  - Financial Plan review held.
  - 1988 Operations Plan prepared.
-

1988 (continued)

April-June

- Preparations for bi-annual evaluation made.
  - Fourth order for drugs and medical supplies placed.
- 

July-September

- Bi-annual evaluation (September) completed.
  - Fourth Operations Research consultancy begins.
  - Evaluation of support systems (bi-annual) completed.
  - Departure of LT MSH advisor.
- 

October-December

- Development of models for possible replication.
  - Cost/Benefit study of self-financing health care services done, with short-term assistance from MSH.
  - Adjustments made to financial mechanism and service packages to ensure self-sufficiency of delivery systems.
  - Reception, storage, inventory and distribution of fourth order for drug/medical supplies completed.
  - External audit (December) begun.
-

January 1989-August 1990

- 1989-1990 Operations Plan prepared.
  - Scope of work for project evaluation (USAID, MSH, PROSALUD) completed.
  - Project resources transferred (nominally) from MSH to PROSALUD.
  - Preparation of documentation and results of O.R. completed.
  - Marketing activities in replication area begun.
  - Norms to maintain the self-financing capability of delivery systems established.
  - Final designs of Module(s) for replication chosen.
  - Final project evaluation/audit.
-

VI. Cost Estimate and Financial Plan

A. AID Grant Contribution (Amendment)

A total of US\$1.0 million in additional grant funds will be provided by AID as further described in the LOP Cost Estimate and Financial Plan chart, found at the end of this section. Those additional funds will be allocated as follows:

1. Technical Assistance

This budget component includes additional AID grant financing in the amount of \$400,000 to cover 18 person months of one long-term advisor (\$315,000) and 11 person months for short-term consultants (\$85,000).

2. Training

A total of \$21,000 will be furnished for management training. This sum is equal to that provided under the original budget.

3. Operating and Development Costs

AID grant funds in the amount of \$280,000 will be provided to finance: a) personnel costs (\$250,000), and b) administrative costs (\$30,000) of PROSALUD.

4. Commodities

Under this component, it is planned to procure commodities for \$159,500 as follows: a) office furniture and equipment for a value of \$20,000, b) two 4-wheel-drive vehicles at an estimated cost of \$40,000, and c) medicines at a cost of \$99,500.

5. Operational Research

A total of \$75,000 has been allocated for this purpose, to fund local technical assistance in the field, survey lists and computer analysis time and programs.

6. Contingencies

A 7% contingency allowance has been included for the amendment portion of this project. (\$64,500).

B. Host Country Contribution

1. Title III

The equivalent of \$300,000 will be provided by PL 480, Title III to finance the following activities during the remaining life of the project:

a. Operating and Development Costs

The equivalent of \$270,000 will be allocated for:  
1) personnel costs (\$200,000), 2) administrative support costs (\$30,000), and 3) facilities and renovations (\$40,000).

b. Operations Research

The equivalent of \$18,500 will be made available for this project activity.

c. Contingencies

A 4% PL 480, Title III contingency account is provided (\$11,500).

2. System Revenues

It has been estimated that \$1,846,768 will be provided from system revenues to finance mainly: 1) personnel costs (\$1,095,689), 2) administrative support costs (\$29,700), 3) facilities renovations (\$88,240), 4) equipment (\$24,500), 5) office furniture (\$26,588), 6) medications (\$418,508), and 7) contingencies (\$163,543).

COST ESTIMATE AND FINANCIAL PLAN

LIFE OF PROJECT SUMMARY COST ESTIMATES AND FINANCIAL PLAN

	A.I.D. GRANT				TOTAL		HOST COUNTRY				TOTAL	GRAND TOTAL		
	Previous Budget		Amendment		FX	LC	Previous	Budget	Amendment			LC	FX	LC
	FX	LC	FX	LC			Proj.Reve.	Title III	Proj.Reve.	Title III				
	FX	LC	FX	LC	FX	LC	LC	LC	LC	LC	LC	FX	LC	
1. Technical Assistance														
1.1 Long Term	285,500	-	315,000	1/	-	600,500	-	-	-	-	-	-	600,500	-
1.2 Short Term	196,500	-	85,000	2/	-	281,500	-	-	-	-	-	-	281,500	-
2. Training														
2.1 Management Training	21,000	-	21,000	-	42,000	-	-	-	-	-	-	-	42,000	-
2.2 Community and Field Staff Training	-	-	-	-	-	-	-	35,730	-	-	-	35,730	-	35,730
2.3 Materials Development	-	-	-	-	-	-	-	25,000	-	-	-	25,000	-	25,000
3. Operating & Development Cost														
3.1 Personnel	68,246	-	250,000	-	318,246	-	346,382	167,316	1,095,689	200,000	1,809,387	318,246	1,809,387	
3.2 Administrative Support Costs	10,800	31,066	10,000	20,000	20,800	51,066	49,517	26,567	29,700	30,000	135,784	20,800	186,850	
3.3 Facilities and Renovations	-	-	-	-	-	-	57,991	25,353	88,240	40,000	211,584	-	211,584	
4. Commodities														
4.1 Health Equipment	41,338	-	-	-	41,338	-	34,012	-	24,500	-	58,512	41,338	58,512	
4.2 Office Furniture and Equipment	59,000	3,000	20,000	-	79,000	3,000	6,900	8,550	26,588	-	42,038	79,000	45,038	
4.3 Vehicles														
- Stretch Jeeps (2)	30,000	-	40,000	-	70,000	-	-	-	-	-	-	70,000	-	
- Motorcycles (18)	27,000	-	-	-	27,000	-	-	-	-	-	-	27,000	-	
- Bicycles (35)	4,375	-	-	-	4,375	-	-	-	-	-	-	4,375	-	
4.4 Medications	211,000	11,175	84,000	15,500	295,000	26,675	-	-	418,508	-	418,508	295,000	445,183	
5. Operations Research	-	-	25,000	50,000	25,000	50,000	-	-	-	18,500	18,500	25,000	68,500	
6. Contingencies 3/	95,476	4,524	62,000	2,500	157,476	7,024	-	1,484	163,543	4/	11,500	176,527	157,476	183,851
TOTALS	1,050,235	49,765	912,000	88,000	1,962,235	137,765	494,802	290,000	1,846,768		300,000	2,931,570	1,962,235	3,069,335
		1,100,000		1,000,000		2,100,000		784,802		2,146,768				5,031,570

1/ Covers 18 person months for LT Advisor  
 2/ Includes 11 person months for ST consultants  
 3/ The amendment portion includes a 7% price/quantity contingency factor  
 4/ Includes \$71,716 in in-kind contributions.

DISBURSEMENT SCHEDULE  
(Self-Financing Primary Health Care Extension)  
(in U.S. Dollars)

<u>A. I. D.</u>	YEAR 1		YEAR 2		YEAR 3		TOTAL
	FX	LC	FX	LC	FX	LC	
1. Technical Assistance							
1.1. Long Term (18 w/m)	210,000	--	105,000	--	--	--	315,000
1.2. Short Term (11 w/m)	28,333	--	28,333	--	28,314	--	85,000
2. Training							
2.1. Management Training	10,000	--	11,000	--	--	--	21,000
2.2. Commodity and Field Staff Training	--	--	--	--	--	--	0
2.3. Materials Development	--	--	--	--	--	--	0
3. Operating and Development Cost							
3.1. Personnel	138,475	--	111,525	--	--	--	250,000
3.2. Administrative Support Costs	3,333	4,000	3,333	6,000	3,314	10,000	30,000
3.3. Facilities and Renovations	--	--	--	--	--	--	0
4. Commodities							
4.1. Health Equipment	--	--	--	--	--	--	0
4.2. Office Furniture & Equipment	13,758	--	6,242	--	--	--	20,000
4.3. Vehicles							
- Stretch Jeeps (2)	40,000	00	00	00	00	00	40,000
- Motorcycles (18)	--	--	--	--	--	--	0
- Bicycles (35)	--	--	--	--	--	--	0
4.4. Medications	16,800	3,100	33,600	6,200	33,600	6,200	99,500
5. Operations Research	8,333	16,667	8,333	16,667	8,333	16,667	75,000
6. Contingencies	24,180	1,200	22,940	1,025	14,880	275	64,500
SUBTOTAL (AID Contribution)	493,212	24,967	330,306	29,892	88,481	33,142	1,000,000

DISBURSEMENT SCHEDULE  
(Self-Financing Primary Health Care Extension)  
(in U.S. Dollars)

	YEAR 1		YEAR 2		YEAR 3		TOTAL
	FX	LC	FX	LC	FX	LC	
<u>TITLE III</u>							
3. Operating and Development Cost							
3.1. Personnel	--	--	--	128,820	--	71,180	200,000
3.2. Administrative Support Costs	--	6,000	00	9,000	--	15,000	30,000
3.3. Facilities and Renovations	--	21,496	--	18,504	--	--	40,000
5. Operations Research	--	6,167	--	6,167	--	6,167	18,500
6. Contingencies	--	3,833	--	3,833	--	3,833	11,500
SUBTOTAL (Title III Contribution)	0	37,496	0	166,324	0	96,180	300,000

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DISBURSEMENT SCHEDULE  
(Self-Financing Primary Health Care Extension)  
(in U.S. Dollars)

	YEAR 1		YEAR 2		YEAR 3		TOTAL
	FX	LC	FX	LC	FX	LC	
<u>PROJECT REVENUES</u>							
3. Operating & Development Cost							
3.1. Personnel	--	28,488	--	260,774	--	806,427	1,095,689
3.2. Administrative Support Costs	--	--	--	29,700	--	--	29,700
3.3. Facilities and Renovations	--	--	--	60,471	--	27,769	88,240
4. Commodities							
4.1. Health Equipment	--	12,074	--	12,426	--	--	24,500
4.2. Office Furniture & Equipment	--	--	--	26,588	--	--	26,588
4.4. Medications	--	139,503	--	139,503	--	139,502	418,508
6. Contingencies	--	54,514	--	54,514	--	54,515	163,542
SUBTOTAL (Project Revenues)	0	234,579	0	583,976	0	1,028,213	1,846,768
GRAND TOTAL (AID, Title III Project Revenues)	493,212	297,042	330,306	780,192	88,481	1,157,535	3,146,768

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## VII. Summary Analyses

### A. Introduction

There were four summary analyses in the original PP: technical, administrative, social and financial.

The PP technical analysis, which describes the unevenness of health services in Santa Cruz, Bolivia, the general non-availability of pharmaceuticals, and the unreliability of communications (road links; telecommunications) remains valid. The social analysis of the beneficiary population and its environment continues to be applicable. The administrative analysis, which describes the MSU as part of a Cooperative, and refers to the O.R. activities of FIDES/PRICOR, is replaced by the analysis of PROSALUD in the following section, and by the incorporation of an O.R. function into this PP. Those parts of the original PP's financial analysis regarding the current costs for, and affordability of, health care in Santa Cruz Department remain valid. However, the actual self-financing model is no longer appropriate, and is replaced by a new model, described in Part C of this Section VII and in Annex D.

### B. Institutional Analysis - PROSALUD

#### 1. Legal Base and Objectives

Protección a la Salud - PROSALUD - is a non-governmental, non-profit organization headquartered in Santa Cruz, with legal status (personería jurídica) granted under Resolución Suprema No. 200408 dated August 21, 1985.

The organization's formal objectives are:

- 1) To develop self-financing systems of primary health care in low income, rural and peri-urban communities in Bolivia;
- 2) To promote community participation in the development of health services; and
- 3) To create management support systems for the above.

PROSALUD's activities in the Department of Santa Cruz are carried out under the terms of an agreement (October 23, 1985, amended July 3, 1986) between PROSALUD and the Ministry of Social Welfare and Public Health, represented in Santa Cruz by the Unidad Sanitaria Regional of the MSW/PH.

## 2. Financial Base

PROSALUD's operating and service delivery costs are funded by USAID/Bolivia under Project 511-0569, by contributions from PL-480 Title III and by revenues from the sale of health services to health system members/beneficiaries. (See Section VI, Cost Estimate and Financial Plan, page 49.)

The bulk of funds to date have been provided by USAID and have been administered by the project grantee, MSH. Under the project extension, MSH and PROSALUD will execute a sub-agreement authorizing PROSALUD to manage the project funds and system revenues required for its day-to-day operations, e.g. salaries, rent, utilities, rehabilitation and maintenance of health facilities. Although MSH will continue as project

grantee, and cannot therefore delegate ultimate responsibility for these funds to PROSALUD, the sub-agreement mechanism will enable the latter organization to develop its institutional capability further during the period of the project extension. PROSALUD will continue to exercise its current responsibility for management and accountability of PL-480 Title III funds, and will have responsibility for the collection, use and accountability of project income generations, with technical assistance from MSH.

### 3. Organization

PROSALUD consists of two sections: a Management Unit and a Health Services Delivery Unit. The former includes an Executive Director, a Sub-Director for Medical Services, a Sub-Director for Administration, a Planning Coordinator, and a staff responsible for training/planning, pharmaceuticals supply, personnel, procurement, accounting, and maintenance. PROSALUD's Health Services Delivery Unit, which currently consists of health centers/health posts in the peri-urban neighborhood of Villa Pillin, and in the rural communities of El Pailon, Cotoca, Montero, Hoyos, Puerto Pailas, Los Tajibos and Campanero, also contains a large and growing staff as described in the organization charts on the following pages. Additional health facilities will be established during the period of the project extension.

An Advisory Committee of highly respected individuals from the Santa Cruz commercial, political and social communities provides general counsel and guidance to PROSALUD. The Committee's advice is not binding on PROSALUD, but is taken into consideration as part of PROSALUD's planning process.

#### 4. Issues

PROSALUD will confront new challenges during the extension period of the project. These include: 1) the need to assume the operations research responsibilities arising from the collapse of the PRICOR-FIDES activity; 2) a substantial increase in responsibility for management of financial resources; 3) a need to achieve progress toward reaching self-financing levels; and 4) the necessity to re-structure PROSALUD to reflect the transition from the design-and-start-up phase of the project to the full operations phase.

The first two tasks have been discussed previously in this PP revision. Briefly, the operations research activity will require augmented technical assistance from MSH, the systematic collection of baseline and impact data using survey instruments to be developed by PROSALUD, and the careful analysis of these survey and impact data. The project's TA schedule and PROSALUD's recent recruitment of a public health physician-epidemiologist reflect the project's emphasis on operations research.

Similarly, the MSH TA schedule during the project extension includes a strong concentration on financial management, and especially the collection and disposition of project revenues. As noted earlier, MSH will establish, with prior USAID review and approval, revised groundrules for PROSALUD's management of project funds and revenues whereby PROSALUD will gain added experience in this key area.

The third area calls for progress toward achievement of self-financing levels, so that PROSALUD will be able to cover its operating costs fully by project closure, using only the proceeds from the sale of health services to the members of the target communities and institutions.

This is not an easy task. Even in the United States where much basic planning information is available, HMOs (the model chosen by PROSALUD) often go out of business for financial reasons. In the Third World, there is very little experience with self-financing health care systems for low income people on which this effort could draw. What information there is, is often not very encouraging. For instance, a study in 1982, noted that while people in poor countries do indeed pay fees for health services, they dislike doing so. This resistance is reinforced by national policy statements about health care as a human right.

On the more positive side, the Montero Household Survey in 1977, and informal surveys since, indicate that families in the target Santa Cruz area pay up to 30% of their disposable income for health care, including drugs. While there is insufficient information in these studies to determine who in the family makes the health spending decisions and under what circumstances, at least they show there is a revenue base already established on which a properly designed health services package could draw. In addition, evidence suggests that spending on drugs by low income people is largely inelastic. The SFPHC

project includes a revolving drug fund (RDF) which can reliably supply inexpensive generic drugs to HC system members. This part of the health services package has been particularly important in attracting clients to the system, and savings in this area alone could make membership in the whole program financially attractive to the target population.

The project aims at "system" financial balance, and modelling indicates that this can be achieved with careful control of membership groups, costs, and promotional activities. However, the process is innovative, and will be difficult to carry out. All involved in the project have endorsed the self-financing goal, and realize the barriers before them. The importance of the project is not only in reaching a self-financing level for the single six-member system established by the project, but in being the pilot for a new kind of health care for countries like Bolivia where public health resources are likely to fall behind national needs for many years to come.

Because of the many unknowns in the planning equation of this project, technical assistance and constant monitoring/adjusting of financial plans (including the related health services packages) are necessary. Outside technical assistance from MSH/Boston and SUNY, and local actuarial help, will bolster local MSH/PROSALUD planning efforts throughout the extension period.

The fourth area - the restructuring of PROSALUD - will also be problematic. Many of the functions now being exercised by the PROSALUD staff are peculiar to the challenges of the initial project design and its interim modification (administrative support for external (MSH) technical assistance, design of promotional materials and training

curricula, liaison with USAID, establishment of purchasing, inventory, and cost-recovery systems, etc.) The eventually-superfluous nature of some of PROSALUD's current functions is of special concern given the importance of PROSALUD in the cost equation of the overall project. Put simply, the staff and functional structure of PROSALUD should become considerably leaner by end-of-project (excluding staff at the Operations Level -- which should be considerably larger). The goal is to reduce overall PROSALUD operating expenses by 30% during the project extension period. This reduction will come about mainly by reducing central office staff and has been built into the financial model (Annex D), which reaches a \$24,000 surplus in the final year of the project (1990). As part of its scope of work under the extended cooperative agreement, MSH will be required to make specific recommendations to USAID and PROSALUD regarding directions to be taken by PROSALUD to trim and re-focus its human resources to meet this goal.

C. Financial Analysis of Project's Income-Generating Capacity

1. Assumptions Underlying Self-Financing Health Models (See Annex D for computer printouts of statistics.)

a. Model Design Parameters

The health care system, as described earlier and in Annex D, consists of 95 Level I, 15 Level II, and 6 Level III

health facilities, plus the non-profit institution PROSALUD, which serves as system owner/manager and whose overhead costs should be carried by health post revenues by the end of the project. The system also includes a pharmaceutical dispensing component. The system's health care services are offered on either a pre-paid, or fee-for-service basis, with costs for each described in the next section.

Non-member "walk-in" consultations and the enrollment into the program of individuals who are not members of the target population, will be allowed - but the fees charged will be higher than those paid by the target/enrolled population. The extra income generated by these incidental users of the health care system is not added into the present model, and will provide a financial "cushion" if this kind of system usage proves to be significant. Obviously, this extra clientele will only be served if system capacity permits.

b. Background Assumptions

The model is based on the following assumptions:

i. There is a market for SFPHC-type services in the Santa Cruz area. Between August and December 1986, several governmental and private institutions approached PROSALUD with requests for services for their members.

ii. Although the idea of prepayment for health services is new to most project beneficiaries, its popularity is expected to grow during the project period, especially among semi-urban enrollees.

iii. Tiers II and III of the medical health post hierarchy will have facilities which often exceed those available to local nurses and doctors in private practice. Program fees will be competitive with (i.e. usually less than) those charged by independent local health care providers. The health needs of the project's target population are so great, and the locally available services so poor and scarce, that there should be no major competition among health service providers to serve the project's target groups.

iv. Of the estimated base membership of approximately 68,000 persons, 42,500 are expected to be directly enrolled in the system (i.e. family heads or individuals holding primary memberships), augmented by dependents. An average coverage of four persons per family enrollment is used in the statistical base. Within the direct memberships, 8,500 are expected to fall into the prepaid category by Year Three of the project extension, and 34,000 would remain in the fee-for-service group. Relatives covered under the prepayment plan are estimated at 25,000.

v. The description of the services to be provided at each health post level are detailed in Annex C. The equipment-and-supplies lists remain as given in the original Project Paper.

vi. PROSALUD will own and manage almost all of the health care facilities in the system and will be responsible for refurbishing or building installations, equipping and staffing them (including training the staff), setting service fees and allocating revenues.

vii. While this statistical study assumes fixed costs and charges, reality will dictate changes in these factors. For the purpose of this self-financing analysis, changes in these two financial factors are assumed to cancel each other out. The service objective remains, however, to offer the fullest health coverage possible for a fee which is affordable to the target group and simultaneously high enough to generate sufficient revenue to allow the project to achieve self-financing status.

c. Assumptions about Levels of Service

Tier I: A maximum of 95 units will be operating by Year III of the extension. The main constraint to attainment of this goal will be the ability of PROSALUD and the higher service tiers of the health system to monitor and support this primary level.

Tier II: There will be three units at the beginning of the extension period, and 15 at the project's end. Approximately four units per year will be brought into service.

Tier III: Six will be in operation at the project's end. Three should be operational early in the extension period.

d. Planned Personnel per Unit

1. Tier I: Each unit of this Level will have two permanent, part-time promoter/health advisors, who will be assisted by one temporary expert for three weeks each year.

2. Tier II: These installations will employ up to three nurses - one Level I, one Level II, and one auxiliary, and one mid-level health technician.

3. Level III: This highest level will be a clinic with a staff consisting of one medical doctor, two Level I nurses, one technical nurse, one laboratory technician, one sanitarian, one clerk-record keeper, and one watchman.

e. Estimated Cost/Investment per Unit

Assumptions are:

1. For Level I:

a) Operations Costs: Personnel - \$360 per year;

b) Investment Costs: (i) Roofing and Screening - \$250; (ii) Furniture and Equipment - \$50; (iii) Health Equipment - \$100.

2. For Level II:

- a) Operations Costs: (i) Personnel - \$8,385 per year; (ii) Medication - \$1.27 per attended person; (iii) Marketing - 10 per cent on prepaid revenues; (iv) Depreciation - average of seven years.
  
- b) Investment costs: (i) Roofing and Screening - \$1,200; (ii) Furniture and Equipment - \$878; (iii) Health Equipment - \$1,000; (iv) Motorcycles - \$1,700; (v) Maintenance of Vehicles - \$250.

3. For Level III:

- a) Operations Costs: (i) Personnel - \$36,481 per year; (ii) Medication - \$1.27 per attended person; (iii) Marketing Costs - 10 per cent on prepaid revenue; (iv) Depreciation - 10 year average.
  
- b) Investment Costs: (i) Roofing and Screening - \$7,000; (ii) Furniture and Equipment - \$3,700; (iii) Health Equipment - \$4,500; (iv) Motorcycles - \$3,400; (v) Maintenance of Vehicles - \$500.

2. Income Bases for Services

a. Tier I: A third year gross annual income of \$200 per facility, or \$19,000 in total, is calculated. This amount is generated by vaccination fees, charges for simple medicines, and in some rural centers, by charges for modest curative interventions.

b. Tiers II and III

Total Level II and III gross annual income for the third year of the project is US\$1,173,240. This amount will be generated from the following charges:

1. Under the prepayment system, a whole service charge of US\$25 per quarter per family of four (less for individuals, couples and small families) will be made.

2. Under the fee-for service plan, a fee of \$3 per out-patient visit will be charged. (This compares with at least US\$4 currently charged in these communities by private physicians/nurses/clinics.)

3. For medications, an average charge of US\$1.81 per visit is planned (i.e. one or more prescriptions arising from a single consultation).

Service and membership charges have been held steady during the life of the extension. The reasons for this are threefold: a) It may be necessary to keep charges low and unchanged for an initial period in order to gain the confidence of the actual and potential target groups. b) Prices are rising in Bolivia, but the incomes of rural and semi-urban agricultural/industrial workers are not necessarily keeping pace. This may mean that project enrollees are paying a larger share of their incomes for health services in the next years, despite there being no increase in charges. c) Planners did not wish to exaggerate the revenue element of the financial plan in the face of uncertainties about the possibility or wisdom of raising fees.

In March 1987, under an AID/W funded arrangement, SUNY experts will re-analyze the self-financing elements of the project, offering their suggestions before September 1987. Simultaneously, MSH backstopping from Boston will include the use of certain computer programs developed for consideration of how to determine charges for health care in developing countries. PROSALUD will work with both these groups, and will implement any agreed upon changes in project charges and services. These O.R. efforts will make an important contribution to the operations research/self-financing components of the project.

### 3. Analysis of the Projected Income Statement

(See Annex D for computer printouts of these computations.)

a. Level I

As mentioned earlier, the 95 Level I units are primarily health promotion centers with their main activities related to preventive medicine. Under these conditions, net income projections for this Level over the project's life are negative, although modestly so.

In Year 1 of the extension period, Level I expected gross income is US\$11,800, while expenses are estimated to be \$28,720. As a result the Year 1, Level I deficit is \$16,920, a per-facility loss of \$286.78.

Level I statistics for Year 2 of the extension also show a loss, but of lesser magnitude. Estimated gross income is \$15,000 based on 75 facilities in operation. Estimated costs are \$26,320, resulting in a deficit of \$11,320, 47.4% lower than the losses of the previous year. The loss per Level I installation has fallen to \$150.93.

By the third and final year of the extension, with 95 facilities in operation, gross income should be \$19,000 and net operating expenses \$33,200, for a net loss of \$14,200. This is a deficit per unit of \$149.50, only slightly lower than the previous year's loss.

The combined Level I losses for the three years of the project extension do not represent a substantial amount and will not jeopardize project success. On a socio-economic level, if the social benefits of these 95 health posts could be measured, (e.g. ORS packets obviating the need for child hospitalization for rehydration, early diagnosis of illness and referral preventing serious illness and income loss), then these Tier I deficits would turn to positive figures. In this model, the Tier I losses are covered by revenue surpluses from Levels II and III.

b. Level II

The financial goal of Level II health posts is to generate sufficient revenues to cover all costs, plus a surplus to invest in non-routine modernization and expansion of facilities. Moreover, by Year 3, these units must be able to carry their share of the costs of PROSALUD personnel, equipment, and utilities. In this model, Level II meets its goal.

In Year 1 of the project extension, an estimated 8,372 beneficiaries are expected to be served at Level II, generating \$40,797 in income. Costs for this period are estimated at \$40,978, resulting in a net loss of \$182.

In Year 2, 33,088 health visits are expected. While the patient load almost quadruples during this year, health facilities expand only 57%. This difference represents better use of Level II installed capacity.

Income in Year 2 is estimated at \$178,908, a fourfold increase. The number of enrollees under the prepaid system is expected to have grown substantially as a result of intensive PROSALUD/associate campaigns, so that 60% of Level II membership income in Year 2 comes from prepaid memberships.

Operating costs in Year 2 are estimated at \$139,929, resulting in a surplus of \$38,979.

In Year 3, patient health visits are expected to rise to 74,000, generating gross income of \$410,634. Operating costs are \$287,499, leaving a surplus of \$123,135. This figure represents a net income of \$8,209 per medical unit, before PROSALUD's costs are apportioned.

c. Level III

Level III health units will be clinics, each staffed by a medical doctor, a laboratory technician, up to three nurses, and other associated health personnel. As such, they represent the highest level of health care offered under the project.

During Year 1 of the project extension, three Level III units are expected to be operational during three quarters of the year. They should handle 15,548 health visits, generating \$75,765 in income. Operating costs for this period are expected to be \$92,245. First year losses are \$16,480, \$5,493 per medical unit or \$1.06 per patient/visit.

In Year 2, the patient level is expected to increase fourfold to 61,357. This operating level will generate gross income of \$332,258 and expenses will be 343,589 resulting in a loss of \$11,331, 31% lower than the previous year.

During Year 3, the patient load is expected to double again, to 137,800 health visits made to the Level III clinics. This workload should generate a positive income of \$71,861, a surplus of \$11,977 per unit and a profit per health visit of \$0.52.

d. SUMMARY: The Three Levels and PROSALUD

In Year 1 of the extension period, the health care services component will have a net loss of \$33,582. Adding in PROSALUD expenses brings the whole system loss to \$172,505. AID and Title III monies will counterbalance this shortfall.

In Year 2, the service loss falls by half to \$16,328, and the system loss to \$137,311. AID and Title III monies continue to cover the declining deficit.

In the final project year, the service income is a positive \$180,796. As noted earlier, health system revenues should be able to cover PROSALUD costs by this final year in order for the project to be considered "self-financing." If PROSALUD's expenses of \$155,869 were to be subtracted from the health facility revenue surplus, (see final Table in Annex D), the Year 3 project surplus

would fall to \$24,927. This modest margin of gain underlines the necessity for a constant review of PROSALUD expenses and of project patient/membership charges. However, it also represents attainment of the project's goal of system financial independence by project closure, a major achievement in three years.

It should be noted further, that the PROSALUD expenses in Year III will not actually be charged against Tier II and III revenues, but will be available as a surplus to cushion PROSALUD in the post project period when no subsidies will offset costs. With the expertise and facilities built up during the extension period, plus this financial "safety net," the post-project life of PROSALUD and its related health care system should be a successful one.

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SELF-FINANCING PRIMARY HEALTH CARE PROJECT

ANNEXES

- A. Revised Logframe
- B. Detailed Account of Project's Initial Years  
(December 1982 - January 1985)
- C. Description of Health Services Offered at Levels I, II and III
- D. Financial Analysis Exhibits
- E. Community Screening Models
- F. Waiver of Competition in Selection of Cooperative Agreement Recipient.  
State Cable 376625 dated 12/4/86.

## REVISED PROJECT DESIGN SUMMARY

## LOGICAL FRAMEWORK

AID 1010-75 (2-71)  
SUPPLEMENT I(INSTRUCTION: THIS IS AN OPTIONAL  
FORM WHICH CAN BE USED AS AN AID  
TO ORGANIZING DATA FOR THE PAR  
REPORT. IT NEED NOT BE RETAINED  
OR SUBMITTED.)Life of Project:  
From FY 1983 to FY 1988  
Total U.S. Funding \$2.1 million  
Date Prepared: 1/10/87

Project Title &amp; Number: Self-Financing Primary Health Care Project No. 511-0569

PAGE

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To improve the health status, and thereby the productivity, of low income agricultural and industrial workers and their families in selected areas of Bolivia's Santa Cruz Department.</p>	<p>Measures of Goal Achievement:</p> <ul style="list-style-type: none"> <li>. Infant and child mortality rates reduced.</li> <li>. Chronic and acute malnutrition deficiencies among target population reduced.</li> <li>. Morbidity attributed to school absenteeism reduced.</li> <li>. Morbidity attributed to adult (15-44) disability reduced.</li> </ul>	<ul style="list-style-type: none"> <li>. Baseline and follow-up surveys.</li> <li>. Health system statistics and reports.</li> <li>. Child growth charts.</li> <li>. School attendance records.</li> <li>. Operations research results.</li> <li>. USAID/Bolivia project monitoring.</li> </ul>	<p>Assumptions for achieving goal targets:</p> <p>National economy remains relatively stable.</p>

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PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY 1983 to FY 1990  
Total U.S. Funding, \$2.1 million  
Date Prepared: 1/10/87

Project Title & Number: Self-Financing Primary Health Care Project No. 511-0569

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Project Purpose:</b></p> <p>To establish a pilot self-financing health care delivery system, to service target, low-income populations in Santa Cruz Department.</p> <p>In addition, the project will develop a Management Unit and a Health Services Delivery Unit, which will be responsible for carrying out project activities and which can be adapted and used by other institutions for replication of the self-financing primary health care system.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>At EOP the following systems/ departments will be in place:</p> <ol style="list-style-type: none"> <li>1. A pilot health care system which is:               <ol style="list-style-type: none"> <li>a) Fully staffed, equipped, and serving the needs of an estimated 68,000 low-income persons.</li> <li>b) Financially independent, based on revenues generated from the provision of health services.</li> </ol> </li> <li>2. A body of research and a fully operational research department which can provide information to serve as the basis either for replicating the self-financing primary health care system or for tailoring its elements into new self-financing plans.</li> </ol>	<ul style="list-style-type: none"> <li>. End of project evaluation.</li> <li>. Internal and external audits.</li> <li>. Quarterly progress reports.</li> <li>. Semi-annual reports.</li> <li>. Management Information System periodic reports.</li> </ul>	<p>Assumptions for achieving purpose:</p> <ul style="list-style-type: none"> <li>. An institutional framework exists for reaching beneficiaries.</li> <li>. Proportion of disposable income of target population devoted to health care does not decrease.</li> <li>. Health consumers respond to pre-payment and fee-for-service options.</li> </ul>

of

REVISÉ PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 1983 to FY 1990 -  
Total U.S. Funding \$2.1 million  
Date Prepared: 1/16/87

Project Title & Number: Self-Financing Primary Health Care Project No. 511-0569

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <p>1. Health Care Delivery System established</p>	<p>Magnitude of Outputs:</p> <p>1.1. One Management Unit established.</p> <p>1.2. 6 level III outlets 15 level II outlets 95 level I outlets established by April 1990.</p>	<p>Project work plan and reports.</p> <p>Quarterly Progress Reports from PROSALUD.</p> <p>Semi-annual reports from MSH.</p> <p>Interim and EOP evaluations.</p> <p>USAID/Bolivia project monitoring.</p> <p>Site visits.</p>	<p>Assumptions for achieving output:</p> <ul style="list-style-type: none"> <li>Inputs provided in a timely manner.</li> <li>Qualified trainers can be identified and recruited.</li> <li>Suitable candidates for training can be recruited.</li> <li>Physical structures for health facilities exist and are made available.</li> <li>External data exist for OR comparisons (e.g. school and work attendance statistics, users of alternative health systems are willing to provide information, etc.)</li> <li>Community and Institutional clients sign up as expected.</li> </ul>
<p>2. Management Support Systems operative.</p>	<p>2.1. Monitoring and evaluation system designed and installed by August 1987.</p> <p>2.2. Standard packages of health services designed and delivered by August 1987.</p> <p>2.3. Financial management system and pricing criteria designed and in place by August 1988.</p> <p>2.4. Medicines and supply logistics system designed and operational by August 1987.</p> <p>2.5. Supervision and personnel management system designed and operating by August 1987.</p>		
<p>3. An Operations Research System established, generating information for internal use and replication purposes.</p>	<p>3.1. Baseline data on population, vital statistics, epidemiology, family income and expenditures, community organization, etc. completed by January 1990.</p>		

REVISED PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY 1983 to FY 1990  
Total U.S. Funding \$2.1 million  
Date Prepared: 1/10/87

Project Title & Number: Self-Financing Primary Health Care Project No. 511-0569

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <p>4. A training and certification system is established for project field personnel.</p>	<p>Magnitude of Outputs:</p> <p>3.2. Case studies of health care delivery and financial alternatives completed by January 1990.</p> <p>3.3. Marketing, recruitment and community organization alternative models developed and tested by January 1990.</p> <p>3.4. Financial analyses and projections for health care delivery and possible replication completed by January 1990.</p> <p>3.5. Management support systems and procedures evaluated and adjusted for internal use and future replication by January 1990.</p> <p>4.1. Primary Health Care workers and supervisors trained in service delivery and management:</p> <p>135 at Level I; 30 at Level II and 25 at Level III.</p>		<p>Assumptions for achieving outputs:</p>

BP



Detailed Account of Self-Financing Primary Health Care  
Project's Initial Years

(December, 1982 - January, 1985)

The main events during this period are as follows:

1. PID completed (12/31/82); PID reviewed in AID/W DAEC meeting in January 1983; Guidance Cable issued with objections/recommendations by DAEC (2/2/83); development of background components to the PP, which is completed on 8/19/83.
2. Project authorized by USAID Mission Director on 8/19/83 with preconditions to be met by grantee prior to disbursement of funds for project implementation and prior to disbursement of funds for inauguration of health services modules; Cooperative Agreement signed with La Merced cooperative as grantee.
3. Initial meetings of the Intercooperative Board (Oct.-Dec. 1983) leading to the signature of an Intercooperative Agreement (12/30/83) and to the fulfillment of preconditions established in the Authorization Document.
4. During the first nine months of 1984 serious intercooperative differences occurred causing the dissolution of the working agreement, and the introduction of major changes in the operational structures of the Project by USAID on 9/18/84. Some of the most important events leading to these major changes were:
  - a) After 6 months of reviewing candidates for LT-TA position, Mr. Lewis (Ridge) Applegate arrived for 3 weeks' assignment. He did not return to the project. (5/84).
  - b) USAID Project Manager interviewed candidates for LT-TA position; noted weak administrative capacity of La Merced.
  - c) During a meeting of the Intercooperative Board Meeting, representatives of La Merced and San Julian cooperatives exchanged hostile remarks. Relationship among cooperatives deteriorated into mistrust (6/84).

San Julian sent a letter asking an apology from La Merced, in the absence of which they would cease attending board meetings (6/30/84).

- d) An implementation plan was approved by all three cooperatives after conciliatory meetings (7/13/84).
- e) La Merced presented its own implementation scheme (7/20/84) warning that if it were not accepted, La Merced would withdraw from the project.
- f) La Merced refused to attend a board meeting in Minero. San Julian and Minero decided to proceed and a detailed implementation plan was approved by the two organizations. To establish the necessary institutional umbrella, both cooperatives decided San Julian could lend its "Personería Jurídica" to the project (7/21/84).
- g) USAID assessed the evolution of the project and decided that the project needed to go ahead with a totally new entity, either through FIDES or with the creation of a new organization.
- h) USAID Legal Advisor, Dr. L. Vasquez, suggested the constitution of a "Sociedad Civil". The statutes were prepared and discussed with all three cooperatives. An Acta was signed by La Merced, San Julian and Minero, committing each to the new "Sociedad Civil" whose statutes and "Minuta de Constitución" were to be prepared by La Merced's legal advisor (8/17/84).
- i) USAID's Regional Legal Advisor pointed out the necessity of a de-obligation re-obligation authorization of grant monies if the "Sociedad Civil" alternative were to be approved (8/20/84).
- j) La Merced advised in writing that it was retreating from its previous commitment to participate in a "Sociedad Civil" and promised to pursue the project's objectives only if it would be authorized to manage the project by itself (8/29/84).

- k) San Julian and Minero forwarded, for USAID approval, the constitution of a new entity. This action followed La Merced's non-attendance at the meeting called to develop such a constitution among all three cooperatives (8/27/84).
5. The failure to reach a workable compromise among the three cooperatives, which had already caused a one year delay in the implementation of the project, led to the adoption of major decisions by the Mission Director in agreement with USAID staff (9/18/84). As noted in the "Memorandum of Decisions made on September 18th about the SFPHC project" the most important decisions were:
- a) USAID would assume an active role in managing the project, including the selection and contracting of MSU personnel, technical assistance and procurement of medical equipment and pharmaceuticals:
  - b) All cooperatives within the Santa Cruz region would be eligible to receive health services provided by the project under the concept of a HMO health insurance program.
  - c) La Merced would remain as project grantee and the Project Agreement would remain in full effect.
  - d) La Merced would use its existing Health Committee to serve as the Board of Directors for the project. The Board of Directors would include an ex-officio member from USAID/Bolivia who would also be the USAID project manager. The Project Board of Directors would serve until such time as a new legal entity for the MSU could be established.
  - e) The Board of Directors would authorize USAID to hire the MSU staff, contract for other technical assistance, and approve the initiation of all procurement and training programs. MSU personnel selected by USAID would be contracted and paid for in accordance with USAID employment policies.

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The Board of Directors would authorize MSU executive personnel to hire all support personnel required under the project.

The Board of Directors would authorize USAID to disburse funds directly to the MSU to cover project expenses incurred by the MSU. A system of advance payments and voucher reimbursements would be established.

- f) A representative of the MSU and the USAID Project Committee would initiate the technical review of proposals for technical assistance on September 26, as established in the R.F.P.
6. La Merced and Minero decided to accept the new rules established by USAID in relation to the management of the project and its opening to all community-based organizations in the Santa Cruz area. On the contrary, San Julian cooperative decided to withdraw from the project arguing that it had lost its participatory nature, jeopardizing the self-managing concept of the service delivery modules.
7. During October 1984, USAID staff, La Merced, and Minero tried to reorganize the project under the new directives. New areas of disagreement emerged between La Merced and USAID in the following months regarding the definition of areas of responsibility and control in project management. Meanwhile, USAID organized the MSU outside the control of La Merced, and evaluated the proposal and made a decision in relation to the Technical Assistance component of the project (granted to MSH).
8. In January 1985, La Merced threatened to withdraw definitively from the project, arguing that USAID had not met its obligations under the terms of the Cooperative Agreement. USAID concluded that the participation of La Merced in the project had to be terminated.

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SELF-FINANCING PRIMARY HEALTH CARE PROJECT  
PREVENTIVE AND CURATIVE HEALTH CARE SERVICES  
AT LEVELS I, II, AND III

This section presents the objectives of the self-financing primary health care system at each level. These objectives are based on the need to reduce major causes of mortality and morbidity. Some of these objectives of the system are basic and essential, i.e. those which definitely will be included in the program. Beyond these basic objectives are others which could be included depending on the desire of each community and the feasibility of the inclusion. Feasibility could depend on the availability of added financial resources, the abilities and time constraints of the various health workers, and logistical problems.

Objectives are delineated below for each of the 3 levels of the system. The services to be offered at each of the levels are related directly to each objective.

I. LEVEL I: THE PROMOTER AT THE COMMUNITY LEVEL

A. Objectives at Level I: Preventive and Curative Medicine

1. Preventive

- a) (Basic) Decrease incidence of parasitic and other infectious enteric diseases.
- b) (Basic) Decrease incidence of anemia.
- c) (Basic) Decrease impact on morbidity and mortality of other preventable infectious diseases.
- d) (Basic) Improve maternal and child health for pregnant women and children up to age 5.
- e) (Optional) Be available as a resource to help the community with other preventive programs: e.g. avoidance of pesticide poisonings, accident, preventive health programs in the schools in coordination with the rural school teachers, nutrition programs.

2. Curative

- a) (Basic) Be available as a source of first contact primary care to take care of emergencies and minor illnesses.
- b) (Basic) Be able to recognize serious health problems requiring referral to a higher level, especially abnormal deliveries.

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c) (Basic) Have a small supply of basic drugs for the community so as to be able to treat minor illnesses before they become major.

d) (Basic) Be available for administration of treatment ordered at a higher level: e.g. injections, administration of TB drugs or follow-ups.

e) (Basic) Be able to perform uncomplicated deliveries, with or without the help of a trained midwife (who may also be a promoter).

#### B. General Considerations for Level I Services

At Level I, there will be two promoters for each community, depending on the cultural patterns of the community. They may operate out of their own homes, or from a room in a house provided by the community, whichever seems better for the community given individual circumstances. The promoters will be part-time workers who earn most of their income at their usual work. Their services will be paid in two ways: free family health insurance coverage plus a commission for each family or individual membership that they bring in. The following outline of services to be provided by the promoter is mainly a general guideline. Some of the services may not be feasible in a given situation, whereas, in other situations the promoter may fill some additional community need and may have to be trained specifically to meet that need. Functions of semi-urban areas are basically related to preventive activities, as well as promotional and associates enrollment. Rural promoters, besides these activities, will be trained in certain specific curative techniques.

In addition to the preventive and curative services to be offered by Level I, the promoters will collect certain information and statistics, as instructed by PROSALUD. These tasks will include keeping a log of preventive efforts (talks, meetings, sanitation work) and curative encounters, including types of diseases found, drugs administered and referrals made. Promoters are also responsible for keeping a file on each member of the community. In addition, the promoter must log charges and collections.

In all these activities, the promoter will be supervised directly by auxiliary nurses of Level II and the supervisor of Level III according to the supervision schedule. Occasionally s(he) will be visited by the staff supervisor of the central office.

#### C. Services to be Offered at Level I: Preventive and Curative Medicine

##### 1. Preventive and Curative for Rural Promoter (Somewhat less for semi-urban promoter)

a. Basic to decreasing the incidence of parasitic and other infectious enteric diseases, the promoter must be able to:

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1) Instruct the community on the reasons for using only safe drinking water and how to reach this goal, be it through installing a well, boiling or filtering the water, etc. Each promoter should have the skills to follow through to make this instruction effective.

2) Instruct the community on the reason for hygienic and safe waste/feces disposal, be it through the construction and/or use of latrines and/or modifications to sanitary practices in order to avoid the spread of enteric pathogens. The promoters must follow through to make the instruction effective.

3) Following (2), instruct the community in the construction of latrines.

b) Basic to decreasing the incidence of anemia, the promoter will:

1) Be familiar with, and introduce into his community, the means to interrupt the spread of hookworm.

2) Encourage nutritional practices which will decrease the incidence of anemia; and

3) Be able to recognize anemia and prescribe medicines to eliminate hookworm and build up iron stores (iron) and/or folic acid in pregnant women.

c) Basic to decreasing the impact on morbidity and mortality of other preventable infectious diseases, the promoter will:

1) Be able to recognize diarrhea with light or moderate dehydration and to provide oral rehydration therapy or a referral in case of strong dehydration.

2) Be able to spot possible tuberculosis and refer these cases appropriately.

3) Be able to help with immunizations, both in organizing the community and in giving the Sabin Vaccines.

4) In areas where malaria is a problem, be able to give instructions on means of preventing the illness and coordinate his/her (the promoter's) work with the malaria program; and

5) Be able to instruct the community in general hygienic means to minimize the spread of enteric, eye, skin, and respiratory diseases.

d) Basic to improving maternal health in pregnant women and the health of children up to age 5, the promoter will:

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- 1) Be well-trained and accessible.
- 2) Have basic knowledge in handling emergencies involving trauma specifically:
  - i) how to stop severe bleeding,
  - ii) how to splint and handle fractures,
  - iii) how to handle snake bites,
  - iv) some knowledge of resuscitation in cases of drowning or electric shock, and
  - v) emergency treatment of burns and poisonings.
- 3) Know how to recognize, and if feasible, initiate treatment in medical emergencies, specifically:
  - i) Initiating oral rehydration in cases of moderate to severe dehydration, along with referral if indicated.
  - ii) Referral to a higher level of all cases with more than three days duration.
- 4) Be able to distinguish minor self-limiting illness from more serious illness and initiate treatment for minor illnesses such as:
  - i) URI's,
  - ii) tonsillitis,
  - iii) deep bronchitis,
  - iv) mild diarrhea/gastroenteritis,
  - v) minor skin infections, abrasions, cuts, burns (first grade),
  - vi) mild conjunctivitis,
  - vii) muscle aches and pains, strains, contusions,
  - viii) anemia,
  - ix) minor fungal skin infections, and
  - x) mild allergy problems,

e) (Basic) The promoter will be able to recognize when there is a serious health problem requiring referral to a higher level, including:

- 1) Pneumonia or other severe respiratory problems,
- 2) Asthma,
- 3) Otitis media,
- 4) Tuberculosis,
- 5) Complications of pregnancy and post-partum period,
- 6) Gastroenteritis with more than three days' duration, and other digestive organ illness,
- 7) Venereal disease,
- 8) Severe abscesses or skin infections,
- 9) Malaria,
- 10) Contagious diseases preventable by immunization: yellow fever, polio, measles, whooping cough, diphtheria,
- 11) Liver disease,
- 12) Heart failure,
- 13) Seizure disorder,
- 14) Goiter.

f) (Basic) The promoter's services include the availability of a basic drug supply to allow him/her to treat the basic conditions in (1) (2) (4) above.

g) (Minimal) The promoter's services will include the ability to administer intramuscular injections at the local level exceptionally, as dictated by a health provider at Level II or III, so as to allow better patient compliance, since the patient could stay in his own village. The promoter will be able to follow up on chronic health problems (as per instructions from Level II and III) such as: tuberculosis and chronic skin infections.

h) (Basic) All promoters will be able to do simple or uncomplicated deliveries in the home. If an auxiliary nurse from a Level II facility is immediately available, s(he) should observe personally the

delivery management of the promoter and assist only when strictly necessary. In this manner the auxiliary will strengthen the promoters' role in the community. There may be empirical midwives in the community who could be trained in sterile techniques and in how to recognize complications. If it is necessary for the promoter to be able to do uncomplicated deliveries, then this service will include:

- 1) sterile techniques,
- 2) care of the newborn including the umbilical cord, and
- 3) the avoidance of an episiotomy, if possible, and the referral to a Level II or III facility. The problems to be recognized should specifically include:
  - i) malpresentation,
  - ii) pre-eclampsia or eclampsia,
  - iii) premature or prolonged rupture of membranes,
  - iv) fetal death,
  - v) infection in the mother, pre or post-partum,
  - vi) any bleeding,
  - vii) failure to progress in labor,
  - viii) multiple birth,
  - ix) prematurity.

II. LEVEL II: THE AUXILIARY NURSES AT THE HEALTH POST

A. OBJECTIVE AT LEVEL II: Preventive and Curative Medicine

1. Preventive

a) (Basic) Decrease incidence of parasitic and other infectious enteric diseases.

b) (Basic) Decrease incidence of anemia.

c) (Basic) Decrease impact of morbidity and mortality of other preventable infectious diseases.

d) (Basic) Improve maternal and child health for pregnant women and children up to age 5.

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e) (Basic) Ability to do uncomplicated deliveries, either in the patient's home or at the health post, promoting of institutional delivery.

f) (Basic) Provide supervision of the services performed at Level I.

B. GENERAL CONSIDERATIONS FOR LEVEL II SERVICES

At each Level II facility, it is planned to have one Auxiliary I nurse and one Auxiliary II nurse, both of them full-time and both on salary. Each Level II facility will be responsible for the supervision of the promoters in several communities, depending on geographic and demographic considerations. The Level II facility is contemplated to be a basic 2 or 3 room health post provided by the community or using facilities provided by MSW/PH under agreement or rented in the village center. Level II will serve as Level I's resupply point for drugs and other supplies, as well as provide a continuous supply of vaccines. The goal for Level II personnel<sup>s</sup> to make a supervisory visit to each Level I community at least once a month.

The division of time for various services of the auxiliary nurses at Level II will be approximately (combined for the 2 types of nurses):

Curative care (including waiting time for patients)

6 nurse-hr/day 37.5%

Supervisory Time (50% curative  
50% preventive)-1 day/mo in  
each community) 20%

Emergencies and Deliveries 12.5%

Preventive programs - MCH,  
vaccinations, etc. 25%

Drug Supply, information, etc. 5%

The auxiliary nurses will have informational and statistical tasks as well as the preventive, curative, and supervisory tasks. These will be similar to the information gathered at Level I, will be specified by PROSALUD, and will include data on:

1. Registration of participants.,
2. Preventive meetings, campaigns, etc.
3. Curative visits.
4. Referrals.
5. Supervisory activities.
6. Communicable diseases.
7. Drugs distributed and ordered, and
8. Charges/collections/costs.
9. PAI

C. SERVICES TO BE OFFERED AT LEVEL II: Preventive and Curative Medicine

1. Preventive

- a), b), c), d), e), f) (all Basic)

The preventive services to be offered at Level II are essentially the same as those provided by the promoter (see Level I preventive services), except that the nurses will act both on a community level in association with the promoter as a team (or on their own if there is no promoter, and on a supervisory level, when they will oversee the work of the promoters. The only other specific difference is that the auxiliary nurses, (generally the Auxiliary II) will have more direct organizational roles in health education, maternal and child health, vaccination and TB programs.

Some specific differences in the Level II preventive services over Level I (see Level I preventive services) are the following. Level II Nurses:

- 1) can start intravenous rehydration if necessary when the patient is referred from Level I,
- 2) can coordinate the care of TB patients,
- 3) will have a refrigerator for the storage of vaccines, will serve as distribution centers for vaccines to the community,
- 4) can coordinate distribution of malaria prophylaxis if indicated, and
- 5) will check blood pressure and urine protein.

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2. Curative

a) (Basic) Availability for first contact primary care and for referral care from Level I. Nurses must have the ability to handle emergencies and treat minor illnesses. The auxiliary nurses should:

1) be available, as there are 2 nurses assigned to each Level II post and one should be easily reached at all times in case of an emergency,

2) have basic knowledge in handling emergencies involving trauma, specifically:

i) how to stop severe bleeding, including some ability to do basic suturing,

ii) the immobilization of fractures,

iii) how to handle snake bites and how to administer antivenom (some would be available at the Level II post if it were appropriate),

iv) knowledge of how to do resuscitation,

v) knowledge of how to treat emergency cases of burns and poisonings, and

vi) ability to provide stabilization with IV fluids in a shock following trauma while arranging referral;

3) be able to handle medical emergencies, specifically:

i) severe dehydration: may initiate IV therapy before transferring to Level III facility, and

ii) initiating treatment in asthma and pneumonia;

4) be able to treat or at least initiate treatment for minor illnesses, including:

i) URI's

ii) otitis external/otitis media,

iii) tonsillitis,

iv) bronchitis/mild pneumonia/mild asthma,

v) diarrhea/gastroenteritis/bacterial dysentery,

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- vi) parasitoses,
- vii) skin infections, including the lancing of minor abscesses
- viii) abrasions, concussions and lacerations, including minor suturing,
- ix) conjunctivitis,
- x) muscle aches and pains, strains,
- xi) anemia,
- xii) gonorrhoea, syphilis,
- xiii) urinary tract infections,
- xiv) gastritis/dyspepsia,
- xv) allergies,
- xvi) fungal infections,
- xvii) vaginitis, and
- xviii) continuing treatment of chronic diseases, such as tuberculosis, and thyroid disease.

b) (Basic) The auxiliary nurses will be able to recognize when there is a serious health problem requiring referral to Level III or above, including:

1) severe respiratory problems, including pneumonia, asthma that does not respond readily to treatment, and possible pneumothorax,

2) suspected tuberculosis,

3) complications of pregnancy, including those cases that have been referred from Level I and have been confirmed as truly complicated pregnancies; these would include:

- i) bleeding in pregnancy, especially 3rd trimester,
- ii) malpresentation or pre-eclampsia,
- iii) fetal death,

- iv) hypertension or pre-eclampsia,
- v) suspected multiple pregnancy,
- vi) premature rupture of membranes,
- vii) diabetes in pregnancy,
- viii) tuberculosis in pregnancy, and
- ix) excessive alcohol consumption in pregnancy,

4) severe gastroenteritis or enterocolitis, including some cases of dysentery that may require more laboratory diagnosis (e.g. amoebiasis), and those cases where IV rehydration is necessary, although the nurse may begin the IV therapy,

5) possible "surgical abdomen", including appendicitis, perforated ulcer, volvulus,

6) severe skin infections and large abscesses,

7) malaria if laboratory diagnosis is required,

8) contagious diseases preventable by immunization: yellow fever, polio, whooping cough, diphtheria, tetanus, complications of measles,

9) liver disease,

10) heart disease, including failure and possible Chaga's Disease or rheumatic fever,

11) nephritis,

12) seizure disorder or meningitis,

13) any other apparently minor condition which does not respond to initial treatment in a reasonable period of time.

c) (Minimal) The services at Level II include the availability on site of a basic drug supply that will allow the treatment of these conditions in 2) a) 2) 3) 4) above. The specific drugs are listed in Annex F.<sup>1</sup> In addition, some other drugs may be stored at Level II for the specific treatment of a specific patient, e.g., a tuberculosis patient and others required by the Medical Doctor.

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d) (Basic) The services at Level II will include the capability to carry out services orders at a higher level, including intramuscular and intravenous injections. This could include follow up for:

- a) tuberculosis,
- b) other chronic diseases, infections, and
- c) pediatric problems.

e) (Basic) The auxiliary nurses will be capable of doing uncomplicated normal deliveries, either at the home of the patient or at the health post. This service would include the ability to repair minor lacerations and follow the patient post-partum. The service should include sterile technique, care of the newborn, and the use of methergine or ergotrate post-partum. They will be able to recognize complications of labor and delivery and appropriately refer them to a Level III (or higher) facility. The complications which should be recognized are listed at Level I.

f) (Basic) The auxiliary nurse (usually the auxiliary II) will supervise the curative services performed by the promoters at Level I and will participate (with the technical nurse from Level II) in the evaluation of these services.

### III. LEVEL III; THE HEALTH CLINIC

#### A. OBJECTIVES AT LEVEL III: Preventive and Curative Medicine

##### 1. Preventive

a), b), c), d) Basic. These minimal objectives are the same at Level III as they are at Levels I and II (see Levels I and II), although the role at Level III will be more supervisory.

e) Basic. Provide direct supervision to Level II, and when appropriate, to Level I as well, especially as regards sanitation and maternal and child health programs.

##### 2. Curative

a) Basic. Provide a full range of primary care activities to which promoters and auxiliary nurses at Levels I and II can refer patients, with the presence of a physician, including:

- 1) emergency care and
- 2) primary care of all illnesses with either

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- i) definitive care at the Level III facility, or
  - ii) arranging of referral to a Level IV or V.
- b) Basic. Availability of a medicine supply adequate for either definitive care in a) 1) and 2) or for initiating care when referral to a Level IV or V facility is contemplated.
- c) Basic. Management of normal deliveries and possibly some abnormal labors, as necessary, not including Caesarian section except in direct emergency.
- d) Basic laboratory services available.
- e) Basic availability of a limited number of hospital beds for treatment of more severe illnesses requiring observation or intravenous treatment, or for deliveries.
- f) Basic dental services wherever possible.

B. GENERAL CONSIDERATIONS FOR LEVEL III SERVICES

The Level III Health Clinics will be comprehensive primary care facilities to which referrals will be made from Levels I and II, although they will function in curative medicine as a Level I or II facility in that the Level III facility may be the first health care-source to be approached by the patient, especially for the population in direct proximity to the facility. Depending on what seems most appropriate, some of the peri-urban areas of Santa Cruz may have only Level I and Level III facilities, in which case the designated Auxiliary nurse from the Level III facility would do the supervisory functions for the Level I health workers.

Information

The staff at Level III will all partake in informational and statistical reporting, but at this level, the work will be coordinated by the clerk/record keeper.

C. SERVICES TO BE OFFERED AT LEVEL III: Preventive and Curative Medicine

1. Preventive

The basic services at Level III to meet the preventive objectives are much the same as they are at Levels I and II, except that, besides actually doing some of the preventive tasks, personnel from Level III will also be in the key supervisory roles for the different preventive programs in the area. The preventive programs are elaborated in more detail in the discussions of Levels I and II, but, briefly, the basic preventive services supported by Level III will include:

- 1) Basic sanitation.
- 2) To control Parasitoses.
- 3) Nutrition programs,
- 4) ORT.
- 5) Cooperation with "vertical programs" for specific diseases:  
  
i.e., tuberculosis, yellow fever, malaria, immunization programs, and
- 6) Maternal and child health programs, including:
  - a) pre-natal care, delivery and post-partum period.
  - b) well child care.

Basic preventive services at Level III would include supervisory functions.

Objective (f) would be beyond the basic services listed above. If the communities desire, and if it were feasible, Level III could help in such programs as the prevention of pesticide poisonings or accidents or give health programs in the schools in cooperation with the teachers, or help in specific nutrition-oriented programs, family planning, or preventive dental programs.

## 2. Curative

a) The Level III facility should be able to provide a full range of primary care activities within the capability of a general practice physician (Director). Since patients are being referred from Levels I and II, it is specially important that definitive care be given at Level III if it is within the range of "primary care", i.e., not requiring hospitalization or specialized diagnostic services not available in the facility. These definitive services will include:

- 1) Emergency care:
  - i) lacerations,

- ii) simple fractures, or splinting and stabilization of more serious fractures with arrangement of referral to a Level IV or V facility. An X-ray machine and dental equipment are not contemplated at start-up, but ~~are~~ an option to be considered at a later date, if it seems appropriate and there is a documented need as well as the financial capability.
- iii) burns, poisonings,
- iv) the capability to do an emergency Caesarian,
- v) treatment of snake bite,
- vi) capability to do resuscitation,
- vii) stabilization of patients in hypovolemic shock through administration of intravenous (IV) fluids, including destran,
- viii) IV rehydration,
- ix) initiate treatment of meningitis, including the capability to do lumbar punctures,
- x) treatment of asthma,
- xi) initiate treatment of pulmonary edema,
- xii) treatment of tension pneumothorax,
- xiii) capability to do emergency tracheotomy under local anesthesia,
- xiv) capability to initiate parenteral antibiotic treatment in cases of sepsis in the newborn child or adult, and
- xv) stabilization of any patient requiring referral,

2) primary care of a general range of illnesses: As mentioned above, the general range of illnesses treated by the general physician will be treated at the Level III facility. The exceptions would be:

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- i) illnesses beyond the knowledge and capability of the physician, requiring the services of a specialist,
- ii) elective or semi-elective surgical procedure requiring specialist care or more than local anesthesia, and
- iii) cases requiring diagnostic procedures beyond the capability of Level III.

If a referral is necessary, there should be arrangements made by the physician so that the patient is transferred as smoothly and as quickly (if necessary) as possible.

b) (Basic) A drug supply which would enable the physician to treat a full range of primary care problems as well as the emergencies should be available at the Level III facility. To be cost effective, a limited, but adequate, formulary is planned along with the logistics system to restock drugs.

c) (Basic) The complicated deliveries will be done with the physician present, except those requiring non-emergency Caesarian section.

d) Laboratory Services: The scope of laboratory services is discussed in the specific section on laboratory services.

e) The availability of a limited number of hospital beds at Level III would be a prerequisite for fulfilling the capability of doing deliveries and for the stabilization and/or observation of patients either awaiting referral or being rehydrated. Obviously, a staff member would have to remain at the facility if a patient were there. In the case of a normal delivery, it is not contemplated that the patient would occupy the bed for a long time unless it was specifically indicated.

f) Basic dental services would be an option available at Level III to be determined by PROSALUD. This would require the hiring of a full or part-time dentist and/or dental assistant~~ts~~, or an option would be to have a dentist come at intervals and work on a fee-for-service basis, with the Level III facility supplying the space and equipment.

#### LABORATORY SERVICES AT LEVEL III

To be able to provide more scientific medical services at the Level III facilities, it is planned to have a small laboratory at each Level III health clinic with a laboratory technician. The laboratory will allow more reliable prescribing of medications, thus effecting an overall savings. Also, the physicians will be able to provide more effective services.

The basic laboratory services that will be provided are listed below:

I. PARASITOLOGY

A. Exams will be done to identify:

- 1) roundworms: ascaris, hookworm, strongyloides, trichiuris, schistosomiasis, oxyuris, etc.
- 2) tapeworms,
- 3) protozoans: amoebae, giardia, trichomonads, malaria, etc.

II. HEMATOLOGY

A. Exams done will be:

- 1) hematocrit or hemoglobin,
- 2) white cell count,
- 3) differential,
- 4) white cell count in spinal fluid,
- 5) blood type and Rh factor,
- 6) V D R L
- 7) thick smear.

III. BACTERIOLOGY

A. Exams done will be:

- 1) gram stains of various body substances: sputum, pus, wound material, urethral discharge, cerebrospinal fluid.
- 2) collection of samples in transfer media for culture and sensitivity: tuberculosis and other cultures, and
- 3) staining of sputum for tuberculosis.

The basic tests above are the minimum contemplated for the Level III laboratory. If the laboratory technician is capable of doing further tests and there are resources available to get more equipment, as well as the demand for other kinds of laboratory tests, the following useful tests could be done: (all optional in order of importance)

- 1) blood typing and crossmarking for transfusions ,
- 2) VDRL,
- 3) some minimal culturing: wound, sputum, urine, and
- 4) if equipment were available, some simple blood chemistries.

Outreach to Levels I and II

In order to support the preventive programs of the project and to give Levels I and II some laboratory capability, the laboratory technician will travel to selected outlying health posts (and even possibly some Level I communities) at regular intervals to do screening programs for such diseases as intestinal parasites and anemia. The average time of 8 hours per week has been programmed for this.

The stool exams could be done right on the site on fresh samples, since the microscope and other materials are easily transported. Hematocrits could either be done at the site or transported back to the Level III facility and done there. Slides for tuberculosis screening could be done at the same time.

The laboratory technician would also train the auxiliary nurses at Levels II and III to check urine for protein (important in pre-natal care) and to prepare slides for tuberculosis and malaria. If it were appropriate, other staff in the program could be trained to do lab work as seemed necessary by the lab technician. No outside training program would be necessary.

Equipment necessary for the laboratory is listed in Annex H<sup>1)</sup> on Equipment and Supplies for Levels I, II, and III.

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FINANCIAL MODEL:  
 SELF FINANCING PRIMARY HEALTH CARE PROJECT  
 PROJECT INCOME STATEMENT PROJECTIONS

Year 1	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
Number of direct participants		4,200	6,200	8,000	
Participants under prepayment		420	620	800	
Fee for service		3,780	5,580	7,200	
Sub-total		4,200	6,200	8,000	
Relatives benef. under PPayment		1,260	1,860	2,400	
<b>Total Participants</b>		<b>5,460</b>	<b>8,060</b>	<b>10,400</b>	
Number of patients attended per Center and per month.					181
Tariff under Ppayment//for 4 pers//f	25.00	S.Commission	10%		
Tariff: "fee for Service"	3.00				
Tariff for medications	1.81				

YEAR 1	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
<b>LEVEL TWO</b>					
Participants under prepayment		147	217	280	
Fee for service		1,323	1,953	2,520	
Sub-total		1,470	2,170	2,800	
Relatives benef. under PPayment		441	651	840	
<b>Totals</b>		<b>1,911</b>	<b>2,821</b>	<b>3,640</b>	
Prepayment Revenues		2,426	5,425	7,000	14,851
Fee for Service Revenues		2,620	5,859	7,560	16,039
Medication Revenues		1,580	3,535	4,561	9,677
Miscellaneous Revenues		77	77	77	231
<b>Total income level II</b>	<b>0</b>	<b>6,702</b>	<b>14,896</b>	<b>19,198</b>	<b>40,797</b>
Estimated Quarterly					
Cost of personnel	0	8,372	8,372	8,372	25,116
Medications		2,421	3,574	4,612	10,607
Depreciation		1,257	1,257	1,257	3,770
Marketing Costs		243	543	700	1,485
<b>Total Cost level II</b>	<b>0</b>	<b>12,292</b>	<b>13,745</b>	<b>14,941</b>	<b>40,978</b>
Quarterly Surplus(Losses)		(US\$5,590)	US\$1,151	US\$4,258	(US\$182)

Year 1	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
LEVEL THREE					
Participants under prepayment		273	403	520	
Fee for service		2,457	3,627	4,680	
Sub-total		2,730	4,030	5,200	
Relatives benef. under PPayment	0	819	1,209	1,560	
Totals		3,549	5,239	6,760	
Prepayment Revenues		4,505	10,075	13,000	27,580
Fee for Service Revenues		4,865	10,881	14,040	29,786
Medication Revenues		2,935	6,565	8,471	17,971
Miscellaneous Revenues		143	143	143	429
Total income level three	0	12,447	27,664	35,654	75,765
Estimated Quarterly					
Cost of personnel	0	21,353	21,353	21,353	64,058
Medications		4,497	6,638	8,565	19,699
Depreciation		1,910	1,910	1,910	5,730
Marketing Costs		450	1,008	1,300	2,758
Total cost level III	0	28,210	30,908	33,128	92,245
Quarterly Surplus(Losses)		(US\$15,762)	(US\$3,244)	US\$2,526	(US\$16,480)
Expected income level I	0	3,933	3,933	3,933	11,800
Expenses level I					
New units to be installed	28				
Accrued number of units	59				
a.-Roofing and screening(*)		2,333	2,333	2,333	7,000
b.-Furniture(*)		467	467	467	1,400
c.-Salaries		5,840	5,840	5,840	17,520
d.-Health equipment(*)		933	933	933	2,800
e.-Total expenses	0	9,573	9,573	9,573	28,720
Net income from level I	0	(5,640)	(5,640)	(5,640)	(16,920)
Total income levels I II and III	0	23,083	46,493	58,785	128,362
Total expenses		50,075	54,227	57,641	161,943
Net surplus(losses)	US\$0	(US\$26,992)	(US\$7,733)	US\$1,144	(US\$33,582)
Minus Prosalud expenses					
Personnel					127,494
Depreciation					11,429
Total Prosalud					138,923
Net Surplus(losses)					(172,505)

NOTE: BECAUSE OF THE SMALL CAPITAL INVESTMENT PER UNIT, THIS AMOUNT WAS INCLUDED AS EXPENSE.

PROJECT INCOME STATEMENT PROJECTIONS

Year 2	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
Number of direct participants	11,100	15,000	18,000	21,000	
Participants under prepayment	1,665	2,250	2,700	3,150	
Fee for service	9,435	12,750	15,300	17,850	
Sub-total	11,100	15,000	18,000	21,000	
Relatives benef. under PPayment	4,995	6,750	8,100	9,450	
Total Participants	16,095	21,750	26,100	30,450	
Number of patients attended per Center and per month.					463
Tariff for Ppayment/for 4 pers/f	25.00	S.Commission	5%		
Tariff: "Fee for Service"	3.00				
Tariff for medications	1.81				

YEAR 2

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
LEVEL TWO					
Participants under prepayment	583	788	945	1,103	
Fee for service	3,302	4,463	5,355	6,248	
Sub-total	3,885	5,250	6,300	7,350	
Relatives benef. under PPayment	1,748	2,363	2,835	3,308	
Totals	5,633	7,613	9,135	10,658	
Prepayment Revenues	14,569	19,688	23,625	27,563	85,444
Fee for Service Revenues	9,907	13,388	16,065	18,743	58,102
Medication Revenues	5,977	8,077	9,693	11,308	35,055
Miscellaneous Revenues	77	77	77	77	308
Total income level II	30,530	41,229	49,460	57,690	178,908
Estimated Quarterly					
Cost of personnel	21,475	21,475	21,475	21,475	85,899
Medications	7,137	9,645	11,574	13,503	41,859
Depreciation	1,975	1,975	1,975	1,975	7,898
Marketing Costs	728	984	1,181	1,378	4,272
Total Cost level II	31,315	34,079	36,205	38,331	139,929
Quarterly Surplus(Losses)	(US\$786)	US\$7,150	US\$13,255	US\$19,359	US\$38,979

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Year 2	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
<b>LEVEL THREE</b>					
Participants under prepayment	1,082	1,463	1,755	2,048	
Fee for service	6,133	8,288	9,945	11,603	
Sub-total	7,215	9,750	11,700	13,650	
Relatives benef. under PPayment	3,247	4,388	5,265	6,143	
Totals	10,462	14,138	16,965	19,793	
Prepayment Revenues	27,056	36,563	43,875	51,188	158,681
Fee for Service Revenues	18,398	24,863	29,835	34,808	107,903
Medication Revenues	11,100	15,000	18,000	21,001	65,102
Miscellaneous Revenues	143	143	143	143	572
Total income level three	56,698	76,568	91,853	107,139	332,258
Estimated Quarterly					
Cost of personnel	61,614	61,614	61,614	65,540	246,456
Medications	13,255	17,912	21,495	25,077	77,739
Depreciation	2,865	2,865	2,865	2,865	11,460
Marketing Costs	1,353	1,828	2,194	2,559	7,934
Total cost level III	79,087	84,219	88,167	96,041	343,589
Quarterly Surplus(Losses)	(US\$22,389)	(US\$7,651)	US\$3,686	US\$11,098	(US\$11,331)
Expected income from level I	3,750	3,750	3,750	3,750	15,000
Expenses level one					
New units to be installed	16				
Accrued number of units	75				
Detail of expenses					
a.-Roofing and screening(*)	1,000	1,000	1,000	1,000	4,000
b.-Furniture (*)	200	200	200	200	800
c.-Salaries	4,980	4,980	4,980	4,980	19,920
d.-Health equipment(*)	400	400	400	400	1,600
e.-Total expenses	6,580	6,580	6,580	6,580	26,320
Net income from level I	(2,830)	(2,830)	(2,830)	(2,830)	(11,320)
Total income levels I II and III	90,977	121,548	145,063	168,579	526,166
Total expenses	116,982	124,878	130,952	140,952	509,838
Net surplus	(26,005)	(3,331)	14,111	27,627	16,328
Minus Prosalud expenses					
Personnel					142,211
Depreciation					11,429
Total					153,640
Net Surplus(losses)					(137,311)

NOTE: BECAUSE OF THE SMALL CAPITAL INVESTMENT PER UNIT, THIS AMOUNT WAS INCLUDED AS EXPENSE.

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PROJECT INCOME STATEMENT PROJECTIONS

Year 3	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
Number of direct participants	25,000	30,000	35,000	42,500	
Participants under prepayment	5,000	6,000	7,000	8,500	
Fee for service	20,000	24,000	28,000	34,000	
Sub-total	25,000	30,000	35,000	42,500	
Relatives benef. under PPayment	15,000	18,000	21,000	25,500	
Total Participants	40,000	48,000	56,000	68,000	
Number of patients attended per Center and per month.					841
Tariff for Ppayment/for 4 pers/f	25.00	S.Commission	2%		
Tariff Fee for Service	3.00				
Tariff for Medications	1.81				

YEAR 3

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
<b>LEVEL TWO</b>					
Participants under prepayment	1,750	2,100	2,450	2,975	
Fee for service	7,000	8,400	9,800	11,900	
Sub-total	8,750	10,500	12,250	14,875	
Relatives benef. under PPayment	5,250	6,300	7,350	8,925	
Totals	14,000	16,800	19,600	23,800	
Prepayment Revenues	43,750	52,500	61,250	74,375	231,875
Fee for Service Revenues	21,000	25,200	29,400	35,700	111,300
Medication Revenues	12,670	15,204	17,738	21,539	67,151
Miscellaneous Revenues	77	77	77	77	308
Total income level II	77,497	92,981	108,465	131,691	410,634
Estimated Quarterly					
Cost of personnel	44,520	44,520	44,520	44,520	178,080
Medication	17,738	21,286	24,833	30,155	94,011
Depreciation	2,693	2,693	2,693	2,693	10,770
Marketing Costs	875	1,050	1,225	1,488	4,638
Total Cost level II	65,826	69,548	73,271	78,855	287,499
Quarterly Surplus(Losses)	US\$11,672	US\$23,433	US\$35,194	US\$52,836	US\$123,135

Year 3	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
<b>LEVEL THREE</b>					
Participants under prepayment	3,250	3,900	4,550	5,525	
Fee for service	13,000	15,600	18,200	22,100	
Sub-total	16,250	19,500	22,750	27,625	
Relatives benef. under PPayment	9,750	11,700	13,650	16,575	
Totals	26,000	31,200	36,400	44,200	
Prepayment Revenues	81,250	97,500	113,750	138,125	430,625
Fee for Service Revenues	39,000	46,800	54,600	66,300	206,700
Medication Revenues	23,530	28,236	32,942	40,001	124,709
Miscellaneous Revenues	143	143	143	143	572
<b>Total income level three</b>	<b>143,923</b>	<b>172,679</b>	<b>201,435</b>	<b>244,569</b>	<b>762,606</b>
<b>Estimated Quarterly</b>					
Cost of personnel	124,020	124,020	124,020	124,020	496,080
Medications	32,942	39,530	46,119	56,001	174,593
Depreciation	2,865	2,865	2,865	2,865	11,460
Marketing Costs	1,625	1,950	2,275	2,763	8,613
<b>Total cost level III</b>	<b>161,452</b>	<b>168,365</b>	<b>175,279</b>	<b>185,649</b>	<b>690,745</b>
<b>Quarterly Surplus(Losses)</b>	<b>(US\$17,529)</b>	<b>US\$4,314</b>	<b>US\$26,156</b>	<b>US\$58,920</b>	<b>US\$71,861</b>
Expected income from level I	4,750	4,750	4,750	4,750	19,000
Expenses level I					
New units to be installed	20				
Accrued numbers of units	95				
Detail of expenses					
a.-Roofing and screening(*)	1,250	1,250	1,250	1,250	5,000
b.-Furniture(*)	250	250	250	250	1,000
c.-Salaries	6,300	6,300	6,300	6,300	25,200
d.-Health equipment(*)	500	500	500	500	2,000
e.-Total expenses	8,300	8,300	8,300	8,300	33,200
<b>Net income from level I</b>	<b>(3,550)</b>	<b>(3,550)</b>	<b>(3,550)</b>	<b>(3,550)</b>	<b>(14,200)</b>
<b>Total income level I II and III</b>	<b>226,170</b>	<b>270,410</b>	<b>314,650</b>	<b>381,010</b>	<b>1,192,240</b>
<b>Total expenses</b>	<b>235,578</b>	<b>246,214</b>	<b>256,850</b>	<b>272,804</b>	<b>1,011,444</b>
<b>Net surplus</b>	<b>(9,408)</b>	<b>24,197</b>	<b>57,801</b>	<b>108,207</b>	<b>180,796</b>
Minus Prosalud expenses					
Personnel					144,440
Depreciation					11,429
Total					155,869
<b>Net Surplus(losses)</b>					<b>US\$24,927</b>

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ANNEX E

PROSALUD SCREENING/SELECTION PROCEDURES FOR COMMUNITY AND  
INSTITUTIONAL PARTICIPANTS IN THE SFPHC PROJECT

A) Community Model

Potential project areas are screened on the basis of the following criteria:

1. Eligible population (potential market).
2. Financial capacity of the community.
3. Community organization (leadership and organizational capacity).
4. Absence of other health services.
5. Geographic accessibility.

Once the potential project areas are selected, actions include:

1. Selection of the most representative community organizations such as cooperatives, trade unions, etc.
2. A general assembly in which PROSALUD offers a detailed explanation of the Self-Financing Primary Health Care Program (SFPHC).
3. If the community accepts participation in the program, PROSALUD and the counterpart community organization exchange letters of understanding re their respective obligations and commitments.
4. A pre-marketing survey is conducted.
5. If the survey confirms the interest of the community in the project, a 5-year agreement is signed by the community and PROSALUD, and approved by the MOH Regional Health Office.

PROSALUD retains responsibility for management of the Health Plan. The Financial System is based on a "Mixed System" that is both fee-for-service and pre-paid health care, plans for individuals or families, are available.

PROSALUD provides an initial budget for facilities' remodelling, equipment, supplies and personnel expenditures.

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B) Institutional Model

PROSALUD will seek to execute agreements with agropecuary and/or industrial enterprises, government employees' unions, etc., as institutional vehicles for delivery of health care services to the members of such organizations.

Services will be provided through PROSALUD Health Centers in areas convenient to health clients/members of these institutions.

One such institutional arrangement currently under negotiation is a Health Care Plan for employees of the Municipal Government of Santa Cruz. Under this agreement, the Municipal Government will:

- a) Reimburse to PROSALUD all expenses incurred by PROSALUD for medical equipment, supplies, laboratory equipment and furniture needed for each center. This reimbursement will be provided quarterly over a period of three years.
- b) PROSALUD will provide:
  - Initial operating capital for the three centers, including salaries, medical supplies, office supplies, laboratory reagents, transportation and drugs;
  - Delivery of health services;
  - Personnel recruitment, training, supervision and management;
  - Budget control: Income/expenses. Cost analysis;
  - Logistics support, transportation, drugs and supplies;
  - Marketing and community promotion activities.

The value of assistance provided by PROSALUD, will be reimbursed by the Mayor's office over a period of three years.

The PROSALUD-Municipal Government program will incorporate the "mixed system" approach, whereby health care services will be provided to both pre-paid and fee-for-service clients.

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STATE: 376625

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Action: PD&I

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DIST: AIDE

TO RUEHLP/AMEMBASSY LA PAZ PRIORITY 8722

EXO

INFO RUEHPE/AMEMBASSY LIMA PRIORITY 0382

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AIDAC LIMA FOR RCO

Reply due 12/10

Action tkn \_\_\_\_\_

E.O. 12356: N/A

TAGS:

SUBJECT: WAIVER OF COMPETITION IN SELECTION OF  
COOPERATIVE ASSISTANCE RECIPIENT: SELF-FINANCING  
PRIMARY HEALTH CARE PROJECT, 511-0569

REF: LA PAZ 9017

AAA/LAC APPROVED NON-COMPETITIVE SOLICITATION OF AMENDED  
COOPERATIVE AGREEMENT PROPOSAL FROM MSH ON DECEMBER 2,  
1986. SHULTZ

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