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## FINAL EVALUATION OF THE BHR/PVC and PSI MOROCCO CHILD SURVIVAL PROJECT

### I. PROJECT ACCOMPLISHMENTS AND LESSONS LEARNED

#### A. Project Accomplishments

*A1. Project accomplishments compared with the objectives outlined in the DIP and circumstances which may have aided or hindered the project in meeting these objectives*

The USAID-supported PSI Morocco Child Survival Project has contributed to the Government of Morocco's efforts to reduce current levels of infant and child morbidity and mortality caused by diarrheal disease. Diarrheal diseases in Morocco are no longer the leading cause of child mortality and morbidity, as they were at the outset of this project. To achieve its goal, PSI has been promoting home-based management of diarrheal disease and appropriate feeding of infants and children during and following diarrheal episodes, including continued breast-feeding and the timely introduction of supplemental foods. The Morocco Child Survival Social Marketing Project, begun by Population Services International (PSI) in 1990, began USAID/BHR/PVC-supported activities in September 1992. The Project was amended in September 1994, extending twice before its completion on September 30, 1996.

The objectives of the Project, originally proposed in the Detailed Implementation Plan (DIP) in 1992, were largely accomplished as of January 1994, as detailed in the mid-term evaluation conducted at that time. A summary of these accomplishments and difficulties encountered follows:

- Increase the number of children under five who benefit from oral rehydration therapy during diarrheal episodes;

The percentage of children under five benefitting from oral rehydration therapy has doubled during the Project period. According to the 1995 DHS publication, *Enquête de Panel sur la Population et la Santé*, 28% of children under five who had a diarrheal episode in the two weeks preceding the study received ORS compared with only 14% in 1992. Approximately 4% received a solution prepared at home as compared with only 2.5% in 1992.

During this time, BIOSEL became more well known, synonymous for ORS, and benefited as the only pharmaceutical product allowed television and radio promotion. BIOSEL's success is also attributed to the increased emphasis the Government of Morocco placed on its national program in the fight against diarrheal diseases -- Programme de Lutte Contre les Maladies Diarrhéiques. In 1992, the Ministry of Public Health made the PLMD a national priority and the program received substantial assistance from both UNICEF and USAID.

Concurrently, the benefit of ORT was extended through UNICEF's increased contribution of free sachets of ORS from 3 million in 1992 to 5 million in 1993 and 4 million in 1994. Health center employees were instructed to distribute these free sachets of ORS to mothers coming to health centers and to teach them about how and when to use ORS. PSI's IEC activities complemented and benefitted these efforts.

- Ensure complete national distribution coverage in the pharmaceutical network;

BIOSEL is currently produced and distributed by Cooper-Maroc, a Moroccan pharmaceutical company. Cooper-Maroc assures nationwide distribution of BIOSEL through its pharmaceutical distribution network as well as taking advantage of a national pharmaceutical distribution network already in place. The current pharmaceutical distribution network is designed to allow nationwide coverage throughout the entire pharmaceutical network.

- Promote the local production of ORS according to recognized international standards of production and quality control;

Cooper-Maroc produces BIOSEL in accordance with World Health Organization specifications. Cooper-Maroc also received technical validation according to quality control norms recommended by PATH. Cooper-Maroc is the sole provider of BIOSEL to the Moroccan market.

- Ensure supplementary stock availability in the country by import, and subsequent local production;

In 1993, imports of ORS totaled 275,000 sachets. In May, 1994, Cooper-Maroc was able to begin producing and placing BIOSEL on the market. Total sales achieved in 1994 were 530,600 sachets, 382,600 sachets in 1995 and 360,000 sachets through October 1996. Originally sales were projected to be 1 million in 1994 and 1.5 million in 1995. It is clear that these sales expectations were not achieved, however, given the overall Project result this is not considered a deficiency. Nonetheless, the shortfall was caused by several factors, including overestimating the initial sales targets. At the same time that PSI began its information, education, communication campaigns, however, the Ministry of Public Health increased its free ORS distribution program because of substantial increases in ORS donations from UNICEF and, therefore, greatly reducing PSI's market potential. Sales were also lower due to quality control problems with the project's initial producer of BIOSEL. Nonetheless, PSI's IEC efforts greatly contributed to the overall

increase in ORS use, whether those sachets were provided by the social marketing Project or free of charge.

- Mount a national campaign of generic IEC during 1994 and 1995; and

The primary focus of PSI's child survival program was centered around its IEC activities. Activities in this area were divided into two categories: those directed at the population and those directed at health professionals. The following chart outlines the major IEC activities carried out over the life of the contract:

<i>Audience</i>	<i>Activity</i>	<i>Trainer</i>	<i>Period Covered</i>
General Population	TV	PSI	May-September 1994-95
General Population	Radio, Newspaper	PSI	May-Sept. 1994-95 May-July 1996
Rural Population	Educational Sessions in souks & moussems	Medical and Pharmaceutical Reps	May-August 1994 May-September 1995
Rural Population	Educational Sessions	Peace Corps Volunteers	1994-1996
Rural Population	Message delivery and distribution of ORS	Scouts	May-August 1994 July-September 1995
Rural Population	Mobile Video Unit - Training in ORT, Hygiene, Nutrition	Local Health Trainers	June-November 1996
Pharmacist Trainers - 30 Pharmacists	Training of Trainers	PSI Consultant and Ministry personnel	May 1994
1,024 Doctors, 535 Pharmacists, 1,509 Pharmacy Employees	Training in ORT and prevention of dehydration	PSI consultant	May-August 1994 May-August 1995

In addition to the above mentioned IEC activities, PSI participated in a number of medical conferences including: Congrès Maghrébins de la SMI; Congrès Maghrébins des Pédiatres; Congrès National des Pharmaciens; Assemblée de l'Association des Médecins Privés de Rabat; Journées Médicales à Oujda; Congrès des Médecins du Sud; Journées de Pédiatrie à el Jadida; Transmed de Pédiatrie d' Marrakech; and Journées de Pédiatrie du Sud.

Videos and documents created by PSI for distribution include:

- TV Spot - *Dangers de la Diarrhée et TRO* (Dangers of Diarrhea - ORT)
- Video - 20 minutes of Advice for Mothers (*Conseils aux Mères*) used in training pharmacist's employees

- Kit of Information for Health Professionals
- Guide, *Recommandations Pour Prévenir la Diarrhée et Ses Complications Chez l'Enfant* (Recommendations to Prevent Diarrhea and its Complications in Children)

The original DIP targeted training of trainers in the seven regions of Morocco. These trainers were to train approximately 200 pharmacy assistants and pharmacy employees. Overall, 1,509 pharmacy employees were trained along with 535 pharmacists. In addition, 1,024 doctors were trained in the latest techniques in oral rehydration therapy and prevention of dehydration. Trainings were led by a physician (consultant) specializing in pediatric medicine and diarrheal illnesses (who also works with the Ministry of Public Health and the World Health Organization) allowing for an open exchange of ideas on the topic. Information and questions arising from these training sessions were compiled and later published by PSI in *Recommandations Pour Prévenir la Diarrhée et Ses Complications Chez l'Enfant*. This publication was sent to pharmacy employees throughout the country for their use in more effectively answering questions asked by their customers on diarrheal disease management.

PSI was able to acquire financing from private sponsors to continue its IEC activities after program funds awarded by USAID were spent. Publicity for the 1996 diarrhea season, including radio spots, five months of rural marketing via a mobile video unit and the creation and printing of the guide, *Recommandations pour prévenir la diarrhée et ses complications chez l'enfant*, were all accomplished through private donor contributions.

Among PSI's achievements was its success in changing the belief, among much of the general population and among health professionals, that ORS is a cure for diarrhea.

- Maintain synchronized promotional campaigns for "BIOSEL."

BIOSEL promotional campaigns were coordinated with the generic IEC campaigns and timed to have an impact on the diarrheal season. Videos and documents created by PSI for distribution include two television spots, radio spots, and publicity materials for mailings and general distribution (T-shirts, brochures, pens, etc.). BIOSEL was also promoted to health professionals, as illustratively presented below:

<i>Audience</i>	<i>Activity</i>	<i>Trainer</i>	<i>Period Covered</i>
Health Professionals Pharmaceutical and Medical Reps.	Training in ORT and sales of BIOSEL	PSI	March 1994
588 Doctors, 369 Pharmacists, 31 Hospitals, 49 Red Cross Locations	Promotion of ORS and BIOSEL	Actipharm and Cooper-Maroc	May-August 1994 May-September 1995

## *A2. Unintended Positive and Negative Effects of Project Activities*

There were no unintended effects caused by project activities.

## *A3. Final Evaluation Survey*

A final evaluation was not conducted to measure project impact. However, the DHS publication, *Enquête de Panel sur la Population et la Santé*, was conducted at the time the project began (1992) and repeated near the end of the project (1995) allowing for measurable results in the area of ORT and ORS usage.

## **B. Project Expenditures**

### *B1. Pipeline analysis of project expenditures*

A pipeline analysis of project expenditures according to line items used by the PSI's accounting office, consistent with USAID's accounting office, is attached. The certified fiscal report shows that 100% of the project funds were expended. Funds contributed by PSI are presented in the accompanying Matching Funds Report.

### *B2. Comparison of DIP budget and actual expenditures*

The budget was revised in September 1994, so actual expenditures are compared to this revised budget rather than the DIP budget. The underspending in evaluation and research line items was a result of economizing by using the Morocco DHS for Project research. The reduction in spending for salaries and fringes is attributed to changes in the staffing design and PSI's accounting practice of charging local staff costs to operations rather than the salaries and fringes line item. Increased spending for consultants, services, travel, operations and training line items is a reflection of increased funds available to conduct additional activities from the underspending described and from additional matching funds generated. The majority of increased line item increased spending occurred during the USAID no-cost extension period.

## **C. Lessons Learned**

Lessons already taken from this project to other PSI projects are improvements in the calculation of ORS sales estimates; greater emphasis on enlisting increased participation and buy-in from the commercial, particularly pharmaceutical, sector; greater distancing from government involvement in direct project activities; and a better understanding of the degree to which public sector distribution (UNICEF-provided products, in this case) of ORS provided free of charge can impact social marketing.

At the outset of this Project, there was little research on ORS distribution reach or consumer consumption practices to support any informed sales projections. The experience of this Project,

and other ORS projects, have lent improved thinking to how ORS sales are estimated. Future considerations are to calculate sales estimates on smaller packaged amounts of solution and fewer packages needed per diarrheal episode, as the UNICEF criteria grossly overstate the market.

Inherent to the nature of social marketing is that it is an initiative by the private, commercial sector, often coordinated by an NGO, to serve the public. This approach insulates social marketing from the bureaucracy of most public programs, and allows it to implement rapidly and effectively. While difficult, efforts to educate the Government on the complementary roles of the public and private sector and the benefit of allowing the private sector to proceed as marketing research dictates must continue. Rather, the Government should be encouraged to serve private sector efforts, particularly by opening more pharmaceutical depots (so that medications can reach populations most in need) in rural areas.

Attempting to market BIOSEL when the Ministry of Health was flooding public Health Centers with free sachets of ORS made increased sales of BIOSEL extremely difficult to obtain. Greater encouragement to reduce free distribution of products will help to relieve some financial burden to the public sector (including costs incurred by UNICEF as the public sector) and provide for a more sustainable infrastructure from the use of the private sector.

## **II. PROJECT SUSTAINABILITY**

### **A. Community Participation**

The individual from the community participates in the project by purchasing the product marketed either for re-sale or for his/her consumption. S/he purchases the product when s/he wishes to meet a perceived need. In order to ensure this participation, the project carried out consumer research to determine how best to distribute BIOSEL, test consumer acceptance of the product and its packaging and affordability, and develop promotional messages.

The project has provided support to activities of community groups and they, in turn, have supported the project. The 1996 diarrhea IEC campaign, for example, included promotion activities via a mobile video unit in 18 different provinces throughout Morocco. Community sessions were conducted by local trainers in public locales such as weekly markets (souks), health centers, etc. and members of the communities helped organize and participate in these sessions.

### **B. NGOs**

Because this Project was intended to primarily be a private, commercial sector project, few NGO partners were a part of the Project. PSI did collaborate with the Peace Corps in its efforts to reach rural areas and conduct research and John Snow, Inc., to train health professionals.

**C. Ability and Willingness of Counterpart Institutions to Sustain Activities**

A commercial entity, Cooper-Maroc, served as PSI's primary counterpart and will continue to carry out its project functions. PSI intends to continue its IEC activities, however, in the event that PSI is unable to continue these activities, a local Rabat NGO, Catholic Relief Services (CRS), has offered to take over some IEC activities, including promotions with PSI's mobile video unit.

UNICEF, who has been actively involved in activities related to the Government's Program in the fight against diarrheal diseases through its contribution of free sachets of ORS and contribution of raw materials since 1990, will no longer contribute to this program after 1996. In addition, Ministry of Health priorities have been transferred to other programs such as the fight against upper respiratory illnesses.

**D. Sustainability Plan, Objectives, Steps Taken, Outcomes**

PSI is committed to supporting the Morocco Child Survival Project as it continues to expand its impact and strengthen its institutional and financial sustainability. In particular, the Project will focus on expanding its activities in rural areas, increasing product sales and identifying alternative sources of income.

<i>Goal</i>	<i>End-of-project objectives</i>	<i>Steps taken to date</i>	<i>Outcomes</i>
1) The Morocco Child Survival Project will continue to socially market ORS indefinitely and increase its impact	1) Continue IEC activities, especially in rural areas  2) Increase ORS sales  3) Increase Project revenues  4) Secure additional donor funding	1) Private donors have been identified to support IEC activities  2) MOH ORS free distribution will be decreased  3) A result of 2)  4) Proposals submitted to Embassies, corporate sector, JSI, Japanese and British Embassies	1) IEC continues and has been expanded to rural areas with a mobile video unit  2) Free ORS quantities partially reduced in 1996  3) Revenues now supporting approximately 20% of Project expenses  4) Donor funding has been secured from Mobil-Goodyear

PSI's products are sold rather than given away, providing an intrinsic sustainability strategy in the case of Morocco. The socially marketed price is determined to maximize volume sales and accessibility to the poor rather than maximize cost-recovery. Nevertheless, revenues generated from the sale of products are a very important part of the overall functioning of PSI activities. It

is hoped that with the reduction in the Government free-distribution program that sales will dramatically increase. The volume of sales generated in the social marketing of BIOSEL should contribute to its continued presence in the marketplace. Revenues, coupled with private sponsorship of PSI IEC activities, should allow PSI to finance the majority of its activities.

Presently, PSI's Child Survival activities in Morocco continue through private sponsorship of rural communications activities as well as through revenues from BIOSEL sales. Raw materials for the next two years are currently at Cooper-Maroc who will ensure the presence of BIOSEL on the market through collaborative efforts with PSI. Cooper-Maroc has agreed to continue sales and production of BIOSEL at a previously agreed upon price by the Government, PSI and Cooper-Maroc. ORS sales will remain steady for 1996 and as mentioned, likely increase in 1997.

In addition, PSI's trained members of the medical community, including 1,024 Doctors, 535 Pharmacists, 1,509 Pharmacy Employees are prepared to continue supporting the Project's efforts. Pharmaceutical employees have at their disposal the booklet "Recommandations Pour Prévenir la Diarrhée et Ses Complications Chez l'Enfant" and will be able to use it as a reference when counseling customers on home-based diarrheal disease management.

PSI is currently working with private sponsors in an attempt to maintain its IEC activities and to expand them to rural areas that have not been adequately reached by previous IEC campaigns. PSI proposals to support the project are pending with the Belgian Government, the European Union, several corporations, the Embassies of Qatar, the United Arab Emirates, and Kuwait, and health organizations in Qatar.

### **III. EVALUATION TEAM**

#### **A. Identification of final evaluation team**

Much of the information for this final evaluation came from the mid-term evaluation, Cooper-Maroc sales reports and PSI-Morocco Program Staff. Information on continued activities came from Marguerite Roy, Country Representative, Population Services International and Mohamed Jebbor, Project Director, Population Services International.



**POPULATION SERVICES INTERNATIONAL**  
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January 15, 1997

Ms. Lucia Tabor  
Resident Advisor  
PACT/CRH  
53 Lodi Estate  
New Delhi

Re: Child Survival Proposal to USAID/PVO from PSI

Dear Lucia,

Here is the information you requested on the impact of our Child Survival proposal on commercial sector sales of ORS and the sustainability of our brand.

**Impact on Commercial Sales of ORS**

We have designed this project to expand the proper use of ORS with children most at risk from dehydration – children under two. We do not believe the commercial sector is addressing this segment of the market.

Our brand is clearly targeted to a market segment that is not being addressed by the commercial sector:

- We target our brand for children under two – the commercial companies do not
- Our brand conforms with WHO specifications and we have the right to display the GOIs.ORS logo – none of the commercial brands conform to WHO
- We stress that the full pack should be used and we plan a to test a new presentation of four 250 ml. measures in a perforated sachet – if this idea is successful it will allow smaller portions to be at the proper concentration
- Our brand is priced lower than the commercial sector to encourage use by a socio-economic sector not reached by the higher priced brands
- Our A & P stresses prompt use of ORS – the other brands are usually used after the child is taken to a doctor, usually three days after the onset of diarrhea

The commercial sector is now dominated by one brand with 80% of sales. We believe that while this brand is promoted as ORS it is not ORS as we define it. It does not meet the WHO formulation and it is sold with a scoop to encourage partial use of the sachet. This means that it is unlikely that the partial solution is within the proper range for adequate rehydration. The commercial companies do not target children under two or stress the need for immediate use.

In short, PSI/India is promoting and providing for proper and correct use of ORS for an segment that is not adequately being addressed by the commercial sector. Unicef agrees with this and has so stated in the letter of support for this project.

PSI is registered under the Societies Registration Act, 1860.  
Contributions to PSI are eligible for tax exemption under Section 80G of the Income Tax Act, 1961.

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Ms. Lucia Tabor  
Resident Advisor  
PACT/CRH  
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Finally, PSI's experience in Bangladesh with the social marketing of ORS has clearly demonstrated that the private sector will quickly enter a market that has demonstrated large sales volumes. Since 1990, when PSI's sales of ORS increased sharply, ten commercial companies have introduced their ORS brands in Bangladesh. This healthy competition has produced a healthy sustainable market for ORS. PSI is now further expanding the market by concentrating on rural areas. Without doubt the commercial sector will follow us into these areas as well, once we have demonstrated that sales can be achieved there.

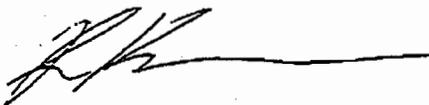
#### Sustainability

PSI has priced our brand, Neotral, at a price that is both affordable to the poor but still has scope to become sustainable at a certain volume threshold. The wholesale price now allows the recovery of the commodity and distribution costs plus a net amount that can be used to offset advertising and promotional expenses. Our price to stockist for one sachet is Rs 3.60. Our cost is Rs 2.67. This means that our net revenue is Rs 0.93. Once volume reaches a certain point this net revenue will cover the total cost of A & P as well as overhead.

This has been the case for PSI in Bangladesh. As a USAID-funded project, cost recovery and sustainability has been key elements in our planning. Volumes have reached a point in Bangladesh where cost recovery includes not only the cost of the commodities but all the A & P costs and a significant portion of overhead costs as well. We expect full cost recovery in the next couple of years.

The USAID Mission to Bangladesh regards PSI's ORT program as a highly successful and sustainable program that has a high impact on ORT and the reduction of child morbidity. A copy of the impact evaluation was presented to you last October during the mid-term evaluation. I encourage you to contact David Piet or Richard Greene of the Office of Population and Health, USAID Mission to Bangladesh for the views on this program.

I hope this letter has adequately answered your questions. The proposal of course describes our activities more fully. Please do not hesitate to contact me directly if you need clarification or further questions.



Robert Karam  
Country Representative

cc: Ms. Rekha Masilamani, USAID  
✓ Peter Clancy, PSI/W

POPULATION SERVICES INTERNATIONAL  
MOROCCO CHILD SURVIVAL PROJECT

COOPERATIVE AGREEMENT NUMBER  
FAO 0500-A-00-2036-00  
Project Ending Date: 8/31/96  
CERTIFIED FISCAL REPORT  
STATEMENT OF EXPENDITURES FOR  
THE MONTH ENDING 09/30/1996

DESCRIPTION BY LINE ITEMS	BGT IN DOLLARS	THIS REPORT			CUMULATIVE FROM SEPT 1, 1992			TOTAL TO DATE	TOT VS BGT % Used
		IN COUNTRY EXP in Dirham	CONVERTED To Dollars	PSI/WASH DISB	IN COUNTRY EXP in Dirham	CONVERTED To Dollars	PSI/WASH DISB		
US Salaries and Fringes	253,000						23,298.22	23,298.22	9.20
Advisor Salaries and Fringes									
Field Salaries and Fringes					867,265.38	99,995.99		99,995.99	
<b>Total Salaries &amp; Fringes</b>	<b>253,000</b>				<b>867,265.38</b>	<b>99,995.99</b>	<b>23,298.22</b>	<b>123,294.21</b>	<b>48.73</b>
Indirect Overhead	41,000						32,378.64	32,378.64	78.97
Consultants	157,000				102,426.00	11,507.30	155,639.65	167,146.95	106.46
Evaluation/Research	49,000				254,554.50	30,395.08	7,000.00	37,395.08	76.31
Services	292,000				1,997,206.30	229,588.53	136,295.50	365,884.03	125.30
Travel	89,000				130,586.55	14,773.27	89,523.49	104,296.76	117.18
ODC/Operations/Training	105,000				1,449,983.34	166,196.33	18,107.85	184,304.18	175.52
<b>Subtotal</b>	<b>986,000</b>				<b>4,802,022.07</b>	<b>552,456.50</b>	<b>462,243.35</b>	<b>1,014,699.85</b>	<b>102.91</b>
Less: Sales Revenue Expense	234,000				1,479,549.86	169,177.26		169,177.26	72.29
Less: Training Subcontract					271,906.55	32,233.34		32,233.34	
Less: Japanese Funding					513,593.74	59,349.93		59,349.93	
Less: Goodyear/Mobil					16,662.67	1,939.32		1,939.32	
<b>Total Project Costs</b>	<b>752,000</b>				<b>2,520,309.25</b>	<b>289,756.65</b>	<b>462,243.35</b>	<b>752,000.00</b>	<b>100.00</b>

**Morocco Child Survival Project  
Matching Funds Report  
Project end date of September 30, 1996**

	<u>Funds Received</u>	<u>Funds Spent</u>
Sales revenue	183,942.60	174,131.95
PSI/Washington (unrestricted)	35,000.00	35,000.00
	<u>218,942.60</u>	<u>209,131.95</u>
Private Funding:		
JSI	11,233.16	10,915.49
JSCA (Japanese)	69,381.26	60,332.90
British	3,482.81	0.00
Goodyear	2,902.34	1,939.32
	<u>                    </u>	<u>                    </u>
Total Matching Funds:	305,942.17	282,319.66