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CATHOLIC RELIEF SERVICES
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CATHOLIC RELIEF SERVICES
ANNUAL REPORT
CHILD SURVIVAL PROJECT
AID/NEE-0159-G-SS-5065-00
October 1, 1986 - September 30, 1987

2

Report Period
(10.1.86 to 9.30. 87)

1987 HEALTH AND CHILD SURVIVAL PROJECT REPORTING SCHEDULE

1. Project Number: 3980159 (AID/NEB-0159-G-SS-5065) 2. Subproject Number: 19 3. COUNTRY: ANE Regional
 4. Project Title: West Bank/Gaza Development (Life Cycle/Health Education)
 5. Project Beginning Date: 86 (Feb. 1, 85) Project Activity Completion Date (PACD): ANE Regional
 7. Current Project Status: (Circle One, Proposed Ongoing Discontinued Completed
 8. For each contract or grant, please provide the A.I.D. contract (or grant) number, the COMPLETE name of the contractor (or grantee), the name of the implementing agency/organization and the type of organization for each. SEE CODES BELOW (USE ADDITIONAL SHEETS IF NECESSARY. PLEASE PRINT OR TYPE)

Principal Contractor/ Grantee:	<u>Catholic Relief Services</u>	Type of Organization	<u>1</u>
Principal Implementing Agency/Organization:	<u>Same</u>		<u>1</u>

Other Contractors/Grantees/Implementing Agencies/Organizations:

Contractor/Grantee:	_____	_____
Implementing Agency/ Organization:	_____	_____
Contractor/Grantee:	_____	_____
Implementing Agency/ Organization:	_____	_____

Codes for Type of Contractor/Grantee/Implementing Agent: (Place Appropriate Code on Lines Provided Above)

1 - Non-Profit/Private Voluntary Organizations/US	4 - University	7 - Multinational Agency
2 - Non-Profit/Private Voluntary Organizations/LOCAL	5 - Private Sector (For Profit)	8 - Host Country/Government
3 - Non-Profit/Other (includes NGOs)	6 - U.S. Government	9 - Host Country/Other

9. Life of Project Budget: (A.I.D. Funds from ALL funding accounts) \$ 13950 (\$ 1,521,249)

10. Other Funding Sources:

ACCOUNT		USE OF PROJECT BUDGET (In Thousands)
PL-480/TITLE I	\$	_____
PL-480/TITLE II (including Value of Food and Medication)	\$	<u>154,018</u>
PL-480/TITLE III	\$	_____
HOST GOVERNMENT: (US \$ Contractors)	\$	_____
OTHER DONORS: (Name)		
A. UNICEF Funds: Local Charitable Societies	\$	<u>500,000</u>
B. _____ Unions	\$	<u>60,000</u>
C. _____	\$	_____
TOTAL ALL SOURCES	\$	<u>614,017.00</u>

1987 HEALTH AND CHILD SURVIVAL PROJECT REPORTING SCHEDULE

Project Number: 3980159

Subproject Number: 19

15. HIGHLIGHTS (Include statements regarding significant project activities/accomplishments during the reporting period.)

(See Attachment Number .

Lined area for writing highlights.

16. Photographs Included? Yes No Please include credit/caption information. Do not write on photos with ballpoint pens.

NAME OF PERSON PREPARING REPORT: Daniel Carr
TITLE: Project Manager

DATE: Sept. 30, 1987

SCHEDULE 1: DEMOGRAPHIC CHARACTERISTICS

Project Number: 3980159

Subproject Number: 19

NO. ITEM IF YOU DO NOT KNOW THE ANSWER TO A QUESTION, PUT IN A "DK" ..

1-1.1 Is the project involved in the delivery of health and child survival services?

- 1 - YES, SUBSTANTIAL ACTIVITY
- 2 - YES, MINOR ACTIVITY
- 3 - NO
- 9 - DON'T KNOW

1-1.2 Which of the following groups does this project serve?

Circle All That Apply

- Children:
- 1 - < 12 Mos.
 - 2 - 12-23 Mos.
 - 3 - 24-35 Mos.
 - 4 - 36-47 Mos.
 - 5 - 48-59 Mos.
 - 6 - Other Children
- Specify: _____
- 7 - Lactating Mothers
 - 8 - Pregnant Women
 - 9 - Other Women
 - Specify: _____
 - 10 - Men
 - 11 - Aged (65 or Older)
 - 12 - Other
 - Specify: _____

GO TO NEXT SCHEDULE

1-1.3 Is the project involved in the delivery of health and child survival services within a defined geographic area?

- 1 - YES, NATIONWIDE
- 2 - YES, LESS THAN NATIONWIDE
- 3 - NO
- 9 - DON'T KNOW

GO TO ITEM 1-1.4

GO TO NEXT SCHEDULE

1-1.4 If this area is less than nationwide, what is (are) the name(s) of the PROVINCE(S), STATE(S), or DEPARTMENT(S) (i.e., the MAJOR or FIRST LEVEL POLITICAL SUBDIVISION(S)) in which project activities are being carried out?

- 1. West Bank
- 2. Gaza
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

1-1.5 Is this area (Are these areas) primarily URBAN, primarily RURAL, or mixed?

- 1 - Primarily Urban
- 2 - Primarily Rural
- 3 - Mixed
- 4 - Don't Know

	NUMBER (Use Actual Numbers)	SOURCE OF INFORMATION (Circle One)
1-2.1 How many people live in the geographic area served by the project?	<u>1,500,000</u>	DC <input checked="" type="radio"/> BG DK
1-3.1 Of all the people living in the project area, how many are under 12 months of age?	<u>61,300</u>	DC <input checked="" type="radio"/> BG DK
1-3.2 How many are at least 12 months old, BUT are not yet 60 months old?	<u>306,500</u>	DC <input checked="" type="radio"/> BG DK
1-3.3 Of the children in this 12 - 59 month age group, how many are aged 12 - 23 months?	<u>122,600</u>	DC <input checked="" type="radio"/> BG DK
1-4.1 Of all the people living in the project area, how many are women of REPRODUCTIVE AGE (i.e., ages 15 - 49)?	<u>554,400</u>	<input checked="" type="radio"/> DC BG DK
1-4.2 How many of these women of reproductive age are in the HIGHER RISK age group 15 - 19 years?	<u>149,400</u>	<input checked="" type="radio"/> DC BG DK
1-4.3 How many of these women of reproductive age are in the HIGHER RISK age group 35 - 49 years?	<u>107,200</u>	<input checked="" type="radio"/> DC BG DK
1-5.1 How many babies are born alive each year in the project area?	<u>57,045</u>	<input checked="" type="radio"/> DC BG DK

SOURCE CODE: DC - Data Collection System BG - Best Guess DK - Don't Know

ATTACHMENT 1

ATTACHMENTS

1. Statement of Program Activities October 1, 1986 to September 30, 1987
2. Oral Rehydration Study by Dr. Rafi Sansur January 20, 1987
3. Advanced Training Inservices held August -October 1987
4. Contents of Life Cycle Curriculum
5. Map and Centers of Life Cycle project activity

STATEMENT OF PROGRAM ACTIVITIES

OCTOBER 1, 1986 - SEPTEMBER 30, 1987

1. Bethlehem Training Course (August 4, 1986- Feb. 1987)

A training course was begun in the Caritas Hospital in Bethlehem on August 4, 1987. Twenty two village women from the Ramallah, Bethlehem, and Hebron districts participated in the course (see chart). This is the first course for the Hebron area since the beginning of the Life Cycle grant. Seven Hebron district village teachers had been trained in the previous Ramallah course but this is the first training course which served mainly the Hebron population.

The Caritas location was chosen for several reasons. It was convenient for the Hebron village teachers and the Ramallah people as well. It wasn't too far for the instructors who came in every day from Jenin and Tulkarem. It also was convenient for interested persons from Bethlehem University to observe the course. Caritas hospital graciously offered CRS the use of its beautiful facility free of charge. In addition to this their doctors gave guest lectures and both Bethlehem and Gaza trainees toured the hospital.

BETHLEHEM TRAINEES

District	Trainees
Hebron	18
Bethlehem	2
Ramallah	1
Jerusalem	1
TOTAL	22

2. Gaza Training Course (July 1, 1986- Jan. 29, 1987)

The Gaza training course began in July of 1986 (see third semi-annual report for more details). Several noteworthy events have happened during this report period:

- Guest speakers. Hiam Kaibneh (St. John's Ophthalmic hospital), Dr. Rafiq Zanoun (NECC clinic), and Dr. Adnan El Agha (NECC clinics) participated in the training program.

- On November 5, 1986 the trainees made a field trip to Bethlehem to tour the Caritas hospital and meet the trainees in the Bethlehem course. They continued on to Jerusalem to visit the CRS office.

- December 15, 1986 Dr. Samir Badri, director of health services in UNRWA/Gaza visited the class. He had already expressed an interest in the curriculum and training techniques. He was positively affected by the visit ("I am astonished at the level of knowledge of the trainees!") and promises to be a positive local force in the adoption of the curriculum and techniques developed by the program. Dr. Badri is responsible for the health care of two-thirds of the Gaza population.

- The trainees designed, wrote (with the cooperation of the NECC doctors) and printed a health pamphlet at their own expense. This is an indication of the high level of motivation shown by the trainees.

- Classes ended on Jan. 29, 1987. A list of graduates was sent with a cover letter to all appropriate clinics, hospitals, and agencies in the Gaza area in order to promote the employment of the trainees and adoption of the Life Cycle curriculum and training formula.

- As of this report period, three of the trainees, employees of the NECC, began teaching in their center. Three other trainees, Hannan Sleem, Hiam Sweisy, and Sana' Abdel-Salam began working on their own at the Child Development Center, UNRWA school, and private and government clinics respectively. Six of the 22 graduates have found employment before the end of the course even though only three were promised jobs. CRS intends to follow-up all of the employment possibilities for the trainees as a way of institutionalizing the methodology and curriculum. The recommendations of the USAID evaluation team concurred with CRS that Gaza is sufficiently aware, capable, and motivated to use the Life Cycle design to their own best advantage with no further interventions.

Since the completion of the Gaza course on January 29, 1987, all of the trainees have worked either as volunteers or as employees in three major Gaza institutions, the Near East Council of Churches (NECC), Red Crescent, and UNRWA. They continued on a trial basis until July 14, 1987. They were supervised periodically by Life Cycle instructors but were mainly under the care and guidance of their respective institutions. The majority of them worked in clinics where they taught mothers who were waiting to see the doctors. In addition to giving lectures, the trainees helped the doctors and nurses to perform many other tasks. At the end of this trial period, each trainee was evaluated by her immediate supervisor. The results were very good. Almost every institution gave high marks for the trainee and recommended that they be hired permanently. Two of the institutions did in fact hire persons, the NECC employed four and the Red Crescent one. Although UNRWA overwhelmingly approved of the women's performance and liked the Life Cycle approach, their budget requirements do not presently allow for the extra staff.

3. Oral Rehydration Report (Jan. 20, 1987)

On Oct. 13, 1986 Dr. Rafi Sansur was retained by CRS to write a report on the present usage of Oral Rehydration therapy on the West Bank. His report was finished on January 20, 1987 and can be seen as attachment 2. Dr. Sansur is a professor at Bir Zeit University and does chemical analysis and quality control for several companies in the West Bank. His report emphasizes the need to work more closely with the local manufacturers of Oral Rehydration salts in order to promote local production. He feels, as do many doctors and health officials in the area, that ORT salts are more suited to the West Bank than hand mixed solutions since they are safer and the level of education and income is high enough to support its use. This contradicts the feelings expressed by the USAID evaluators and CRS/NY Nutritionist. The Life Cycle curriculum includes training for home-mixture and the project will continue to promote its use.

4. CRS Supervisors Rescue and Revive a Drowning Girl

On Nov. 10, 1986 Two CRS Supervisors, Tamam Shalaby, Subhieh Ghanem, and Ali Shalaby (Tamam's husband) rescued and revived a drowning girl in the village of Beita. The girl, Bassima Fawzi Othman had fallen into an open reservoir. Mrs. Tamam Shalaby and her husband Ali happened to be visiting the village for the Life Cycle program. Mr. Shalaby jumped into the reservoir to rescue the girl and Mrs. Shalaby revived her using artificial respiration.

5. Article Accepted for the WORLD HEALTH FORUM

On November 12, 1986 an article written by the Life Cycle/Health Education project manager entitled, "Catholic Relief Services health education program: innovations in primary health care in the West Bank" was accepted for publication in the World Health forum magazine.

6. Completion of Latrine Project in Hebron (Dec. 1986)

On December 31, 1986, the latrine project sponsored by CRS and the Hebron Red Crescent Society was officially completed. The project was initiated because of needs identified by the Life Cycle project in the Hebron area. Two latrines were built in the Majd village in the Hebron area with a third to be built with left over materials. The project was implemented by local persons and generated cost effectiveness and medical reports which could be used in the future to replicate the project. The building of latrines is a very useful outgrowth of health education initiatives since it prevents many serious problems at their source.

7. Mid-term evaluation (January - February 18, 1987)

The mid-term evaluation sponsored by AID/W which began in January 1987 finished this report period (Feb. 18, 1987) with the departure of Dr. Sally Stansfield. Drs. Pillsbury and Afifi left CRS/JWB on Feb. 6, 1987.

The first draft of an evaluation report was completed before the departure of Drs. Pillsbury and Afifi. The impact data component of the evaluation was not completed at that time. Dr. Sally Stansfield spent more than two weeks observing the program including, village classes, surveying with the old questionnaire, and meeting with many local health care professionals and personnel of institutions. Her immediate feedback was that although the program seemed to have a significant impact, it was very difficult to corroborate this with the data collected in the CRS survey. For this reason she suggested that an additional survey be conducted in order better to measure the health profile of the village women and actual knowledge gained from the health education classes.

The evaluation report has gone through several drafts since the team's visit. On March 24, 1987 another draft of the report was received by CRS/JWB without the impact data analysis. The final draft of the report has not been received by the CRS/JWB office. CRS/JWB was pleased with the evaluation overall and is in agreement with most of its findings.

This evaluation was modeled after the evaluation formula developed in the USAID sponsored evaluation workshop in Tunis September 29 - October 4, 1985. It was meant to be a management aid to formulate future project implementation. It can be said that this evaluation was truly a management tool which had a significant impact upon the future of the project. It was not just a post-mortem after the project was finished. CRS/JWB hopes that the lessons learned from this evaluation will be noted for future evaluations as well.

8. International conference on childbearing and perinatal care in Jerusalem. (March 22-26, 1987).

An international conference on childbearing and perinatal care was held in Jerusalem from March 22 to 26, 1987. It was attended by two of the Life Cycle staff, Community Relations person Shoushan Franji and Instructor Abdel Rahim El-Assad. The conference was sponsored by the Israel Health Ministry, Hadassah Hospital and a host of other Israeli and foreign institutions.

14

9. Amendment of the Life Cycle grant (April 15, 1987)

In April 1987 CRS/TWB submitted to its New York office an amendment to the Life Cycle grant. The amendment was shaped by the recommendations of the mid-term evaluation team as well as the experience of the Life Cycle project staff. The major focus of the amendment dealt with the process of institutionalization. A formula was recommended which would extend the grant for a year and utilize monies not spent to date to promote projects for societies willing to continue with the program after CRS is no longer involved. This strategy is dependent upon one or more of the Unions of Charitable Societies signing a contract with CRS showing its intent to continue the supervision of the project. There is also provision in the amendment for a Palestinian Project Manager to be hired by CRS to work with the Union in its continuation of the project.

10. Family Therapy Seminar (April 28-30, 1987)

Two members of the Life Cycle staff, instructors Nader Hajmeer and Fatmeh Abed, attended a CRS sponsored Seminar on family therapy. The seminar was designed for social workers participating in the Sunrise Home for Boys in Tulkarem. The seminar dealt with problems in families and how they can be detected and treated. It was a very good experience for the staff who attended since much of the Life Cycle project deals with mothers, children and the family situation.

11. Julia Chang Bloch visit (May 2, 1987)

Julia Chang Bloch, Administrative Officer for the Asia/Near East Bureau USAID, visited the CRS/JWB Life Cycle project on May 2, 1987. She observed a health education class in the village of Beit Kahel. The building in which the class was held was built by the CRS/JWB AID/W funded Rural Development project. The village of Beit Kahel is in the Hebron district.

12. Child Survival/Health Education Conference, Tunis,
Tunisia (June 7-13, 1987)

The Life Cycle project Manager, Mr. Daniel Carr, attended a CRS sponsored workshop on Child Survival/Health Education for the CRS/MENA region. The workshop was attended by the CRS/Eurasia Senior Director Designate, Mr. Joseph Curtin, the CRS Nutritionist, Mrs. Helen Bratcher and most of the project managers working in Health programs in the MENA region (e.g. Egypt, JWB, Tunisia, Morocco, Jordan, and Pakistan). The workshop proved to be a very useful vehicle for information exchange and future strategy development for participating countries. The experiences gained from countries which have either completed or are ready to complete health projects were valuable for those countries which are just beginning.

13. Impact Data Survey Design (July 13-August 12, 1987)

Two participants in a Brigham Young-sponsored study program in Jerusalem worked with the Life Cycle project to design a new questionnaire to measure project impact. This was one of the recommendations of the evaluation team. The women, Alethea Shallbetter (Health Education) and Becky Ralphs (Community Health), spent three weeks writing and testing a questionnaire to measure project impact. They worked in collaboration with the project manager to try to eliminate the problems of the first questionnaire in order to provide useful information for project impact.

The questionnaire is divided into two parts; medical profile and health knowledge. It is short in order to be less intrusive and yet covers enough material to give an indication of how much mothers have learned. A major assumption is that knowledge is an indicator of behavior. The experience of the CRS health education program over the years has been that behavior does in fact, change with knowledge. The problems encountered in trying to measure actual village behavior are very great in the West Bank due to local suspicions and a need to respect peoples' privacy. The questionnaire was checked by health professionals. Mr. Jamil Rabeh of the

W.H.O. Collaboration Center in Ramallah (who offered the use of his computer and facilities for data analysis), Mrs. Pat Anderson, PhD BYU survey analyst, and Dr. Nafez Nubani, Director of the Kupat Holim clinics in East Jerusalem. The analysis will also be monitored by a professor from a local Boston University program, Dr. Pliskin. The volunteers prepared a training format for the Life Cycle staff to use when conducting the survey. They conducted a one-day in-service on August 12 for the Supervisors and Instructors to teach them to use the same interviewing techniques.

14. Advanced Training Seminar (Aug.-Oct. 1987)

After completion of the mid-term evaluation and training courses in February the Instructors prepared and conducted an Advanced Training Seminar. This included addition of new materials to the previously developed Advanced Training Curriculum. Especially those related to "high risk" cases in pregnancy, delivery, and early childhood. See attachment 3 for the course outline. The seminars were held in every district of the West Bank for all the previously trained village teachers.

16. Institutionalization

CRS/NY formally submitted an amendment to the Life Cycle grant on May 19, 1987. The time period between the evaluation team's visit in Jan./Feb. 1987 and the time the amendment was submitted was full of activity among the principal parties involved, e.g. the Unions of Charitable Societies, CRS/JWB, the Jenin Red Crescent, and CRS/NY. The following is a chronological list of events which culminated in a contract between CRS and the Nablus Union.

March 2-3, 1987 Preliminary meetings between the Nablus Union and CRS outlining the proposed Institutionalization strategy.

March 16, 1987 Meeting between the Life Cycle project manager and the Nablus Union in Nablus further outlining strategy.

March 25, 1987 Letter from the Nablus Union to CRS accepting responsibility for the Life Cycle program.

April 1, 1987 Meeting with Najeh Jarrar and Union officials in Nablus.

April 13, 1987 Letter to CRS from the Jenin Red Crescent Society concerning their intention to take over the project.

Meeting between Life Cycle project manager and all members of the Nablus Union in Nablus

April 15, 1987 Telegram from the Jenin Red Crescent to CRS further indicating intent to take over the project.

May 13, 1987 First suggested contract from the Unions.

May 19, 1987 CRS/NY sent amendment of the grant to AID/W along with a draft of the proposed contract between CRS/JWB and the Nablus Union.

May 20, 1987 Meeting between CRS and Nablus Union. The Union was requested to contact all Societies in the North to ask them if they would continue with the project under the jurisdiction of the Union.

May 23, 1987 Letter from the Union to all Charitable Societies in the North informing them of the Union intention to take over the project and requesting project ideas from each of them as an alternative to the food commodities.

June 18, 1987 Second suggested contract from the Union of Charitable Societies.

- July 14, 1987 Meeting with Nablus Union concerning the status of the Community Health Education Coordinator, Abed Mun'em El Booze.
- July 21, 1987 Letter from AID/W to CRS/NY indicating approval of the amendment (not signed).

As the above chronology suggests, the local Societies have been very much involved in the process. The original deadline for a signed contract between CRS and the Union was June 1, 1987. This deadline passed, however without having had approval from USAID to implement the new amendment. Official approval has not been received to date. With the assurance of tentative approval indicated in a letter from USAID July 21, 1987, both CRS and the Nablus Union have gone ahead with the next steps necessary for the turn over. The Union has begun to identify a board representing the three districts of the North. Office space has been identified for both the Supervisors and the Director. Salaries have been agreed upon by the Union and they have begun negotiations with the Supervisors. Abed Mun'em El Booze has been approved by both the Union and CRS as an acceptable candidate for the position of Community Health Education Coordinator (Director). He was hired on Sept. 1, 1987. There are five parties involved in this process: The local Charitable Societies, the Nablus Union of Charitable Societies, CRS/JWB, CRS/NY, and USAID. Each party, although very interested in the outcome, has a different agenda. It is difficult to forge an agreement which is satisfactory to all of these parties. Although the process is moving along, the most important hurdles have yet to be crossed.

ATTACHMENT 2

BIRZEIT UNIVERSITY

Center For Environmental And Occupational Health Sciences

Need For and Usage of
ORT
In the West Bank and Gaza Strip

By Ramzi Sansur, Ph.D.
Jan 1987

I. Introduction

Oral rehydration therapy (ORT) may be defined as the administration of fluid by mouth to prevent or correct the dehydration as a result of diarrhoea. Oral rehydration salts (ORS) are a standard formula of WHO/UNICEF that is used, when dissolved in water, for ORT. ORS is provided pre-packaged in dry form in sachets and is reconstituted when needed.

ORT is considered superior to home remedies i.e. "household food" and "salt and sugar solutions" in the treatment of diarrhoea and the prevention of dehydration. The disadvantages of home remedies are the big variety in their composition and the possibility that they lack sufficient concentration of the essential ingredients of ORS especially potassium and citrate or bicarbonate. Their use should be restricted to the onset of diarrhoea, before bodily loss of essential electrolytes, or in the absence of ORS. In no case should the above be construed as a discouragement of feeding during diarrhoea, which should continue including breast-feeding in order to prevent dehydration and malnutrition.

The most recent formula used in ORS is in Table (1) below:

Table (1): Ingredients of ORS

Ingredient	Other Common name(s)	Chemical formula	Ammount
1. Sodium Chloride	Common salt Table salt	NaCl	3.5 grams
2. Glucose, un- hydrous*	Dextrose, un- hydrous	C6 H12 D6	20.0 grams
or Glucose mono- hydrate	Dextrose, mono- hydrate	C6 H12 O6 H10	22.0 grams
or Sucrose	Saccharose common suger	C12 H22 O11	40.0 grams
3. Trisodium Cit- rate*	Sodium Citrate	C6 H5 Na3 O7 2H2O	2.9 grams
or Sodium hydrogen Carbonate	Sodium bicarbonate Bicarbonate of Soda Baking soda	Na H CO3	2.5 grams
4. Potassium Chloride		KCl	1.5 grams

* Preferred ingredient

The packets or sachets that contain the ingredients in Table (1) are reconstituted in one litre of drinking water, preferably boiled and cooled.

There has been a trend in some countries to use different amounts that may be dissolved in smaller volumes of water depending on the most popular and available container. Examples are the 750 ml bottles as in Syria or 250 ml cups as proposed in Jordan. The reconstitution in one cup seems to be the most logical measure as the amount in one cup can be consumed in a short period, thus not allowing for bacterial growth in the solution or the possibility of using volumes less than one litre for ORS that are supposed to be dissolved in one litre. The availability of one litre containers in the West Bank and Gaza is very limited thus making it difficult to dissolve the sachet in the proper volume of water. The 750 ml bottles are more abundant. When dissolved in volumes less than what they are intended for, the concentration of sodium, as well as the other ingredients, may increase in the solution. Higher concentration of sodium in the solution may cause a blood level of sodium above normal. Although some doctors do not attach much clinical importance to this phenomenon, it is desirable to prevent such occurrence at the home level by having the salts dissolved in the correct volume of water.

II. Prevalence of Diarrhoeal Diseases

In spite of the unavailability of reliable data on the prevalence of diarrhoeal diseases in the West Bank and Gaza, one can use the UNRWA statistics as a guide. The 1985 annual report of the Director of Health, for UNRWA, indicates that about 17,000 children, 0-3 years who reported to UNRWA clinics in the West Bank and Gaza were diagnosed as suffering from diarrhoeal disease. This represented about 2.6% of the population.

If one compensates for under-reporting then a figure of 4-5% is more plausible. This figure has also been confirmed from projecting the number of cases diagnosed by Birzeit Women Charitable Society in three months.

It should be noted here, that inspite of other considerations there should be a standard dose so as to avoid over or under concentration resulting from varying packet and container sizes. Currently, all packets sold or distributed in the country are for one litre solution. Hence, inspite of the writer's preference for packets to be dissolved in one cup (250 ml), packets for one litre solution should continue to be manufactured and/or distributed. In addition all the literature available about ORT is for the standard one litre solution. The other advantages is the reduced cost of manufacturing the packets for 1 litre as opposed to packets for 250 ml. This will be discussed later.

III. Production of ORS

ORS is available, in the West Bank and Gaza Strip, from three main sources:

1. Local Palestinian Pharmaceutical Firms.
2. Israeli Pharmaceutical Firms.
3. UNICEF.

A. Local Production

There are two main sources of locally produced ORS

1-Palestine Medical Co.Ltd./Al Bireh

2-Birzeit Pharmaceutical Co. Ltd. / Bir Zeit

The current production volume is 40-50,000 packets per year for each of the firms making a maximum of 100,00 ORS packets produced by the two firms. PMC produces ORS under the trade name of Hydrosups while BPC under the trade name of Electrosups. Both firms use the older WHO/UNICEF formula of using sodium bicarbonate instead of sodium citrate and both packets are intended for dissolution in one litre of water each.

B. Israeli Production

ORS are produced in Israel by TEVA, the largest pharmaceutical firm. It is produced in two forms under the trade name of Hydran 60 and Hydran 90. Hydran 90 follows the standard WHO/UNICEF formula using sodium citrate instead of bicarbonate. Hydran 60 is intended for maintenance therapy after the diarrhoea has become milder. This system of having two ORS preparations creates confusion for the patient and the physician and is not recommended.

C. UNICEF

UNICEF is the major supplier of ORS in both Gaza and the West Bank. Their donation for 1986 totalled about 133,000 packets. Of course, not all these packets have been distributed. This will be discussed later.

In addition to the above, Gaza Health department buys the raw materials for making ORS and sends them to a center for the physically handicapped where they are mixed and packed in specially labelled packets. The yearly production capacity is about 36-40,000 packets.

IV. Quality of Locally Produced ORS

The quality of the locally produced ORS i.e. those produced by PMC and BPC is acceptable. Both companies use the formula that contains sodium bicarbonate. PMC uses a fully automatic machine adapted, when needed, for ORS. BPC uses a semi-automatic machine dedicated for that purpose. The problem both companies suffer from is the use of smaller size packets that make it difficult to seal the sachets and make them air-tight. This problem thus slows down the production as well as shortens the shelf life of the ORS. Part of the salts gets wedged in the area where the sealing occurs thus making open channels for air and moisture to penetrate and part of the contents to spill.

The size of the sachet produced by PMC is 8.15 x 10.2cm equivalent to 83.13 cm² while that of BMC is 7 x 11 cm equivalent to 77 cm². The WHO/UNICEF recommended 9 x 11 cm equivalent to 99 cm². Thus the surface area in both products is lower than what is recommended. In contrast the Israeli product is packed in a fancy large packet thus adding tremendously to the cost of the product. Packing material is the most expensive part of

ORS. There is minimal quality control for ORS produced in the West Bank. It mostly has to deal with weight variation and physical inspection. Neither the West Bank Health department nor the Israeli Health Authorities perform any kind of quality control on the locally produced ORS, perhaps because it is not considered a sensitive product.

V. Distribution of ORS (1986)

1. UNRWA

UNRWA is the major distributor of ORS in the West Bank and the Gaza Strip. The agency receives its packets free from UNICEF. UNRWA, West Bank, received 45,000 packets from UNICEF and distributed 27,300 at their various health centers or 60.67% of what they received. UNRWA, Gaza, received 78,000 ORS packets and distributed 54,900 of them or 70.38%. The distribution of ORS is coupled by some promotion for their use.

2. Health Authorities

a. West Bank

The West Bank health authorities distributed 24,000 packets of the Israeli produced Hydran 60, which is low in sodium chloride but high in glucose. The ORS is distributed in MCH centers. No ORS packets were received from UNICEF.

b. The Gaza Strip

About 40,000 ORS packets are produced, per year, at a center for the physically handicapped. In addition the health department received a donation of 40,000 packets from the UNICEF office in Ramallah. About 10-20,000 UNICEF packets were distributed equivalent to 25-50% of what they receive.

3. UNICEF, Ramallah

The local office of UNICEF received 100,000 packets from their regional offices and has so far distributed between 40-50,000 packets, mostly to the Gaza health department.

4. Local Charitable Societies and Organizations

Local Organizations distribute, on a very limited scale ORS packets. These packets are usually purchased from donated funds. In addition, at least three organizations promote the use of "Salt and Sugar" solutions but do not supply the ingredients. They leave it to mothers to purchase such ingredients, from pharmacies, and mix them according to what they have been taught either in health education classes or via pamphlets.

VI. Need For ORT

In spite of the apparent large number of packets distributed in Gaza and the West Bank, the distribution is mostly done by UNRWA to the Palestinian refugee population. The refugee population comprises approximately 25% of the population of the West Bank and about 75% in Gaza. Yet in spite of this seemingly high distribution level, diarrhoeal disease among the refugee population is increasing as evidenced by the Annual Report of the Director of Health of UNRWA for 1985. At the same time distribution of ORS to the non refugee population, by the government is very limited, as mentioned earlier.

concurrently, promotion for the use of ORT is also marginal by most agencies and groups involved with health. Also, physicians still prefer to use antimicrobial agents to fight diarrhoea instead of ORS. The latter may be due to inadequate information reaching physicians about the superior advantages of ORT.

The writer believes that there is a need for better education of health workers including those at UNRWA for promoting the use of ORT. Although UNRWA distributes large numbers of sachets, the writer believes that either these sachets remain the health centers or are not used when given to patients.

VII. Recommendations

1. Production of ORS

The present facilities at the Arab pharmaceutical firms cannot cope with increased demand for ORS. PMC is unable to increase production beyond their present level as their machine is used for other purposes. BPC has a semiautomatic machine which is labour intensive, slow and raises the cost of production to over 24 cents per sachet. PMC cost is about 14 cents per sachet. The UNICEF supplied sachets cost 5-6 cents per sachet FOB or about 6-10.5 cents CIF, thus making it very difficult for local Arab firms to meet this price unless subsidized. The reason for this low cost is the large volume of contracted work given to any company that produces for UNICEF which brings the cost down.

UNICEF has provided ORS filling and sealing machines, free of charge, for both Syria and Jordan. In Jordan the company that received the machine, Al-Hikma, will provide free packets, at cost price, to the Ministry of Health until it meets the cost of the machine which was approximately \$65,000. The selling price per sachet is about 10 cents.

37

In my communication with the Arab pharmaceutical firms, Birzeit Pharmaceutical Company had a better offer which was to provide sachets free of charge or at cost price until it "repays" the price of the machine. In addition, it is ready to provide 15% more sachets than the price of the machine, if it were provided with a free machine. All other supporting instrumentation and machinery are available at all the companies.

Hence, an Arab pharmaceutical firm, with a good record of quality control would be able to supply both the private and public sectors with reasonably priced ORS sachets, possibly well below the 10 cents mark.

The provision of an automatic ORS sachet-forming, and sealing machine may be had for a price of about \$50,000 (+ 15% ?). If such a machine is donated to an Arab company, by any source, then UNRWA can be supplied locally with ORS as well as the public and private sectors. In my talks with UNICEF, I saw reluctance in getting involved in ORS production in the West Bank because of financial constraints.

2. Promotion and distribution of ORT

a. Promotion

There is minimal promotion of ORT among all sectors of the society including the medical sectors. Most pediatricians still prefer to prescribe antimicrobial agents for diarrhoeal diseases. Hence a concerted effort must be made to promote the use of ORT as the preferred therapy.

This can be done in the form of lectures, seminars and workshops for people and groups in the health field including physicians and in both the public and private sectors. Promotion of ORT must also reach the public at large through the health field workers, physicians and the media. Advertisement in the media should be initiated, on a regular basis, especially in the summer months, at the peak of diarrhoeal diseases. This should be coupled with the distribution of informational material describing the advantages and methods of using ORT.

b. Distribution

If local production of ORS starts on a wider scale and at reasonable cost, then, this should be coupled with a wider distribution of ORS among the private and public sectors. Curerently, ORS is not widely distributed especially among the private sector. Also the private sector should be provided with informational material coupled with the sale of ORS.

Summary

ORS is mostly available to the refugee population served by UNRWA, but is not widely promoted inspite of the large number of sachets supplied by UNICEF. The current consumption of ORS is about 250,000 packets coming from UNICEF, local Arab pharmaceutical firms and Israeli sources. There is a need for increased local production of ORS coupled with better and improved promotion for ORT. The provision of an ORS sachet-forming, filling and sealing machine to a selcted Arab pharmaceutical company will increase the production and lower the cost of a sachet to well bellow 10 cents. This, in effect will help in promoting ORT as the company will also be motivated to do so to increase sales. The price of the machine can be repayed in free packets calculated at cost price or as agreed with a selected West Bank company.

Notes

Information on the production of ORS were derived from visits to Arab pharmaceutical firms and personal communication with their managers.

Figures on the volume of ORS received and distributed by UNRWA were obtained from the Director of Health and Chief Pharmacist, UNRWA, West Bank. Figures for government distribution were obtained from the Chief Pharmacists for both Gaza and the West Bank. UNICEF, MENA, Amman, Jordan, also provided some statistics, and also via their office in Ramallah.

ATTACHMENT 3

ADVANCED TRAINING CURRICULUM
SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
August 17th	August 18th	August 19th	August 20th
Pregnancy Guidance and advice for future mothers	Continuation of "Pregnancy Guidance"	Delivery	Care of the new born
August 24th	August 25th	August 26th	August 27th
Continuation of care of the new born	Child Development	Early Childhood Diseases "ORT"	Continuation of Early Childhood Diseases
August 31st	September 1st	September 2nd	September 3rd
Infant Safety Measures	Characteristics of The Handicapped	Dangerous Diseases	Weight Charts Home Visits Community Development

AS/SHF

ADVANCED TRAINING CURRICULUM

SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
September 7th	September 8th	September 9th	September 10th
Pregnancy Guidance and advice for future mothers	Continuation of " Pregnancy Guidance"	Delivery	Care of the new born
September 14th	September 15th	September 16th	September 17th
Continuation of care of the new born	Child Development	Early Childhood Diseases "ORT"	Continuation Of Early Childhood Diseases
September 21st	September 22nd	September 23rd	September 24th
Infant Safety Measures	Characteristics Of The Handicapped	Dangerous Diseases	Weight Charts Home Visits Community Development

AS/SHF

ADVANCED TRAINING CURRICULUM

SCHEDULE

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
October 5th	October 6th	October 7th	October 8th
Pregnancy Guidance and advice for future mothers	Continuation of "Pregnancy Guidance"	Delivery	Care of the new born
October 12th	October 13th	October 14th	October 15th
Continuation of care of the new born	Child Development	Early Childhood Diseases "ORT"	Continuation of Early Childhood Diseases
October 19th	October 20th	October 21st	October 22nd
Infant Safety Measures	Characteristics of The Handicapped	Dangerous Diseases	Weight Charts Home Visits Community Development

AS/SHF

ATTACHMENT 4

TABLE OF CONTENTS

	<u>Page</u>		<u>Page</u>
1. Introduction	3		
2. <u>Stage I: BRIDE</u>	8	5. <u>Stage IV: MOTHER OF CHILD 3-5 and 6-12</u>	197
- Foods for the family	10	- A child develops: 3-5 years	199
- How to stop the spread of disease	22	- Feeding pre-school children	205
- Safety in the home environment	34	- A child develops: 6-12 years	209
- Human reproduction	41	- Feeding school children 6-12 years	213
3. <u>Stage II: PREGNANCY AND PRENATAL DEVELOPMENT</u>	48	6. <u>Stage V: MOTHER OF THE ADOLESCENT</u>	215
- Pregnancy and Prenatal Development	52	- Adolescence	219
- Birth	63	- Needs of adolescents	219
- Care of the newborn at delivery (Neonatal)	78	- Nutritional needs of male and female adolescents	220
4. <u>Stage III: MOTHER OF AN INFANT 0-2</u>	91	- Other needs	221
- Advantages of breast-feeding	97	- Common characteristics of adolescents	221
- Supplementary foods and weaning	109	- Parents' responsibilities towards adolescents	222
- The importance of weight charts	117	7. <u>Stage VI: ADULTHOOD AND OLD AGE</u>	223
- Immunization	125	- Adulthood and Old Age	227
- Illness in a child - Feeding a sick person	130	- Behavior in Old Age	228
- Diarrhea and Dehydration	148	- Needs of the Old Age	228
- Child Development from 0-2	161	- How to stay healthy when older	228
- Some Organs of Body Systems	166	- Feeding adults	229
- The Ear	167	- Feeding Old Age (above 60 years)	230
- The Eyes	173	- Food diet	231
- The Teeth and Gums	180	- Changes in Middle Age	231
- The Breathing Organs	188	- Clothing for Old Age	231

ATTACHMENT 5

JERUSALEM AREA

- | | |
|------------------------------------|-------------|
| 1. Spafford Children's Center | Jerusalem |
| 2. Greek Catholic Infant Welfare | Jerusalem |
| 3. [I-Aaa] Charitable Society | Abu-Dis |
| (i) Arab El-Dahout & Kurshan | Abu-Dis |
| (ii) Aqbat Jaber Sub-Center | Aqbat Jaber |
| 4. Suba Charitable Society | Bethany |
| (i) Al-Jahaleen Sub-Center | Bethany |
| (ii) Bethany Housing Project | Bethany |
| 5. Silwan Charitable Society | Silwan |
| 6. Shu'fat Camp Charitable Society | Shu'fat |

RAMALLAH

- | | |
|------------------------------------|----------------|
| 7. El-Bireh Red Crescent Society | El-Bireh |
| 8. Friends of the Community | El-Bireh |
| (i) Ne'lin Sub-Center | Ne'lin |
| 9. Karawat Bani-Zeid Char. Soc. | Karawat |
| (i) Deir-Ghassaneh Sub-Center | Deir Ghassaneh |
| 10. Aroura Charitable Society | 'Aroura |
| 11. Ein Yabroud Charitable Society | Ein Yabroud |
| 12. Burqa Charitable Society | Burqa |

BETHLEHEM AREA

- | | |
|-----------------------------------|-----------------|
| 13. Beit-Jala Ladies Society | Beit-Jala |
| 14. Caritas/Bethlehem Association | Bethleem |
| (i) Mad-Rahhal Sub-Center | Mad-Rahhal |
| (ii) Joret Al-Shaa'a Sub-Center | Joret Al-Shaa'a |
| (iii) Mahalin Sub-Center | Manalin |
| 15. Arab Women's Union | Beit Sahour |
| 16. Islamic Charitable Society | Bethleem |

JERICHO AREA

- | | |
|----------------------------------|---------|
| 17. Jericho Ladies Char. Society | Jericho |
| (i) El-Uja Sub-Center | El-Uja |

HEBRON AREA

- | | |
|--------------------------------------|--------------------|
| 18. Hebron Ladies Charitable Soc. | Hebron |
| 19. Hebron Red Crescent Char. Soc. | Hebron |
| (i) Al-Majd Sub-Center | Al-Majd |
| 20. Halhul Ladies Charitable Society | Halhul |
| 21. Bani Ma'ia Charitable Society | Bani Ma'ia |
| 22. Doura Charitable Society | Doura |
| 23. Dahriyeh Charitable Society | Dahriyeh |
| 24. Beit-Ula Charitable Society | Beit-Ula |
| 25. Nuba Charitable Society | Nuba |
| 26. Yatta Charitable Society | Yatta |
| 27. Samou' Charitable Society | Samou' |
| 28. Si'ir Charitable Society | Si'ir |
| (i) Ras El-'Aroud Sub-Center | Ras El-'Aroud |
| 29. Beit-Kahel Charitable Society | Beit-Kahel |
| 30. Tarqouia Charitable Society | Tarqouia |
| 31. Idna Charitable Society | Idna |
| 32. Kharas Charitable Society | Kharas |
| 33. Surif Charitable Society | Surif |
| 34. Shuyuth Charitable Society | Shuyuth |
| 35. Beit 'Awwa Charitable Soc. | Beit 'Awwa |
| 36. Shuyuth El-'Arroub Char. Soc. | Shuyuth El-'Arroub |
| 37. Rihniyeh Charitable Society | Rihniyeh |
| 38. Taffouh Charitable Society | Taffouh |

NABLUS AREA

- | | |
|------------------------------------|---------------------|
| 39. Tili Charitable Society | Tili |
| 40. Assira El-Qibliyeh Char. Soc. | Assira El-Qiblien |
| 41. Beta Charitable Society | Beta |
| 42. Bourin Charitable Society | Bourin |
| 43. Nablus Community Center | Nablus |
| 44. Assira El-Shaaliyeh Char. Soc. | Assira El-Shaaliyeh |
| 45. Humwara Charitable Society | Humwara |
| 46. Ossarin Charitable Society | Ossarin |
| 47. Arab Women's Union | Nablus |
| 48. Sabastia Charitable Society | Sabastia |

TULKAREM

- | | |
|-----------------------------------|----------|
| 49. Salfit Charitable Society | Salfit |
| (i) Farha Sub-Center | Farha |
| (ii) Skaka Sub-Center | Skaka |
| 50. Al-Murabital Charitable Soc. | Dalqilia |
| 51. Dar Al-Yatim Charitable Soc. | Tulkarem |
| 52. Bal'a Charitable Society | Bal'a |
| 53. 'Anabta Charitable Society | 'Anabta |
| 54. 'Ateel Charitable Society | 'Ateel |
| 55. 'Illar Charitable Society | 'Illar |
| 56. 'Azzoun Charitable Society | 'Azzoun |
| 57. Tulkarem Red Crescent Society | Tulkarem |
| 58. Shweikeh Charitable Society | Shweikeh |

JENIN AREA

- | | |
|-------------------------------------|-------------------|
| 59. Tubas Charitable Society | Tubas |
| (i) Aqqaba Sub-Center | Aqqaba |
| 60. Zababdeh Charitable Society | Zababdeh |
| (i) Missiliyeh Sub-Center | Missiliyeh |
| (ii) Raba Sub-Center | Raba |
| (iii) Jalqamus Sub-Center | Jalqamus |
| 61. Qababtiyah Charitable Society | Qababtiyah |
| 62. Ya'bad Charitable Society | Ya'bad |
| (i) Toura Sub-Center | Toura |
| 63. 'Arraba Charitable Society | 'Arraba |
| 64. Burqin Charitable Society | Burqin |
| (i) Kufur-Qud Sub-Center | Kufur-Qud |
| (ii) El-Hashimieh Sub-Center | El-Hashimieh |
| (iii) Mad-Burqin Sub-Center | Mad-Burqin |
| 65. Yamoun Charitable Society | Yamoun |
| 66. Silat El-Harthien Char. Soc. | Silat El-Harthien |
| 67. Asdika' El-Marid Char. Soc. | Jenin |
| 68. Jaba' Charitable Society | Jaba' |
| 69. Fakkou'a Charitable Society | |
| 70. Sanour Charitable Society | Sanour |
| 71. Jenin Charitable Society | Jenin |
| (i) Jalameh Sub-Center | Jalameh |
| 72. Kufur-Dan Charitable Society | Kufur-Dan |
| 73. Jenin Red Crescent Char. Soc. | Jenin |
| 74. 'Anza Charitable Society | 'Anza |
| 75. Deir Abu-Deif Charitable Soc. | Deir Abu-Deif |
| 76. Al-'Araka Charitable Society | Al-'Araka |
| 77. 'Anin Charitable Society | 'Anin |
| 78. Kfeiret Charitable Society | Kfeiret |
| 79. Barta'a Charitable Society | Barta'a |
| 80. 'Ajje Charitable Society | 'Ajje |
| 81. Al-Tayben Charitable Society | Al-Tayben |
| 82. T'innei Charitable Society | T'innei |
| 83. Silet El-Dhaher Charitable Soc. | Silet El-Dhaher |
| 84. Al-Fundukawzieh Charitable Soc. | Al-Fundukawzieh |
| 85. Deir-Ghazaleh Charitable Soc. | Deir-Ghazaleh |
| 86. El-Mughayer Charitable Society | El-Mughayer |
| 87. Al-Ramah Charitable Society | Al-Ramah |
| 88. Siris Charitable Society | Siris |
| 89. Hayyelaarah Charitable Society | Hayyelaarah |