

Country Development Strategy Statement

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**JORDAN HEALTH
STRATEGY PAPER**

ANNEX IV



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BEST AVAILABLE

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HEALTH STRATEGY PAPER

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HEALTH STRATEGY PAPER

I. HEALTH, NUTRITION AND POPULATION - THE JORDAN CONTEXT

A. Health

1. Problem (General Statement)

Because of the scarcity of reliable health and vital statistics in Jordan it is a difficult procedure to accurately evaluate health conditions. For example, using official mortality statistics the Crude Death Rate is 3.4 per 1,000 compared to the CDR in the U.S. of 9.4. This indicates severe under-reporting. More reliable estimates place this figure at 14.5 per 1,000.

Life expectancy is 57 years for males and 59 years for females.

The same situation exists with morbidity statistics, i.e., under-reporting but hospital admittance statistics indicate that enteric diseases are the leading group, followed by diseases of the respiratory and genito-urinary systems. Complications of pregnancy, childbirth, and the puerperium come next, while diseases of the cardiovascular system are fifth.

Again, it should be emphasized that these figures are indicative rather than hard data representing actual disease incidence.

Children under 15 and women of reproductive age comprise 78.6 percent of Jordan's population. Gastroenteric and respiratory infections, preventable infections, diseases of childhood, and conditions associated with childbirth contribute to high levels of morbidity and mortality among these at-risk groups. For example 43 percent of all deaths in Jordan occur to children under the age of five. Infant mortality is estimated to be between 80 to 90 per thousand with approximately 25% due to diarrheal disease. Death rates for Jordanian women of reproductive age (15-44 yrs) are four times greater than those of the same age group in the U.S.

(a) Urban Health Problems

Over 80 percent of the Jordanian population live in urban areas. One half of the population is located in the rapidly expanding Amman environs. Although urban residents have better access to health care facilities, the lower income groups are exposed

to inadequate sanitary facilities, poor housing, and accidents. In these groups the mortality rate from cardiovascular disease is increasing.

(b) Rural Health Problems

Rural Jordan, which covers 80 percent of the land area, is mostly a desert where water is only minimally available. Population is sparse and widely dispersed, with the exception of the Jordan Valley which comprises one quarter of the land area and has a relatively high population density.

There are no available data on differential morbidity and mortality rates between the urban and rural population. However, the absence of sufficient safe water to maintain World Health Organization (W.H.O.) standards contributes to gastrointestinal disorders. Lack of accessibility to services and lack of health education undoubtedly contributes to the poor health status of rural inhabitants.

2. Responsive Services

(a) Public

Currently, there are 36 hospitals with a total capacity of 3,738 beds, 102 medical centers, 383 village clinics and 75 maternal and child care centers. There are also specialized medical clinics for tuberculosis and malaria eradication. There are several health providers including the Ministry of Health, the Royal Medical Services and the University of Jordan and Yarmouk. UNRWA also has 15 clinics in refugee centers.

(b) Private

Private practitioners and facilities are concentrated in Amman and Zarqa although there are a few small private hospitals scattered throughout the Kingdom. Private medical facilities include 20.3% of all hospital beds (782) and 32.5% of physicians are in the private sector. About 26% of hospital admissions are located in private hospitals, which have an occupancy rate of about 55% of bed capacity.

B. Nutrition

1. Problems

Most of the malnutrition existing in Jordan is caused by economic and social factors. Most affected are pregnant women, mothers and children from 6 - 36 months of age. Contributory factors are early and improper weaning practices, transferring babies to unhygienic food resulting in gastroenteritis, lack of proper supplemental feeding, and mothers ignorance on what constitutes a well-balanced diet. As noted previously, in Jordan of the 78.6 population is comprised of women and children under 15 who particularly need adequate diet.

(a) Urban

The cost of living index for Amman and other urban centers has risen dramatically during the past decade. Those inhabitants most affected are large families that migrate from rural to urban areas and are faced with greater fixed costs, such as rent, utilities and food, than those they had in their previous rural environment.

(b) Rural

There are certain to be pockets of poverty and malnutrition in rural areas although specific villages have not been identified. It is known that the Ma'an Governorate contains many poor people as well as the Southern Ghors (Karak Governorate) and the Mafraq District. Insufficient diet, poor hygienic practices and lack of education are causative factors for malnutrition in these areas.

2. Responsive Services

(a) Public

The Ministries of Health, Education, Social Development and the U.N. Relief and Works Agency (UNRWA) have programs involving feeding or food commodity distribution. These feeding programs are administered through Maternal and Child Health Centers, school feeding programs at several grade levels involving 3,000 students. The Ministry of Social Development (MOSD) administers 102 feeding centers for children 4-6 years of age. Food is provided through the U.N./F.A.O. World Food Program.

(b) Private

CARE/Medico has a food commodity program providing PL 480 Title II commodities to 30,925 beneficiary children in depressed economic areas. Catholic Relief Services (CRS) provides support aimed at distributing instructions on use of nutritious foods for mothers in depressed areas.

C. Population

1. Problems

Jordan has one of the highest population growth rates in the world with an estimated natural growth rate in CY 81 of 3.8 percent. This growth in a country with few resources places strains on development resources necessary to meet basic needs of the growing population. Serious health problems result from excessive fertility. A typical Jordanian woman commences her reproductive career at the age of 14-20 years and continues to 40-45 years. Worldwide data shows the increased risks to mothers resulting when pregnancies occur too close together or at an early or late stage in a woman's life. These risks include high maternal and infant

mortality, high incidence of pregnancy wastage, labor complications and other gynecological problems. Studies have shown that children born under these conditions are vulnerable to malnutrition, infection and many exhibit mental retardation and poor growth. While some 97% of all women interviewed in the 1976 Jordan Fertility Survey had knowledge of modern contraceptives, only 27% were using them.

(a) Overall Human Resources

The age composition of the Jordanian population shows a high percentage in the young age bracket (53% under fifteen) forecasting a high growth in the labor force which will require creation of new jobs if unemployment is to be avoided. Thus, Jordan is faced with major financial expenditures just to provide basic health, education and shelter needs and provide employment. Jordan, at present, has very low unemployment. Some of Jordan's trained manpower currently migrate to the Gulf States but there is evidence that this demand may be weakening. Women's participation in the labor force is small, about 6 -14 percent. Their participation is growing and efforts are planned to increase the rate of growth. However, at the present rate of population growth it will be difficult to increase the percentage of women in the labor force.

(b) Urban

Major population centers such as Amman and Zarka are growing at a faster rate than the rural areas due to in-migration presumably because of perceived, increased opportunity for employment and other services including improved recreational facilities. This generally unplanned migration is overtaking the water, sanitary, transportation, health, education and housing facilities in the cities.

(c) Rural

With the exception of the Jordan Valley, the composition of the rural population is affected by out-migration to the cities of those seeking employment leaving a disproportionate number of children, women and older persons.

(d) Government Policy

While the Government of Jordan has no official policy towards reducing high fertility, some senior Jordanian officials recognize the implications of high population growth for future development and stability so that one might anticipate possible

changes in GOJ policy in the near term. They often point to stimuli already present in the society which also should lead to a declining fertility: increased educational levels; urbanization; rising participation of women in the work force; improved living standards; widespread knowledge of contraception; and rising average of first marriage for women -- from 16.7 years among the group aged 45-59 to 19.4 years among the cohort aged 20-24 years. Additionally, the rising of cost of living tends to delay first marriage, until the male can attain a wage or salary which can support a wife. The 1979 census, the first to be conducted in the East Bank since 1961, has helped generate much public discussion of population growth and its impact even though the preliminary count of 2.2 million was far below previous estimates of 3.0 million or more. Political sensitivities are a major constraint to the promulgation of a national population policy.

2. (a) Responsive Services

The GOJ has taken the preliminary step of recognizing that the rapidly increasing population must be considered in planning for development and social service expenditures in the 1982-86 Five Year Plan but does not project a decrease in population growth rate.

Present efforts to limit the growth rate (except for that which may be occurring as result of better education) are briefly described below:

(b) Public

The public sector provides little in the way of family planning services through the Ministry of Health, MCH centers. The R.M..S. also provides some services. The Bureau of Statistics and the U.O.J. have demographic sections concerned with monitoring population-related matters and surveys.

There is little public education and information available to families wishing to space births or limit their family size. There is little or no effort made by M.O.H. staff to counsel clients with the result that few acceptors obtain supplies through this channel.

(c) Private & Commercial

The bulk of family planning services (estimated to be 85%) are delivered through private physicians and pharmacies. The International Planned Parenthood Affiliate, the Jordan Family

Planning and Protection Association (JFPPA) operates clinics in Amman, Zarka, Irbid, and 15 others providing service to about 4% of families currently using some contraceptive method. This organization does little in Information, Education and Communication activities on a national scale.

II. REQUIREMENTS FOR IMPROVEMENT

A. Health

It should be recognized that improving the health status of the Jordanian population cannot be done by improving the delivery system alone. Such things as improving income, proper education and access to clean water are significant factors to be considered. However, certain improvements are programable within the health sector. Instead of the historical western pattern of medical services i.e., hospital-based, curative-oriented and physician-centered, a way of permitting easy access into the health system of the population at the village or neighborhood level must be established so that health problems can be prevented and treated before they become serious enough to warrant hospital care. In cost efficiency, this means a considerable reduction in expensive hospital operation costs,

(currently consuming about 75% of the total MOH budget) and could be effected by providing basic health care at the local level. In health status terms a major part of the population would be healthier due to expanded coverage of the health care system.

1. Infant Mortality

Reducing the infant mortality can be accomplished through the following interventions; (1) treatment of infant diarrhea by widespread use of oral rehydration salts, (2) by expanding coverage of immunizations against infectious disease, (3) education of mothers on the value of prolonged breast feeding and hygienic use of proper weaning foods, and spacing of births in order to provide proper care and nutritional support to new-borns.

2. Maternal Mortality

To decrease the maternal mortality rate requires:

1) Adequate medically supervised anti-natal and pre-natal care. (Less than 40% of all births are medically supervised.)

2) Spacing and limiting childbearing must be emphasized. A typical woman has eight pregnancies and breastfeeds surviving children one to three years, thereby spending about seventeen years pregnant or nursing babies.

3) Knowledge must be provided about the need for proper diet and maintaining rest during pregnancy and lactation.

3. Institution Building

The capacity of the health system to meet the demands of the Jordanian population must be strengthened to increase accessibility to basic health services and to increase the interaction between the health system and the people it serves, so they know where and when health services are available. Health education can play an important role in performing this function.

(a) Health Manpower

Improvement of health services requires a better geographic distribution of physicians, particularly, those involved in community medicine. An increase in the number and supply of qualified nurses (RNs) is required. Midwives need to work more

closely with traditional dayahs and their functions and job descriptions clearly defined. Practical nurses need to be trained better to provide basic health care so as to increase job satisfaction and obtain more client trust in their capability to administer both preventive and curative care. Because of the cultural and religious moves in Jordan women prefer to be treated by women so more females need to be incorporated into the Health Care System.

(b) Support Systems

Support systems need to be strengthened. These are primarily procurement, medical logistics, budgeting to insure that scarce resources are effectively allocated on basis of needs, and consideration of better utilization of health insurance schemes and establishing medical cooperatives as part of cooperative ventures.

(c) Primary Health Care Systems (PHC) Development

A planned and improved community-based, PHC system under which comprehensive, accessible and continuous health services are provided, is required. The system should provide at the first level of contact; education regarding prevailing health problems,

promotion good nutrition and environmental practices; maternal and child health (MCH) services; treatment and provision of drugs in well-defined situations, and proper referral and feedback. To be cost-effective these services must be provided by non-physicians, completely trained to perform certain tasks and working under the guidance and supervision of physicians.

B. Nutrition

A change in social and economic factors would raise the nutritional status of the Jordanians. However, in a food deficit country in terms of food production, the increased food necessary to insure that everyone has enough to eat is virtually impossible. However, some things can be changed to alter the contributory factors affecting certain segments of the population. There is a vicious cycle between malnutrition and infection; such things as gastroenteritis, or upper respiratory tract infections, affect the nutritional status of a person. On the other hand, those people who do not have a sufficient diet are more subject to the infections.

1. Nutrition Education

There is a great need for raising the level of knowledge

of families in such things as hygienic preparation of foods, the need for breast-feeding of children, correct weaning practices and preparation of weaning foods, importance of sharing food within the family and recognition of the special dietary requirements of infants and pregnant and lactating women.

2. Regional Nutrition Surveys

In order to identify those segments of the malnourished population by location and to focus limited nutritional resources on those most in need, surveys should be carried out to pinpoint the pockets of malnutrition. After they are identified needed interventions are (a) increased food production in these areas, (b) possible food fortification and supplementation where necessary, (c) nutritional rehabilitation where appropriate, (d) emphasized birth spacing, and (e) introduction of appropriate technology to reduce the time and energy for food preparation.

C. Population

Jordan's limited resource base and future population growth at current rates make it imperative that some consideration be given to the distribution and limitation of population growth before the

social and economic development of the Kingdom are seriously threatened. Demographers have been pointing to this fact for some time.

1. Infrastructure and Services

Demography is well established with Units in the Bureau of Statistics and the University of Jordan so that population dynamics and trends can be adequately measured.

The obvious impact of too many births, too soon in life and too late, in the health of women and infants would seem to dictate that provision of family planning services be an integral part of the total health care package. The Ministry of Health does provide limited services in the MCH clinics upon demand but this fact needs to be widely disseminated and publicized and staff trained to counsel families on a variety of methods to best suit their needs. In the private commercial sector where most of the services are provided, an effort to institute social marketing through pharmacies, private hospitals and private physicians should be carried out. However, this approach will not greatly affect those most in need, the poor illiterate families who still need services from the

Ministry of Health or from the Jordan Family Planning and Protection Association who have several service facilities in Amman, Zarka and Irbid.

2. Human Resources Planning and Development

Jordan has been fortunate in being a provider of trained personnel to the Arabian Peninsula countries so that unemployment has not been a problem. However, there are signs that this demand is weakening as other Arab countries train their own people, or as Jordanian workers are displaced by other nationalities.

Training of qualified people is an expensive undertaking and capital investment necessary to create industries employing large numbers of workers is a costly process also involving market development. Jordan should be forecasting its own future manpower and training needs exclusive of foreign demand. It is conceivable that the labor market will continue to weaken in the next few years.

The female labor force participation is low and more female participation in technical service and professional categories should be encouraged even though unemployment may increase. Better education for families and higher age of marriage would also impact

on birth rates. The extent that this is culturally and politically acceptable is not clear but should be tried.

3. Family Health Education

The key in raising the prevalence rate of contraception is letting families know where and when services are available at a reasonable cost and to remove any stigma attached to adoption. This will require changes in mores and male domination and illiteracy which bind the family into having more children than they can support. Any educational approach should recognize these factors in its design.

III. JORDAN'S FIVE YEAR PLAN 1982-86

A. Health

The third five year plan is clearly a series of sector plans based on the Government structure and as such health and population matters are addressed in many sectors. The sector which relates most closely for the purpose of this paper is the health section which is discussed below.

The problems in the health sector include staff shortages in certain critical categories, lack of total coverage, high proportion of women giving birth without medical supervision, duplication of services in certain areas, inadequate provisions for communicable disease control, and environmental and pollution problems.

A major part of the organizational measures of the plan calls for a dramatic increase of hospital beds (2300) to increase capacity from 17.4/10,000 population to 25/10,000 at a capital investment of 44.7 million JDs. No mention is made of the enormous recurrent costs of annual operation estimated to be 13 million JDs (based on the University of Jordan Hospital expenditures in 1979), nor of low MOH hospital occupancy rates.

Capital expenditures include provision for expanding training facilities for nurses and other paramedical personnel and construction of integrated health centers at regional and local levels in areas where services do not exist. This should improve primary health care. The plan also, in the organizational measures section, mentions improving planning capability through a health planning unit (a USAID funded project) establishing an autonomous Medical Treatment Corporation to supervise hospitals, improving

support systems i.e., logistic supervision, data collection, and studies on developing a national health insurance scheme.

In summary, the main emphasis in budget terms is still directed towards curative medicine, does not address the problem of low level of understanding of good health practices of the public requiring a broad community based health education program, supported by a well designed multi media mass communication campaign plus organizational methods to obtain better utilization of local level health personnel and facilities.

B. Nutrition

Nutrition is not mentioned in the health sector of the plan.

C. Population

There are frequent mentions of population growth as it impacts on the social sector manpower planning, also the provision of family planning services as part of M.C.H. is mentioned. However, no plan of action is outlined in the plan for limiting population growth.

IV. FUTURE USAID SECTOR STRATEGY IN HEALTH, NUTRITION AND POPULATION

USAID's sector goal is the improvement of the Health, Nutritional status and overall welfare of the urban and rural poor by identifying and supporting certain important interventions in both the public and private sector aimed at providing effective, affordable, integrated family health education and services.

A. Health

USAID inputs in supporting improved health are consistent with the Jordanian MOH's Five Year Plan objectives. These objectives include; improving outreach capabilities of the primary health care network, improving of health manpower, and increasing coordination between health service providers.

It should be recognized that cultural and social constraints abound in the HNP sector. For example, it is very difficult to recruit women as nurses and midwives because of the social stigma attached to this work. Social distance between health workers and local non-government midwives make it difficult to incorporate the midwives into the health system. Another inhibiting factor is the lag in the educational level of older women and their restrictive

freedom of movement which makes it difficult to have them attend clinics or to educate them in proper health, family planning and nutritional practices benefiting them and their children. Therefore, USAID's strategy must take into account social considerations, the GOJ desires, and our capability.

1. Primary Health Care Support

Strengthening the support system of the PHC network involves increasing demand through public health education with a local community-based approach; up-grading health worker's capabilities; improving medical supervision, logistics and management. USAID is presently assisting the MOH in improving primary health care through the on-going Westinghouse Health Planning Project and the Health Education project as well as providing specific technical assistance where needed.

2. Environment

The improvement of environmental conditions with emphasis on potable water and human waste disposal are being addressed in water and wastewater projects. USAID is supporting such projects with the primary goals of increasing availability of water, providing

better wastewater facilities and protection of water as a resource. The Health Education project will assist in educating the population to maximize health benefits from these projects.

3. Oral Rehydration Treatment

The home treatment of infant diarrhea can be done effectively through the use of oral rehydration therapeutic methods. As described above, the National Oral Rehydration Center has been established, with satellite facilities in all MOH hospital facilities. This highly effective intervention now needs to be introduced to the secondary and tertiary health care levels of the MOH system, i.e., the Health Centers, MCH Centers and clinics. Eventually, oral rehydration should be available for home administration. The Health Planning and Services Development Project plans to train all MOH health providers in this important therapy, and other health care systems, i.e., the Royal Medical Service and the private sector. When the therapy is widely available, it should help to reduce infant mortality by half, especially when combined with expanded immunization.

4. Breast Feeding and Infant Weaning Practices

Due to centuries-old cultural traditions and to rapid urbanization leading to a tendency to bottle feed, information available indicates that shortened breast-feeding and improper weaning exacerbate many other health problems. A more definitive study of these important, basic health practices and where (location, social-economic status, etc.) the problems are most severe, needs to be mounted. Once identified, a well-designed health education effort can be established, possibly supplemented in severe problem areas by feeding programs.

5. Longer Intervals Between Births

Jordan's crude birth rate and rate of natural increase are among the highest in the world. Infant and maternal mortality also rank among the most severe health problems in Jordan, as a result of such unchecked or uncontrolled fertility. A fertility survey conducted in Jordan (1976), indicated that infant mortality drops by two-thirds when the interval between births is increased to 24 months or more. The Mission will continue to encourage international organizations, on a case by case basis, to work with Jordanian organizations to make available information and services in family

planning which are up-to-date, reliable, and safe. Other international organizations which have been making concerted efforts to increase awareness among leaders of the health and development problems attributable to high fertility also will be encouraged to continue their activities.

6. Health and Nutrition Education

The other major bilateral effort in which the Mission is engaged with the GOJ is in Health Education. This project is aimed at developing well-researched mass media advertising which addresses all of the above problems, to be reinforced at the community level by 25 trained community health educators who will organize lectures, workshops and seminars for parents, especially mothers, and school children with the objective of improving health behavior. For example, the first module of advertising and community efforts will be in alleviating infant diarrhea through oral rehydration therapy. In addition, they will be informed by radio, television and newspaper, as well as through community efforts, of the causes of enteric diseases, so that both preventive and curative aspects are known throughout Jordan. The Mission proposes to continue providing similar assistance.

7. Local Production of Oral Rehydration Salts

There is a possibility of helping to encourage Jordanian private sector companies in the production of inexpensive oral rehydration salts in 1-liter packages or single-dose soluble tablets. While the population of Jordan is not sufficient to support the financial viability of such a plant, there exist significant markets in neighboring countries alone, as well as in the region. The populations of Jordan, Iraq, Lebanon, Syria and Saudi Arabia, for example, total over 35 million persons.

It is known that the factories which produce the salts for UNICEF are running at full capacity and cannot hope to keep up with the demand. As Oral Rehydration Therapy becomes more and more available in developing countries, most of which have a severe infant mortality problem due to infant diarrhea, the demand will continue to increase. The manufacture and packaging of the salts is not a sophisticated process requiring the high technology associated with pharmaceutical production, yet the demand for the salts should remain high, and the impact of such production could only help to rapidly alleviate high infant mortality rates associated with diarrhea.

8. Health Insurance

The Government of Jordan has long been interested in developing a National Health Insurance Scheme. The Ministry of Health has commissioned two studies to assess the feasibility of such an undertaking. The setting for such a program is improving, with a universal cash economy, full employment and a number of private and public institutions capable of rendering quality health care. Presently the private institutions serve only a small proportion of the population who can afford to pay for services. The poor people in rural areas either depend on the public health care system or traditional practitioners. However, it is estimated that considerable amounts of family funds are expended for substandard health care.

There currently are three health insurance schemes charging premiums covering approximately 700,000 persons. Some mixture of public and private insurance could be expanded if properly designed. In Mexico and Brazil members of agricultural credit associations accept contributions from members. In Brazil a Value Added Tax (VAT) on agricultural products sold is collected for this purpose. In Korea, a voluntary, community based health insurance system is operating. In Japan, the government provides a subsidy to

rural insurance, with the balance collected by local taxation. In Jordan, large capital expenditure would not be necessary as facilities are adequate. According to a report on the feasibility of health insurance made by a British team, the scheme could be introduced if the following provisions were included: (1) salaries of the private/public health insurance staff should not exceed that paid to employees doing similar tasks; (2) the Government should not subsidize the scheme unless it covers the entire population; (3) medical care should be oriented towards the basic health needs of the population; (4) a full range of services should be provided, including preventive and out-patient care; and (5) a cost control method should be developed and enforced.

Private insurance for all, correctly implemented, has certain advantages; (1) it can insure better utilization of existing health facilities; (2) it can encourage the training and utilization of additional health staff cutting down on the "brain drain"; (3) it increases the employment of auxiliary workers, increases the funds available for organized health services, improves the health of the labor force and reduces the burden on the Ministry of Health.

With these points in mind, USAID should consider supporting a joint-private/public health insurance scheme and stand ready to bring in technical assistance from the U.S. private health insurance sector, for example Blue Cross, the Kaiser Foundation, or a large Health Maintenance Organization, to meet with the Supreme Health Council to discuss the feasibility of such a scheme for the Kingdom.

9. Training of Key Health Personnel

USAID will continue to support the up-grading of Ministry of Health personnel in the area of public health, and health management, by funding highly specific, short-term, skill directed, out-of-country training for key MOH staff. This type of training is offered by U.S. Agencies and Institutions from time to time, and with these resources it is also possible to arrange special training and observation where needed.

10. Training of Pharmacists

Given the importance of the private sector in Jordan in the delivery of health services, the Mission may consider a project which would assist pharmacists, which here act often as surrogate

doctors, in proper sales of contraceptives and possible oral rehydration medicines. At present, approximately 85 percent of all women who contracept get their supplies through the private sector, both physicians and pharmacists, who sell tens of thousands of cycles of oral contraceptives monthly as well as less effective products. A small project which would subsidize the cost of supplies, as well as point of purchase advertising materials, may help to increase the availability of these effective methods. Pharmacists could be trained in screening potential users of orals for contraindications, as well as in reproductive biology and other effective means of contraception. Such a course must be geared to the entrepreneurial viewpoint of the pharmacists, and also should include a section on the treatment of severe infant diarrhea. Should oral rehydration salts or tablets be produced in Jordan, this project becomes more important. In addition to pharmacists, private doctors could be trained and provided low-cost contraceptives, as well as other basic health care medicines such as antihelmintics. A small qualitative study should precede such a project, in order to learn marketing practices and prices, and to better determine consumer behavior.

B. Nutrition

Nutrition activities should be centered in the Ministry of

Social Development with active participation of the MOH whenever and wherever possible. Private organizations, local PVO's, women's organizations and cooperatives need to be canvassed for interest in participation in MCH/N/FP/projects at the national and local levels. A national nutrition status survey should be done in mid-1982 to locate pockets of malnutrition in the Kingdom. USAID will approach the Community Health Faculty in the University of Jordan which has an internationally famous nutritionist on its staff and experience in conducting well designed and implemented nutrition surveys in the past. The UOJ uses medical and nursing students as field interviewers so that the survey can be done at reasonable cost. The last national nutritional study was done in 1976.

Based on results of the nutrition study, localized efforts to upgrade nutritional status can be supported either through local groups or international PVO's who are experienced in supporting these kinds of efforts. CARE and Catholic Relief Services both are active in Jordan and have experience in nutrition programs. Up to the present there is little evidence that supplemental feeding can, by itself, solve these problems. Families should be encouraged, through nutrition education, to utilize home grown, reasonably priced legumes such as lentils, chick peas, and other protein rich foods available in the local market. USAID agriculture projects should be

scrutinized to see if, in effect, nutritional status is improved in and around the area involved in the project.

C. Population/Family Planning Support

The MOH's potential for expanding family planning services is limited because of limited coverage of the population, lack of positive commitment and disinclination of staff at all levels to actively promote family planning. Conversion to active support will be a lengthy process, but not an impossible task. USAID/J should continue supporting, through intermediaries, physician's and GOJ leaders' attendance at international conferences on family planning subjects, and, by informal contacts with UNFPA project staff, request that they encourage more information and training in family planning methods for MOH staff.

The Ministry of Social Development (MOSD) voices active support for family planning from the Minister down through the various bureaucratic levels. The MOSD is also the Ministry in the Government which supervises PVOs' operations in the Kingdom, including the JFPPA. There is also a potential of a combined nutrition/family planning approach through CARE which would reach the target population.

The other important branch of the Jordanian Government is the Military, which has its own, separate Royal Medical Service (RMS). Sterilizations are being done in the central military hospital (King Hussein Medical Center) - and family planning services are available at other RMS facilities. The Johns Hopkins Program in International Education in Gynecology and Obstetrics (JHPIEGO) has provided training and equipment to the RMS.

There are several targets of opportunity which need to be investigated in the private sector. The Pathfinder Fund is to institute a project which would provide training, through women's group(s) and would provide an income-producing skill for the group's membership as well as information and services in family planning and MCH.

Other potential entities for family planning projects in the private sector are the various women's groups which can be easily reached through an active "women in development" approach by the Mission. Private physicians who are already providing the bulk of family planning services can be provided with contraceptives to sell at controlled prices and be trained in IUD insertion. There are many projects throughout the world using this approach. A retail sales--selling contraceptives through pharmacies -- if properly designed,

could operate with emphasis on training, using word-of-mouth communication as a means to meet demand. Such a project would offer contraceptives and/or basic health care medicaments such as oral rehydration salts at subsidized prices through pharmacies and/or private physicians. Training would first be given to pharmacy staffs and physicians. Point-of-purchase advertising may be developed.

The Mission will not continue to support additional sample surveys such as the birth and death data collection by the POPLABS. The World Fertility Survey will be collaborating with the DOS in early 1982 to conduct another national sample fertility survey, as a complement to the World Fertility Survey in Jordan done in 1976. One problem which must be addressed is that of the presence of large quantities of data that have gone relatively unanalyzed and comparatively rationalized. For example, the World Fertility Survey of 1976 shows a national prevalence of contraceptive use of modern methods of some 27%, but a Crude Birth Rate of 44-45 does not compute with the prevalence figure. The Mission should engage, through an intermediary, an expert in statistics/demography to review, compare and analyze extant data.

Other than the other international private and voluntary organizations mentioned above and below, the Mission may in the

future call on others such as the project entitled "International Training in Health" (INTRAH), which is administered by the University of North Carolina, and which provides for centrally-funded in-country and international training in all aspects of health problems including family planning.

The Mission hopes to initiate a project in information, education and communication through the Jordan Family Planning and Protection Association (JFPPA) and/or the Ministry of Social Development (MOSD) to better inform the Jordanian public of the advantages, types and availabilities of child spacing services. Better printed materials, posters and audio-visual materials used to be developed and tested, as well as Jordan-specific audio-visual materials.

CURRENT USAID HEALTH, NUTRITION AND POPULATION ACTIVITIES SUPPORT

A. HEALTH AND NUTRITION

Realizing that the MOH does not have the resources to attack all the health problems of the country concurrently, USAID and the GOJ have selected those elements of health services which could be energized without disrupting the total health system. This involved the strengthening of the Primary Health Care activities at the first line of defense - the community health worker, by providing training and strengthening support systems at central, regional and local levels; supporting the PHC approach with a broad-based health education project, and finally, to improve GOJ capabilities in prevention, surveillance and control of communicable diseases such as schistosomiasis and enteric diseases.

USAID's involvement in nutrition activities is limited to a Title II project administered by CARE and the Ministry of Social Development operating in low income rural areas with a coverage of 36,000 persons. An impact evaluation done in 1980 to determine if the project improved the nutritional status of the target population failed to indicate a significant improvement in the nutritional status of the target population.

The two major bilateral health projects are Health Planning and Services Development Project (Grant No. 278-0208) and the Health Education Project (Grant No. 278-0245), which are in the early implementation phases. They are scheduled to conclude by 1983 and 1985, respectively. The first, Health Planning and Services Development, is aimed at establishing a Primary Health Care System throughout Jordan through retraining of Ministry of Health personnel and through health planning in support of primary health care ideals such as logistics, preventive measures, immunizations and health education. A training team already has trained 20 physician trainers who in turn have retrained over 220 auxiliary nurses. Another 20 physician trainers will finish their course next month. Health planning has not progressed as rapidly due to the loss of the Chief of Party, who was the staff member responsible for the health planning segment of the project.

The Health Education project has two major thrusts: mass media advertising aimed at the most critical health problems of Jordan, combined with a community-based reinforcement effort by 25 community health educators of the Ministry of Health. The project has experienced problems in finding and hiring qualified personnel, especially the professional staff of the Health Education Unit in

the Ministry. Most staff, however, are now aboard, and the initial workshop for the professional staff was held in January.

All reported cases (except possibly one) of schistosomiasis in Jordan have been imported. However, the vector snail is present and could become established in the irrigation canals that AID helped build in the Jordan Valley, as well as in ponds. The presence of agricultural laborers from Egypt and elsewhere who are infected with schistosomiasis means that there is currently the potential for establishing the schistosomiasis transmission cycle in Jordan

The MOH has developed a program to screen and treat for schistosomiasis all foreign laborers working in the Jordan Valley. AID is supporting work at the UOJ and the MOH in snail surveillance and control, and assisted the MOH in training workers in screening and treatment of infected workers, most of whom are Egyptian. Assistance is focused on development of a field workers manual on snail identification, studies of snail ecology, and upgrading of laboratory analysis capabilities. The MOH is carrying out mollusciciding when foci of snails are found. AID's current assistance should be sufficient to develop capacities to a point where the UOJ/MOH can handle the problem.

The Mission also was instrumental in the establishment of a National Oral Rehydration Training Center at the central Ministry of Health hospital in Amman, which in turn has trained doctor and nurse teams from the other ten MOH hospitals in Jordan. Early data from the initial caseload of the National Center also indicated that most patients admitted (over two-thirds) were suffering from varying degrees of malnutrition, which was exacerbating the diarrheal diseases being treated. As a result, the Center now has both in-patient and out-patient facilities, as well as a ward for nutrition rehabilitation.

AID health involvement in the agricultural sector involves the misuse of pesticides, especially in the Jordan Valley. The Mission has provided experts from the Center for Disease Control (CDC) and the Environmental Protection Agency (EPA) to help assess the extent of the problem and to suggest solutions. Their recommendations have been incorporated into the new Agriculture project and in the design of the new MOH public health laboratory.

At the request of the Minister of Health, the Mission has been providing, on a regular basis, experts in health management to assist the Minister in updating and improving accounting, supervisory and health information-gathering practices.

Water is the least available and most prized element in the Jordanian culture. It is the most important link between environment and disease and has tremendous influence on food production and commerce. In recognizing that producing an adequate water supply is a prime factor in efforts to raise health standards of both the rural and urban population, USAID/J and the GOJ initiated a program in 1978 to increase both the quantity and quality of potable water. This program also provides sanitary disposal of human waste which reduces disease transmission by hands and fly vectors. It is a continuing program which is only restricted by water resources and funds to develop those available to the maximum, and it includes assistance in dam construction, water transmission and waste disposal systems.

It also was recognized that public education on proper water usage, storage and wastage is a necessary component of a total water program which led in part to the development of the Health Education project mentioned above.

USAID/Jordan also has provided financial assistance to the University of Jordan's Department of Community Medicine to conduct several studies pertaining to the health field. Among them are a Baseline Survey on the Health Status of Jordanian Population, to be

published this fall, a study on breastfeeding and weaning and a study of consanguinal marriage. The breastfeeding study was recently published. The results of all these studies will be used in both the bilateral projects as well as other efforts directed at more specific health problems.

B. POPULATION

There is no bilateral activity in family planning. There are, however, several efforts which are having a positive impact and which will provide long-term benefits. The Pathfinder Fund has supported a training project with the Department of Community Medicine of the Faculty of Medicine at the University of Jordan which has been training nursing and medical students in family planning. This activity has been expanded over the last several years to include the Princess Muna Nursing School at King Hussein Medical Center and the Princess Basma College for Secondary School Teachers. In addition, the project is to do a pilot test of post-partum counselling at the UOJ Hospital, with both information and services.

The IPPF has supported the JFPPA since 1958, originally starting with its headquarters in Jerusalem. The JFPPA always has been a

federation of urban family planning associations (FPA's) and since the 1967 war, the East Bank headquarters has been in Amman, with local FPA's in Irbid, Zarqa and Salt. In 1979, the JFPPA (East Bank only) had some 13,000 total acceptors. Family Planning International Assistance (FPIA), a New York-based private group working worldwide in family planning, provided a one-year, \$ 70,000 grant to the JFPPA in early 1981 to upgrade and expand the services of the Zarqa clinic of the JFPPA. This clinic has a female physician and since its working hours and facilities have expanded, it has increased the number of new acceptors. FPIA has offered to assist with other clinics, but the leadership of the JFPPA coordinating committee is resisting a needs assessment of the other clinics, a Mission and FPIA pre-requisite to further assistance to the JFPPA. It should be noted that the needs assessment is aimed at determining what clinics need to be upgraded and/or expanded, their equipment, commodities and staffing needs, determined by population served. IPPF's Regional Office conducted a management audit in 1979 which calls for numerous corrective measures.

FPIA has also assisted the four clinics of the General Union of Land Transport Workers and Mechanics, but these are full-service clinics and family planning does not seem to receive the attention it deserves. The Project has met less than 40% of its objectives.

The Johns Hopkins Program in International Education in Gynaecology and Obstetrics (JHPIEG) has been active in Jordan for the past several years. Seventeen doctors and two nurses have been trained at the JHPIEGO courses in Baltimore and four laparoscopes have been provided to various medical facilities in Jordan. Over 1,000 sterilizations (female) have been performed at the King Hussein Medical Center over the past three years, with no complications. JHPIEGO is considering in-country training in fertility and sterility, given the requested number of trainees from Jordan.

The United Nations Fund for Family Planning Activities (UNFPA) has been active in Jordan for about the last five years, but most of their activities have been in providing hardware and consultants in demography and statistics. The UNFPA has provided some contraceptives and minimal training for MCH centers, but offtake of contraceptives and information for MCH center visitors has been negligible.

USAID/J has provided numerous consultants from the U.S. Bureau of the Census to the GOJ Department of Statistics in order to help them develop, conduct, and tabulate the National Census of 1979. Final results are expected to be published in late 1982. Additional

demographic and data-gathering studies have been supported by USAID/J, including: (1) A Survey of the Health Status of the Jordanian People, now being tabulated, (2) A centrally funded Birth and Death Data Collection project by Population Laboratory (POPLABS) started in November, 1981, and (3) A study of the socio-economic status of the residents of three poor areas of Amman, in support of a World Bank Urban Sites and Services Housing Project, to be published in November.

In the policy area, the Futures Group has prepared an updated version of the RAPID model of the effect of rapid population growth on development in Jordan, which has been shown to the highest leaders in government. The National Planning Council will receive their Apple computer, disc drive, printer and monitor so that it will have the capability to do economic modelling, taking population growth into consideration in all planning sectors.

Another centrally-funded organization, the Battelle Memorial Institute, is sponsoring research through the Queen Alia Social Welfare Fund by six teams which focuses on both women in development and the economic consequences of rapid population growth. The research is to be published following a seminar to be held this

Spring under the patronage of H.R.H. Crown Prince Hassan. Research Triangle Institute (RTI) is sponsoring training of technical project personnel for the Department of Statistics (DOS) so that the DOS will have competent staff to devise and carry out numerous sample surveys such as fertility, agricultural and economic.

CURRENT AND FUTURE INVOLVEMENT OF INTERMEDIARY ORGANIZATIONS IN
HEALTH, NUTRITION AND POPULATION

A. HEALTH

1. American Public Health Association (APHA): Under a centrally-funded contract, this organization provides expert consultants in both health and population matters, selected from a list of hundreds of internationally-recognized technicians. Among those used in Jordan to date are Dr. David Nalin and Ms. Kit Sullesta, who have made three trips to Amman in order to set up the National Oral Rehydration Training Center, as well as the recommendation and protocol for an adjunct nutrition rehabilitation center. APHA also has provided funding for Dr. Michael Bernhart and Ms. Olga Quintana, in order for them to continue their work in management improvement which the MOH began under the auspices of the AUPHA (see below). As other specific requests are received from the MOH, APHA is an excellent source of talent for technical assistance in the future.

2. International Training in Health (INTRAH): This AID/Washington contract also provides funding for both population and health activities but is directed specifically at training. The

project provides for both formal and informal training and includes in-country, regional and U.S.-based educational opportunities.

INTRAH, managed by the University of North Carolina, is the logical institution for conducting training of sheiks, mukhtars and other local leaders in both primary health care and population. On a regional basis the American University of Beirut is also an excellent resource for health education and primary health care training.

3. American University of Beirut (AUB): This internationally respected institution has numerous resources which are useful to assisting Jordan. Not only can AUB provide very valuable training for Jordanians in virtually any health field, AUB can also provide experts in health education to assist the MOH on the health education project.

4. International Eye Foundation (IEF): The IEF has discussed with USAID/J a proposal for a national sample survey of the ocular status of the Jordanian population. It has been vetted by the Minister of Health and the GOJ has requested that USAID/J fund it from the Technical Services and Feasibility Studies project.

In addition to obtaining a clear statistical picture of ocular problems in Jordan, the IEF team of ophthalmologists and technicians would treat those citizens at sampling locations who are not part of the sample design but who have serious ocular impairments or illnesses. The project should do much to improve the image of the MOH, since its professional staff will be part of the project, and the project would be under its supervision.

5. The Population Council: The Regional representative of the Council requested and received from USAID/J funds to augment those provided by the World Bank to conduct and tabulate a study of the three poor areas of Amman which are part of a Bank effort to upgrade the living conditions of the citizens living there. The study, which registered all persons living in those areas, is to determine the social, economic and health status of the residents of the three areas. The study is to be published in the Spring of 1982, and no further assistance is planned.

6. Center for Disease Control (CDC): This division of the National Institutes of Health, a part of the U.S. Department of Health and Human Services, has provided USAID/J and the Ministry of Health with a variety of highly specialized experts in pesticide monitoring and management, and in laboratory design and management.

CDC is well known for its experts in logistics management, demography, statistics and epidemiology. USAID/J plans to make further use of CDC, especially in the area of demographic analysis.

7. The University of Jordan (UOJ): The Mission frequently collaborates with the Faculty of Medicine's Department of Community Medicine, especially in the area of sample surveys in the health and population field. The Department has completed a study of breastfeeding in Jordan, is analyzing the data from another study on consanguinal marriage in Jordan, and is preparing to tabulate another on the baseline survey of the health status of the population of Jordan. Two of the studies were financed by USAID/J. While the Mission feels that there is an urgent need to analyze and rationalize all the data currently available on health and population, future studies such as these would be conducted by this Department, particularly in the area of nutrition.

The Faculty of Science, Department of Biology, working with the Ministry of Health, is the recipient of another USAID/J grant for the identification of and the eradication of the vector snail for schistosomiasis (bilharzia). The UOJ has subgranted to the University of Lowell in the U.S. funds for technical assistance in snail ecology, susceptibility studies, snail cultures and other

esoteric areas of schistosomiasis control. The Ministries of Health and Interior are cooperating in screening and treating infected Egyptians and in eradicating vector snail colonies. To date, there has only been one confirmed case of schistosomiasis in Jordan, and this was in 1948.

B. POPULATION

Given the unlikelihood of a bilateral agreement that would provide direct USAID assistance to the Government of Jordan, the Mission will continue to initiate and pursue coordination of population/family planning intermediary organizations' involvement in Jordan. In service delivery and training, four organizations stand out due to previous activities and known capabilities:

1. Family Planning International Assistance (FPIA): As stated earlier, FPIA is assisting JFPPA to expand and upgrade their clinic in Zarqa, through opening 6 days per week rather than three and adding a social worker to conducting outreach activities and to counsel married women. FPIA is willing to assist with other clinics, but the JFPPA has resisted a survey of their clinics and their needs. FPIA has supported family planning activities in the

four general purpose clinics of the General Union for Land Transport Workers and Mechanics, but assistance was discontinued due to neglect of family planning activities. The Union still offers family planning services and counselling.

2. International Planned Parenthood Federation (IPPF): This confederation of national family planning associations, which has 16 donor governments and organizations, provides financial assistance to the JFPPA in support of their central staff and their clinics. IPPF recently did a management audit of JFPPA which pointed out many deficiencies which the JFPPA is correcting. IPPF's financial resources have been depleted through inflation and ever-increasing salaries, so that funds available for member associations has not kept pace with the need for IEC and clinic services. For this reason, organizations such as FPIA are being requested to augment their budget.

3. The Pathfinder Fund: This Boston-based philanthropic organization has been active longer than any other PVO or intermediary in Jordan, and carries out activities implied by its name, i.e., small, pilot projects that demonstrate the need and demand for expanded availability of family planning information and services. The Pathfinder Fund has supported a project with the

Department of Community Medicine, Faculty of Medicine, University of Jordan, for the past three years, under which medical and nursing students have received family planning training within their formal curricula. Training also has been extended to other nursing schools in Jordan as well as to the JFPPA and a secondary school teacher training college. It is expected that this activity will continue for the next several years, or until the training is formally incorporated into the curricula where the project is operating. The Pathfinder Fund also proposed an integrated project with the Soldiers' Families Welfare Society (SFWS), in which women will be trained in income generation activities and offered information and services in MCH and family planning. If other such activities are identified over the next five years, the Pathfinder Fund may be called upon to provide further assistance and/or guidance.

4. The Johns Hopkins Program in International Education in Gynecology and Obstetrics (JHPIEGO): This University-based organization has been providing training for OB/GYN surgeons in Jordan in fertility and infertility management, including laparoscopic sterilization. There are four laparoscopes in Jordan which currently are being used to sterilize grand multiparous women (more than 5 children). JHPIEGO, given the number of doctors

requesting training annually, may set up a local training program to expand training opportunities for both doctors and nurses, and to reduce costs.

5. U.S. Bureau of the Census (BUCEN): Bucen, through its grant from AID/W, has provided the Department of Statistics with numerous consultants who have been instrumental in the design, implementation, tabulation and analysis of the 1979 National Census of Jordan. Additionally, Bucen has provided invaluable training for DOS personnel in both censal and sampling techniques, as well as in data entry, tabulation and analysis. At present, the advance tabulation of the results of the census has been published, with the final tabulation and analysis due to be published in late 1982. Future involvement with Bucen most likely will be limited to training of DOS personnel at their International Statistical Program Center (ISPC).

6. Battelle Memorial Institute: Battelle is collaborating with the Queen Alia Social Welfare Fund in sponsoring six research papers, using existing data, which focus on women and population issues. The papers are to be printed in booklet form and published at a conference (to be patronized by H.R.H. Crown Prince Hassan) in

the Spring of 1982. No further projects are contemplated by Battelle.

7. Research Triangle Institute (RTI): RTI is providing assistance to the Department of Statistics in training its personnel in sample survey methodology, so that the DOS will have project managers for the numerous surveys it conducts each year. The training program will use Jordanian data, already published, so that the trainees can conduct research which should benefit the DOS's data banks.

8. Population Laboratories (POPLABS): The DOS and POPLABS conducted a national sample survey in November of 1981 under a contract between the two organizations entitled "Birth and Death Data Collection". Results should be available in Spring of 1982 and should contribute to current sketchy information on infant and maternal mortality.

9. The Futures Group: While the RAPID Presentation prepared by this centrally-funded grantee has been updated and shown to the highest governmental officials, no future involvement is expected from it. USAID/J will continue to show the presentation to

government and opinion leaders and will endeavor to ensure that the National Planning Council uses Futures Group techniques in manpower and population projections.

10. The Center for Disease Control (CDC): As noted above, the CDC may be called upon to rationalize and analyze the wealth of demographic and other data which exists here. This may require the services of a statistician/demographer for up to four months.

C. OTHER DONORS IN HEALTH, NUTRITION, AND FAMILY PLANNING

The only other international donor active in family planning and demography is the United Nations Fund for Population Activities (UNFPA) which has a resident regional representative. As described above, the UNFPA has targetted policy and demography as its main areas of assistance. The Mission has set up regular meetings with UNFPA staff. Other donors in health and nutrition are:

- CARE - Village Development, administers Food For Peace
- CRS - WID projects in future nutrition education
- WFP - Supplies MCH centers of MOH with supplemental food
- UNICEF - Child care center support; supplies midwifery kits.
- UNRWA - Operates health clinic and food distribution in refugee camps.
- IBRD - Construction of Paramedical Institute in Irbid, 1982; Urban Sites and Services Housing Project, commencing 1981.
- WHO - Training of health personnel and provision of technical assistance and commodities, i.e., oral rehydration salts.

D. SUMMARY

Over the next five years the Mission is planning to manage family planning and health inputs in parallel paths: Family planning in the