THE DETERMINANTS OF HEALTH STATUS IN JORDAN: 1960 - 1988

by

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ABSTRACT

This thesis aims to contribute to the debate surrounding the underlying medical, social, economic and political determinants of health status improvement. The Hashemite Kingdom of Jordan was chosen as the case study because of its exceptional performance as evidenced from various international comparative data studies. An added dimension which contributes to the benefit of studying a country like Jordan, is its status as an Arab society and a middle-income country. The processes affecting health in countries that fall in these categories have not been sufficiently assessed. The primary measure of health status used is the infant mortality rate, which had fallen to 35/1000 by 1987.

A review of the theoretical literature and of previous case studies on the inter-sectoral determinants of health is presented. Economic performance, national and international politics, urbanization, housing, water and sanitation, nutrition, education, fertility and the availability of health services are examined to ascertain their relative impact on the overall health status of the Jordanian population. Particular emphasis is accorded to the way in which these factors affect Jordanian women and their roles in society and the economy. Separate sections of the study are allocated to each of the above-mentioned variables.

In a separate section of the thesis, the same variables are examined for the Palestinian refugee population. The refugees comprise a significant proportion of the population and their needs are met almost entirely by UNRWA.

The multi-sectoral elements which have led to the success of the Jordanian experience in health development are examined closely in the concluding chapter. These include regional and international favourable conditions, strong government commitment and a high level of awareness among the population. Policy recommendations for future health sector planning in Jordan and other Arab and middle income countries are outlined.

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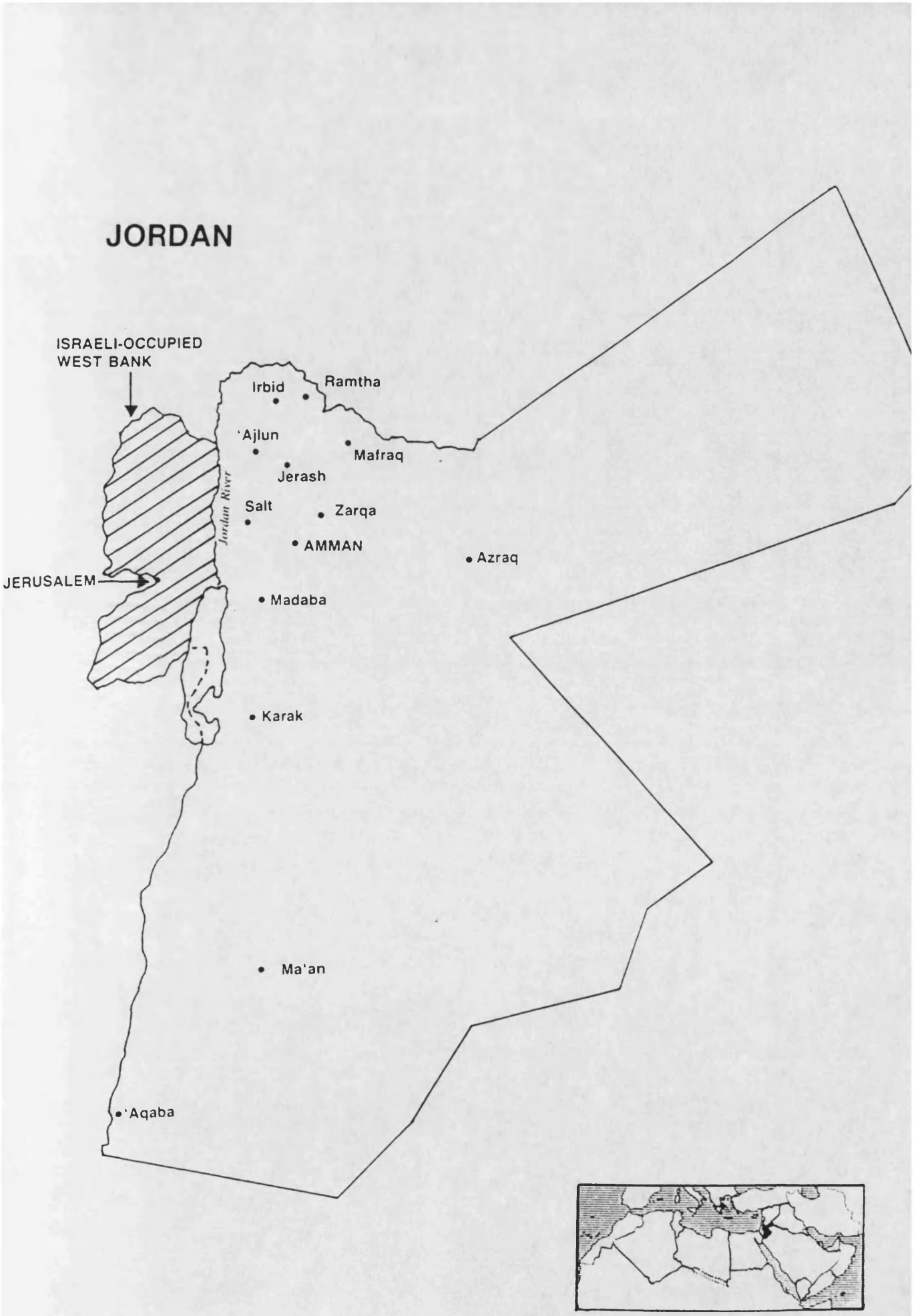
LIST OF ACRONYMS AND ABBREVIATIONS

BR:	Birth Rate
DR:	Death Rate
EPI:	Expanded Programme of Immunization
GDP:	Gross Domestic Product
GNP:	Gross National Product
IMR:	Infant Mortality Rate
JD:	Jordanian Dinar
JFPPA:	Jordanian Family Planning and Protection Association
JU:	Jordan University
JUH:	Jordan University Hospital
JUST:	Jordan University of Science and Technology
KHMC:	King Hussein Medical Centre
LE:	Life Expectancy at Birth
MCH:	Maternal and Child Health
MENA:	Middle East and North Africa
NMI:	National Medical Institute
PHC:	Primary Health Care
RMS:	Royal Medical Services
SHP:	School Health Programme
UN:	United Nations
UNDP:	United Nations Development Programme
UNFPA:	United Nations Family Planning Association
UNICEF:	United Nations Children's Fund
UNRWA:	United Nations Relief and Works Organization for Palestine Refugees
USAID:	United States Agency for International Development
WFP:	World Food Programme
WFS:	World Fertility Survey
WHO:	World Health Organization


JORDAN
ISRAELI-OCCUPIED
WEST BANK
Irbid
Ramtha
'Ajlun
Mafraq
Jerash
Jordan River
Salt
Zarqa
AMMAN
Azraq
JERUSALEM
Madaba
Karak
Ma'an
'Aqaba

CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

Determinants of Health Status

Health Determinants

In 1978, the World Health Organization (WHO) and UNICEF organized an international meeting in Alma-Ata in the former Soviet Union. The conference was attended by representatives of 134 governments and 67 international organizations. It was at this meeting that Primary Health Care (PHC) was launched as the corner-stone for the promotion of world health, and for "Health For All by the Year 2000", a concept previously advocated by the Director General of WHO, Dr Halfdan Mahler, and which was endorsed by the World Health Assembly (WHA) in 1977. It was defined as the attainment of all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

The Alma Ata conference issued the following Declaration:

> "Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and

country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central junction and main focus, and of the overall social and economic development of the community"[1].

This definition is the basis of what is known as the primary health care approach, the underlying philosophy of which is that health is not an independent state, rather it is an integral part of overall development. Therefore, factors which influence health are social, cultural, and economic as well as biological and environmental. Health is seen as fundamentally related to the availability and distribution of resources; not only health resources (doctors, nurses, medicines, clinics), but also socio-economic resources such as education, water and food supply, and sanitation facilities. The achievement of better health requires an involvement by the people themselves in adopting healthy behaviour and by insuring a healthy environment.

The Alma-Ata conference drew up a list of eight basic primary health care services essential for achieving health for all. These are:

- education about prevailing diseases and health problems and their control.
- promotion of adequate food supply and proper nutrition.
- adequate supply of safe water and basic sanitation.
- maternal and child health, including family planning.
- immunization against the major infectious diseases.
- prevention and control of locally endemic diseases.

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1. WHO-UNICEF (1978), p. 3.

- appropriate treatment of common diseases and injuries.
- provision of essential drugs.

This list symbolized the acknowledgment for the first time by the international community that for health to be achieved a number of key non-physical and non-health service elements had to be present alongside the infra-structural ones. Walt and Vaughan (1981), attribute this realization of the importance of factors and sectors other than health services and medicine, and their influence on health, to several developments which took place between the 1950s and 1970s. The first of these developments was the shift in 'development theory' away from 'modernization' the school of thought which emerged in the 1950s and 1960s in the developed countries as a guide to economic and social policy for the developing countries. Modernization theories emphasized the importance of investment in physical elements of growth such as industry and roads, and believed that social development, including developments in health would then of necessity follow. Modernization theorists assumed that the only way for developing countries to become developed was by mimicking the historical and economic development steps taken by the industrialized countries, especially in the industrial domain[2].

A change was, however, taking place in the attitudes towards poverty and the inequalities between social groups. These concepts of inequality and the resultant changes in social policy thinking took some time to reach the health

2. For example Rostow (1960).

sector but then rapidly gained attention in the 1970s[3]. This shift in attitudes in development theories had a major effect on theories for the achievement of better health and played a major role in influencing the formation of the concepts of HFA 2000 and PHC[4].

A second development was the emergence of concern that poverty was linked to excess growth in population; that resources would have to spread over too large a population. Third World countries were gradually accepting that there was a link between their development, economic growth, and population, and more and more of them agreed that their levels of fertility were too high. The late 1960s and early 1970s saw a growing concern with family planning as well as a growth in the funds available for family planning activities. There is now a relative consensus that fertility should be somewhat controlled in order for poor countries to develop, particularly in terms of health. It is agreed that, in general, high fertility can increase maternal morbidity and mortality and puts children at risk. Much effort is, therefore, being put on child spacing, which is seen as an essential part of primary health care[5].

A third development, which took place in the late 1960s-early 1970s, was the change in attitude to the health services model, and the concern that the prevailing western model was

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3. See Walt and Vaughan (1981). Also, Streeten (1977) formulated the Basic Needs Approach for the ILO. It argued that development should be measured as a function of people's access to the basic needs to sustain life, such as, adequate food, health, shelter, and water.

4. See Abel-Smith and Leiserson (1978).

5. See Walt and Vaughan (1981).

inappropriate to the conditions of the developing countries[6]. There was also much discontent with "high-tech" and hospital orientated medicine as solutions for the health problems of the poorer developing countries. It was during this period, that Djukanovic and Mach (1975), in a study for the WHO and UNICEF, (Alternative Approaches to Meeting Basic Health Needs), put forth the concept of "basic health needs", which argued for the necessity of making health care available, accessible, and acceptable to all the population. Djukanovic and Mach referred to the importance of an approach coordinating between all sectors contributing directly or indirectly to better health and well-being. They in fact stated in a rough form the principles of PHC and emphasized, in particular, the relevance of the inter-sectoral approach to health.

Djukanovic and Mach stated that: "The health services are only one factor contributing to the health of a population. Economic and social development activities often have a positive influence on a community's health status. Sanitation, housing, nutrition, education, and communications are all important factors contributing to good health by improving the quality of life. In their absence, the gains obtainable with the disease-centred machinery of health services cannot go beyond a certain point".

A fourth development which affected the health theories of the 1970s was the emergence of the concept of community participation in decision making and implementation of health projects. The Chinese experience impressed the world, and this contributed to the spread of the idea of community participation. The idea of the importance of social and

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6. This discontent is very well illustrated by King (1966).

political commitment to good health became a part of health theory. In 1975 Newell's Health By the People, in addition to Djukanovic & Mach (1975) played an important role in publicizing information about cases where such approaches were being utilized and tried.

Another very important factor which contributed to the growth of interest in social intersectoral development as an essential requirement for large-scale improvements in health was the publication in 1976 of Thomas McKeown's book The Modern Rise of Population[7]. In it, McKeown concludes that the increase in population in Europe which took place over the last three centuries was essentially due to a decrease in the mortality in those societies, rather than to an increase in the birth rates. These drastic reductions in the mortality of the population were the result of a reduction in the incidence of deaths resulting from infectious diseases, particularly those that are air-, water-, and food-borne, and not from chronic or degenerative cases. Furthermore, this decline in the death rate occurred at the same time as the agricultural and industrial revolutions were taking place. McKeown dismisses the possibility that the decline in deaths from infectious diseases was due to any changes in the nature of the micro-organisms that cause them; he concludes that any reduction in the incidence of death must have been caused by less exposure to these diseases, especially the water- and food-borne ones.

This, in turn, he attributes not to advances in medicine and treatment, which only began to make significant contributions after 1935, but to the improved hygiene of the

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7. McKeown had been forming his analysis for some time before, but in Modern Rise of Population he put it in structured detailed format.

general population, where in Britain for example, vast improvements took place in the provision of safe water supplies and sewage disposal, as well as to improvements in food hygiene and the provision of safe, clean milk, and very importantly to the improvements which then occurred in personal hygiene. Another factor which contributed significantly to the decline of deaths from infections was the improved nutrition available to the population. As has been demonstrated several times, well nourished persons are better able to fight disease (Europe experienced a large increase in food supplies after the end of the seventeenth century). McKeown also attributes some of the decline in mortality to the practice of contraception and family planning from the late nineteenth century, which, he hypothesized, played an important role in improving child and maternity health.

McKeown's theory and description of how the health of the population of Europe improved was very influential in forming and shaping the philosophy of health in the 1970s. It is central to the argument which advocates that an improvement in health is fundamentally linked to overall development, especially in its socio-economic sense. The trend became for developing countries to try to follow the same pattern in order to achieve comparable 'good' health indicators; which is again modernization theory. McKeown himself mentions the relevance of his analysis to developing countries where he says some progress is already taking place in terms of sanitation such as spraying against insects, even though these seem to be occurring before improvements in nutrition or in the general standard of living, and concludes that: "These changes in timing do not affect the conclusions concerning the major influences, all of which are needed to achieve the

levels of health already attained in some parts of the world"[8].

In this respect, however, McKeown is in effect saying that for poor or non-industrialized countries to achieve health standards comparable to those of the industrial countries, they would have to pass through the same stages; that is, modernization development theory all over again, albeit in "social" rather than "economic" terms. In other words, providing adequate food supplies and adequate sanitary facilities to the populations of the developing countries is a very demanding task indeed. Such an undertaking could not possibly be supported by the economy of any poor developing country. Family planning is also another mammoth task for governments of developing countries. Governments cannot force the population to practice family planning, especially not before the people reach a certain level of economic security where they stop believing that they need as many children as possible for their economic security. This brings us back to the argument that countries need economic development before health goals can be achieved. McKeown also does not seem to give enough explicit importance to other social development factors such as education or the knowledge of the population about health and health matters, both known to play a role in the promotion of adequate health standards.

Szreter (1988), has challenged McKeown's thesis that the factors which played the most significant roles in leading to improvements in health in England and Wales between 1850 and 1930 were only those of a rising standard of living and of improved nutrition. Szreter bases his argument on an examination of public health sources and demographic data in

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8. McKeown (1971), p. 176.

different periods, to conclude that it was sanitation-linked diseases and not air-borne diseases which were the main cause of mortality. As such, his analysis is that mortality decline was, therefore, the result of social intervention mainly in environmental reform. Szreter went on to make some broad comparisons with Costa Rica, Kerala State and China where the same kinds of developments were thought to be responsible for health improvement, through the action of political commitment.

Nevertheless, and in a more general sense, McKeown's analysis and the debate which arose from it, were very important in directing attention to the need for the presence of certain factors, such as safe water, hygiene, diet, and family planning for the improvement of health. All of which are factors which imply a certain level of awareness and education in the population. It was in that respect that McKeown's analysis contributed substantially to the development in general health theory.

His theory was, however, more popular for its use in explaining the health problems of industrialized countries and as a model which offers the solution to the problems of those countries. The best example of this was the paper published by Marc Lalonde (1974), then the Minister of National Health and Welfare of Canada, calling for more social changes ,in life style and consumption habits, as the way to improve health conditions in his country. The Lalonde report argued that the health field needed to be divided into its basic components in order for it to be accessible to analysis and evaluation. This was termed the "Health Field Concept", and four basic elements were identified through an examination of the causes of ill-health and disease in the Canadian population, whereby, Lalonde argued, all health problems can be attributed to one or more of these elements. These are:

Human Biology: which refers to all aspects of health directly related to the human body and its functioning, including illnesses resulting from the genetic make-up and the ageing process.

Environment: which encompasses all aspects of health outside the human body, and over which the individual has little or no actual control. This would include illnesses resulting from contamination and pollution.

Lifestyle: which is the aggregation of decisions by individuals which affects their health, and over which they have control. This includes ill health caused by reckless driving, smoking, alcohol abuse, and over-eating.

Health Care Organization: which consists of the amount, quality, organization, nature, and relationship of people and resources in the provision of health care. This includes aspects of health which are influenced by the availability and accessibility of the health delivery system.

The report emphasized that previously all efforts to improve health status have concentrated on the Health Care Organization element, while actually the three other factors are where the causes of ill health lie. It then states that not as much could be done in terms of Human Biology, [especially immediately as that requires more input into basic research as well as into care for the chronically ill] and that the Environment and Lifestyle factors are what needs to be tackled.

Canada serves as an example of any industrialized country which has achieved a high life expectancy for the population, and the Lalonde report argues that further improvements in life expectancy cannot be provided by medical

achievements after this point. He argues that, as in the eighteenth and nineteenth centuries, it is the social factors which can contribute the most to improving health , when it is stated that "...there is little doubt that future improvements in the level of health of Canadians lie mainly in improving the environment, moderating self-imposed risks and adding to our knowledge of human biology"[9].

The remarks and recommendations of Lalonde, like those of McKeown, although directed at the more developed or industrialized countries, nevertheless have significant relevance to many of the world's developing countries too. This is particularly, but not exclusively, true of developing countries that are not extremely poor, that are undergoing rapid urbanization and growth, and where there is a substantial privileged urban population which resembles in its habits and life-style its industrialized counterpart much more than the rest of its rural population. In a growing number of such developing countries, patterns of mortality and morbidity are becoming a mixture of "diseases of poverty" and "diseases of affluence". This is a real and threatening problem and emerging health promotion strategies and policies should be careful not to overlook it. The divisions that the Lalonde report makes in describing the causes of ill health are, nonetheless, in their conceptual form just as applicable to the poor developing countries, where, for example, poor sanitary and personal hygiene conditions would fall under the environment and life-style elements respectively.

These various developments in health development theories as well as general development theories, were the basis for the formulation of the WHO's principle goal: HFA

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9. Lalonde (1974), p. 18.

2000, and the key to achieving it, PHC. These concepts in turn, are the basis for the theories advocating the importance of intersectoral linkages and coordination in promoting better health in the fullest sense of overall human well-being, which have taken shape over the last few years since the late 1970s.

With the general changes and developments in theories of development for the Third World over the last decade, the notion that health development was inseparable from overall socio-cultural development has become increasingly accepted, with most "development" agencies, including the WHO, adopting it as their policy. Human well-being became the main goal of development; and it was towards this goal that the various processes of change, economic, technological, social, and political, had to be directed[10]. It was realized that for the achievement of HFA 2000, much more than an efficient and well-distributed national health delivery system, was required. Generally, "it will require, among other things, the simultaneous pursuit of technoeconomic goals, to increase productive capacity and economic well-being; social goals, to ensure that the results of technoeconomic achievements are distributed equitably over the entire population; and political goals, to enable the community to participate in the process of decision-making from the national to the local level"[11].

The theories and analysis, however, needed to be tested and proved somehow before total commitment was given. As it would not be feasible to implement country-wide, cross-country "experiments" to test the hypotheses, the only method of

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10. Gunatilleke (1984), p. 6.

11. Ibid, p. 6-7.

checking the relevance of the conclusions of health theorists was to conduct historical-type studies in those countries of the world that have already achieved relatively high health indicators, in spite of a poor economy and low levels of health and medical technology. The development over time of the various sectors that have been determined as directly or indirectly linked to good health[12] would have to be studied as they correlate with the historical improvements in the health indicators of the particular country. In addition to the study of the various specific factors and sectors affecting the different individual countries, a very important aim of these studies was to determine if there actually were any sectors or events that were common to all the studied areas. The objective was not simply to observe and record interesting phenomena, but to assess if the results of policies being applied in some parts of the world could be adapted and generalized to the developing world in order to achieve true Health for All by the Year 2000.

WHA meeting on "Intersectoral linkages and health"

In 1979, by endorsing the Alma-Ata Declaration, the World Health Assembly emphasized the need for the coordination between a wide range of sectors and domains in order to achieve the desired, equitable social goals demanded by the declaration. The WHA thereby gave health firm recognition as a social goal which needs to be integrated into a strategy of social development. It was as part of the response to these ideas, that a project on intersectoral action for health was initiated in 1981. The project was aimed at increasing the understanding of the interrelationship of developments outside

12. Such as education, water and sanitation, housing, and nutrition.

the health sector and major changes in the health status of the population[13].

Case Studies: Several "categories" of countries were chosen with variations in their income status (low-, middle-, and high-income), and cultural backgrounds. In 1984 the results of the first phase of the project- the observation stage- were published by the WHO in "Intersectoral linkages and health development". In it were discussed the conclusions of the studies of five countries: India, Sri Lanka (low-income), Jamaica, Thailand (middle-income), and Norway (high income), all of which had in 1981 achieved good health indicators. The study of India was confined to Kerala State, both because it was more manageable than studying the whole of India, and because of the Kerala's particular socioeconomic and demographic characteristics[14]. It is believed that the project was more or less able to achieve its aim of examining health conditions in populations with different levels of per capita income, and at different stages of development. Both Kerala and Sri Lanka fell in the low-income category (less than $300),and were characterized by being predominantly rural economies. Jamaica and Thailand fell in the middle-income category and were characterized by having relatively large and fast growing manufacturing sectors. Norway fell in the high-income category (one of the highest in the world) and was characterized by having the majority of its population in the urban industrial sector.

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13. Gunatilleke (1984).

14. Kerala enjoys by far the best health indicators of life expectancy and infant mortality, has the highest levels of literary and female literacy in India, as well as having a leftist government. Kerala also is known for having been historically, even when it was two princedoms, particularly concerned with the populations health and overall welfare.

The first part of the project dealt with a historical analysis of the various countries' health development patterns leading to the present day's health status. Changes in health conditions of the five country-cases over time were examined in the context of several other processes. First, these had to be assessed in terms of changes in the other relevant sectors that had contributed positively to well-being. Later, any development policies and social processes that may have affected the distribution of resources have to be considered. And then, the impact of cultural and religious values on community behaviour and decision-making in health matters had to be taken into account.

Conclusions of Meeting: From the five case studies a number of observations were made and conclusions drawn. Briefly, those are as follows: It was observed that a certain pattern of "clusters" of health conditions appeared in the five study areas, and that these clusters of disease and ill health tended to change across the case studies as one moved from the less to the more developed of them. In the low income developing countries, causes of mortality and morbidity were those commonly referred to as diseases of poverty (predominantly infections). In the industrialized countries, on the other hand, these had virtually disappeared and had been replaced with degenerative diseases and mental disorders. The areas undergoing rapid socio-economic change, as well the urban elite of the lower income countries, exhibited both patterns; with the degenerative diseases seeming to take over from the communicable. These countries also had a high incidence of what is referred to as "occupational" diseases.

By defining the different health situations of the various countries as such, it was possible to identify the various socio-economic conditions in which the different patterns exist, as well as those that promote better health.

It was then found that the linkages between the health sector and the other sectors have different effects in different health situations, depending on which type of health problems cluster fit the country's health profile. In Kerala and Sri Lanka where the diseases of poverty were prevalent, the sensitive linkages were between the health sector and the major social and economic sectors which affected in particular food, nutrition, sanitation, education, employment, and the distribution of income. Where these diseases had been eliminated or controlled, as in Norway and to some extent Jamaica, the social and economic linkages already existed. Where "occupational"-type diseases have emerged, the linkages are with the sectors of industry, technology, transportation, and environmental protection. Where the diseases are of the degenerative, and mental type, however, the linkages are mainly with socio-cultural and life-style sectors.

More generally, however, it was possible to conclude from the studies that a few basic and extremely important conditions had to be met in order to improve health status and to avoid "wasting" intersectoral efforts. The presence of a national strategy and a national consciousness aimed at the fulfilment of basic needs, of which health is a part, was found to play a very important role in the development of good health. Equally fundamental was the presence of a commitment to a strategy aimed at equitable distribution of resources to the whole population. A certain level of mass education, particularly education of females, was also found to play an important role in enhancing and promoting good health. In addition, the degree of participation of the people in the decision-making process, especially as related to health issues proved to be extremely important. Underlying all these factors, it is clear that there is a need for <u>firm political commitment</u>, not only to health development, but to overall

human well-being and the provision of basic needs as a right of all.

The meeting also found, and warned, that in developing countries, not only the diseases from infections and poor living conditions need to be controlled, but that those that originate from occupational hazards or from life-style must be taken into consideration, and effort must be made to prevent them. Such illness patterns are already emerging and becoming serious problems for health providers in Kerala, Sri Lanka, and Thailand, even though the majority of the population of these countries still suffers from infectious and communicable diseases. It was concluded that developing countries should try to avoid duplicating the pattern of health development that the industrialized countries seem to have taken in order not to fall prey to the diseases that have emerged in those societies as a result of their "development".

Rockefeller Foundation's Conference on "Good Health at Low Cost"

By 1985 there had been a slight modification in the attitude of health theorists to the whole approach; and by the time a conference was called (Bellagio, Italy; April-May, 1985) by the Rockefeller Foundation the underlying reasoning was as follows: The Alma-Ata declaration's aims, although very 'rational', and while they should be an essential component of comprehensive development strategies, were perceived as setting some very difficult targets for the poorest of the developing countries to meet. The perception was that the health improvement strategies being advocated were committed to overall development in a sense which yet again emphasizes a substantial amount of economic development and a high level of financing. The cost of providing clean piped water and hygienic waste disposal systems to the whole population, in a

relatively short time-span, however, is much more than any poor developing country can afford. Yet these countries were being asked to support all of these commitments as the best way for them to achieve a good level of health for their populations. The supporters of this model of health development, what Kenneth Warren has termed the "Northern paradigm"[15], had been, and are still, asking that countries implement the same process that led to health improvements in the Industrialized nations as the way forward. In other words, to wait for modernization along the Western model to take place before achievements in health can be hoped for.

In the meantime, however, it appeared that some countries of the developing world had evolved a different model of health; one which is their own and which is suitable and appropriate to their own needs; AND one which is not as costly to their struggling economies. (Warren termed it the "Southern" paradigm). This was clear in the results they achieved in dramatically improving their health indicators, with reductions in their Infant Mortality Rates and increases in their populations' Life Expectancy at birth.

Case Studies: The Bellagio conference focused on a few case studies of countries whose performance was exceptional- China, Kerala State(India), Sri Lanka, and Costa Rica (and originally Cuba, but the discussions of it had to be cancelled at the last minute). From the study of these countries the conference emerged with a framework that attempted to describe the "Southern paradigm" approach. Four basic elements or conditions were put forward as the possible components of the approach, and these are:

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15. Warren (1985), p. 246. For example see McKeown (1976).

1. Political and social will and commitment- this it was emphasized, could come equally either from the top (China), or from the bottom (Kerala, Sri Lanka, & Costa Rica).

2. Education for all the population, with special emphasis on primary and secondary schooling- which is especially important for Social and Political involvement- a bottom-up approach. Female education was especially emphasised as having an influence on health.

3. Assurance of adequate nutrition and caloric intake for all.

4. Equitable distribution throughout the urban and rural populations of public health measures and primary health care.

The conference did not, however, dismiss the whole of the Northern paradigm; and acknowledged the role that it can, and in fact had played. In Costa Rica, for example, due to increases in safe water and sanitation supplies (the result of economic development), the level of health has been almost brought up to that of the industrialized nations.

As this approach was something of a new departure from the theories of health development popular at the time, a detailed look will be taken at each of the four "issues" highlighted at Bellagio:

Political and Social will

All the countries studied had governments with some kind of "special" political orientation. They have either gone through stages of monarchy, colonization, and then democracy, or can be classified as "progressive" in their orientation. All of the countries studied however, had a number of characteristics or conditions in common:

- A history of commitment to a good level of health for the whole population, such as early legislation in support of this goal. This is also evident from records of government expenditures, from the establishment of hospitals, clinics, implementation of organized health campaigns (such as immunization). A history of missionary influence also contributes to commitment to health as a social goal.

- A social welfare orientation to development: an indicator of this could be seen in a degree of continuity in government expenditure for social welfare programs that incorporate health elements, such as, preventive health projects, education subsidies, food subsidies, housing and transport benefits. Land reform is another strong indicator of the government's commitment to welfare.

- A certain degree of participation of the population in decision-making and implementation of schemes: this could be felt and assessed through the existence and the extent of universal franchise. Also significant is the existence of decentralization in the decision-making process, and the degree of community involvement in it. Another reflection of this was found to be the relatively lower extent of NGO involvement in planning, as compared to other countries.

- An equity in the coverage of the population by health services: this can be assessed through the health, educational, and nutritional status of traditionally under-served groups such as women, children, ethnic minorities, and migrants. It can also be analyzed in terms of Rural-Urban differences in the coverage of these services.

- Already existing intersectoral linkages in its development policies: this can be evaluated by the presence and the utilization of mechanisms for intersectoral action, the

orientation of training programmes, and the development of financing mechanisms to support social programmes[16].

Education- especially of females

- Education appears to be very closely linked to a general improvement in the health status of a population. It was found that the fact of having been to school, even if only for primary schooling, greatly influenced health, much more than an achievement of a high level of education.

- The factor of female education was even more dramatic in its effect on health. As in most cases it is the job of the mother to look after the house and its cleanliness, the food and therefore the nutrition of the family, as well as the care of sick individuals in the family. Thus, having an educated mother led to better and more rational coping with all these situations. An educated mother was found to be more likely to pay attention to cleanliness and hygiene; to be careful of having food hygienically handled and cooked, as well as better distributed within the household; she was also more likely to consult a doctor or a health worker when someone falls ill, and to follow this person's advice and the course of any treatment given.

- More indirectly, an educated population is generally more likely to believe in their own role in affecting change. An educated population would realize that it needs certain amenities for the improvement of its health, and is, therefore, more likely to demand better water, sanitation and housing, and better health services as well as more equity in the distribution of assets and income in the community. They

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16. See Rosenfield (1985).

are more likely to organize themselves as a community and to express themselves and their demands in a clear fashion[17].

Nutrition

- Adequate nutrition plays a very important role in directly lowering morbidity and mortality, as it helps the body fight infections and diseases better. In addition, better nutrition has been linked to lower IMRs through lessening the severity of childhood diseases, increasing the birth-weight of infants, and improving the health of mothers during pregnancy as well as during breast-feeding.

- A level of good nutrition for the whole population also seems to be indirectly linked to a better economic status, and more importantly to a more equitable distribution of wealth and income. In some of the cases this good nutritional status was achieved through food supplement and distribution schemes factors which in themselves reflect a certain level of commitment from the government[18].

Health services and public health measures

The availability of these services and their coverage can be measured by evaluating the prevalence and efficiency of some facilities and practices: Safe water and sanitation facilities, oral rehydration treatment, breast feeding, family planning, immunizations and vaccines, indigenous medicines and systems of health care, as well as the allopathic health

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17. See Caldwell and Caldwell (1985); see also Feachem (1985).

18. See Martorell and Sharma (1985).

services provided - such as hospitals, clinics, and medical manpower[19].

Although the conference attempted to draw up a list of important factors essential for the development of "good" health from the studies of the populations of these four countries, it should be emphasized that no clear attempt was made to quantify the relative importance of the four main elements. For example, Kerala State managed to achieve its remarkable level of indicators despite very poor nutritional standards, as well as poor water and sanitation system. It does, however, perform very well in terms of female education as well as in the prevailing level of knowledge of personal hygiene. Sri Lanka, on the other hand, would rate quite poorly in terms of 'participation' of the population in the decision making process, while it performs well in terms of female education and overall general knowledge about health and hygiene. Sri Lanka to a certain extent, does better than Kerala, but not China or Costa Rica in terms of diet. China and Costa Rica have very different, if not diametrically opposed, political systems as well as very different income per capita figures. However, while the rate of education in China is almost at the universal stage, with minimal sex differentials, its performance in health is attributed more to its tight organization, intensive campaigns, and the allocation of a high level of resources, than to an educated population.

From the analysis of the results described in the conference report, it is clear that making definitive conclusions about which factors or sectors are important, and more importantly, the relative importance of these factors is

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19. For example see Greenough (1985).

extremely difficult. Further studies need to be undertaken in more countries and settings before any definitive conclusions can be drawn. From this conference, however, it would appear that the elements of education, particularly of women, and of the practice of personal hygiene, may play a much larger role than the other factors in the promotion of better health standards.

It is important to note here that the conference did not forget the role of the clinical medical services and their importance in the promotion of better health. Those, it was emphasized, have a substantial role in the curative branch of health which must not be ignored in any comprehensive planning of health delivery and health promotion activities.

Although near universal agreement has been reached that the philosophy of Primary Health Care was the order of the day, differences began to emerge with regard to the interpretation of the approach and which specific strategies needed to be employed. Walsh and Warren (1979) started a hot debate with the publication of their article on Selective Primary Health Care, in which they argue that although the goals of Alma Ata are "above reproach", they are not realistically achievable "because of the cost and numbers of trained personnel required". They recommended an alternative strategy based on tackling specific health problems in a campaign-fashion, such that the effort involved is concentrated in clearing problems rather than it being fragmented in an effort to achieve a process of development (Walsh, 1988; Warren, 1988; Walsh, 1982; Warren, 1982; Walsh and Warren, 1979).

These proposals sparked off a series of angry responses from the proponents of what became known as "Comprehensive Primary Health Care" (for example: Berman, 1982; Gish, 1982;

Newell, 1988; Rifkin and Walt, 1986; Wisner, 1988), who saw health very much in the same light in which it was presented at Alma Ata: as an overall condition which is the result of a number of complex factors coming together through the process of overall development of a society. Presently, SPHC seems to have lost much of its following, which is not to say that certain vertical focused programmes are not still being used as the basis of strategies for health improvement. UNICEF, for example, although committed to health as overall development, is supporting immunization, growth monitoring and oral rehydration treatment in its programmes all over the developing world. USAID is another organization which supports many vertical programmes.

Aim of Present Research

The Hashemite Kingdom of Jordan is one of the developing countries which has managed to achieve remarkable improvements in the health status of the population over a relatively short period of time. This is despite the fact that it has relatively low income levels as well as a potentially highly volatile security situation. Jordan's political history has resulted in a number of "shocks" that have had a negative effect on the process of long-range planning in the country. The aim of the present research is to study the particular case of Jordan and the achievements in the health status of its population since the early 1920s, but more particularly since the 1960s. The study hopes to determine why it is that Jordan has been able to achieve such good health standards, as evidenced by its performance in terms of the indicator of the infant mortality rate, when predictions based on its economic status and performance would not accord with these high levels. This research hopes to contribute to the ongoing debate on the social/ economic/ political/ and medical

determinants of health, through a time-series analysis of the case of Jordan, mainly between the period 1960-1988.

The study of the particular case of Jordan could prove interesting and relevant on a number of different levels:

- General health policy: Jordan has exhibited good results in terms of achieving rapid and marked improvements in health status. The case of Jordan could provide further insights of the workings of the "Southern Paradigm", and into the relative importance of the various factors believed to affect health improvement.

- Regional policy: Jordan is part of the Arab world and has many of the typical Arab cultural characteristics. Arab countries have by and large been ignored by most health researchers, whether as a result of deliberate decisions, or simply of the fact that very few researchers have in the past come from the area or understood the language and culture. As such, understanding the influences at work in Jordan could help in future studies and policy formulations for improved health in other Arab countries.

- Policies for Middle-Income Developing Countries: Jordan is also a member of that group of countries which are not economically very poor, have a high level of urbanization, a considerable educated middle-class, but are still classified as "developing". In that respect, it is similar to some Central American countries (Costa Rica), some Asian countries (Thailand), and even other Arab countries (Iraq, Lebanon). This group of countries has also been, until recently, largely ignored by aid-donors, general development and health researchers. This seems to be the result of an apparent conviction that these countries are not poor enough to warrant much interest or assistance.

Jordan has the largest proportion of refugees among its resident population. Palestinian refugees have been part of Jordanian reality since the late 1940s. In spite of the fact that in some respects they have been integrated into Jordanian society, a large number are, nonetheless, dependant on an international agency (UNRWA) for the provision of basic services. UNRWA effectively runs parallel programmes to those of the Jordanian Government. The health status of the refugees will be examined in an attempt to discover what factors have affected it. The presence of the refugees, itself, will also be examined in terms of its effect on the health of the general population.

In the analysis of the developments that have taken place in Jordan leading to the improvements in health status of the population, this study shall be arguing for the importance of factors other than mere economic progress in bringing about improvements in health. The importance of other socio-economic factors will be explored as they relate to the health improvements in the case of Jordan. This study will include the effects of **education**, particularly that of **women**, **nutrition**, **housing**, **safe water and sanitation**, the **cultural** and/or **religious beliefs and practices**, **political commitment**, as well as **economic achievements**. This will be in addition to a discussion of the **health policies and services** offered to the population, and the role the services play in bringing about the desired achievements in the health of the population.

Politics, at different levels, enjoys a high profile in Jordan, and plays a significant role in determining health. In Jordan politics is important on two main levels. Internally, there is a stated commitment on the part of the Government to improving the living standards of the population, and of investing in its citizens. Externally, due to its geopolitical

history Jordan has been the recepient of considerable amounts of foreign financial assistance; which has eased the economic pressure on the Goverment and allowed it to invest in the citizen. Health status would inevitably have been affected by these conditions.

For over forty years, Jordan has been home to a very large number of Palestinian refugees. In fact, it is estimated that Jordan has one of the largest proportions of refugees among its population. The welfare of these refugees is largely the responsibility of the United Nations Relief and Works Agency for Palestinian Refugees (UNRWA). As such their particular situation and health status will be discussed separately. The effect of having such a large number of refugees on the health status of the general population will also be assessed.

Brief Overview of The Hashemite Kingdom of Jordan

The Hashemite Kingdom of Jordan (Jordan) lies in the centre of the Middle-East. It is almost an entirely land-locked country bordered by the Syrian Arab Republic on the North, by Iraq on the North-East, by Saudi Arabia on the South and East, and by Israel on the West. Jordan has, however, as its Southern border, a very short (12 miles) stretch of the Red Sea, the most important feature of which is Jordan's only port of Aqaba. The current area of Jordan is 89,200km^2, though both the country's area and boundaries have varied considerably over the last few decades as a result of the various regional conflicts that Jordan has been involved in. The time-frame for this study includes the time when the area of the West Bank and East Jerusalem (an area of 5,879 km^2) were placed under direct Jordanian administration between the years 1950 to

1967. These were occupied by Israel following the Arab-Israeli war of June 1967, in addition to the Gaza Strip and the Syrian Golan Heights. These territories now make up what is commonly referred to as the Israeli Occupied Territories. For a number of years spanning the history and development of Jordan, however, discussions of the country include the areas both east and west of the Jordan River.

The occupied West Bank comprises about 6 per cent of the total area of the East & West Banks. The significance of this is heightened when we realize that in fact the West Bank comprised about half of Jordan's total agricultural lands pre-1967; its occupation, therefore, left Jordan, which otherwise has very unsuitable agricultural conditions, with a very small agricultural capacity: only about 11 per cent of its present area.

An important feature of Jordan's history is that the country, as a Nation and State, has not been a defined or definite entity for very long. Jordan was created and formed by the British in 1920, and was then known as TransJordan. It was created in an area which was basically a no-man's land lying between a number of far more important regional powers and entities. Unlike Palestine, Syria or Iraq whose borders were defined during the same historical period, but whose inhabitants formed a defined entity, TransJordan was, in that respect, an artificial creation. TransJordan was created as a result of European colonialist interest in the area. As such, it suffered like the rest of the region from British and French interference.

However, while the whole region was going through a phase of nationalist upheavals which affected historic developments in them, TransJordan's citizens did not in reality or in emotion constitute a nation. In other words, the

creation of Jordan involved not only the setting up of socio-economic infrastructures and government structures where none had previously existed such as was taking place all over the region; but it also involved the creation and development of a national identity and psyche where none had previously existed (Abu-Nowar, 1989). As an example, the first Government of TransJordan was appointed on 11 April, 1923 and was composed of seven members only one of whom was TransJordanian; the other six were Palestinian, Hijazi and Syrian. Rami Khouri (1983) writing on the achievements of the Jordanian Government said: "The remarkable achievement of the Jordanian leadership is that it has moulded and nurtured a Jordanian psyche where none existed, in an anonymous patch of earth appointed by the convergence of serendipity and twentieth-century Great Power politics to become the modern state of Jordan". This feature is peculiar to Jordan in the region and needs to be borne in mind in any assessment of the achievements of the country, whether it is in terms of health or other developments.

In 1920-22, the first borders of TransJordan, as the area was known, did not extend to Aqaba in the south or to Iraq in the east, nor did they include the West Bank which was the eastern part of Palestine. The extensions to Aqaba and Iraq were achieved in 1924-1925. It was not until 1965 that Jordan and Saudi Arabia renegotiated their borders, with Jordan getting a longer coastline at Aqaba and Saudi Arabia receiving desert territory to the east[20]. That is in addition to the changes which have occurred on the western border of the country due to the Arab-Israeli wars of 1948 and 1967.

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20. Between 1924-1925 many disputes and negotiations occurred between the British, Amir Abdallah, Sharif Hussein of Mecca, King Ali of Hijaz (respectively Abdallah's father and brother), and the Saudis, who conquered the Hijaz including Mecca and Jeddah in 1924-25. By the early 1930s the borders were recognized by TransJordan and by the Saudi Arabians. [Gubser (1983)].

The climate in Jordan varies from mediterranean in the west to extremely desertic in the east; but is generally considered to be arid and desertic, having very little rainfall and meagre water resources. The soil type is also variable but is on the whole of poor quality and unsuitable for agriculture. The soil also tends to be extremely saline especially in the areas of the Jordan Valley surrounding the Dead Sea (the lowest point on the earth's surface). The exception is the Ghor valley which is quite fertile when irrigation water is available.

Overall Jordan is very poor in all natural resources: water, soil, and minerals. Petroleum, although it has been intensively searched for, has not been found. However, other minerals are now being mined. The most developed extraction industry is of Potash from the Dead Sea which started in 1980 and whose output was 908,000 tons in 1985. Phosphates are also extracted for use as fertilizers and have been mined since the 1930s although a major programme of exploitation was not embarked on until the 1960s. The phosphate industry is still expanding at present and production rose from 3.9 thousand tons to 6.1 thousand tons between 1980 and 1985[21].

Demography

Estimates of the total population of Jordan (and consequently other related or derived data) vary according to whether one considers the population of the West Bank or not, as well as to whether Jordanians resident abroad are included or not. On the whole it is strategic/ political factors which determine the set of statistics used and quoted. Officially, and for the 1979 census, it was decided that only those persons resident

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21. Ministry of Planning (1985).

in the East Bank would be counted as well as those absent from the East Bank for one year or less. For the aims of the present study, only the population of the East Bank will be considered. Reference will of necessity be made to the residents of the West Bank for the period 1950-1967, when the West Bank was part of Jordan, and administratively under the jurisdiction of the Government in Amman. Some statistics refer to both Banks in an aggregate form. Such cases will be clearly marked, however.

The 1979 census put the population at 2,152,273 Jordanians. There have not been any censuses since 1979, but regular small scale surveys and population estimates and projections are made of the population size. The Directorate of Statistics estimated the total population of Jordan in 1990 to be 3,453,000 persons.

Natural increase is not the only major factor of population growth in Jordan. Until very recently Jordan has had a very large number of nationals leaving in search of employment in the Gulf states. These have now, to a large degree, been returning home as a result of the economic recession in the Gulf. Furthermore, the number of those returning from the Gulf countries has increased dramatically as a result of the 1991 Gulf War. This has had a compounded and intensified effect on all aspects of Jordanian society, the full implications of which still have not been adequately assessed. One of the obvious consequences was the return to Jordan of very large numbers of workers, creating considerable unemployment in the country.

Prior to the Gulf War, Jordan had been attempting to deal with the returning workers and had recently decided, in

1988, not to grant any work permits to foreigners[22]. Also, and on a larger scale, Jordan has in the past "suffered" from severe in- and out- movements of population which have led to drastic increases/decreases in its population size. The two most striking incidents are the population increase resulting from the 1948 war when Jordan "gained" some 800,000 West Bankers plus a large number of refugees from what had become Israel. Then in 1967, also after the war, Jordan "lost" the West Bank population but added another huge number of refugees. Another result of the unstable demographic situation of Jordan, has been an apparent delay in Government development planning: since a factor as basic as the size of the population needing services, has been so very variable and unpredictable[23].

The population of Jordan may be distinguished and classified according to several characteristics which in most cases tend to overlap. The most broad classifications are:

1. Whether the people originally come from the East Bank or the West Bank; that is, whether they are Jordanian or Palestinian. The two groups are ethnically the same and they speak almost identical dialects of Arabic. The major differences are that the Palestinians are in general better educated and tend to be more urbanized.

2. Religion is another factor used to classify the population. On the whole, the Christian population have historically tended to be better educated than their Moslem counterparts.

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22. Item in The Guardian (26/10/1987).

23. In 1964 a 7-year development plan was drawn up but had to be stopped as a result of the 1967 war and the changes it brought.

In terms of identification and group affiliation, it appears that the categories of "Palestinian" and "Jordanian" play larger roles mainly because of differences in life style (the Jordanian Christian are mostly bedouin as are the Moslem Jordanians), and, more significantly, because of differences in national goals where the ultimate aim of the Palestinian population is to regain Palestine and to return to their lands there.

3. Another factor also used sometimes is the differentiation of the population in terms of racial origins into Arab and non-Arab where the largest group of non-arab minority are the Circassians and the related Shashanis. The Cirassians came to Amman in the late nineteenth century and settled there rebuilding the city which until then was only Roman ruins. These "minority" groups are well treated by the government, and in fact, they are represented in government and in sensitive positions much more than would be the case had they been appointed only for the purposes of proportional representation. This may be because they have traditionally proven to be very loyal to the Hashemites. The Cirassians are Sunni Moslems, like the Hashemites and the majority of Jordanians, while the Shashanis are Shiite[24].

4. The other major classification of the population, which probably plays a large role in planning, is differentiating the people according to their way of life and modes of settlement. The population could be divided into bedouin, semi-settled, settled villagers, and settled urbanites. The majority of the population nowadays seems to be moving towards urban dwelling with only around 7 per cent of the population

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24. The total number of Shashanis in Jordan was estimated by Gubser (1983) to be no more than 2000 persons.

still nomad bedouin living mostly in the Eastern two-thirds of the country while, approximately 90 per cent of the population is to be found in the three governorates of Amman, Balqa, and Irbid, with the Amman urban area alone accounting for around 60 per cent of the population and containing the two largest cities of Amman and Zarqa. This is a huge shift from 1922 when approximately 50 per cent of the population was considered nomad bedouin.

In spite of these differences in the make-up of the Jordanian population and society, in this study, except where relevant, we will consider the population to have common characteristics that we can use to generalize. We will, therefore, assume that Jordan's population is predominantly Arab and moslem, it is highly urban and has a considerable proportion of refugees, many of whom live in camps. This is true especially if these two characteristics are considered as traits of the culture and society. The "original" population is also very conscious and proud of its arab-bedouin-tribal heritage. As was mentioned before, the present day (1988) population is largely urban- in the sense that the majority (70 per cent) of the people live in urban areas and centres as compared with slightly more than half in 1961.

The Jordanian population has a very young age-structure principally due to the very high rate of fertility (officially estimated at 7.8, and World Bank figures at 6.2 for 1984), coupled with the recent improvements in health care and the resulting reductions in infant mortality. Children under 15 years of age comprise approximately 51 per cent of the population. Women of child bearing age constitute around 18

per cent bringing the high risk group in terms of health to approximately 70 per cent[25].

In terms of education, Jordan has undergone substantial progress. In 1964 the Law of Education was enforced, stipulating nine years of compulsory education in all areas of the country. By 1984, the enrolment rate at the elementary level had reached 89.3 per cent, at the preparatory level 91.1 per cent, at the secondary level 68.2 per cent, and in higher education around 22 per cent[26]. Female student enrolment is now one of the highest in the Middle East (Owen, 1983)[27].

Employment has not been a problem in Jordan in the past. While Jordan moved from a state of full employment in the 1970s to a state of surplus in some specialties and occupations, the effects of this were not until recently felt very strongly due to the large numbers of Jordanian nationals exported as trained/educated manpower to the oil-rich manpower-poor Arab Gulf states. The safety valve of the Arab countries now seems to be blocked as a result of the economic recession in these countries, and more recently to regional political developments as Jordan was seen to have sided with Iraq in the "Gulf War". It is, hence, expected that Jordan will in the near future be facing unemployment and underemployment problems. In addition, the young age structure

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25. World Bank (1984).

26. Ministry of Planning (1985).

27. See also World Bank (1984), p. 8. - World Bank figures put female enrolment in 1984 at 99% for the primary level and 78% for the secondary. These compare with 98% and 47% respectively for Syria, and 72% and 46% for Egypt. [however levels of truancy and drop-out are high, but presumably are the same if not higher in other Arab states]. Illiteracy is at 67.6% for rural areas, and 37.8% for urban (Five-year Development Plan: 1986-1990).

of the population is likely to exacerbate the problem as it results in a dependency ratio of 1:5 (1985).

Economy

Until the middle of the 1980s, Jordan had been enjoying what the World Bank (1983) described as "an excellent economic performance". In spite of its limited natural and agricultural resources, its dependence on a traditional services sector, its extremely high population growth rate, and its high dependency ratio, Jordan has managed to improve its economy substantially with its GNP per capita increasing from US$380 (estimate for both East & West Banks) in the 1960s to US$1,420 (estimate for only East Bank) for the period 1978-1980, to USD$1,560 for 1985, but dropping to US$1,500 in 1987.

The average annual rate of growth between 1965-1985 was 5.8 per cent, a relatively high rate[28]. GDP stood at US$3,450 million for 1985, with an average annual growth rate of 4.1 per cent for the period 1980-1985. By 1987, GDP had reached US$ 4,300 million. After the early 1970s relative political stability in the area as a whole and inside Jordan specifically, combined with the effects of the 1973/74 oil-boom, helped Jordan improve economically at a very rapid pace. On the one hand, regional demands for Jordanian exports rose rapidly, and on the other, increasing numbers of Jordanians went to work in the Gulf states sending regular remittances back home to Jordan which constituted an appreciable proportion of the national income. In addition, Jordan started regularly benefiting from direct financial aid given to it by the oil-rich Arab states especially Saudi Arabia, Iraq, and Kuwait. This was being offered in part as

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28. World Bank (1987), and (1983).

military assistance to Jordan as a front-line state with regard to Israel, but also, and to a large degree, as development assistance. During the period 1976-1980, the World Bank estimates that the yearly inflow of remittances and grants represented on average close to two-thirds of Jordan's GDP.

Economically, Jordan has also been under the influence of regional developments in the Middle East. Apart from the Palestinian problem and the effects of the several wars that Jordan has been directly involved in, other events in the region have invariably had their influences in Jordan. Those have affected Jordan both positively as well as negatively.

The major events in the region's recent history have been the Lebanese civil war, the Iran-Iraq war, and the more recent "Gulf War". All of which led to positive changes on the Jordanian scene. The effect of the first was to transfer to Amman a large portion of the banking and tourism sectors of Lebanon, while the effect of the second was to redirect a large part of Iraq's import activities to the port of Aqaba. More recently, the Gulf War caused Jordan to lose major trading partners in Kuwait, Saudi Arabia, and Iraq, and led to the return to Jordan of thousands of workers and their families from the Gulf. All of whom have come back demanding housing, employment, and services.

On the whole, however, and with the exception of the repercussions of the Gulf War which are still not entirely clear, in 1983 it was reported that "income and domestic employment have grown rapidly, significant progress has been achieved in modernizing and diversifying industry, and a

strong balance of payments has been maintained"[29]. However, this drastic growth in the economy has had to slow down considerably since the early 1980s due to the lessened demand for Jordanian exports and Jordanian manpower by the Gulf countries because of the recession brought about by falling oil prices. The Gulf countries have also cut back on their direct aid to Jordan for more or less the same reasons. These factors have produced an unplanned recession in Jordan as well, with real growth between 1981-1985 averaging only 4.8 per cent as opposed to the 11 per cent that was planned[30].

The future, it seems, is not likely to improve very much from these levels of growth as the price of oil dropped further in 1986 and has not gone up since. The implications are that the Gulf countries will import less from Jordan, and they will not be able to afford to keep their financial aid at quite the same level as before. As a result, the development plan for 1986-1990 aimed at an annual real increase in GDP of only 5 per cent, with a heavy focus on job-creation projects in order to accommodate the large numbers of Jordanians returning from the Gulf as well as the large numbers of Jordanians who are about to enter the labour market for the first time (see footnote 4 again). The government actually aimed at the creation of 200,000 new jobs a year during the period of the plan.

At the same time, however, in 1986 the government announced its first plan for the Israeli-occupied West Bank with a planned budget of around $1.4 billion to which it is hoped the U.S. and other western countries would contribute.

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29. World Bank (1983), p. 19.

30. Lloyd's Bank (1986).

But, the financing for such a plan proved to be a major obstacle to its implementation as the Arab countries have refused to help, partly because they saw it as indirect aid to Israel, and partly because the plan did not have the approval of the Palestine Liberation Organization[31]. Since the declaration of the Palestinian state in 1988 and the ensuing disengagement with Jordan over the West Bank, Jordan has been freed of its financial obligations for the development of the West Bank.

It is important to state here that in spite of the economic recession which Jordan was undergoing in the late 1980s, and although it appears that the recession will persist for some time, Jordan was still faring relatively well. This is especially true if Jordan is compared to other developing countries and other middle-income countries. For instance, while the average GNP per capita of middle-income countries was US$1,290 in 1985, that of Jordan was US$1,560 (or approximately 21 per cent higher). In addition, the average annual growth rate 1965-85 for middle-income countries was 3.0 per cent when Jordan was experiencing an average rate of 5.8 per cent. More significantly perhaps, is the comparison of average annual inflation rates; during the period 1980-85, mid-income countries had an average rate of 57.4 per cent (including Bolivia with 569.1 per cent) while Jordan had only 3.9 per cent. Moreover, GDP for Jordan during 1980-85 grew at an average annual rate of 4.1 per cent when the average for other mid-income countries was 1.7 per cent.

However, even during the 1970s and early 1980s when Jordan was doing well economically, it was still dependant to

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31. Lloyd's Bank (1986). The proposed plan was to invest 13.4% into agriculture, 41% into housing, 5% into industry, and 17% into education.

a large extent on financial assistance from other friendly countries. For example, Official Development Assistance in 1985 constituted 14.5 per cent of Jordan's GNP, one of the highest in the world[32]. This highlights the importance of regional politics on the future, both political and economic, of Jordan.

In terms of government expenditure, Jordan spent, in 1985, around 43 per cent of its GNP, with 27.7 per cent spent on defence, 11.3 per cent on education, 14.5 per cent on housing, amenities, social security and welfare, 24.8 per cent on economic services, and 4.2 per cent on health.

Jordan's health indicators

Jordan, in spite of the relative short length of time, has in fact managed to achieve very encouraging health indicators, and an acknowledged "relatively good" health status for its population. When reviewing the developments in health status and in the health care services of Jordan, it is essential that we bear in mind the "youth" of the state (it was only founded as a recognized entity in the early 1920s), and the fact that during the last 40 years it has been involved in at least three major regional wars, as a result of which it has had to undergo drastic fluctuations in both its population size and territory.

The two most often used indicators of levels of health of the population are the Infant Mortality Rate (IMR), and the

32. World Bank (1987).

Life Expectancy at birth (LE)[33]. For Jordan in 1988, the IMR was estimated at 35 as compared to 60 in 1985, 104.3 in 1952, and 172 in 1940[34]. Life Expectancy at birth in 1988 was estimated at 67 years for males and 71 years for females as compared with an estimate of 49 and 52 respectively in 1965 (WDR)[35]. The significance of these "achievements" lies mainly in the favourable way they compare to those of other middle-income and other Arab countries. For example the World Bank estimated average IMR for mid-income countries in 1985 to be 77, while the average IMR for the Middle East and North Africa for 1987 was estimated at 78/000. Life Expectancy, in the meantime, was estimated for mid-income countries at 59.5 in 1985, and for Middle East and North African countries at 78 for 1987. Table 1.1 below highlights the health conditions prevalent in Jordan in comparison with a number of other Arab countries which enjoy stronger economies.

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33. Hardiman and Midgley (1983), p. 155. And World Bank (1980), also Faruqee (1982), p. 12. And the two are used in addition to birth weight by the WHO.

34. Department of Health (1940), Ministry of Health (1952), (1985), and (1988).

35. The above LE figures are from a Ministry of Health report. Great discrepancy is apparent when compared to World Bank figures which places male LE at 63 & female LE at 66 for 1985; and WHO which places it at 67 for 1983.

Table 1.1: GNP/capita and Health Indicators for Selected Arab Countries

	GNP/capita (US$)	Access to health services (%)	Life Expectancy at birth	Infant Mortality Rate
	1987	1985-1987	1987	1988
Jordan	**1,560**	**97**	**67**	**35***
Algeria	2,680	88	63	73
Iraq	3,020	93	65	68
Kuwait	14,610	100	73	19
Libya	5,460	...	62	80
Oman	5,810	91	57	40
S.Arabia	6,200	97	64	70
Syria	1,640	90	66	47
Tunisia	2,741	90	66	58
U.A.E.	15,830	90	71	25

Source: Compiled from UNDP (1990)

*: Official Jordanian Government estimates

In addition, these health conditions are relatively well distributed among the population and "there do not appear to be major regional disparities in health conditions"[36]. This is especially important as it relates to comparative conditions of distribution in other middle income and developing countries, where regional, in particular urban/ rural differences are marked. These good indicators were reached in the presence of a proportionately large high risk group (children under 15 years and females in the child bearing age group constitute approximately 70 per cent of the population), and of the extremely high fertility rate.

36. World Bank (1984), p. i.

Applicability to Jordan

As a developing country, although it is not poor by most of these countries standards, Jordan faces many of the same health problems. Jordan is also at a peculiar stage in its overall "development", where rapid changes are taking place resulting in a mixture of health profiles. Also, unlike most other developing countries, Jordan's population is numerically small. This is despite extremely high natural growth and fertility rates.

Of the countries already discussed and studied extensively by the World Health Assembly, the Bellagio Conference, and other researchers, the example it seems to represent most closely in its health profile would have to be Costa Rica. As in Costa Rica, a disproportionately large section of the population of Jordan is urban (70 per cent), and the country is now, and has been for the past one and a half decades, experiencing very rapid growth in its economy and overall development.

According to Ministry of Health statistics, the population exhibits patterns of morbidity typical of the poorer developing countries, with infectious diseases as the principle cause of illness. On the other hand, it also exhibits a pattern of mortality closer to that of the industrialized nations, with the most common causes of death being heart disease and accidents. Jordan has very good health indicators as described by its infant mortality rate of 35/1000 for 1988, and its average life expectancy of 67 years for 1983, all the more remarkable when seen against the background of its "troubled" past.

Another remarkable factor in the case of Jordan is that it began to realize these levels of health in the early 1960s;

that is, at a time when its local and regional future was looking quite bleak and before its economy began to improve and grow[37]. Therefore, it is possible to say that Jordan was well on the way to achieving substantial improvements in the standard of health of the population before economic development, and at a time when all other "development" indicators of the country were very discouraging and exhibiting very slow, marginal improvements, if at all.

The hypothesis of this study is, therefore, that Jordan was able to reach this level of health, without high economic growth, because of the presence of certain other socio-economic and political factors, and the strength of certain socio-economic sectors other than only the health sector. The present study will examine the factors put forward by the Bellagio conference in an attempt to verify the impact of these factors, and more importantly, their relative importance in the achievement of good health standards.

The study will be determining whether there has been a certain degree of social and political commitment to health as a human right of the population; whether the population had achieved an acceptable and adequate level of nutrition; whether there is a relatively good educational coverage of the population, especially of females; and whether the health service facilities have been equitably distributed and are appropriate to the needs of the people. In the study an attempt will be made to uncover these factors and to assess the specific and relative impact they have had on the development of health in Jordan. The present study will also attempt to look at the initially paradoxical situation of improvements in health status coupled with a persistently high

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37. Murray (1988).

level of fertility and whether this has had an impact on the general health of the population. Is this situation the result of Jordan having done so well in the other sectors such as education, sanitation, nutrition, and health services that any negative impact of the high fertility has been overshadowed? Is it because a decline in fertility is not a necessary prerequisite for health improvement after all? Or is it simply that Jordan has been able to "afford" the high fertility rate because of the intensive outside financial assistance it had been receiving? This study will attempt to question the common view that high fertility is by necessity incompatible with health improvement.

Historical archival data is the main source of information used in this research. In Chapter Two the indicators used are discussed, as well as the sources used, their accessibility and the reliability of data.

As a means of assessing the determinants of Jordan's progress in health improvement, the check-list outlined above, as adapted from the results of the Bellagio conference and as outlined in the conference publication, Good Health at Low Cost, will be used. The following aspects will be looked at and assessed because of the special relevance they may have in the case of Jordan:

Political will: Jordan is a monarchy which by 1992 had been under the rule of one king for over 39 years. All political parties, except the Moslem Brotherhood, were, until recently, banned. The Government structure is extremely centralized. The monarchy is heavily based on traditional systems of tribal government. The King, as head of state - in a similar fashion to the sheikh of a tribe - has a commitment to provide for the people all their basic human needs of which health is an integral part. As such, there is a clear trend in Jordan for

the Government to try to do its best within its limited finances to provide roads, schools, clinics, services, and welfare to the population. The people of Jordan seem to be aware of this and to appreciate it. It is often cited by Jordanian intellectuals as the alternative to democracy that is on offer.

Although there are a very large number of charitable and voluntary organizations (in excess of 400), both local and foreign, there is virtually no "community participation" of the classical variety in the decision-making processes.

In this respect, Jordan falls in the group of countries that have achieved improvement in health without having achieved the degree or level of community participation that is often advocated for efficient and true implementation of primary health care. There has been, however, a considerable level of commitment on the part of the Government to improving the living conditions of the population.

Cultural factors: Jordan is mainly an Arab/ Islamic society, and as such represents a group of countries with certain cultural attributes that have so far been largely ignored in studies of health determinants. Arab societies have been popularly believed to be very conservative and resistant to change. They have also been believed to be especially restrictive towards women. Jordan has, however, achieved high levels of female education especially as compared with other Arab countries. Jordanian society has changed rapidly and with that change have come changes in life-style, diet, living conditions, and social and political expectations, all of which are bound to have had their influences on the health of Jordanians.

Economy: Jordan is very heavily dependent on outside financial assistance to its economy in the form of both grants and remittances from Jordanians working abroad. Much of the bi-lateral aid that Jordan receives is highly political, relating to Jordan's position in the region and in regional politics and stability. Jordan also receives substantial funds through the UN and other bodies which are earmarked for the welfare of Palestinian refugees. This high level of dependence on outside financial assistance is likely to have some effects (negative and positive) on development planning and decision-making, and, therefore, ultimately on decisions that would affect health.

Although Jordan went through a period of economic boom which lasted for about a decade from the mid-1970s, this has now come to an end. Jordan is now in fact going through a period of economic recession which in September 1988 led the Government to devalue the Jordanian Dinar. The economic recession has also resulted in increasing numbers of unemployed which has affected the progress of development plans for the country.

On another level, there have been increasing numbers of Jordanian workers returning from the Gulf countries due to the economic recession these countries have been facing. This has, since late 1990, been exacerbated as the result of the "Gulf War" on Iraq. The returnees are causing an increase in pressure on the service infrastructures of Jordan not least of which are the educational and health services.

The historical/ political, social, and economic background to Jordan will emerge in all discussions of the developments of the various sectors and factors. However, it will first be presented and examined in detail in Chapter Three.

Water and sanitation: Being an extremely arid and dry country, the issue of total coverage with water supplies and sanitation systems in Jordan is of crucial importance. In spite of very limited water supplies, a high degree of coverage has been achieved with little discrepancy between rural and urban areas. This applies to both safe drinking water and sanitary facilities.

These achievements have come while Jordan had practically no services and utilities infrastructure as recently as 1920, and while the majority of the population were nomadic bedouin.

Housing: Jordan has moved in a few decades from having a predominantly nomadic Bedouin population living in goats' hair tents, to having a predominantly urban population. The very high level of urbanization and the very high rate of growth of the urban population have affected the provision of universal adequate housing.

Again the regional political situation has resulted in much unplanned growth in the population, especially the urban population with the large influxes of refugees and returnees after each of the upheavals in the area.

The issues of environmental surroundings, water, sanitation, housing, and urbanization are discussed in detail in Chapter Four.

Nutrition: Jordan is very poor agriculturally and has to rely heavily on imported food at all socio-economic levels. The country has suffered a number of wars in its recent history which have affected its geography, demography, and economy. After the latest major war in 1967 Jordan lost the bulk of its agriculturally suitable area. The East Ghor canal was also

badly damaged in the war, which limited greatly the water resources of Jordan for agricultural use. The remaining area, the Northern Ghor valley, was, until the early 1970s, uninhabitable due to Israeli bombardment, and Jordan faced a threat in case it wanted to develop its water resources further.

Through a policy of importation, there are in Jordan sufficient amounts of food for the population. The Government also subsidises the import of certain basic food, as well as subsidizing the prices of certain commodities. There are also a number of supplementary feeding programmes aimed at the more vulnerable in the population. A considerable proportion of the extremely large refugee population relies on food and food supplements distributed by UNRWA.

The nutritional status of Jordan will be discussed and examined in detail in Chapter Five.

Education: Jordan achieved a very high level of education (from elementary to university levels) in a relatively short period, including equal proportions of male and female students in the compulsory school period. Its levels of female education are in fact one of the highest among the Arab countries. Female education as a general phenomenon is quite recent (began in 1960s) and the results on health appear to have begun to take place.

At the same time, the question which poses itself is: Why is it that education and the changing economic system seem to have affected changes in some aspects of Jordanian society and Jordanian culture, as they are hypothesized to do, while they are still unable to touch other aspects. Namely, why has female education, and more female "freedom" and mobility been relatively easy and painless to achieve, while higher

participation in the labour force, and a decline in fertility have been so elusive.

The developments and achievements in the educational sector in Jordan are examined in detail in Chapter Six.

Fertility: Jordan has one of the highest fertility rates in the world. Family planning programmes on a national level have been slow to come, probably as a result of cultural objections. The Government has also been very strongly supportive of a policy of relying on a skilled manpower base as the main resource and asset for export. Why has fertility been so difficult to reduce, given the high levels of education, the high rate of urbanization, and the growing middle class, all of which are normally cited as the underlying cause of fertility decline elsewhere in the world? What role has the regional political situation had?

Yet, Jordan has managed to achieve significant improvements in health despite the high fertility. The reasons behind the high fertility rates, and behind the maintenance of these high rates are discussed in some detail in Chapter Seven.

Health services: The health services found in Jordan, whether publicly or privately provided, have all essentially developed over the past seven decades; from a situation of no services to the present situation where the King Hussein Medical Centre is acting as a referral centre for the whole region. Jordan has had to build a complete health infrastructure where none existed, while at the same time building the infrastructure to support all other aspects of a modern state. It appears that this has now been achieved to a large degree, and the coming period is one of refinement and adjustments.

Jordan currently has four public sector institutions for the delivery of health care services. These are the Ministry of Health, the army's Royal Medical Services, the Jordan University Hospital, and UNRWA. The services of these institutions are in addition to those offered by the private sector. This large number of providers would appear to have an effect on the services both in terms of quality and quantity, especially when the population being served is less than three million persons.

One adverse effect of having a relatively small population, and so many provider agencies is the inevitable duplication which takes place in almost all spheres. This problem is fully realized by the Jordanian authorities. A certain challenge facing Jordan is to co-ordinate the work and resources of all the health providers, especially at a time when the economy is under increasing pressure.

The health service delivery systems operating in Jordan, from the primary level to the tertiary, as well as the role of the various providers is examined in Chapter Eight.

Refugees: The effect of all the factors outlined above will be examined as they relate to the situation of the Palestinian refugees. Refugees will be treated separately because of the fact that they constitute a proportionately large group in Jordan, and because their welfare is the responsibility of an international agency, UNRWA. The effect of the presence of a large refugee population on the health of the general population is also examined. Chapter Nine examines in some detail the situation of the refugees.

In conclusion, Chapter Ten will bring together all the discussions of the various sectors, in order to assess the relative impact of these sectors on the health status of the

Jordanian population. Implications for other Arab and middle-income, countries, will be examined and discussed.

CHAPTER TWO

Demographic Indicators

Choosing Indicators

Choosing an appropriate indicator of the health status of any given population is at best a tricky undertaking, involving a strong built-in ethical element in the procedure. Assumptions must be made about what health is and about what good health is. For example, is good health simply a longer life? Is it a healthier one devoid of illness and disability? Or is it a combination of both?

Philosophical debates have taken place surrounding these issues for centuries and no one answer or assumption has yet been agreed upon as a universal measure. It is agreed, however, that any assumptions and ultimately any indicator, or set of indicators, must attempt to take into account the deaths, illnesses and disabilities of all individuals in the population. The indicator(s) must then attempt to express them in the form of a single aggregate index. Such an all-encompassing indicator, however, does not seem to be a very realistic goal. This leaves researchers with the task of trying to identify one or more indicators that could then act

to reflect changes in a number of chosen factors, rather than a truly quantitative measure.

By definition, the problem of selecting an indicator is primarily a moral/ ethical/ philosophical one, based on the relative worth and value we choose to place on human life. As such, any definition is subject to influence by the users' particular set of beliefs and moral judgements. "Value premises must underlie any choice of priorities whether or not these premises are formalized in a health status index ... Such choices should reflect the values of a particular society"[1]. This is an extremely difficult task to achieve. One basic principle, however, needs to be agreed upon before discussion can take place: Judgments or discriminations on the worth of human life, should not be allowed to take place on the basis of any exclusive states such as sex, race, or religion. Otherwise, we could easily find ourselves in the dangerous territory of making morally unacceptable judgments about nations or ethnic groups. Starting from that principle, the one factor which is common to and which cuts across all others is that of age or years lived by any individual. This leaves us with two questions: weighting death at different ages, and integrating illness and disability on the same scale or measure as death.

With the above underlying premise, arguments have fallen into two broad theoretical frameworks: the utilitarian, and the humanitarian (Evans & Murray,1987). The humanitarian argument postulates that all human life is equal, regardless of how long or short it is. That is, years lost through the death of an infant should be measured on the same scale as those years lost through the death of a 40 year old or an 80 year old person. That is to say that a year lost is equal at

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1. Abel-Smith (1983), p. 136.

any age. Additionally, a humanitarian measure would weight death by age by a certain monotonically decreasing function which would reflect the greater loss associated with death at an earlier age. Similarly, disability would be weighted by a constant greater than or equal to zero (Colvez & Blanchet, 1983; Doughty, 1951; Hemminiki et al, 1976; Kohn, 1951; Romeder & McWhinnie, 1977; Evans & Murray 1987). The utilitarian argument, on the other hand, is principally an economic one, having as a basic assumption the notion that human life should be measured as a function of years a person spends in potential economic productivity/ consumption. Utilitarians would weight death, illness, and disability proportionately to the relative loss of utility related to each of these. Deaths at different ages would, therefore, be weighted according to the present value of future net production of the average person of that age. Accordingly, deaths at the intermediate age groups, those assumed to be the years of highest productivity, would be given a much greater weight than those at the younger or older ages, where economic dependence is supposed to be higher. Similarly, illness and disability are included proportionately to the present value of lost future net production (Chen & Bryant, 1975; Culyer, 1983; Fuchs, 1982; Mooney, 1977, Mooney et al, 1986).

In addition to the intuitively, ethically unjust nature of the utilitarian approach, it has an obvious discrepancy built within its structure, such that if pursued, this approach would implicitly have to lead to discrimination against ethnic or gender groups if these seem to be less economically productive according to the scale adopted. This logical end of the argument, needless to say, is never pursued for the sake of moral ethics.

Therefore, for the purposes of the present study, the humanitarian approach and framework shall be applied and

assumed to assess health indicators for the population of Jordan. Following the formulations of Murray (1988), the most appropriate indicator of health status would be the discounted potential years of life lost (DPYLL). This indicator, however, requires a complete set of data to be calculated, a situation usually lacking in developing countries such as Jordan. DPYLL, however, was found by Murray to be very highly correlated with the more commonly used indicator of life expectancy at birth (LE). The DPYLL was also found to be well correlated, though less well than with the LE, with the Infant Mortality Rate (IMR).

Although the IMR is not correlated with DPYLL as well as the LE, because the data available on Jordanian LE is incomplete and appears to be for the most part not very accurate, it is this IMR that will be employed in this study.

The IMR is not simply a poor substitute for DYPLL or life expectancy at birth. It has been cited and used extensively on its own merit as a measure of the progress a society has made in terms of improving the conditions conducive to good health for the population. The infant mortality rate is assumed to present a useful indication of the health of the population because it reflects the health of what is believed to be the most vulnerable segment of society; those who are the most open to be affected by changes in conditions such as environmental factors, and health interventions. Hill and David (1989) in assessing the IMR of Jordan said that "infant mortality is accepted worldwide as the most sensitive indicator of social welfare, more sensitive to well-being than economic indicators such as gross national product per capita". Newland (1981) writing on the merit of using the IMR as a measure of general and health development has said that the infant mortality rate is "related to the overall level of well-being in a country or region- so

closely, in fact, that it is regarded as one of the most revealing measures of how well a society is meeting the needs of its people". That is, because infant mortality is seen to be affected by general development achievements and not simply specific narrow measures, it is useful in highlighting the status of overall development in a society, to such an extent that "high infant mortality is associated with certain social problems that may persist even in the face of rising per capita income: environmental contamination, lack of education, discrimination against women, [and] poor health services"[2].

Infant mortality and the factors that affect it have in fact been recognized as significant as early as the 1850's and 1860's in Britain[3]. Despite its shortcomings, this view of the usefulness and utility of the infant mortality rate as an indicator of the overall health situation among a population has been acknowledged and used by many recent health and social researchers (for example: Bisharat and Zagha, 1986; Farquee, 1982; Gish, 1982; Hardiman and Midgley, 1983; Hijazi, 1977; Mosely and Chen, 1984; Walsh, 1985; and Warren, 1985), as well as many of the international organizations interested in health research such as WHO, UNICEF, the World Bank, and the Population Council.

The reporting and analysis of Jordanian IMR data appears to be quite complete and consistent; consequently, the infant mortality rate will be used in this study as the main indicator of changes in health status. In addition, changes in the selected factors to be studied will be examined mainly as a function of how they have affected the IMR of Jordan. Other indicators, with less predictive powers, will also have to be

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2. Newland (1981), p. 5.

3. For a short historical review see Woods et al (1989).

assessed in view of the fact that IMR data are never sufficiently complete, accurate, or available to create a complete picture of overall developments. Other indicators, when available, will be used to support the findings as related to IMR, and to help present a wider picture of the changes that have occurred in Jordan. Thus, the birth rate, death rate, causes of death, and the patterns of common diseases will be considered in our assessment and evaluation of trends in the health status and its changes for Jordan, even if it is done in a necessarily more "anecdotal" fashion, pointing to trends rather than absolutes. This being largely due to the nature of such data when available.

The sources of the information and data required with regard to the infant mortality rate, other health indicators, and other socio-economic-political factors that are to be discussed in the present study will be outlined in the section that follows. Access to this information, as well as its reliability, accuracy, and limitations will also be examined below:

Research Procedures

By its historical nature, the topic under discussion requires a certain form of research process and hence of data gathering procedures. Empirical research is not strictly possible as we are not dealing with simple head-counting or utilization data; but rather with changes over time of a number of factors, some of which are themselves neither easily nor readily quantifiable. The main interest of this study lies in assessing and analyzing how certain trends in health policy making and health care provision have emerged over time and what other trends in factors or socio-economic-political sectors contributed to, or played a role in, the processes behind these developments. For the purposes of assessment and

evaluation, empirical data will certainly be required and will be used as the means of uncovering the trends and practices under discussion.

Several main sources of data and information on the subject are available. The first source of information is archival material or documents and publications available in libraries, government agencies, and private collections. In this case the sources and location of the archival material vary by period.

For the early periods 1920-1946, the British mandate period, there are available in the official files and documents of the Public Records Offices in London, Colonial Office material for TransJordan and Palestine. Documents of relevance and interest here come from three main sources. Firstly, documents dealing with the general political situation in the area from which the mandatory government's attitudes and policies towards overall development in the area could be inferred. Reports are available on various topics - the general political and military situation in TransJordan, budgetary reports, Colonial Development Fund reports. Secondly, an almost complete set of the annual reports of the TransJordan Department of Health are also available as well as other reports and documents dealing with specific health related projects, such as reports on the incidence of Tuberculosis amongst the bedouin Arab Legion, and reports on legislation and quarantine. Many of the Department of Health reports missing from the Public Records Offices collection were found in the London School of Hygiene and Tropical Medicine library. Hence, with the exception of reports for six years of the total period, the collection is complete. Thirdly, there are the various official mandate reports on the other socio-economic sectors such as education, water and sanitation schemes, and agricultural produce. Perhaps more

interesting, however, are the private correspondence and commentaries, added by the decision makers of the day and attached to such reports, which are very revealing in terms of attitudes and underlying policies.

For the period from 1946 to the present, material and data are found in Jordan itself. It was at around this time in the history of Jordan (mid-1940's) that the state began to keep its own records and information sets. Such material takes the form of annual statistical reports as well as the reports of the various service-providing bodies. Annual reports, budgetary reports, planning documents, surveys, commissioned research findings, utilization statistics data, census data and projections are available. For the health sector, such material is available for the Government, the Ministry of Health, the Royal Medical Services, and the UNRWA. Finding published material for the private sector, however, is more problematic as published information is not normally available. The other ministries, including Education, Agriculture, Water, Housing, Transportation, Labour, and the new Ministry of Planning, also have such published information available, mostly on an annual basis. Most such information is found in reports written in Arabic, therefore, requiring translation into English before they could be used in the study.

Jordan has also served as the case-study for various international health related studies over the years. It figures prominently in the research of, among other institutions, the UN Economic and Social Commission for Western Asia, it has been extensively studied as part of the World Fertility Survey, and it is often studied by the UNICEF-Middle East and North Africa regional offices. These findings are for the most part published and available in the libraries and among the document archives of the concerned agencies. In

addition, another form of published material that was useful was a set of specific reports and research studies that had been previously carried out on the various sectors. Some of these studies were carried out by local researchers and institutions, such as the different Jordanian universities, ministries, and research councils. Some were commissioned from various foreign agencies by official institutions in Jordan. Examples of these are a 1976 Westinghouse report on health planning in Jordan, various World Bank reports, a 1980 report on health insurance, and several short publications in academic and health journals; all of which in addition to their own central specialized themes or issues, seem to give overviews of the general health situation in Jordan.

The second main source of information are the decision makers and officials of the health and other services delivery systems of Jordan, and those concerned with health status development and improvement in Jordan. These include persons working at the Universities or as researchers for independent organizations. Data gathering from such sources has occurred in the form of interviews. Interviews were, on the whole, unstructured, though they were guided by a set or series of pre-determined questions. Since the period we are dealing with is a relatively short one, people who were decision makers or who were in key positions in the early days of the period under study are very likely to be still available as a source of information. In that sense, a considerable portion of "institutional memory" which is still preserved and available, has been drawn on. Information from such sources was not limited to interviews.

On a number of occasions access to private, unpublished material was granted. Access to individuals was gained through personal contacts and personal introductions and recommendations. This, according to Al-Torki and El-Solh

(1988), being one of the more useful and efficient methods for social research in the Arab world, in particular when the researcher is an Arab woman[4].

Although the archival data and material for a time-series analysis of the Jordanian experience exists, locating it and gaining access to it presented several problems. As in many of the developing countries of the world, updating and improving the data processing and archival system of Jordan have not matched the rapid developments in the data collection and research. Thus, while numerous studies have been carried out on social, economic, historical, and medical issues, there is no one location where these have been collected. To uncover the location of the large number of archival records and documents entails visiting and negotiating with countless Government institutions, local organizations, individuals, and international organizations.

Several ministries and agencies handle the same type of information, often with no coordination, resulting in confused and overlapping statistics. In recent years, a Ministry of Planning has been established in Jordan, one of whose responsibilities is to set up mechanisms of coordination and cooperation between the various sectors and agencies in the country. However, much like in other parts of the world, suspicions, jealousies, and lack of proper management have so far prevented this from effectively taking place. For example, collection of official health-related statistics in Jordan is the responsibility of a large number of Government bodies. Among them are the Directorate of Planning at the Ministry of Health, the Directorate of Health at the Ministry of Planning, the Directorate of Primary Health Care at the Ministry of

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4. Al-Torki and El-Solh (1988).

Health, and the Directorate of Statistics. Other relevant information also exists in the Ministry of Health, the Ministry of Planning, the Ministry of Education, the Ministry of Sanitation, the Ministry of Youth, the Ministry of Agriculture, the Department of Statistics, the Department of Public Health, Jordan University, the Science and Technology University, the Royal Medical Services, UNRWA, the private sector, and private practitioners, among others. This is in addition to the large number of local, international, and foreign non-Governmental institutions and organizations running programmes in the country including UNICEF, the Middle East Council of Churches, the Catholic Missionary Service, Save the Children Foundation, the Queen Noor Foundation, the Queen Alia Foundation, and other organizations and charities. All of these non-governmental organizations have their own data and information collection systems, and they all carry out their own surveys and studies. Moreover, no clear "guidelines" have been drawn up specifying what material can be found at which of these institutions.

Furthermore, while the contribution of the private sector in the provision of health care is dealt with in almost all health sector reviews - whether governmental or independent - there are no published statistics as such for the private health sector. This creates an unfortunate gap in the information set, especially since the private sector is estimated to play a major role in health provision in Jordan, generally accounting for approximately 25 per cent of the utilization of services provided in the country.

Once the potential sources of information were located, an additional problem emerged; that of gaining access to the material or the persons involved. Personal introductions, personal contacts and references played a major part in the granting of access to information and the granting of

permission to quote or photocopy documents. Bureaucracy and sometimes suspicion hindered access to material. Most problems were overcome with a little patience, and many cups of mint tea.

An additional difficulty that was faced in gathering personal-interview information is that Jordan has so far (since 1950) had a very large number of Government Cabinets which has resulted in it having had more than 55 different ministries of health and more than 20 different ministers. Most ministers held their posts for relatively short periods, and were therefore not very important or influential in terms of deciding on and implementing new policies. Of those, six or seven are already deceased but the rest were potentially accessible. Informal discussions/ interviews were held with a few of them.

In addition, a number of informal discussions were held with "ordinary" Jordanians, those at the receiving end of the various policies and programmes under discussion. Among those with whom discussions took place were women at health centres, housewives, elderly persons, physicians working in the public or private sectors, staff at health service facilities, staff at various ministries and Government bodies. Those served to provide the perspective on events and policies from the receiving end. They were, therefore, very useful as a check on the accuracy and relevance of official information and were often quite revealing of the real and actual changes that have occurred over time in social and political conditions in the country, as well as of the availability and accessibility of services offered by the Jordanian authorities. Additionally, light was shed on the patterns of the use and of the degree of trust in such services. These discussions were also useful in clarifying some of the individuals' and the community's behaviour in terms of health care and hygiene.

As the West Bank was part of the territory of Jordan between 1950 and 1967, and since it played a very important role in both the politics and the economy of Jordan, then its own socio-economic-political history and background needs to also be looked into in some detail. As one of the central issues of the Palestinian/ Israeli conflict, extensive written research exists on the area, in the form of books, articles and short documents. As for official records and reports on the West Bank between 1948 and 1967, those are found within the overall Jordanian documents of the period. Prior to 1948, however, documents and information can also be found among the Colonial Office Records under the Palestine mandate documents. The various topics, as for TransJordan, also apply here, with the exception of political documents, or documents dealing with the "Jewish national home", or documents discussing political unrest, which are for the most part inaccessible[5].

Despite the difficulties faced in data gathering in Jordan, a substantial number of important documents were collected. These documents once brought together, as a collection, constitute a valuable source of material which is very useful for undertaking a variety of health and socio-economic studies. The present research work was able to draw on these various sources of information in an attempt to highlight the pattern of developments in different social, economic, and political sectors in Jordan. A list of the most important sources can be found at the end of this chapter.

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5. Those because of their sensitive and their potential to cause political damage to Britain's relations with among others, the Arabs, have been destroyed. Documents of this nature are marked "destroyed under statute".

Reliability of the Available Information

Demographic data relating to Jordan tends to be a strange mixture in terms of availability and reliability. Historically, we have on the one hand, the recording of demographic data and indicators which started relatively early, only four years after the establishment of TransJordan as a state and separate national entity, thus giving us a span of more than 65 years of data collection. On the other hand, the country has passed through several periods when data reporting and collection have been hampered and disrupted, sometimes ceasing altogether. Moreover, for the periods for which there has been information, the standards and quality of the data collected has been questioned especially that data relating to the earlier periods.

Jordanian demographic data suffers from another problem. Although data collection as such began quite early, the country did not have a complete census of the population until 1961 and has had only one other since - in 1979. This poses a problem with regard to changes reported in annual reports. These have to be treated with caution because of the absence of a complete census reference point. This fact puts in question the reliability and therefore usability of such reports and data that were published prior to the first census, especially as a considerable number of factors and indicators had to be re-evaluated and re-assessed in terms of proportionate incidence and prevalence of conditions. Another important factor which has been referred to above is the fact that for a number of years, data and information have dealt with and referred to the West Bank as well as the East Bank in an aggregate manner. More often than not, no explicit distinction is made between the two sets of data.

Although Jordan lost the West Bank in 1967, some of the official Jordanian reports and statistics continued to refer to that area and its inhabitants, without it always being clear which population is being referred to. More frustrating is the interchange between information and statistics which takes place in both areas without any clear guidelines or forewarning. Apart from the usual uncertainty surrounding the statistics of less developed countries, there is a large degree of uncertainty in dealing with figures on Jordan as most sources do not define clearly the reference population being used. This fact will tend to complicate inter-yearly comparisons, especially for the pre-1979 period, as it is often not clear which populations the data refers to.

Although in later years this tendency has disappeared, to add to the confusion this problem is not confined to Government information. For example, while 1985 Jordanian Government estimates placed the total population at 2,693,700 with a natural population increase rate of 3.5 per cent, the World Bank cites the figure of 3.5 million as the total population of Jordan for 1985 and places the rate of natural increase at 3.7 per cent. With a discrepancy of around 1 million persons it would appear that the figures given by the World Bank actually refer to both the East and West Banks. International organizations like the World Bank and the WHO also confuse the two areas, which puts in question many of <u>their</u> data. This trend is especially obvious in those organizations' sets of international data, and not only in specific case-based studies of Jordan. Such confusion often makes the statistics barely usable, and then mainly for the purposes of illustrating trends and overall changes, and not for specific instances.

While dealing with international organizations and their international data-set statistical systems, it would be useful

to mention at this point that these organizations are for the most part, not only vague about their sources and the years of reference they employ, but are reliant on the use of life-table methods and not actual studies or data collection at all. This renders their statistics even less useful, since they tend to show changes occurring following pre-determined patterns and not reflecting the actual realities. For example, Murray (1988) discusses the fact that the World Bank assumes that LE increases at 0.5 years per year in all cases for middle-income developing countries, with little room for variation, and in fact the World Bank data on the LE of Jordan reveals this fixed pattern all too clearly.

While the foregoing discussion attempted to highlight the major problems that are encountered when dealing with historical socio-economic data relating to Jordan, this is not to imply that the actual existing data are not extremely useful. The present state of the demographic statistics of the Jordanian population is nowhere near being complete or perfect. This, however, is a common feature of the state of data in many, if not most, other developing countries. In comparison with most developing countries, Jordan would actually appear to fare better in terms of both the availability and the reliability of its data. Government documents and reports can be easily used, and small scale surveys and studies have been carried out in Jordan, mainly in the last twenty years or so. Large scale studies have also been carried out; one of those which is very useful is the World Fertility Survey of Jordan carried out in 1976. Using the results of such surveys, both small- and large-scale, shows that in fact the indicators being reported by Government sources are more or less accurate. Such studies serve to show both that the results are consistent and that historical trends are accurate. An ESCWA study of 1989, which relied heavily on the same basic sources and large scale studies

found that "this consistency and agreement give assurance of the quality of the data collected in these sources"[6].

Additionally, implicit methods and techniques can be employed to estimate values of indicators not readily available, such as comparisons with more reliable data available for other Arab countries under similar socio-economic conditions.

History of registration of population and other indicators

The population of Jordan (the East Bank) has been officially estimated to be around 3,453,000 for 1990. The West Bank population, on the other hand, is estimated at just over one million inhabitants. For the purposes of this study, however, population figures will refer to the East Bank only except for the period 1950-1967 when the West Bank came under the direct rule of Jordan, or when otherwise specified.

The earliest official estimates of the Jordanian population were made by the British during the mandate era. Earlier rough guesses/ estimates can be traced to the early nineteenth century; such as those made in 1812 by the Swiss explorer and traveller J.L. Burckhardt[7]. He estimated the total population at between 300,000 and 350,000, classifying them as follows: settled inhabitants, 130,000-150,000; semi-nomadic, 130,000-150,000; and nomadic bedouins 40,000-50,000. These figures, however, are thought to be overestimates, as even in 1943, the total population was

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6. ESCWA (1989), p. 30.

7. As quoted in Naval Intelligence Division (1943), p 402.

believed to be no more than 300,000[8]. Other estimates have also been made for the period 1870-1880, but these were only for some regions of TransJordan. For example, the population of the 'Ajlun area was estimated at 11,460, of which not more than 1,500 were nomads, while the population of Kerak was estimated at 8,000 inhabitants[9].

In 1926, the TransJordan Department of Health published its first annual report on the health conditions prevailing in the country. The report did not provide any population estimates; rather, it stated that as "no census of the country has ever been made, the exact number of inhabitants is therefore unknown. It will thus be sometime yet before we are able to render anything by approximate statistics"[10]. It was, however, during that same year that an Ordinance, published in the Official Gazette number 124, on the 1 March, 1926, made notification of births and deaths, which had actually officially started on the first of January, compulsory. At the time of the writing of the annual report, it was remarked that: "notification of births and deaths, as expected, especially from the Bedouin Tribes, have been far from accurate, but improvement is noticeable each month". The next year (1927), the annual health report included an estimate of the total population of TransJordan. The report placed the figure at 305,584. Also included were figures for the birth, death, and infant mortality rates for both 1926 and 1927. These were: birth rate: 11.4 ('26) and 19 ('27); death rate: 9.6 ('26) and 13 ('27); and IMR: 170.38 ('26) and 164.51

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8. Burckhardt (1918) quoted by Naval Intelligence Division (1943), p 402.

9. Kazziha (1972), p. 9.

10. Department of Health (1926), p. 4.

('27). These estimates are, however, acknowledged to be inaccurate, and the report notes that the notification of births in the towns was quite accurate, that it had improved in the villages, but that it was still un-satisfactory among the bedouin tribes.

These same estimates were reconsidered a year later in 1928 when the Department of Health made another more realistic estimate. "The true population of the country remains unknown as no census has yet been taken. The figure of 305,000 mentioned in the report for 1927 is considered to be rather high, as proved from certain investigations carried out lately. It is however thought that the population is not more than 200,000". The report also claims "considerable improvement in the notification of Births and Deaths"[11]. A couple of years later, in 1930, it was acknowledged that the reporting of infant deaths may be more accurate than that of births. As for the total size of the population, it appears that the Government, at least the Department of Health, after 1929 reverted back to using an estimate of 300,000-305,000, although that "is believed to be rather high"[12]. This estimate, however, continued to be used until the late 1930's when the Department began to add the rate of natural increase to this figure. In 1941, this yielded a population estimate of 375,000. Then, in 1948, the population of Jordan was estimated at 463,487 plus an additional 102,500 refugees from Palestine. This rose to a total (East and West Banks) of 1,371,654 (East Bank only: 626,000) in 1951 and to 1,538,028 (East Bank only:

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11. An interesting comparison is carried out in the 1928 report, between the birth and death rates for the two population figures of 305,000, and 200,000. The birth rate would climb from 27.4 to 42; and the death rate from 16.3 to 25.04 respectively.

12. Department of Health (1931), p. 5.

686,791) in 1957. In 1961, the first official census was conducted in Jordan and its results yielded the following results: a total population of 1,706,226, with the East Bank claiming 900,776 persons. In 1967 and 1969, the total population size had risen to 2,071,000 and 2,232,000 respectively. In 1979, the Government undertook the second census of population and the total number of inhabitants of the East Bank was found to be 2,152,273. For 1985, the estimate was of 2,693,700, while the latest estimates for 1990 were found to be 3,453,000. Figure 2.1 (end of Chapter) illustrates the growth in population in Jordan.

The Infant Mortality Rate

The data on the infant mortality rate (IMR) and estimations of it in Jordan have been far from complete. In spite of the several problems associated with it, however, this data remains useful and usable - especially if treated with care. Historically, it has been the most sloppily recorded demographic indicator of the country. Although it is estimated that 98 per cent of newborns are registered with the Department of Health (Hijazi, 1977), the records on infant mortality are still deficient and incomplete. An added complication is that for the earlier decades it was believed that infant deaths were more likely to be recorded than births. This fact is itself a problem for IMR determination.

Hence, it generally appears that IMR estimates were very likely deduced from not-so-accurate data. This is especially evident for the period from the mid-1960s when IMR was officially estimated to fall from 48.4 in 1964 to 26.6 in 1969, and more so between 1977-1979 when IMR was officially stated to be around 13. It was not until the late 1970s that these figures were re- evaluated, re-assessed, and pronounced

impossible, as they could not realistically fit into Jordan's overall profile of other health indicators. New, more realistic estimates were put forward, mainly by the WHO. The IMR was considered to be around 86 in 1977, a far more probable and realistic level which fits in with Jordan's overall "development" level. Official Ministry of health data placed the IMR in 1985 at 60. The most recent survey (1989) commissioned jointly by UNICEF and the Ministry of Health with the collaboration of the London School of Hygiene, estimate IMR for 1987 to be 35/.000[13]. Figures 2.2 - 2.5 (end of Chapter) illustrate the main trends in IMR between 1961 and 1987.

Life Expectancy

Estimation of the life expectancy at birth of the Jordanian population (LE) has only very recently been paid any serious consideration, or given any importance in the official health and demographic analyses. This is probably the result of the poor reporting of deaths in the country, prevalent until recently. Officially, life expectancy in Jordan is around 69 years with the rate for females 71 and for males 67.

These values differ from the estimates proposed by the WHO and the World Bank which place LE at around 67 and 65 for females and males respectively. However, upon closer examination, it becomes clear that the estimates put forward by the two agencies are not more reliable, nor are they more accurate, than the official statistics. It is apparent, also here, that they have merely taken the life expectancy at a base year and then proceeded to regularly add 0.5 years per year. This according to Murray (1988) is the method suggested by the UN Population Division Estimates and Projections

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13. Hill and David (1989).

Sub-Division as a rough guide to improvements in life expectancy in countries that fall broadly within the same category and classification as Jordan. These estimates in so far as they effectively "beg the question" of what the actual LE is, will be ignored by this study[14]. The international agencies' statistics and estimates will, therefore, not be used except for illustration of general trends and for international comparisons when no other alternative is offered.

One thing is clear though: As a general trend, the life expectancy of the Jordanian population has improved appreciably over the past few decades resulting in a longer lived population with a higher proportion of aged persons within it. (See Figure 2.6, end of Chapter)

Birth Rate and Death Rate Estimates

With the legislation of 1926, registration of births and deaths began in Jordan for the first time, and has since steadily improved to become, beginning in the sixties, almost universal for the whole population.

From the reports of the Department of Health, (and later the Ministry of Health), we have an almost complete set of year-by-year estimates for both indicators. These figures are subject to the same restrictions and criticisms as those for the total population size. The periods of war should be discussed in relation to the events caused by the wars and the annexation and occupation of the West Bank.

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14. For a detailed account of the procedures under discussion, see Murray (1988).

The Death Rate (DR) in Jordan has improved, dropping dramatically, with fewer and fewer deaths occurring per 1000 population, as time progresses. The actual reporting of deaths has also improved dramatically, perhaps more so than the actual death rate; for according to Wander (1966), death reporting was only 40 per cent complete for the period 1959-1963. "It was also found that the split in competence between the two responsible government agencies, the Ministry of Health and the Ministry of the Interior, was a basic reason for this unsatisfactory result."

The Birth Rate (BR) has steadily risen during the same period (1926-1986). The reporting of the birth rate has also improved; and to a level exceeding that of DR reporting. According to Hijazi (1977), the actual situation is such that, "because of many socio-economic and educational factors, the registration of Births in Jordan is known to be accurate and satisfactory, unlike the registration of deaths, which was found to be only about 40 per cent complete." The main reason for the better reporting of births is that a child can only be officially registered as a citizen (with all the benefits that accompany citizenship) through a birth certificate. The registration of deaths tends to be sometimes ignored because the family sees no obvious benefit in going through the trouble of official reporting.

The Jordanian BR has continued to rise until now, exhibiting no signs of significant levelling-off or dropping. This has been accompanied by an extremely high fertility rate (6.6) "giving Jordan the world's second highest fertility rate (exceeded only by that of Kenya)"[15], which only began to drop since the mid-seventies, albeit very slowly. The fertility rate has dropped from 9.04 live births per woman of child

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15. UNICEF (1990a), p. 18.

bearing age between 1961-66, to 8.54 between 1966-71, to 7.7 between 1971-76. [WFS (1976) data]. Estimates of the Jordanian fertility rate for 1983 place it at 6.6 (Jordan Fertility and Family Health Survey), while UNICEF (1990) report the fertility rate to be still at 6.6.

Unfortunately, information and estimates of fertility over time are not available for the period prior to the beginning of the 1960's. Guesses, however, have been made to predict the fertility rate levels prior to that period from comparisons with conditions prevalent in other similar neighbouring Arab countries, as well as through the use of other demographic statistical techniques such as life-tables. For the latter period, though, several studies and research projects to determine fertility and its determinants have been carried out. The major studies among those are the Jordan Fertility Survey (1976, as part of the WFS), The Jordan Demographic Survey (1981), The Jordan Fertility and Family Health Survey (1983), The Jordan Husbands' Fertility Survey (1985), plus a number of shorter works, the results of which have been published in academic journals.

In any case, and even if only the data from the 1960s onwards is used in the analysis, the picture is still one of an exceedingly high fertility rate as compared to international figures. This in turn is sure to have some health effects and implications for both mothers and children.

The natural growth rate, whether based on the estimates of international agencies, or on official Jordanian figures is exceedingly high by world standards. Even if the slightly lower rate of the official Jordanian statistics is used and compared with World Bank world figures, a natural rate of population increase of 3.5 per cent is found; a very high rate by world standards. The rate for industrial countries is 0.6

per cent, while the rate for other middle income countries of which Jordan is part is 2.0 per cent, and that for middle income highly indebted (also applicable to Jordan) is 2.4 per cent. The problem becomes highlighted even more when we consider that the average rate for other Arab countries is 3.4 per cent and even this rate drops considerably when the high income oil exporters are excluded (leaving a more comparable group) to 2.9 per cent. Furthermore, the growth rate of Jordan seems to be on the increase compared to the rates of the 1960's and 1970's. This extremely high rate of natural increase is a very important factor which needs to be considered carefully in any development plans; especially when it is coupled with the increases in population that have taken place as a result of major population movements to and from the East Bank.

The natural growth rate does not, however, appear to have been significantly affected by the political or economic changes that have affected the country in its recent history. An exception to this would be the noticeable drop in the number of births for Palestinian refugee women immediately after the 1948 events. Fertility does, however, seem to have decreased marginally as Jordan has become increasingly urbanized, more Jordanian Bedouin have settled, and more villagers have moved to the urban centres and to an urbanized economy and life-style.

Cause of Mortality

Despite the fact that registration of cause of death was made compulsory in 1926, data on the causes of death in Jordan are scarce and at best erratic and incomplete. Very often annual health reports fail to mention the most common causes of death for the period of the report, while for other years they have detailed listings of the causes of death, by age and sex;

while at other times they have those listed for males only, and in others they have simply listed the causes for one or more selected age groups and not others. Therefore, no conclusive or definitive conclusions about the causes of mortality and their changes over time can be safely reached. One can, however, distinguish a "trend" or direction whereby certain clusters of causes have varied in importance over time. Examining the available sources, it is quite apparent that the pattern Jordan now seems to be following is that found amongst most, if not all, the middle-income developing countries of the world today. It has moved from having the majority of deaths among the population occurring as a result of diseases from the cluster including diarrhoea and respiratory and intestinal infections, to exhibiting more "modern" causes of death, such as those from the cluster including heart failure, cancers, and accident[16].

Furthermore, in the earlier years, epidemics such as measles, influenza, and malaria, played a considerable role as causes of mortality, and now these too have vanished as important factors affecting Jordan's present-day mortality profile. The importance that was attached to diseases of poverty, such as diarrhoea, malaria, respiratory and intestinal infections, three or four decades ago, have given way to diseases and causes more similar to those prevalent in the more industrialized countries, with heart diseases and coronary problems ranking as the most common cause of death since the early seventies- these being followed closely by cancers and motor accidents as the second and third most common causes.

It would appear that the fact that more than 60 per cent of the total population of Jordan is urbanized and is,

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16. See Lalonde (1976) for more details of the various clusters.

therefore, under most of the same stresses and risks as any other urbanized population in the world has played a significant role in shifting the importance from one cluster of causes of death to another.

Common Diseases

In contrast to the bad quality of data and information on the causes of death, the Jordanian health authorities have been very conscientious about keeping record of the diseases that occurred or were epidemic in Jordan in any one year. All annual health reports of the Ministry of Health include listings of the incidence and prevalence of most infectious diseases as well as of heart diseases, cancers, etc.. Often those are listed as a function of incidence, age groups, sex and residence. Also present, especially in the early years were very detailed studies of the occurrence and prevalence of some of the more dangerous infectious diseases like Malaria and Smallpox, both of which were the target of specific eradication programmes by the government, and both of which were effectively eradicated around 40 years ago.

Information on commonly prevalent diseases is quite reliable and usable in any assessment of the health conditions of Jordan, especially information on those diseases which appear to be endemic to Jordan such as tuberculosis and trachoma. Looking at such information as is available, a distinct picture emerges in which malaria and smallpox as well as trachoma and tuberculosis have been eradicated for several decades now. Other infectious diseases are, however, still common, although predictably less than before. Infectious diseases, especially those that affect the digestive and the respiratory systems, are more common amongst infants and smaller children (especially diarrhoeal diseases) and the poorer segments of the population, as well as the rural

population. This is quite predictable as these groups have been shown many times before, in different studies and in different countries, to be more vulnerable and at risk than the other groups of the population.

It is also interesting to note at this point that, although these infectious diseases are still common, they no longer have the same demographic impact on the population that they had earlier. That is, common as they are, infectious diseases have ceased to be an important cause of death, and as such their effect has disappeared from the official statistics. This again as is the case in most other "modernizing" third world countries. Although their obvious manifestations have diminished, it would be a mistake to neglect their potentially harmful and debilitating effect on society.

As discussed above, there are deficiencies in the available data. Nevertheless, it was found that the large amount of data, which covered virtually the entire time-frame since the existence of the Jordanian state, was extremely useful and usable for the purposes of this research. Once data material was collected and pooled together, and therefore available for study, it became apparent that the necessary information did exist. With careful handling of the data, especially through cross-checking sources, it was possible to choose usable data and material for the analyses.

In terms of health-related data, the infant mortality rate data, as presented by the Ministry of Heath, the Department of Statistics, and the various international organizations, was found to be generally reliable and useful. Life expectancy data, on the other hand, was very limited, and as such its usability was also limited. Because Jordanian fertility has been studied quite extensively, Fertility Rate

data is also reliable and usable in a time-series analysis. Birth Rate and Death Rate data were also relatively sound; their use was limited in this research because of the availability of more indicative measures. Information on disease patterns and causes of mortality, was useful to complete the descriptive picture of overall developments in health status in Jordan.

The various sources of information and data on the other social, political, and economic factors used in the study also appear to be reliable. Again, data which appeared to present a pattern of relative consistency over time was used. With a few exceptions, information also appeared to be quite reliable when data from one source was cross-checked with that from other Government, academic, and international data.

For the purposes of comparison, especially with other Arab, and other middle income countries, international data sets were used. World Bank data and UNDP data were the two sources most extensively used for cross-country comparisons. In spite of their limitations, as discussed above, these were found to be usable and useful for the limited comparative analyses. More in-depth comparisons of Jordan with its neighbours, would ideally entail using data sets as comprehensive and as detailed as those employed for the Jordanian case in this research.

Population Growth
1926-1985

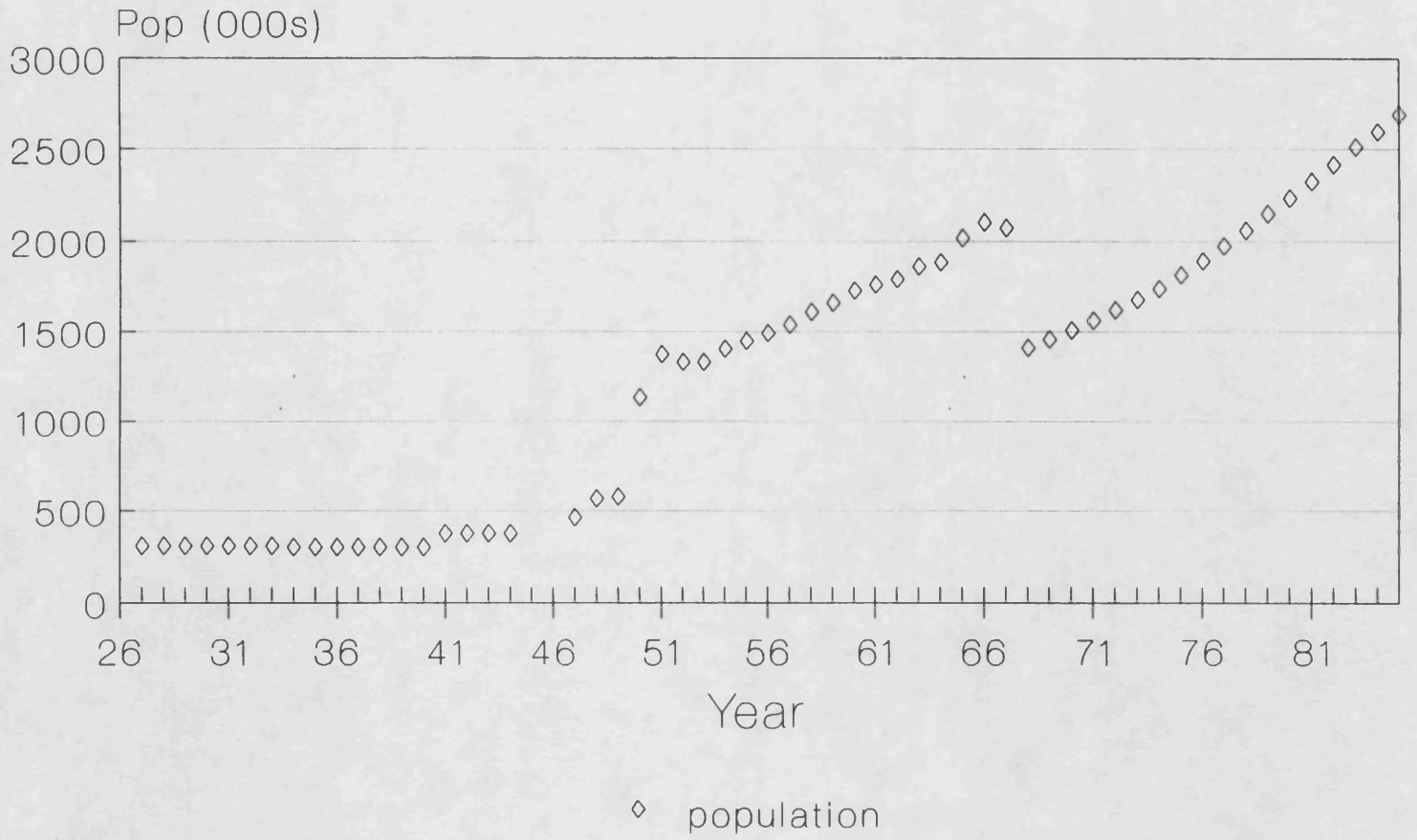


Figure 2.1

IMR
1926-1987

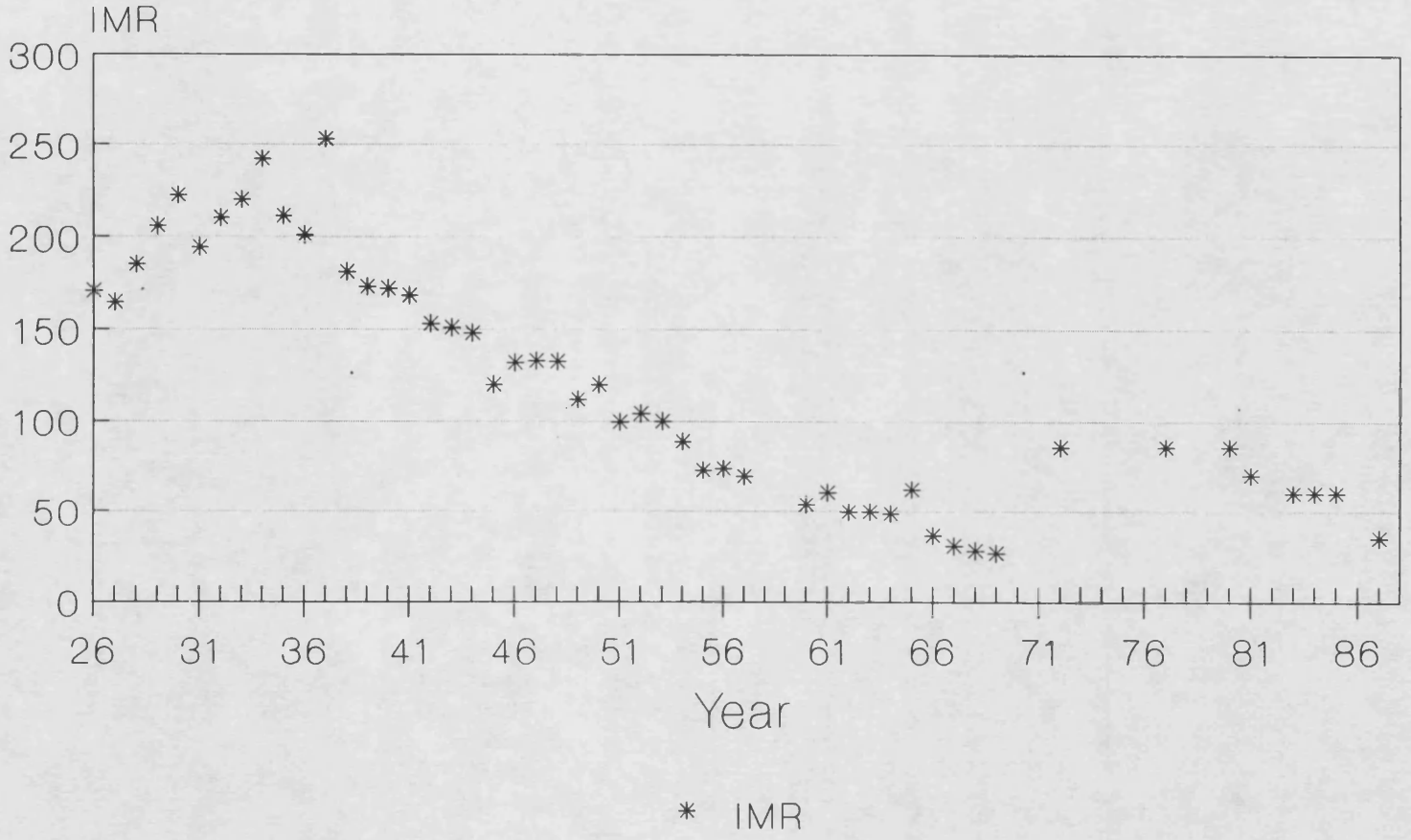


Figure 2.2

IMR Drop
1961-1987

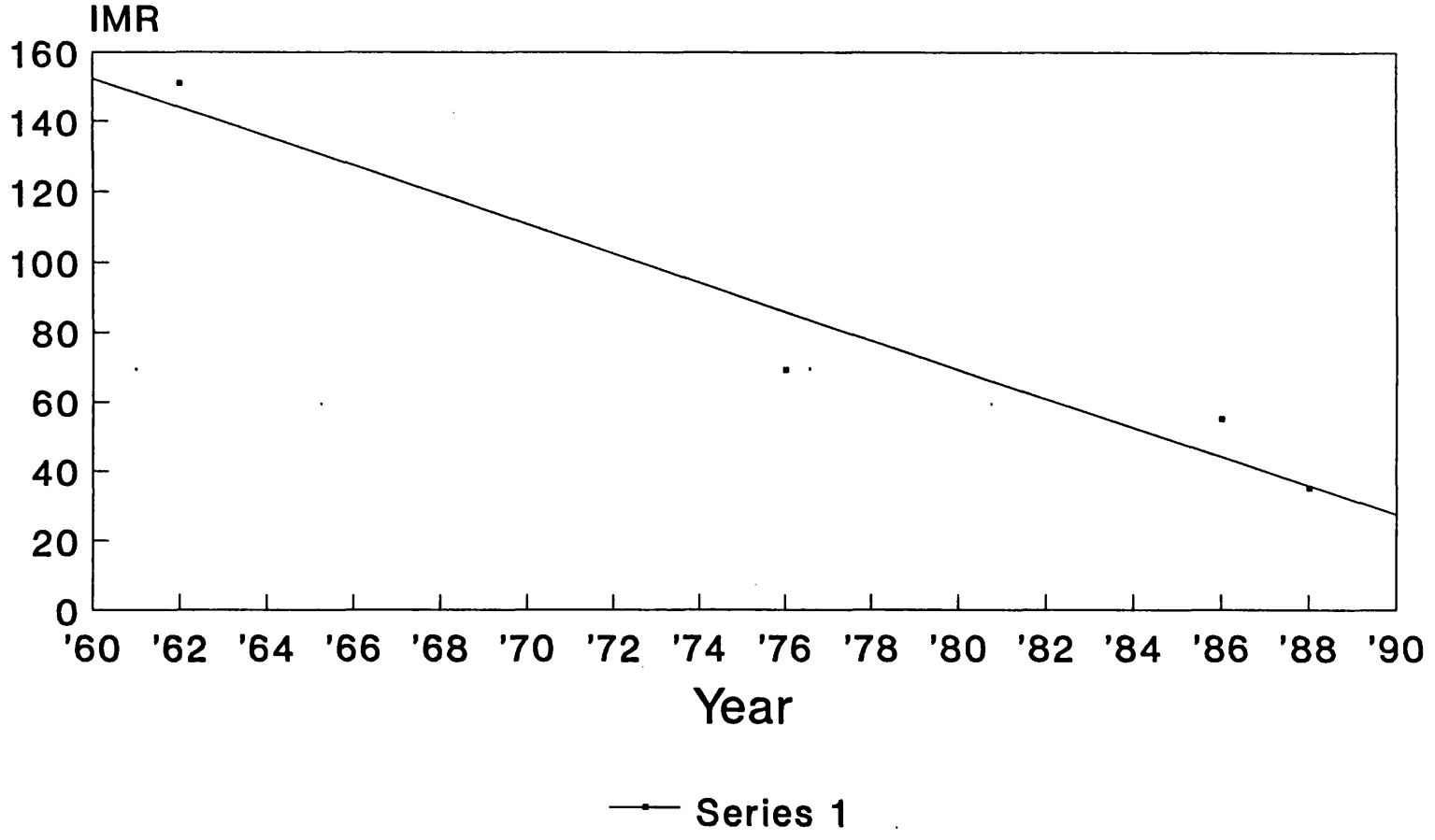


Figure 2.3

Figure 2.4

Childhood Mortality Compared
Jordan

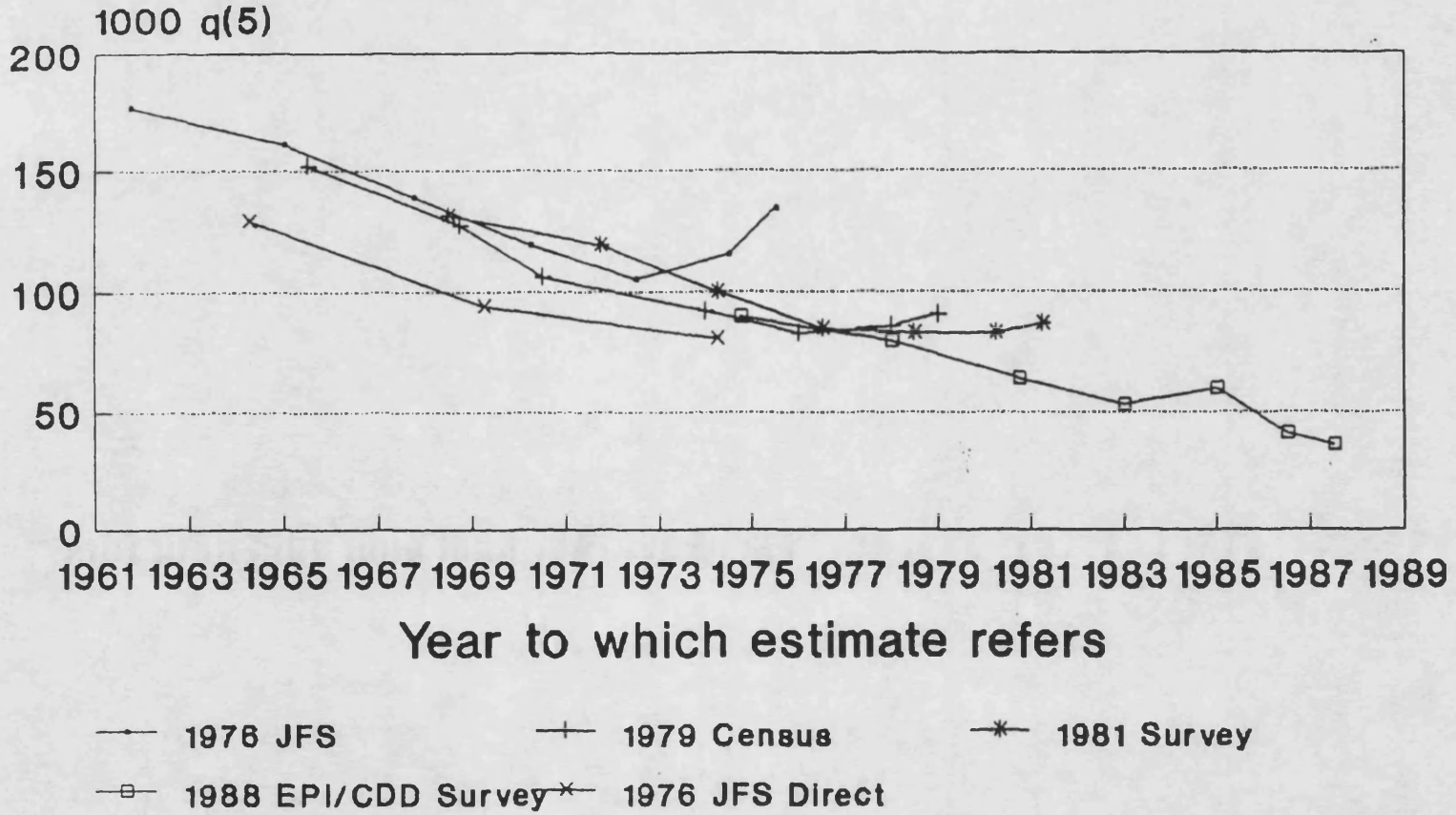
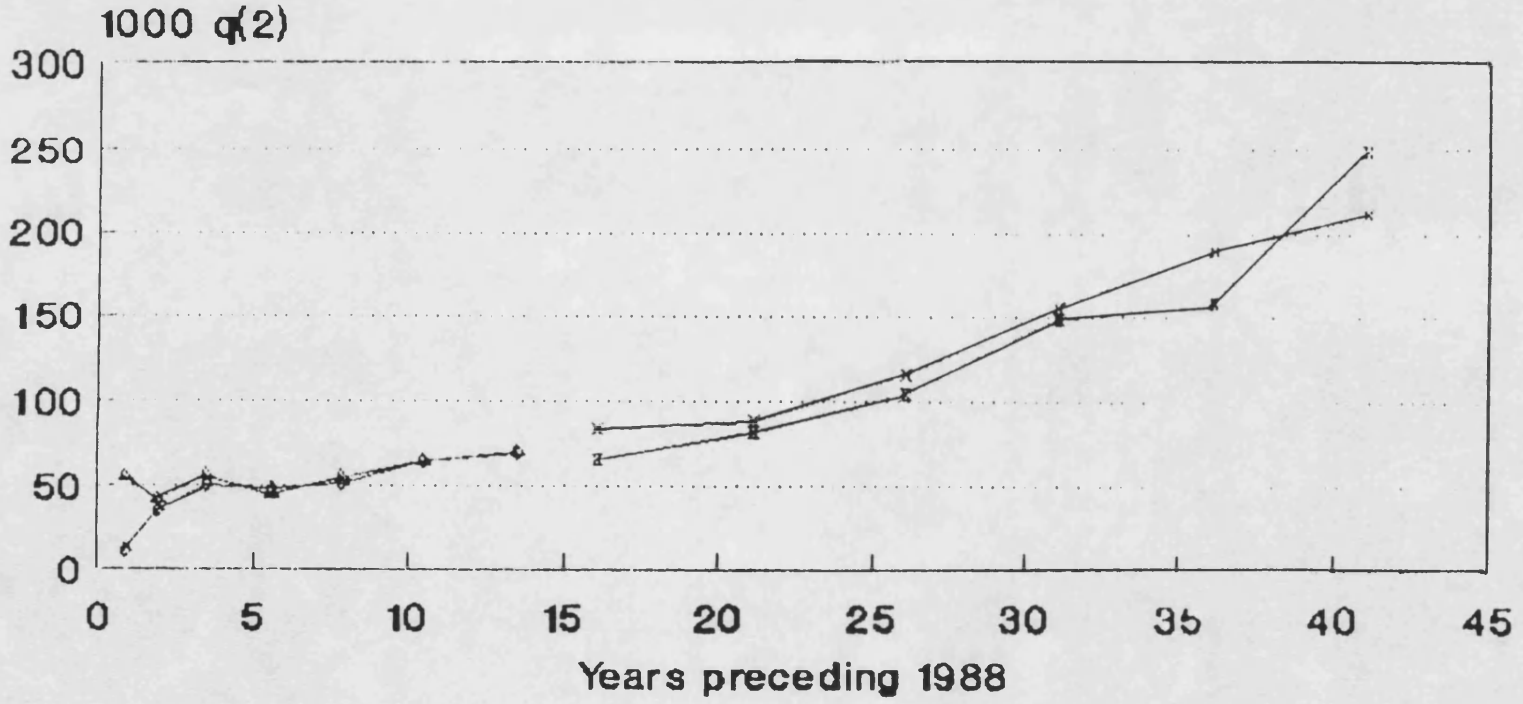


Figure 2.5

Trends in Childhood Mortality by Sex
Jordan



GNP/cap & LE
1960-1985

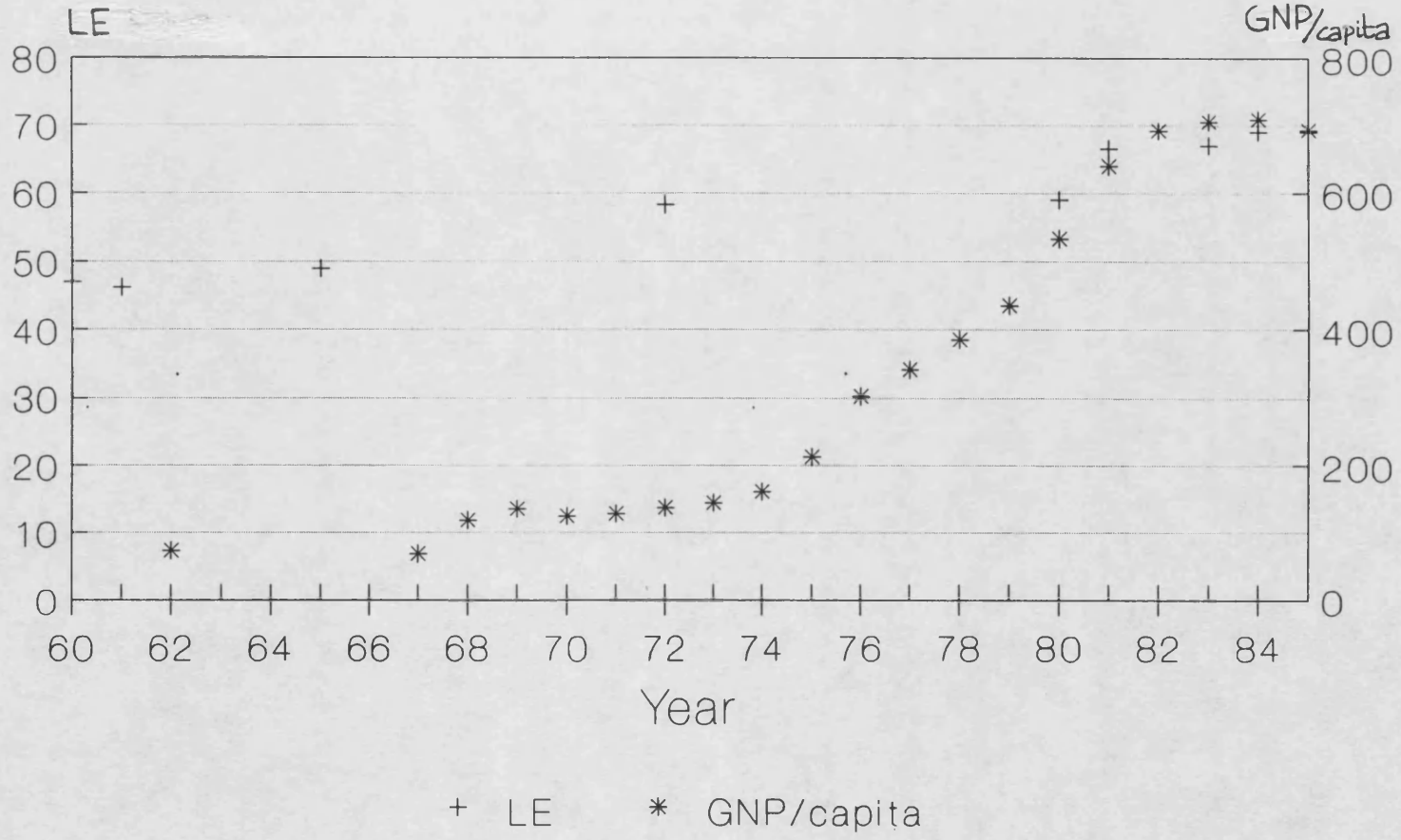


Figure 2.6

List of Main Sources in Jordan

Institutions:

Directorate of External relations, Ministry of Health
Directorate of Health Education, Ministry of Health
Directorate of Maternal and Child Health, Ministry of Health
Directorate of Planning and Statistics, Ministry of Health
Directorate of Primary Health Care, Ministry of Health
Department of School Health, Ministry of Health
Directorate of School Health, Ministry of Education
Department of Statistics, Ministry of Education
School Feeding Programme, Ministry of Education
Department of Agriculture, Ministry of Planning
Department of Debt Monitoring, Ministry of Planning
Department of Education, Ministry of Planning
Department of Health, Ministry of Planning
Department of Project Follow-up, Ministry of Planning
Manpower Planning Division, Ministry of Planning
Royal Medical Services
Ministry of Social Affairs
Highlands Project, Ministry of Agriculture
Department of Statistics, Central Documentation Centre
Health Division, Higher Council of Science and Technology
Education Division, Higher Council of Science and Technology

Nutrition Division, UNRWA
Health Division, UNRWA
Water and Sanitation Division, UNRWA
Education Division, UNRWA
Social Welfare Division, UNRWA

World Food Programme
WHO Representative's office
UNICEF

Jordan Water Authority
Institute of Anthropology, Yarmouk University
Central Library, Jordan University
Documents Library, UNICEF
Documents Library, Ministry of Planning
Documents Library, Royal Scientific Society

Department of Social Medicine, JU
Department of Public Health, JU
School of Medicine, JUST

Save the Children Federation
Caritas
Noor al-Hussein Foundation
USAID

Other Visits:

King Hussein Medical Centre
Al-Bashir Hospital, Amman
Jordan University Hospital, Amman
Princess Bassma Hospital, Irbid
Khalidi Maternity Hospital
Maternal and Child Health centres
Primary Health Care centres
School Health team visits
Two-day Symposium on Breast-Feeding
Health and income-generation projects, Save the Children: Amman and Bani Hamidah

Individuals:

Dr. Na'el Ajlouni, Director RMS, Deputy Director NMI
Dr. Kamel Ajlouni, JUST & ex-Minister of Health
Dr. Adnan Badran, Higher Council of Science and Technology
Mr. Mudar Badran, ex-Prime Minister
Dr. Leila Bisharat, UNICEF and Urban Development Department
Dr. Muhammad Hadid, Deputy Director, Jordanian Red Crescent
Dr. Sa'ad Hijazi, JUST
Dr. Zaid Kayed, Director MCH services, Ministry of Health
Dr. Ibrahim Khalidi, Director Khalidi Hospital
Ms. Rima Khalidi, NMI
Dr. Ibrahim Khatib, JUST
Dr. Walid Khatib, Higher Council of Science and Technology
Ms. Doris Khazen, Health Programme Director, USAID
Dr. Sami Khoury, Chairman Social Medicine, JU
Dr. Najwa Khuri, Dept Head Paediatrics, JUH
Dr. Zuhair Malhas, ex-Minister of Health
Dr. Nabih Mu'ammar, Union of Jordanian Physicians
Mr. 'Abdel-Ra'ouf Al-Rawabdeh, Mayor of Amman
Dr. Kamal Salibi, Historian, American University of Beirut
Dr. Seteney Shami, Director, Institue of Anthropology, Yarmouk University
Dr. Nabih Shawareb, Private practitioner

CHAPTER THREE

Political, Social, and Economic Background

Politics at all levels, whether internal, regional, or international, plays a highly visible and determining role in all aspects of development in Jordan. From the earliest times Jordan has been the scene of various power struggles. Lying in the heart of the Middle East, between three continents, its history, like that of the other countries of the region, has been highly coloured by outside interference and influence. The creation of modern day Jordan is itself the result of international and regional political maneuvering. Unlike many of the world's developing countries, Jordan was at no time in its modern history "left alone" to build its own structures and mechanisms independently. It is because of this factor that the historical background of Jordan will be discussed in some detail.

Political History

Human habitation in the general area of what is now modern day Jordan has been dated back to around 6000 B.C. By 2400 B.C. it appears that the area, especially the more fertile north of modern-day Jordan, was inhabited by an advanced sedentary agricultural civilization; but this had disappeared by 1800 B.C. It was not until the thirteenth century B.C. that it was

again inhabited by several Semitic peoples- mainly agricultural civilizations. From about the tenth century B.C. and for the following four centuries, various semitic tribes (the most important of whom were the Maobites) gained control of various parts of the area. Then, during the sixth century B.C., the area generally collapsed economically, reverting to a more sparsely settled pastoral economy with very little central order[1].

Around 480 B.C., the Nabateans, an Arabic speaking people, settled in and ruled the area between Kerak and the Red Sea[2]. Around 330 B.C. the Greeks ruled the area, though they never conquered the Nabateans. During their reign, Hellenic culture was encouraged, cities were built, and the region became important to trade routes in the area. In 105 B.C., following a war with the Nabateans, the Romans imposed direct rule on the entire area, and by 70-60 B.C. they had control of the whole of the northern part of Jordan. The "Nabatean area although flourishing in trade, agriculture, and culture, came to be a vassal state to Rome"[3]. They built a series of forts in an attempt to control the desert, and often "resorted to payments to bedouin tribes- a practice continued to the current century- to protect the trade routes"[4].

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1. Gubser (1983), p. 73.

2. The Nabateans built the city of Petra, carved in the mountain side. "NABT", the root of their name in Arabic and other semitic languages, is derived from "settlement or well-digging".

3. Gubser (1983), p. 74.

4. Ibid, p. 74.

By the early third century A.D., the Nabateans had declined, and the Ghassanids - another Arab tribe - displaced them, thus ending their 800-year presence in Jordan. During the fourth century, the Roman Empire's capital moved to Byzantium, and with Emperor Constantine's conversion to Christianity, most of the people of Asia Minor and the Middle East followed his example- among them the Ghassanids in Jordan.

"The early seventh century witnessed a fundamental change in the region that influences Jordan and its neighbours to this day- the arrival of Islam"[5]. Between the years 629 and 636, Arab Muslims from Arabia, conquered the weakened Byzantine Empire, and there followed a succession of Islamic dynasties. Throughout this period, however, Jordan was still something of a backwater, known primarily for its geographic position on the route to the Islamic holy city of Mecca. In the twelfth century, parts of Jordan fell to the Crusaders, the centre of their control being in Kerak. In 1187, they were defeated by Salah al-Din, who initiated the muslim Ayyubid dynasty, which lasted a hundred years and was replaced by the Mamluks who ruled from Cairo for three hundred years.

During the time of Byzantine rule, and until the Ottomans took more direct control, the area of Jordan was often divided administratively into a number of "*junds*", or provinces. These normally cut across what are now considered independent states. For example, northern Jordan was part of the Jordan jund running west to east across Palestine, Jordan, and the desert, with its capital in Tiberias. The middle of Jordan was part of the Falastine jund, with its capital in Ramleh, while the area south of Ma'an was part of Hijaz.

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5. Gubser (1983), p. 74.

In 1518, the Ottomans, having built up their empire over the previous two hundred years, turned their attention to the Arab world, where they defeated the Mamluks and thus placed under their control most of the Middle East, including Jordan. The Ottomans ruled the area for four hundred years (until 1918), when they were defeated in the First World War. However, although the Ottomans were in control of Jordan, they did not show much interest in the area and very little actual control or infrastructural building was carried out. Occasionally, the Ottomans sent military patrols through the area. These, however, rarely collected taxes; rather they actually resorted to paying the bedouin tribes off in order to safeguard the pilgrimage route to Mecca, which passed through TransJordan's territory. "[A]part from this the country neither offered a source of revenue nor a prospect of development"[6] for the Ottomans. Control was in effect left to the small tribes which farmed the highlands, and the larger tribes of the marginal lands whose main livelihood was through the practice of animal husbandry. The more affluent tribes "exported" their surplus sheep, ghee, and cheese to Palestinian towns and villages across the river.

The administrative arrangements of the Ottomans were disturbed between 1831 and 1841, when the Egyptians conquered and controlled the region, and again in the late 1860's and 1870's, when the Ottomans began an effort to assert direct control in the northern part of Jordan. It was at this time that the Ottomans encouraged the Circassian refugees from Russia to settle in the area, particularly in and around Amman, which was then an uninhabited Roman-ruin site. Mainly as a result of direct Ottoman interest in the area, the

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6. From Schumacher, G. (1890), Northern 'Ajlun, p. 26-28; quoted in Kazziha (1972), p. 7.

economy began to grow and improve, and the people of the highlands began to settle in villages. More significantly, between 1900 and 1908, the Hijaz rail road linking Damascus with Mecca was constructed, passing through Jordan.

Up until this time, the country was still not defined as one entity. However, "the first instance in the history of the area when all its parts, at least officially, were brought under the same administrative unit was in 1905. But, the new arrangement was soon abandoned, when in 1910 Aqaba was transferred to the Sanjak of Kerak. It was not until 1921, that the area again emerged as an autonomous political and administrative unit under the rule of Amir 'Abdallah"[7].

During the first world war, the people of TransJordan fought on both sides: most settled people and town-dwellers were drafted into the Ottoman army and fought with the Ottomans, while the bedouin provided the main fighters in Jordan for the Arab revolt against the Ottomans. Britain maintained its interest in the area from its base in Egypt. This it achieved through sending to the area a number of British officers (most famous amongst whom was T.E. Lawrence) who supported the Sharif Hussein and the Arab Revolt[8]. During 1917 and 1918, this revolt was immensely cost-effective from the point of view of Britain, for it opened another front against the Ottomans and, therefore, occupied a large Ottoman contingency which was trying to protect Medina and the Hijaz railway. The forces of both Sharif Hussein and British general Allenby subsequently conquered Palestine, present day Jordan, and Syria.

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7. Kazziha (1972), p. 9.

8. Sharif Hussein is King Hussein's great grand father.

Following the First World War and the break up of the Ottoman Empire, the lands previously under the Ottomans were divided in the San Remo Conference between France and Britain, with France getting mandatory control over Syria and Lebanon, and Britain acquiring control of the mandates of Iraq and Palestine[9]. The area east of the Jordan River (present day Jordan) effectively fell into limbo status internationally; it fell between the Hijaz, which was under Sharif Hussein's rule, and Britain's sphere of interest. In addition, the area north of Ma'an was ruled from Damascus as a province of Faisal's Kingdom of Syria, although it fell within the "British zone" according to the Sykes-Picot agreement. The situation, it could be said, reverted back to the status in the mid-nineteenth century, with very little control from a central power.

At first Britain did not object to the arrangement as it stood, since Faisal was considered one of Britain's proteges. This, however, lasted for only a few months, and when France defeated Faisal and occupied Damascus, things changed, and TransJordan became important to Britain. It was then that the British foreign secretary, Lord Curzon, decided that Trans-Jordan was not part of Syria, and "that Britain henceforth would regard the area as independent, but in the 'closest relation with Palestine'"[10], and in August 1920, Sir Herbert Samuel, then the High Commissioner for Palestine, went to Salt, the most important town in TransJordan at that time, and declared that with the fall of King Faisal, East Jordan came

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9. A mandate was a formula devised for control of countries thought to be underdeveloped. The justification being to help such countries to rule themselves and to train them in democracy. Unlike direct colonial rule, the European country holding the mandate had much responsibility towards the mandated territory.

10. Wilson (1987), p. 44.

under the British mandate. He announced that he would send a number of officers there but that the area, unlike Palestine, would not be administered directly. At the same time, in the autumn of 1920, Amir Abdallah (the son of Sharif Hussein of Mecca, and brother of Faisal) arrived in Ma'an, which was then under the control of his father, with some of his armed supporters, and declared that he had come to place his brother Faisal back on the throne of Syria. He then moved to Kerak, which was under the control of the British mandate and spent the rest of that winter touring East Jordan.

At the same time, the British were re-working their regional policies. They offered King Faisal the kingship of Iraq. "As to East Jordan, they decided to offer it to Amir Abdallah, who was then present in the region, in exchange for his promise to renounce his claims on Syria. At a meeting on 27 March, 1921 with the then colonial secretary, Winston Churchill, Amir Abdallah, accepted these conditions as well as a British subsidy and British mandatory presence"[11]. It is noteworthy to state that, while the position of TransJordan vis-a-vis Britain remained somewhat vague, by late 1920, however, "Britain was anxious to conciliate the Arabs by fulfilling what was convenient of the wartime promises, [so] it was further decided that TransJordan would be exempted from the Zionist clauses of the Palestine mandate"[12].

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11. Gubser (1983), p. 78.

12. Ibid, p 49.
Note: In 1917, Lord Balfour made his infamous declaration whereby he promised the Jews a Jewish national home in Palestine. Sir H. Samuel, the High Commissioner for Palestine in the 1920s was a strong supporter of this Jewish national home, and he, in fact, lobbied for the inclusion of TransJordan wholly in the area of Palestine, reasoning that in that way, there would be more potential land for this national home. See Wilson (1987) for further detail. Chapter Nine discusses this in further detail.

Once Amir Abdallah's status in TransJordan had been established and legitimized, albeit under the direct control of the British mandate, he proceeded to build the new state. Problems began with internal threats to the state's security from bedouin raiding and from revolt by the settled population over paying taxes. External threats also came from the Saudis across the southern borders.

In 1930, Major Glubb (Glubb Pasha) came up with the appropriate solution to the problem of bedouin raiding by recruiting the bedouins themselves into the army. With this move the Bedouins became central to the Hashemite state, its most loyal supporters and its most staunch defenders. They became the backbone of the Jordanian army, itself vitally important to the regime. The new policy succeeded, and in fact by 1932, bedouin raiding in Jordan had stopped.

Threats from the Saudis to the southern borders of Jordan were finally removed in 1925, when Ibn Saud consolidated the borders of what is now Saudi Arabia; and TransJordan rushed to claim the Ma'an/ Aqaba area, and the border between TransJordan and Saudi Arabia was defined.

In terms of the political characteristics of the TransJordanian state structure, Amir Abdallah's rule can best be described as traditional, tribal, and "Sheikhly", in typical Arab-tribal fashion. He made personal contact with the people of the region, cultivated leading families and tribes from both the settled and the nomadic segments of his population; and throughout his reign, opened the palace every Friday (Amir Abdallah held a weekly tribal "*majlis*") so that people could come and discuss issues of concern or voice complaints. Structurally, Amir Abdallah ruled through an executive council made up of notables of TransJordan, as well as Syria, Palestine, and Hijaz. There was, however, a British

resident, who in fact dominated certain decisions, as well as various technical advisors to aid the young state.

The question of a parliament was constantly being raised, and in 1923-24, a basic law of elections was drafted, but this was rejected by the British resident and replaced by a much weaker legislative council which would approve executive council decisions. In 1928, "the Anglo-Jordanian Treaty, with the attendant Organic Law, was signed. This law, which included provisions for an indirectly elected representative body with weak powers, it is reported, was essentially imposed on Amir Abdallah; true negotiations were not honoured"[13]. This weakness, lack of representation, and the interference of the British representative were strongly opposed by a group of nationalists and anti-regime people from the urban centres of the country. These political opponents were tolerated until they began to criticize the authorities in 1928. At that point, Amir Abdallah dissolved the council which they had set up.

Other infrastructural services also began to emerge and take form in the 1920s, albeit slowly at first. Amir Abdallah at the time he came to rule TransJordan, inherited the Ottomans' tax system, which he continued to apply until a cadastral survey was carried out. This served as the basis of a new land-based tax system. Other services, such as "health and educational services developed much more slowly than did the security forces. Seemingly the mandatory power was more interested in applying its subsidy to the latter than the

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13. Al-Mady (1959), p. 80.

former. Once independence was realized ... this trend was reversed and these services were rapidly developed"[14].

In the meantime, however, the inhabitants of Jordan, in the first quarter of the twentieth century, were still reliant on their old traditions of tribal rules and regulations, and, therefore, of reliance on the family and tribe to perform the "welfare" functions of the state. "Life in TransJordan during the twenties was centred around the family as the basic social unit within the extended family or tribe...In its social function a family or tribe was morally responsible for its poor and needy; sick and old; to discipline its members and protect then against aggression by others"[15]. Things remained much as they were until the onset of the Second World War, when soon after the start of the war, TransJordan declared war on Germany.

This declaration of war seemed quite meaningless at first, as no one believed that the war would come to the Middle East. However, things changed in 1941, when there was a pro-Axis coup d'etat in Iraq, and when the French Vichy government came to Syria and Lebanon. Amir Abdallah pushed for the troops of the Arab Legion to enter the fighting on the side of the British forces, and they saw some fighting, in helping abort the anti-British revolt in Iraq, and as replacements for guard duty in Palestine.

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14. Gubser (1983), p. 81.
Note: Britain, in fact, regarded TransJordan, not as a state in its own right, but rather as "buffer to Palestine" as was evident from the comments of H.Young:"We regard Trans-Jordania more as a buffer to Palestine than as a country capable of development in itself, and at present at any rate, money spent in that territory is only justified by the fact that it reduces what might otherwise have to be spent on military measures in Palestine"- Comment by Young on Milner's letter to Churchill of 3/10/1922, CO 733/38; quoted in Wilson (1987), p. 71.

15. Abu-Nowar (1989), p. 162.

On 22 March, 1946, following the end of the Second World War, TransJordan was granted independence with the signing of a new treaty with Britain, though it still allowed for British interference in Jordan's affairs. On 25 May, 1946, Amir Abdallah became King of Jordan, and a new constitution was set to replace the 1928 Organic Law.

In March 1948, the terms of the 1946 treaty were renegotiated and the new terms were milder, but still somewhat restrictive in terms of 'independence'. A major factor behind Britain's decision to make the terms of the treaty more acceptable to Jordan was the fact that the British mandate in Palestine was rapidly nearing its end and it wanted to clarify its relationship with Jordan before the onset of the predicted unrest that was to ensue in Palestine after the withdrawal of the British troops.

An important political trend which played a significant role and which affected the first few years of the state's existence and of Abdallah's reign, especially on the regional and international scenes, was his aim for Arab unity[16].

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16. This was possibly the result of his father Sharif Hussein's influence. The Amir strove hard at this unity, in particular that of a greater Syria. He believed that TransJordan was in fact the southern part of Syria, and ideally he wished to reunite the different parts of Syria. His call for unity received mixed reactions from the Arabs, but was on the whole not unacceptable among them. This call intensified during the Second World War but Britain only said that it would agree if the other Arab countries also wished this unity. However, a slightly different call for unity was also coming from Iraq and Egypt and Britain listened to them. This resulted in the formation in September 1944 of the League of Arab States.

1948: The declaration of the state of Israel and the expansion of Jordan

With the termination of the British mandate in Palestine on 14 May, 1948, the 1947 UN resolution for the partition of Palestine came into effect. Britain and Jordan, under their 1948 treaty agreed that Jordan would send the Arab Legion into those areas of Palestine allotted to the Palestinian-Arab population[17]. On 15 May, the state of Israel was declared, and fighting broke out all over the country. The Arab Legion entered the West Bank as well as an area stretching to Lydd-Ramleh. The Legion was however made to retreat back to only the West Bank. The result of that war was that the Arabs lost Palestine, and a region-wide problem was created that remains unresolved. As a direct result, Jordan had, almost overnight, doubled its population with more than 400,000 new citizens that were generally more educated, "modernized", and "sophisticated" than its indigenous population; it also gained thousands of homeless refugees, as well as a relatively large agriculturally fertile area, complete with water resources. The influx of the large numbers of refugees put the still nascent infra-structure of the country under extreme pressure, with increased demands from the municipal, health, educational, and social sectors. Also as a direct result of the war, Jordan's transport routes, which had run east to west through Palestine, had to be completely changed to run north to south through Beirut and 'Aqaba, which in turn caused steep increases in the price of commodities, resulting in high inflation rates[18].

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17. Actually the Legion was limited to only the West Bank as it was felt that it was neither large enough nor strong enough to control a larger area.

18. See Abu-Jaber and Shimizu (1984).

The annexation of the West Bank had further ramifications; with the West Bank area came the Palestinian cities of East Jerusalem, Nablus, Bethlehem, Hebron, and others, and as "the annexation added urban centers with their educated and semi-educated citizenry to rural and largely illiterate TransJordan"[19], the Palestinians, especially the West Bank residents were resentful of Jordanian domination over them. They were at the time, a much better educated and urbane population than the Jordanians, and disliked being under their rule.

For Jordan as a country, the addition and annexation of the West Bank was not all bad; the West Bank has fertile land and relatively large water sources, both scarce east of the Jordan river. In addition, the holy sites found on the West Bank, provided a resource for tourism. Coupled with the tourist attractions of the East Bank, the combination was an extremely appealing one for western tourists. This aided the Jordanian economy immensely. For the first time in its history the area had resources that it could rely on; in addition, that is, to the considerable human manpower resources that came with it. From another point of view, the annexation of the West Bank also resulted in an unprecedented flow of foreign and international aid to the country because of the refugees. Admittedly, most of such resources were primarily directed at the Palestinians, however, they were bound to filter down to the Jordanian economy. In general, therefore, it is quite safe to say that the overall Palestinian tragedy changed the fortune of Jordan, for the better.

With various areas of Palestine under the rule of different forces, the question of the rule of the Palestinian

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19. Patai (1958), p. 238.

land, in particular the West Bank, arose. King Abdallah wanted to rule the territory as it would be one step towards a greater Arab kingdom. To counter his claims, an Egyptian-backed Palestinian government was declared in Gaza in September 1948. This Palestinian government was quickly recognized by all members of the League of Arab States except Jordan. However, in October 1948 a five thousand-delegate conference on Palestinian refugees was held in Amman, which rejected the Gaza government and asked for King Abdallah's protection. In December 1948 the Congress of Jericho was held and was attended by many West Bank notables- mainly opposed to the Gaza government- and asked for an immediate union between the West Bank and Jordan, with King Abdallah as ruler. The decision was immediately approved by the Jordanian parliament and was cabled to both the League of Arab States and the United Nations. "The consummation of the unity move came in spring 1950. Elections for the lower house of parliament were held on both the east and west Banks in April. Later, King Abdallah appointed a house of notables, of which seven out of twenty were Palestinians. On April 24, both houses met and voted for the union of the West and East Banks under the kingship of Abdallah"[20].

King Abdallah proceeded to set the infrastructure for this new, 'larger' kingdom; Palestinians from the West Bank were from then on always included in the parliament, and unlike other Arab countries, West Bank Palestinians, as well as Palestinian refugees elsewhere, were given Jordanian citizenship if they requested it. In the East Bank, he continued his tribal, "paternalistic" rule. His relations with the Jordanian population, as well as with the Arab Legion, remained very good.

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20. Patai (1958) p. 86.

On 20 July, 1951, King Abdallah was assassinated in Jerusalem as he was leaving the Dome of the Rock Mosque, after Friday prayers[21]. Prince Tallal, Abdallah's eldest son was immediately crowned King, but was removed from the throne very soon afterwards because he suffered from mental illness. His son Prince Hussein was then declared King, but as he was only sixteen years old, the country was ruled by a regency council until he reached his eighteenth birthday in May 1953 and was able to take his constitutional oath as king. Thus by 1953, one regime, the Hashemite regime, had ruled the East Bank for three continuous decades, "and the people of the region were beginning to accept it as their government. Land was registered; values increased; and settled agriculture began to take on much more importance"[22]. On the other hand, new trends were emerging in Jordan: the Palestinian refugees and the West Bank had become more or less a part of the Kingdom, and the administration and infrastructure in the state had improved and expanded.

1953 - 1967

During this period of Jordan's history, the country and its young monarch were subjected to several crises, which shook them but which were eventually overcome, resulting in a more stable regime. Several factors contributed to the instability-some internal and some regional. One factor was the discontent of the Palestinians with the regime and its policies. The Palestinians resented the dominance of the East Bankers in the key military and decision-making positions. They saw

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21. It is thought that King Abdallah was assassinated by Palestinians disgruntled with him for his secret peace negotiations with Israel. With him at the time was his adolescent grandson, Prince Hussein bin Tallal.

22. Gubser (1983), p. 88.

themselves as more qualified for these responsibilities, being more educated and better trained. They were in fact in the dominant positions economically and socially and, because they also had a cause to fight for, more politically conscious. More generally, the Palestinians blamed Britain for the loss of their country and rights, and as they saw the Hashemites as allies of Britain, they had additional reason to resent the Hashemites and their rule over them. Additionally, they resented the peace negotiations that King Abdallah had attempted to conduct with Israel, considering it treason and mistrusting the Hashemites all the more for it.

A second set of factors affecting the Hashemite regime, was the rise of Arab and Islamic nationalist movements in the Middle East, and the growth of Pan-Arab and Pan-Islamic political parties with branches in all Arab countries, including Jordan. Arab nationalism often led to Arab countries and Arab leaders to interfere in the affairs of other Arab countries. This was especially true of President Nasser of Egypt, who dominated the Arab nationalist movement, and whose relationship with the Hashemites varied between alliance, tolerance, and outright hostility. Additionally, during that time, both American and Soviet influence were growing in the region, while the influence of Britain, Jordan's primary supporter was declining.

A more significant factor, however was the presence of Israel, an enemy state, but with which King Hussein wished to avoid conflict. This was due to several reasons among which the fact that the Arab Legion was not strong enough to withstand a confrontation with the superior Israeli military. This situation, however, was precarious. Palestinian guerrillas and peasants wishing to return to their land were constantly attempting to enter Israel; the Israeli army

attempted to stop them with strikes and raids, and the Arab Legion also tried to stop them to avoid conflict.

At this time - up until March 1956 - the Arab Legion was still controlled by Britain, and in an atmosphere of very strong Arab nationalism, it is not surprising that Hussein's position was, at best awkward. The legitimacy of the Legion as a national force, and as the defender of the Hashemite throne was now in question. In March 1956, Hussein dismissed General Glubb and Britain officially claimed to be offended; but in reality no action was taken.

On the regional political scene, Egypt, Saudi Arabia, and Syria entered into an alliance and tried to draw Jordan into it too. At the same time, Iraq was also pushing for a Hashemite union with Jordan. Hussein however resisted these as well as other attempts to forge unions with other Arab countries in the name of Arab Nationalism. This resulted in the fall of several governments in Jordan. During that period also, Nasser nationalized the Suez Canal which led to the Israeli-Franco-British invasion of Egypt. As a result, the Jordanian government broke off all treaty relations with Britain.

In early April 1957, there were two coups attempts led by the Government and a group from the Arab Legion. As soon as Hussein learned of the first attempt, he quickly dismissed the government. The second attempt occurred a few days later, under the leadership of General Abu Nowar who had been asked by Hussein to help form the new government. Again, the King was warned of this and immediately took control of his troops and was able to gain their full support. The King's support base after these two incidents became stronger, and from that time onwards, he has been able to rely on his own army to protect the monarchy.

Also during this time, Hussein had been establishing relations with the United States of America (USA). In January 1957, the Eisenhower Doctrine, in which the USA pledged to aid Middle East countries against Soviet aggression and subversion, was announced. Hussein negotiated with the Americans for them to replace the subsidy which had earlier come from Britain, and sure enough, as the British treaty ended at the end of March 1957, US aid began to arrive in April.

In 1964, an important Arab summit was held, during which the Palestine Liberation Organization (PLO) was created. The creation of the PLO had a direct influence on Jordan and Jordanian politics. The PLO was set up in Jerusalem, which was officially under Jordanian administration. The PLO was to represent the Palestinian people irrespective of citizenship and country of residence. The PLO then proceeded to establish the Palestine Liberation Army (PLA), which operated through units set up under the command of the various Arab states in which Palestinians resided. The PLO and PLA received financial support from the various Arab countries as well as through contributions by Palestinian individuals and organizations. In December 1964, Fatah, a guerrilla organization supported by Syria and the Gulf states, was set up under the leadership of Yasser Arafat. Both the PLO and Fatah proceeded to mount attacks and raids into Israel from Lebanon and Jordan. By mid-1965, these border attacks and Israeli counter-attacks were becoming more frequent and more violent. Such tactics were directly opposed to King Hussein's policies in terms of Jordan's relationship with Israel.

On 5 June, 1967, after a period of escalation, Israel launched simultaneous attacks on Egypt, Syria, and Jordan, and the Arab-Israeli war of 1967 began. An Israeli victory followed, resulting in the occupation of Egypt's Sinai and

Gaza Strip, Syria's Golan Heights, and Jordan's West Bank. The whole Arab world was shaken and demoralized, but it was Jordan that sustained the most severe losses. It lost one third of its population, its richest agricultural lands, the religious symbol of Jerusalem, and a substantial source of income from tourism. In addition, Jordan had to cope with an influx of 300,000 new refugees. In fact, "the economy was a shambles. the West Bank and its resources were lost, development plans were severely disrupted, significant U.S. aid was halted because King Hussein had joined with President Nasser in saying the United States had aided Israel in the war, and general instability simply undermined economic confidence.

One region of the country, the agriculturally productive Jordan Valley, was virtually depopulated in the 1968-1971 period due to Israeli shelling of guerrilla positions there. Finally, the country had again to absorb large numbers of Palestinian refugees albeit with the vital help of the UNRWA"[23].

The major socio-economic effect of the 1967 war on Jordan were summarized by Abu-Jaber and Shimizu (1984) who listed them as follows:

1. Jordan lost one third of its agricultural land, as well as the main tourist attractions,
2. Jordan received approximately 300,000 new refugees,

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23. Gubser (1983), p. 101.
Note: In 1964, Jordan had drawn up its first development plan to cover the seven years 1964-1970. The plan was abandoned as a result of the war, as the prevailing situation had changed fundamentally. Population size, land size, water and agricultural resources, were not the same any more. Additionally, the economy had to cope now with providing relief for thousands of refugees, and also with the cut in US aid, many of the plan's goals would be unattainable anyhow.

3. The closure of the Suez Canal resulted in re-routing the transport of goods through Jordan,
4. The Jordan Valley was abandoned, because of Israeli attacks, until the early 1970s,
5. Military spending was increased causing other development plans to be stopped, and resulting in economic hardship for the population,
6. Jordan still continued to subsidize most public services on the west Bank.

1967 - 1974

The period 1967-1974 was the lowest point in the history of modern Jordan. Directly after the war, and as a result of the Arab defeat, the Palestinian leadership decided that they would not again depend on Arab States to regain their homeland, but rather on their own resources. They began to rapidly build up their independent organizations- which eventually came to challenge King Hussein's regime and authority. In the summer of 1970, a major clash occurred between the Jordanian army and Palestinian guerrillas. This was quickly put down by the Jordanian troops. A few months later, however, another faction of the PLO, the Marxist "Popular Front for the Liberation of Palestine" (PFLP) hijacked four airplanes and called for the overthrow of the King and for a radical revolution in the country. The King struck at the guerrillas and Syria moved to aid the Palestinians. It invaded with tanks from the northern border, and Jordan retaliated by attacking the Syrians with its airforce[24].

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24. King Hussein received assurances from the US that it would come to his assistance.

Over the next ten months, the army "cleaned up" the guerrillas and crushed their presence in Jordan. This harsh treatment of the Palestinians resulted in some negative measures from some Arab countries. Libya and Kuwait cut off aid to Jordan, and for a long time, Syria closed its border and airspace to Jordan. The army, however, remained loyal, even though around half its number were Palestinians[25]. Meanwhile, Hussein resumed economic aid to the West Bank as soon as his finances improved.

On the Arab scene, the Saudis, who had been drawing increasingly close to Jordan since 1965[26], succeeded in reconciling the differences among Syria, Egypt, and Jordan, the three front-line states. The three then in 1973 launched an attack on Israel in an attempt to retrieve land that the Israeli army had occupied. Although the Arab armies were unable to achieve their goal, their performance, especially on the Suez Canal front, highlighted Israel's vulnerability if faced with a united Arab attack. This resulted in the USA taking a higher-profile role in the area and in Middle Eastern political affairs. Jordan had participated minimally, with a few thousand men, but no Jordanian front was opened.

From 1973, until the mid-1980s, the situation was dominated by relative political and security calm both internally and externally. This was reflected in the amazing rate of change and development that occurred in the social and economic fields in Jordan. As a rough indicator of this trend, annual per capita GNP rose from USD 290 to USD 1,650 between

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25. Most strike units, however, were East Bankers.

26. Both countries had conservative, pro-western monarchies. It was in 1965, that the two renegotiated their southern borders, giving Jordan a larger coastal strip at Aqaba.

1974 and 1982[27]. Such developments were evident in most other socio-economic sectors too. On the other hand, Jordan's external and regional relationships improved, especially with the rest of the Arab world, where it hosted the Arab summit meeting in Amman in 1980 and again in 1987, after being shunned by them earlier.

On another level, this period witnessed some new trends in development policies. In December, 1979, AbdulHamid Sharaf was appointed Prime Minister by King Hussein. Sharaf believed in decentralization, and he focused the Government's attention on the development of local and regional institutions, and tried to remove some of the excessive focus given to Amman. He wanted to show the Jordanians that the Government was interested in regional development, and towards that purpose began to establish regional development groups, "to address, in a regional context within the national plan, questions and programs relating to manpower, water resources, agriculture, industry, mining, tourism, transport, energy, telecommunications and public utilities"[28]. These developments were accompanied by a nation-wide propaganda project which involved television, radio and newspapers. In Sharaf's words, it is "what you might call regionalization in our local government, to give power back to the regional centres and the provinces, to give more power to the mayors and governors, and to allow the local communities everywhere to develop and run their own affairs. And this covers the economic as well as the political side, because it is very necessary to allow the people to carry the burden and to share the burden of government".

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27. Schiephake (1987).

28. Crown Prince Hassan in an interview with The Jordan Times, quoted in Gubser (1983), p. 114.

The new policy also advocated more participation in development from the bottom than had been practised in the past. This, Sharaf said "is not only necessary for us in terms of economic need, but it is also desired by our people, I think it is very unhealthy for the government to take a patronizing attitude to the people and to treat them as if they were only objects of service, not participants in the development process. We want to make this change both psychologically and in reality"[29]. Sharaf, however, died a few months after making these statements and was replaced by Mudar Badran, who carried on with some of the same policies. Badran, however, was removed from office in 1984, and this progressive policy was disrupted.

In terms of internal politics vis-a-vis the Palestinians, after a brief period in 1974 when the parliament was dismissed, and there was a marked decrease in Palestinian representation in it, the situation returned to "normal" in 1976, with the recall of the old cabinet and the suspension of new elections. At the same time, the Palestinians in Jordan have not attempted to challenge the regime since the early 1970's. They now are represented in government , and many Palestinians occupy high positions in the government, although "they cannot hope to attain the highest or more sensitive civilian or military positions"[30].

In terms of the internal political development of Jordan, the situation has been very calm and stable. The only complaint of the citizens being the lack of a truly democratic

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29. Prime Minister Sharaf interviewed by Rami Khouri for "Middle East", Feb 1980, quoted in Gubser (1983), p. 114.

30. Gubser (1983), p. 110.

structure of government. Political parties were until 1989 banned in Jordan; the only exception being the Muslim Brotherhood, who have in the past supported the King and the regime. This internal political situation has changed since 1989 with a commitment from the Government and King Hussein to democracy and freedom of political action. However, broadly speaking, and for the purposes of this study, it can be safely said that there has been very little development on the internal political scene in the country over the period 1960-1988, the main historical period of the research.

The military, also, has not seen any major changes or developments. It has remained loyal to the monarchy, and this is more significant when one takes into account that the armed forces number more than 100,000, constituting a significant proportion of the labour force - approximately 23 per cent.

Ignoring for the moment the repercussions on Jordan of the recent "Gulf War" on Iraq, this stable political and military situation had persisted until early 1990. Jordan has been on good terms with other Arab countries, especially with the more conservative and "moderate" of them. It has good relations with the US and with the European Community, and it also maintained friendly links with what was the Soviet Union. Its relationship with Israel is also stable, despite the very long borders between them; Jordan does not allow any military or guerrilla attacks on Israel from its soil. Exemplifying the stability and continuity of the political system in Jordan, is the fact that King Hussein has been in power, with increasing popularity, since 1953- making his reign one of the longest in the world.

As for the West Bank, its future has become a purely Palestinian issue ever since the declaration of the Palestinian State in December 1988.

Social Structures

As outlined briefly in Chapter One above, the population of Jordan is considered to be an ethnically homogeneous one, with Arab/ Muslim culture being its main characteristic. Furthermore, Jordan's inhabitants can best be described as being of traditional Arab Bedouin tribal origins. This labelling is useful to describe the origins of Jordanian society in terms of both life-style and of the system of social organization. Although to the casual observer modern-day Jordan appears to be a modern westernized society, this view fails to acknowledge the complex role that tribal social structures play in everyday life.

Being principally a one ethnic group/ one language/ one culture society with a relatively small population, and a relatively small area, the most straightforward way of studying Jordanian society would be through its classification into the prevalent systems of life-style and modes of production which characterize different Jordanian groups. A deviation from this method of analysis arises when the Jordanian/ Palestinian composition of the population is discussed. The Palestinians, although now integrated into Jordanian society - they share most of the ethnic, cultural, and linguistic traits - have had a different political and social history as a nation. Many have maintained a strong Palestinian identity. At the same time, it must be remembered, however, that the loss of Palestine was perceived as a pan-Arab national problem. The Jordanians feel as strongly about Palestine, and have the same aspirations of regaining it. This acts to lessen the effect of the different identities. Although, these differing identities were the cause of conflict in the past, what remains is the fact that it was both groups working together which resulted in the building of Jordan.

Since the establishment of the state and its institutionalization, the life-style of the population underwent a process of rapid and dramatic change in order to accommodate to the rapid "modernization" that comes from being tied to a global market economy. Whereas at the beginning of the young state's life its inhabitants could be portrayed in terms of habitat and modes of production, as being "settled", "semi-settled", and "nomadic" This division or classification applies to Muslims and Christians alike. The other ethnic minorities (Circassians and Shashanis) have been, since their arrival in the area, predominantly urban dwellers. The Palestinians, or the Jordanians of Palestinian origin also fit loosely into these categories, but they tend to be more city, town, and village dwellers, with very few nomadic groups. In terms of patterns of settlement and degree of urbanization, the Palestinians, when they were joined with Jordan in 1950, were much more of an urban-population which played a significant role in speeding the rate of urbanization in Jordan.

As is to be expected, the size of the Bedouin population is quite difficult to estimate[31]. The earliest estimate, in 1922, puts the number of Bedouin in Jordan at around 70,000-75,000 persons; that is, around 34 per cent of the total population. By 1946 the number had become 99,260 or 23 per cent, and by the mid-1970's it had become around 150,000, or approximately 7.5 per cent of the population - of those it is believed that only 50,000 were still completely nomadic. By the early 1980's the estimate was that the Bedouin population was no more than 5 to 7 per cent of the total, all of whom

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31. The nomadic tribes of Jordan are: In the north, Bani Sakhr, Sirhan, Bani Khalid, Issa, and Salaita; and in the south, Huwaytat, Injadat, Rashidat, Ka'abneh, Manain, and Hajaya. The Bani Sakhr and the Huwaytat being the largest, wealthiest, and most powerful of the tribes.

were living in the Eastern two thirds of the country. Among the Bedouins of Jordan, there are both Christian and Muslim tribes. The Bedouin nomadic way of life has several characteristics that distinguish it from other modes of settlement as well as from other nomadic peoples. The Bedouin unlike other nomads, do not roam about at random in search of water and pasture. Rather, each tribe (or *Qabila*) has its own territory in which it moves. The usual pattern is for each tribe to have particular summer and winter areas in which they camp. "The regularity of these wanderings manifests itself in its double, temporal-spatial aspect: in normal times the tribe can be found in more or less the same spot within its wandering territory in the same season year after year"[32]. Tribes do not on the whole trespass on other tribes' lands, although common law allows anyone to benefit from the water and vegetation of the desert if they need it provided they do not exploit it. This was remarked on by T.E.Lawrence who wrote that the "desert was held in a crazy communism by which Nature and the elements were for the free use of every known friendly person for his own purposes and no more"[33].

The Bedouins have very few material possessions, and "all the equipment and gear owned by the Bedouins is adapted to the requirements of mobility, and of swift and unencumbered movement at that. Everything must be light, compact, non-fragile, and not too bulky to be carried by a single camel"[34]. In addition to the tent itself, typical possessions of a Bedouin family would consist of a few rugs and cushions,

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32. Patai (1958), p. 164.

33. Lawrence (1935), p. 17.

34. Patai (1058), p. 179.

the riding gear, weapons, a few cooking utensils, water jars, mortars, leather water containers, sacks and skins containing provisions such as sour milk, clarified butter, grains, salt, dates, sugar, coffee, rice, and a few tools used by the women in their crafts.

The bedouin live from herding and breeding camels and goats, while the more settled tribes own sheep. These animals are their main source of income, as well as subsistence. Animals are traded in markets for wheat, rice, and any commodities that they required. The milk (and fat) of the animals, and occasionally their meat, is the main food and source of protein for the Bedouins. The wool is used to make clothing, and in the case of goats, the wool is used to weave the Bedouins' characteristic black tents ("*Beit Sha'ar*" or house of hair).

Another source of income for the stronger tribes is to impose protection money (*khuwwa*) on the weaker ones, in exchange for not raiding them. In times of scarcity, tribes resorted to raiding other tribes, where the conquerors have at their disposal the flocks and the possessions of the vanquished tribe. In such instances, the practice is also for the conquering tribe to take some of the women of the defeated tribe. Protection money has also been paid to the tribes by the various rulers of the area to protect the pilgrimage and trade routes and later the Hijaz railway- in effect the tribes were paid so that they themselves would not raid the caravans (those policies were employed by the Ottomans and later by Major Glubb). Such raids, in addition to the Bedouins' disregard for the national boundaries drawn after the First World War, were the main cause of friction between them and the authorities. As mentioned earlier, this was resolved around 1930, when the Bedouin began to join the army in ever increasing numbers. The recruitment of the Bedouin into the

army was also the main cause of their rapid move towards sedentarization and settlement in the ensuing years.

Moreover, as they proved extremely loyal to the Hashemites, they have been rewarded for their services by the monarchy. Positive efforts have been made to provide them with health services, schools, and other infra-structural services. Additionally, tribal chiefs (*Shaykhs*) were allowed to register tribal land in their, and their tribes' names, which from the mid-1940s resulted in immense wealth for them[35]. Since these changes began to take effect, the numbers of nomadic Bedouins has decreased yearly as they moved to villages, towns, and cities in search of their livelihood.

Alongside the nomads and the sedentary inhabitants, there exists in Jordan a semi-settled, or semi-nomadic, population. These are usually the weaker tribes, or the less wealthy who breed sheep and therefore need to stay closer to more fertile lands with the higher rainfall. The classification "semi-settled" applies either to tribes that resort to splitting themselves into two groups, with one section moving to the desert and another staying behind to practice limited farming, or to tribes that spend part of the year (the summer months) in stationary tents or huts practising some farming, and then spend the rest of the year travelling. In general, the semi-nomadic pattern of settlement falls between total nomadism and settled village. As far as that applies, therefore, the semi-settled population have marginally more material possessions, they can afford to have slightly bulkier and heavier equipment, which they can leave behind in times of roaming. This form of settlement persists

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35. The area of Amman was almost entirely in the hands of the Bedouin tribes, who are still profiting from the astronomical rise in land prices.

today, and in fact most Bedouins nowadays practice this kind of limited-nomadism, mainly because of the easier accessibility to services.

The third form of settlement found in Jordan is the rural villagers or peasantry (*Fellahin*). These live from farming the land and from sedentary animal husbandry. In contrast to the Bedouins, they own and breed horses instead of camels. Traditionally, they too have been subject to paying the Bedouins' protection money. They saw their existence as somewhat precarious, and until relatively recently, preferred to live in tents, rather than invest in permanent housing. "The construction of fixed houses rather than tents came about largely when civil order was established in the countryside. Thus in the mid-nineteenth century, when the Ottomans exercised virtually no control in southern Jordan, in Kerak district, for example, only four sites with permanent houses could be found. By the mid-1920s, after more than thirty years of central government presence, thirty-five villages had been built; today there are around eighty. The lack of villages during this earlier period did not mean lack of population. Rather the people lived in tents, being quite prepared to decamp and seek security if a threat appeared. This was the pattern in southern Jordan. In the more northern region around Irbid, the Ottomans had a greater degree of control, and consequently regular villages were more dense"[36].

Traditionally, the village economy relied primarily on the cultivation of the land. A new trend has, however, emerged, and since the 1960s, the situation has been quite different, with more than half the labour force working

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36. Gubser (1983), p. 30.

outside the village - mainly in the army[37]. The villages and the rural areas, have in recent years been targeted by the government for development and services programmes. The available socio-economic data that exist corroborate a story of steady improvement and upgrading of services[38]. A counter-force, however,is that the rate of migration to the cities is growing annually, resulting in the neglect of the rural areas as well as of the agricultural sector.

Urbanization is the fourth type of significant human settlement. The phenomenon of Jordanian urbanization is important because of the exceptionally high rate at which it occurs. Until the late nineteenth, early twentieth century there were no "cities" in Jordan. The largest towns were Irbid and Salt. Amman, now the capital and largest urban centre in Jordan was until the end of the last century no more than a site of some Roman ruins. It was the country's minorities that "were among the important forces which initiated the process of urbanization in the country, before the emergence of the Emirate of Trans Jordan"[39]. These minorities were the Christian tribes of Salt, Madaba, and Kerak who were generally weaker than the other tribes and who started settling and forming urban centres in these locations; and the Circassian refugees who were brought by the Ottomans to Amman and Jerash from Russia in the late 1880s. The rate of urbanization, however, has grown so rapidly that now it is estimated that 70 per cent of the population is urban with an annual growth rate

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37. Gubser (1983), p. 30.

38. Between 1978-1980, it was estimated that 50 per cent of the rural population had access to safe water (a rise from 2.1 per cent in 1960), and 30 per cent of dwellings had access to electricity. World Bank (1980).

39. Kazziha (1972), p. 24.

in the urban population of 4 per cent, as compared to approximately 3.4 per cent for the whole population. This growth appears to be the result of a shift in the economy from agriculture to some industrialization, and more importantly, to the fast growing services sector in the country. The rates of service coverage for the urban population have been remarkably good, and in the main cities, are now comparable to those found in some of the world's industrialized nations.

In Jordan, there is an additional form of settlement that needs to be discussed- the Palestinian refugee camps. Slightly more than 10 per cent of the total Jordanian population lives in these camps, which were set up in 1948 and then again in 1967 to shelter the Palestinian population which had lost its lands and homes. The camps are to be found in and around major Jordanian cities and towns, a minority are located in rural areas. Originally these settlements were constructed on a temporary basis (tents), as it was believed that the Palestinians would soon be returning home. After a while, with the realization that the problem was likely to be a long-term one, the refugees were allowed to make their "houses" more permanent by expanding them slightly, and by putting in "extras" such as windows and roofs. Some water and sanitation facilities were installed for the population. These camps, and some of the refugees living in them, have now been there for over forty years.

Over the years they have increasingly come to be part of their surrounding environment. For the most part, the refugee camps, although preserving their separate identity, are indistinguishable from other Jordanian shanties. The major difference which sets the camps apart, however, is that the responsibility for the facilities and the maintenance of these camps rests with the United Nations Relief and Works Agency for Palestinian Refugees (UNRWA), although the government does

give assistance, and provide infra-structural services whenever possible. The economy of the camps is still heavily reliant on UNRWA, the Jordanian Government, and other foreign agencies' assistance. Some refugees, however, have set up businesses and employment opportunities now exist inside the camps along the same lines as in any other Jordanian towns or cities. However, most of the inhabitants continue to seek employment outside.

Conditions are, however, very different for those refugees in camps located in rural areas. There, opportunities for employment for the landless refugee are almost non-existent. Apart from their living conditions, camp resident Palestinians have a slightly different social and psychological framework resulting from their status of long-term temporariness. "The Palestinian camp population is perhaps the most disgruntled segment of the Jordanian population. The very fact of living in a camp creates a separate psychology and a concentration of despair and/or anger...A factor that helps to alleviate the anomie of camp residents, but also reinforces their ties to their lost villages or town quarters and thus to Palestine, is that individual camps tend to be made up of families from certain towns, villages, or neighbouring villages of pre-1948 Palestine. In this manner, a certain continuity was retained in the refugees' social relationships, and the potential for the growth of solidarity exists"[40].

In terms of population and patterns of settlement, the regional wars, mainly those of 1948 and 1967, were the cause of many changes in the region, the effects of which are still to be felt to this day in Jordan. In 1948, the Palestinians

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40. Gubser (1983), p. 34-35.

lost their homes and land and many of them became refugees. The area known as the West bank was placed under Jordanian administration, and with it came a large input of population that had to be accommodated and who had to adapt to the different conditions of Jordan. "Numerically, the Palestinian population - resident plus refugees - was twice as large as the original Transjordanian contingent"[41]. The largest problem facing the Jordanian government and people was the vast numbers of refugees that had to be settled, sheltered and provided for. These, to a large extent, were dealt with by the UN through the establishment of UNRWA, which operated in Jordan, Syria, Lebanon, and other countries to which the refugees fled. But, a large proportion of the refugees in Jordan did not settle in camps, and preferred to live with friends and relatives, or to buy and rent their own houses. Even if those provided their own housing and businesses, the Jordanian Government was, nonetheless, under pressure to provide more services in a relatively short space of time. The addition of so many new people constituted a heavy burden on the existing services and facilities, which were themselves not very developed and often much less elaborate than what the Palestinians had been used to. In trying to accommodate the new arrivals, the Government's resources and finances became strained.

The Palestinian presence and the role of UNRWA indirectly caused another problem in Jordan. The Palestinian refugees were receiving services superior to those available to the majority of the Jordanian population. UNRWA was providing services which included housing, schools, health care, and a feeding programme, which were, for the most part, superior to those offered by the Jordanian Government. UNRWA

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41. Patai (1958), p. 50.

services made available to the average refugee family a higher living standard than its average Jordanian counterpart. This created a considerable source of resentment between the two communities, at least in the beginning. The result, however, was that the needs of the under-served Jordanians were tackled quickly, closing the gap that had been emerging.

The precarious balance that Jordan had tried to build was upset again in 1967, when Israel occupied the West Bank, placing its inhabitants and resources under Israeli rule. The war also resulted in another wave of refugees that needed to be sheltered and serviced. The question of refugees will be dealt with in greater detail in Chapter Nine.

For a large proportion of the Jordanian people, a super social structure also exists. Regardless of where a person lives, what they do, and how they earn their living, most East Jordanians and many Palestinians, claim to belong to an "*Ashira*" (a sub-tribe or a super family group). The same Ashira often spans families across the Jordan river. Hence, families from the Irbid-'Ajlun area are often from the same Ashira as those from the Nazareth-Safad-Tiberias areas in Palestine. Those from the Kerak are related to families in Hebron, and so forth. This tribal familial structure applies to Christian as well as Moslem families. Although this type of tribal affiliation exists elsewhere in the Arab World, in Jordan it still functions in everyday life. The leadership of an Ashira (normally chosen as the "wisest" and often regardless of personal wealth) are involved in arranging marriages or settling disputes, in addition to and in parallel with, such official dealings at the Government and judicial systems.

The most striking characteristic of present-day Jordanian society is the mix of cultures and traditions which

its structure accommodates. Jordanian society exhibits a remarkable balance and co-existence of modernity, and a certain degree of Westernization with traditional cultural beliefs and practices. Abu Jaber writing in 1980 remarked that "to be a Jordanian, an Arab, now, you have to live not in one world, but in two, and in some cases more than two worlds at the same time"[42]. This statement is still true today; professional Jordanian women are a fact of life in Jordan today, but so is the involvement of the family and tribe in everyday affairs.

Jordanian society has allowed for the accommodation and integration of new "imported" concepts and ideals without losing sight of the concepts and ideals within tradition. Jordanians have shown a readiness to accept new ideas and to accept change; perhaps as a reflection of their recent history as a nation. Traditional structures, beliefs, and customs that seem to have persisted are those that are fundamentally linked with tribal custom and codes of behaviour. On the whole, "the idea of change itself has been consciously accepted, even welcomed as a fact of life. What is traditional, unless it is fundamental and exceedingly basic, is no longer simply sacrosanct and unquestioned. The idea of development and positive change is no longer feared"[43]. One such idea considered basic and fundamental to Jordanian society is that of the social support network which, unlike in many other rapidly developing and modernizing countries, is still operational. Coupled with widespread education and the increasing availability of services, such traditional structures appear to have acted to hasten the process of

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42. Abu-Jaber (1980), p. 13.

43. Ibid., p. 42.

overall development in Jordan, allowing for a balanced and healthy outlook on development and modernization.

Economic History

An essential premise needs to be borne in mind during any discussion of the economic status of Jordan: the country is extremely poor in all forms of "natural resources". With the exception of limited agricultural produce, phosphates and potash, Jordan does not have any natural resources it could rely on economically. As such, Jordan does not really have an industrial base, although in more recent years, some limited light manufacturing industries have emerged. There have also been improvements in agricultural technology, which has led to improvements in crops and produce. Jordan reached the stage where it acts as an exporter of some agricultural crops, especially to neighbouring Arab countries.

Jordan's main asset and "resource", however, is seen to be its trained manpower. This is recognized by ordinary Jordanians and Government officials alike. A famous saying by the King which heads many publications and which is often seen on banners is "*Al-Insan Aghla ma Namluk*", roughly translated to mean "man is the most precious thing we own". This sentiment has been translated into more that a slogan; it has formed one of the main pillars of developing the Jordanian economy. An illustration of the importance of this policy can immediately be seen in any opening statement of Jordan's Development Plans. Crown Prince Hassan in 1987, at a time when it was estimated that over a quarter of a million Jordanian were working in the Gulf, wrote that "it is our human resources that we regard as our major assets. Sizeable investments in the development of these resources have yielded gratifying results... Thus we see our future role as an advanced technical and maintenance base serving the entire region"[44]. This has, in fact, been a recurrent theme for

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44. Crown Prince Hassan (1987), p. 3.

Jordanian Government officials responsible for planning the economic development of the country. It has also been recognized and pursued in development assistance by donor organizations such as the World Bank (1981) which stated in a Jordan 1981 Education Sector memo that, "a healthy, well-educated and trained labor force is considered to be the country's most important asset".

The reliance on manpower as a major resource base has led to intensified investments in developing this resource. Education and training have been awarded high priority in Jordan, in an attempt to fill the gap for skilled manpower existent in the Gulf. The educational aspects and implications will be discussed in more detail in later sections of this study. Suffice it to say that emphasis on education and training leads to changes in life-style and expectations, which play a crucial role in the overall development of a society at all levels, including health. Change is also to be expected with increases in people's purchasing power due to the extra income that is being sent home by those workers.

The Jordanian Government has actually gone further. In realizing that the human being was an important asset, they went on to actively try to improve their life, presumably with a view to maintaining and improving productivity. This has been highlighted by, among others, a recent Minister of Development who illustrated his argument by pointing to the "unequivocal statement" in the first premise of the second Five-Year Development Plan: "man has always been at the heart of all successive Jordanian Plans. It is imperative that all sectors and capabilities of the Jordanian Economy be directed in the service of Man, the development of society and its well-being"[45]. The Plan aimed at tackling the basic needs such

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45. Quoted by Kana'an (1990), p. 13.

as housing, health, water, education, and transport. Such policies besides improving manpower productivity, do have their direct effect on developing the society and its well-being.

Jordan's main sources of finance, therefore, have come mainly from the growing services sector (to a lesser degree from the growing agricultural sector), remittances from Jordanian workers in Gulf countries, foreign assistance and aid. These different sources have played roles of varying importance throughout the history of Jordan, and will be discussed below.

During the earlier period of Jordan's history, principally between the years 1920-1946, the population was mainly dependent on traditional agriculture - with practically no irrigation - and traditional animal husbandry. Abu Jaber and Shimizu (1984), estimate that around 85 per cent of the population at the time were dependent on those modes of production. The situation began to improve with the creation and independence of the state. In 1922 the Government established the Agricultural Bank which gave loans to farmers to enable them to improve their methods of production, and in 1930 the first national land survey was undertaken, and the registration of land proceeded between 1935-1940. As stability became more established, there ensued an increase in settlement of bedouins, and with it an increase in the area of cultivated land, though the processes were still very much low-technology.

According to Abu Jaber and Shimizu, until the mid-1940s trade was also virtually non-existent except for a few essential goods such as food items. There was no export trade from Jordan. The bulk of what trade activity was taking place was until 1946 almost totally dominated by non-Jordanians;

mainly Syrians and Palestinians. The situation only began to change during and after the Second World War.

Foreign financial assistance to Jordan began with the aid that was granted to Jordan by the British during the period of the British mandate in the area. It is estimated that the annual British subsidy of the Government until 1946 ranged between 16-64.9 per cent of the total budget, averaging around 30 per cent annually. This was to be the beginning of a very important trend and economic determinant in the economic-political history of Jordan. Jordan has been from the beginning of its existence heavily reliant of foreign aid and assistance. Over the years the sources of this aid have varied, but the most important sources are the USA and the oil producing Arab countries. Table 3.1 below outlines the levels and extent of foreign aid for the period 1959-83, for which figures were available. This period is also a crucial one in the history of Jordan, as it was during these years that the building of the state was begun. Table 3.2 highlights the extent of Jordan's reliance on outside financial assistance as compared with other Arab, and other middle-income developing countries with good levels of health status.

Dependence on foreign aid does not occur in isolation. It is tied with political strings, and the case of Jordan is no exception. The curtailment of aid by Kuwait and Libya after the problems of 1970, and the more recent example of the suspension of aid following Jordan's position over the Gulf war, are clear examples. The mechanisms through which aid is tied, however, are usually less glaring and clear-cut. Aid, even that meant for sectors such as health or education, is often not without its own regulations and influence on policy. For example, the United States Agency for International Development (USAID) in a 1983 report on its activities in the near east stated that: "Surrounded by Israel, Syria and Saudi

Arabia, Jordan is geographically and politically important. Jordan has long supported a comprehensive Middle East peace settlement. Jordan continues to seek a formula which will permit Jordanians and Palestinians to seize the opportunity for peace... The primary objective of AID's program in Jordan is to assist the continued development of a moderate, Western-oriented state that is socially and politically stable. For thirty years, US economic assistance has been an important component of the US presence in Jordan, contributing to the formation of both the physical and human infrastructure which helped further the rapid socio-economic growth of recent years"[46].

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46. Agency for International Development (1983), p. 19.

Table 3.1: Foreign Financial Assistance to Jordan, 1959-1983

	Total aid#	Arab aid#	U.S. aid#	Other aid#	% of GNP	PerCap aid^
1959	25.14	-	17.32	7.82	31.20	18.97
1960	25.49	-	18.20	7.29	25.44	16.10
1961	25.33	-	17.05	8.28	20.62	15.42
1962	23.47	-	15.48	7.99	19.27	14.42
1963	22.52	-	15.51	7.01	17.53	13.26
1964	26.57	4.54	15.03	7.00	17.76	15.25
1965	26.78	7.34	11.98	7.46	16.32	15.42
1966	31.44	9.49	13.37	8.58	18.36	17.30
1967	51.58	37.57	7.62	6.39	26.19	26.44
1968	53.07	46.25	1.19	5.63	27.62	25.94
1969	45.79	41.15	1.25	3.41	20.26	21.62
1970	39.08	33.07	1.38	4.63	18.27	17.67
1971	35.94	19.11	12.82	3.56	15.47	15.38
1972	65.96	23.19	35.95	6.82	25.96	27.76
1973	61.09	23.66	30.83	6.60	22.17	25.43
1974	84.43	46.60	25.31	12.52	23.19	33.11
1975	138.01	105.65	22.44	9.92	37.18	51.78
1976	122.75	77.59	26.13	19.03	22.50	45.52
1977	166.94	132.31	15.62	19.01	25.12	57.38
1978	102.63	66.26	18.56	17.81	13.63	35.74
1979	318.05	299.66	4.59	13.80	34.13	101.76
1980	390.85	370.43	6.15	14.27	33.64	123.10
1981	415.33	394.92	-	20.41	28.70	128.21
1982	363.72	335.83	-	27.89	22.02	107.57
1983	289.56	258.31	-	31.79	15.95	82.38

Source: Hammad (1987).
#: Millions JDs.
^: Jds.

The implications for interference from such aid goes beyond the obvious regional-political level. When a country is bound by dependence on aid to an extent that infrastructure building is reliant on aid; and where priorities are coloured by the donor's perceptions, this has an inevitable, though not readily quantifiable, effect on internal decision making. For instance, it is well known that USAID favour health programmes which can accommodate ultimate privatization of the services. Many donor organizations like recipient countries to pursue an aggressive policy of family planning.

Table 3.2: Official Development Assistance Selected Countries, 1987.

	US$ Million	As % of GNP
Jordan	**595**	**12.0**
Algeria	222	0.3
Egypt	1,766	4.9
Iraq	91	...
Kuwait	3	0.0
Lebanon	100	...
Libya	6	0.0
Morocco	401	2.4
Oman	16	0.2
Saudi Arabia	22	0.0
Syria	697	2.9
Tunisia	282	2.9
U.A.E.	1	0.5
Yemen A.R.	349	8.2
Yemen, P.D.R.	80	8.1
Costa Rica	228	5.3
Sri Lanka	502	7.5
Thailand	506	1.1

Source: UNDP (1990).

To what extent, then, do such "donor policies" play a role in the processes at work in a country like Jordan? This will be a difficult question to resolve with any degree of certainty. But that donors have tried to meddle in Jordan's affairs and influence them, both external and internal, is not in doubt. Jordan, after all, owes much of the financing of its developmental achievements to the aid it receives from foreign countries, each with their own agenda and motives for helping it.

British aid to Jordan eventually gave way to richer sources like the US and the oil producing Arab countries. After the war of 1948, the US and Saudi Arabia became primary sources of aid to Jordan. Both countries considered Jordan a useful "moderate" ally in the area. This aid played an important role in lifting the economy and providing the finances needed for building the infrastructure in Jordan. Dramatic developments began to take place in the country, both economically and socially. Housing and commerce boomed,

schools were built, resources were available to an extent that education was made compulsory for the elementary levels. Health services were improved, and country-wide plans for providing water and sanitation services to the population were embarked upon. The improved economic and services situation, and the resulting perceived improved opportunities, led to a rush of urbanization. The urban areas, especially Amman, began to grow at a very fast rate.

The period between 1952 and 1966 witnessed economic growth estimated at an annual growth in GDP of 6.9 per cent and in GNP of 7.5 per cent. By the early 1950s, the development planning process had begun in Jordan. In 1952 the first ten-year development plan had been drafted by a World Bank mission. This plan was, however, abandoned. In 1961, the Jordanian government had drawn up its first national development plan - to span a period of five years, from 1963-1967. This plan was then revised to cover a seven-year period (1964-1967). The plan was very ambitious, but not altogether too far-fetched.

Implementation of the plan had been started when the war of 1967 broke out. With the Arab defeat in the 1967 war with Israel, Jordan as outlined earlier, "lost" severely. Overnight, it had to accommodate to the loss of people, land, and assets, as well as to the thousands of refugees that were coming in. The war also "led to an increase in current and capital expenditures by the Government, comprising expenditures on defence, security, relief, emergency measures, education and health, in addition to expenditures on developmental projects aiming at stimulating economic activities"[47]. Moreover, the Jordanian Hashemite regime itself

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47. Ministry of Planning (1985) [1986-1990 Plan], p. 10.

was badly shaken by the loss, and there was a general drop in morale that lasted for a long time. Needless to say, the development plan was abandoned, which is understandable, given that almost all conditions and assumptions on which the plan had been based, including factors as basic as the total population, had suddenly changed or ceased to exist altogether. The country was left trying to deal with the crisis, and long-term plans were shelved for a while.

In the aftermath of 1967, Jordan found itself again the recipient of aid and financial assistance which began to flow from international agencies and the Arab oil states, though aid from the US actually dropped to insignificant levels. The Arab oil-countries, especially Saudi Arabia, were still very interested in maintaining the moderate conservative Hashemite regime in the area. With the assistance of this foreign aid, the economy began to recover slowly. The period 1967-1972 registered an average annual growth in GDP of 4.6 per cent and in GNP of 4.2 per cent. After the Jordanian army clashed with the Palestinians in 1970, many of the Arab countries stopped their payments to Jordan in protest. By then, however, Jordan had built up enough infra-structure to tide it over this bad period without any major crises.

Between 1972 and the mid-1980s, the economy again resumed its rapid growth rates with annual growth in GDP averaging 8.3 per cent. This was due to several occurrences on the internal and external scenes at the time. In 1974, relations had improved considerably between Jordan and the other Arab countries as well as between King Hussein and the PLO, resulting in the resumption of aid to Jordan by those countries. At the same time, Jordan had also resumed receiving financial assistance from the US and from the European Community, as well as from other individual countries, such as Pakistan. Furthermore, Jordan had by then begun capitalizing

on its main resource: skilled manpower. It started exporting large numbers of highly trained manpower, technical and academic, to the Gulf countries. These export workers were sending remittances to their families in Jordan, which considerably aided the economy.

It was also during this period (1975-1976) that the civil war broke out in Lebanon. This led to an inflow into Jordan of both a large number of highly trained manpower, and capital that was looking for a stable alternative to the markets of Beirut. The services sector of Beirut began to slowly move to Jordan and to use Amman as a centre of activities. This greatly expanded the Jordanian services sectors and gave a boost to the economy. Since the security and political situation in Lebanon has remained unstable, Jordan has continued to act as the alternative for trade and services in the region. Also during that same period, in 1978, the Iran/Iraq war started. This war also had its positive impact on the Jordanian economy. With most other routes closed to Iraq's external trade, the port of Aqaba was the only stable and secure access the Iraqis had to the outside, which in turn reflected positively on the Jordanian services sector and the overall economy. And so it was that "the first Five-Year Plan (1976-1980) was formulated in the light of a new set of factors, including a large increase in Arab assistance and loans to Jordan in the wake of the oil boom in the Gulf, and growing demand for Jordanian manpower in the Gulf countries. While there was a significant rise in the value of remittances by Jordanian workers abroad, there was a parallel shortage of skills within Jordan, leading to the import of arab and foreign labour. Other factors were higher

oil prices, inflation, general wage and salary increases and a rise in government subsidies on staple foods and fuel"[48].

Significantly, although during this period the major economic sectors of Jordan's economy (with the exception of agriculture) were showing considerable increases in income, and although remittances from workers abroad reportedly rose by three fold between 1973-1977 and 1980, Jordan remained dependant on foreign financial assistance[49].

The role of the political factor both internally and externally is an extremely large one in the case of Jordan. Because of fears of Israeli military action against Jordan, for example, the defence budget continues to grow at the expense of the other social and economic sectors. In 1985 the defence expenditure totalled 27.7 per cent of the entire government expenditures. The military employs in excess of 100,000 persons, a significant section of the labour force of the country, as such, it remains a relatively easy means of upward mobility for the Bédouin and the villagers, as well as the poor urban dwellers.

Economic and social development and growth continued until the early 1980s, when the price of oil began to fall. This led the Gulf countries to considerably reduce their financial assistance to Jordan, and more significantly to start sending Jordanian workers back to Jordan. As a result, there have been less and less work opportunities for

48. Ministry of Planning (1985), p. 11.

49. See Owen (1983).

Jordanians in the Gulf countries[50]. This situation has prevailed since the mid-1980s and looks likely to continue at least in the near future. Between 1981 and 1985, the government had projected an average annual growth rate in GDP of 11 per cent, based on the conditions prevailing prior to 1981, and in fact using this projection to base all its national development plans. What in fact was achieved was a rate of merely 4.2 per cent. This in itself is not too bad, but compared to the projected figures it the disappointing trend in the growth of the Jordanian economy that has prevailed since the mid-1980s. "The second Five Year Plan (1981-1985) was formulated in an atmosphere of optimism. The Plan assumed a continuation of existing positive trends, such as the inflow of Arab aid and capital and the favourable development of trade relations. However, actual economic performance fell below the plan's projections as a result of negative trends in the economies of the Gulf states leading to a decline in domestic and external demand"[51].

The economic situation in Jordan has been coping with this sudden shortage of external assistance remarkably well, possibly due to the solid infra-structure which has been built in the country. Some of the more recent indicators (for 1985) show the following facts and trends: GNP per capita was US$ 1,560, the average annual growth in GNP between 1965 and 1985 was 5.8 per cent, and the average annual rate of inflation between 1980 and 1985 was 3.9 per cent. The GDP for 1985 was US$ 3,450 million, the average annual rate of growth between

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50. They now prefer to hire an expatriate workforce from Asian countries- because they are cheaper - and they themselves now have some highly trained manpower to do the jobs in the place of the Jordanians.

51. Gubser (1983), p. 26.

1980 and 1985 was 4.1 per cent, with the receipts from workers' remittances totalling US$ 1,022 million in 1985.

According to UNDP figures, the GNP per capita in 1987 again stood at US$ 1,560, while GDP was US$ 4,300 million. UNDP statistics actually show a negative growth rate for Jordanian GNP per capita between 1980-1987 of (-0.7 per cent). World Bank estimates for 1988, place GNP per capita at US$ 1,500, which represents a drop of approximately 3.85 per cent on the figures quoted for 1987.

In September 1988, the Government announced the devaluation of the Jordanian Dinar by 40 per cent. This measure was accompanied with an escalation in the price of all commodities, and high inflation in the country. Some areas of the country, especially in the south, witnessed unrest as the people took to the streets to protest at the high cost of living. Since late 1988, the economic situation has been looking increasingly dismal. The economic recession in the Gulf countries has meant that large numbers of Jordanians have been returning to Jordan in search of employment. With the returning workers, the flow of remittances into the country has also dwindled.

These phenomena have been increased and accelerated by the Gulf War of 1991. Preliminary estimates by UNICEF place the losses encountered by Jordan in 1990 at US$ 1.5 billion (that is, 39 per cent of GDP)- due to lost income from export to Iraq, transit trade, remittances, debt repayments and official aid[52]. UNICEF went on to estimate that the result of the Gulf War was to place one third of Jordanians under the

52. UNICEF (1991b), p. 4.

poverty line, stating that "Jordan clearly and demonstrably is the most damaged victim of the Gulf crisis"[53].

53. Reid (1991), p. 2. Mr R. Reid was speaking as the Middle East and North Africa Regional Representative of UNICEF on 5 January, 1991.

CHAPTER FOUR

Infrastructural Services:
(Water, Sanitation, and Housing)

The Effect of the General Environment on Health

The importance of the environment, specifically water, sanitation, and housing quality in determining health status, has been taken more or less for granted by health scientists, for well over a hundred years. The relative importance accorded to these factors in their effect on health, however, has varied with the evolution of health determination theories. The debate on the importance of water, sanitation and housing quality in determining health status has been in progress since the early 1960s. Although there is consensus that safe drinking water and sanitary waste disposal are beneficial for health, the debate is primarily concerned with the relative importance of these factors for health improvement as compared with other socio-economic factors.

Water and Health

The significance of a safe water supply and its effects on a population's health has been widely accepted since the 1880s.

It is easy to understand that the linkage between hygiene and water, and, therefore, between hygiene and health would be a natural one for observers to assume. In the late nineteenth and early twentieth centuries, these observations were carried out for various regions around the world. Britain, after the Industrial Revolution, was one of the first places where this causal correlation between safe clean water and sanitation, and improved health was presumed to exist. During this period in Britain's history, major differences in mortality and morbidity between the labouring classes and those that were "better-off" were evident. This led to speculations about the causes of the rapid and dramatic improvements in the health of the middle classes. Woods et al (1989), McKeown (1976), McKeown et al (1975), and Szreter (1988), among others, have discussed these issues in their reviews of the causes of mortality decline in England and Wales after the Industrial Revolution. Researchers have speculated that both individual and community hygiene had improved as a result of better and safer supplies of water to the general population. Other researchers have since shown access to safe clean water to be an essential ingredient of long-term health improvement in various other parts of the world. These include, Caldwell (1986); Mackenbach et al (1988); Shah and Shah (1987); White, Bradley, and White (1972); Merrick (1983); and Saunders and Warford (1976).

Water is thought to affect health through two mechanisms. First, contaminated water acts as a vehicle for the transmission and spread of diseases such as schistosomiasis, cholera, and diarrhoeal diseases. In this sense, the issue is essentially one of water safety and quality rather than merely one of availability. The underlying implication being, therefore, that a high number of water sources is not necessarily a positive factor. In his review, Greenough (1985) has concluded that, "clearly, providing ready

access to clean water has not been nearly as effective as expected"[1]. There is general agreement that in order to achieve a positive impact on the health status of a population, the supply of water needs to have a reasonably high coverage rate. The water must also be clean and safe for human consumption. Water quality is as important, if not more so, as quantity[2].

Second, water affects health through its effect on hygiene. Availability of clean water has been shown to be linked to health improvement. However, that too is not an absolute and clear-cut factor, nor does it act in isolation. That water is available, is not enough to guarantee that it is used, nor that it is used effectively. The presence of other factors has been shown to play a role in the usage of water. Education is one of the most important determinants of the safe and beneficial use of water. During discussions of China, Costa Rica, Sri Lanka, and Kerala State at the Bellagio conference (1985), for example, education was found to play a significant role in enhancing the use of water for hygiene purposes when it is available[3]. Accessibility also appears to play a significant role; the closer the source of the water the more likely is the individual/ family/ community to utilize it[4].

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1. Greenough (1985), p. 216.

2. Ibid, p. 216.

3. Feachem (1985).

4. White et al (1972).

Sanitation and Health

Interest in sanitation and waste and excreta disposal and their effect on health has closely followed the interest in safe water. The two factors or sectors (water and sanitation) have almost always been discussed together. This is perhaps a reflection of the role that water has traditionally played in cleanliness and sanitary activities. There is, however, more controversy surrounding the importance of the role of sanitation and the hygienic disposal of waste and excreta in the improvement of the health status of a population. In the case of water, there is general agreement that a clean water supply is necessary, though disagreements exist about the way through which water operates to improve health. In discussions of sanitation, however, there is still no agreement that it is necessary for an improvement in health status.

Some studies, such as Kochar (1978), showed no correlation between the physical availability of sanitary facilities and improved health. Other studies undertaken in Sri Lanka and Kerala State (India) have shown that improved sanitation is not a necessary condition for improved health. Many researchers have even argued that since the limited sanitary facilities in developing countries are often dirty and unhygienic, their presence often introduces a risk to health, rather than being an advantage. Sanitary facilities also pose a threat to health when they are not properly built or properly designed, causing the filtration of waste and excreta into the drinking and irrigation systems of the communities using them. Faecally transmitted diseases are often spread this way; through contaminated ground-water supplies which are used by the community domestically. Under such circumstances there is a case to be made for the disposal of wastes in the open, but at a distance from residential areas, a healthier and more hygienic alternative.

The debate over the usefulness or value of sanitary measures and facilities in improving health is further complicated when the situation as it applies to urban slum areas in developing counties is considered. In such areas the need for proper hygienic sanitation is greater because of the common problems of over-crowding and the presence of a high density of population in a small area. In many such cases, available facilities are dirty, unhygienic, and again constitute a definite health hazard. Under such conditions, however, it is not feasible to expect waste disposal to take place without a proper disposal system. While, it may be possible in sparsely populated rural areas to dispose of waste in the open, this method becomes impracticable and dangerous in a crowded urban setting, if only for the lack of available space. Hence, although in developing countries, both water and sanitation facilities are usually much better in urban than in rural areas, it would seem that it is easier to get away with limited or deficient facilities in rural areas than in congested urban slum areas.

As in the case of water, while there may be agreement that proper sanitation and waste disposal facilities play a positive role in health improvement, again contention exists about what level of coverage is essential before improvements begin to occur. On another level, the proper planning and maintenance of sanitary facilities is essential for the achievement of positive results. When faulty, (for example if they leak into the drinking water supply), such facilities can be a major health hazard to the population.

The main mechanism through which waste disposal is assumed to act is through the improvement of environmental hygiene, whose effect on health is more or less straightforward. Waste, more so than water, is a primary source of infection and disease-carrying vectors, especially

in hot and humid climates. However, the cleanliness of the actual sanitary measures employed is highly dependant on the environment and as such is highly variable. For example, disposal of waste in a pit away from the immediate vicinity of houses (less accessible) is far better than disposal closer to home (more accessible) which may contaminate the water system which the community uses.

In this way, rural areas are often in the position of being better able to accommodate to the absence of sanitary facilities than are urban areas. This could be seen as primarily the result of the patterns of settlement and the availability of space which allow for the danger of contamination to be lower in less densely populated areas.

Again, as is the case with water supply, the positive impact of sanitation services have been linked with the ability of the population to benefit from them. That is, their accessibility, and the degree of "training" that people have for using and maintaining them properly. Here too, education seems to play a major role in transforming a physical construction into an instrument of positive change.

There are certain countries, such as Costa Rica, which have already reached a relatively high degree of health status and of economic and educational attainment. The results of sanitation projects on health improvement there have been dramatic. In Costa Rica, six years after the implementation of a sanitary services programme, the prevailing level of mortality from faecally transmitted diseases fell to half its level at the beginning of the programme. In this case, it is recognized that the sanitation programme did not work in isolation. Rather, it is assumed that such a dramatic effect occurred primarily as a result of the fact that the population

was already educated and, therefore, receptive and open to the new facilities and to their use.

The complex and ambiguous relationship between health and sanitation services and facilities was summed up well by Murray (1988) in his analysis of six developing countries. Although he did find a link between the availability of toilets and latrines and improved health, he still had to conclude that the strength of this relationship was not clear.

Housing and Health

Housing and the environmental conditions associated with it also influence the health of the population. Over-crowding, lack of fresh air, lack of light, and unhygienic conditions caused by lack of clean water and sanitation facilities have been linked to ill-health and to the spread of infections and disease. These are some of the ways in which housing conditions can adversely affect health. From this perspective, slums and poor urban areas are seen to be the worst areas in terms of healthy living conditions. It is commonly acknowledged that urban areas generally have better facilities and better conditions than rural areas. Yet, it is also acknowledged that very often the prevailing conditions in slum areas are far worse than what is found in the rural areas. As discussed above, this is usually a function of the degree of crowding, proximity, and space. People in urban areas have a limited amount of space in which they can move and depose of their waste.

The issue of the effect that the environment has on the health of a community is further complicated by some studies which have concluded that rural dwellers suffer from worse health status than urban dwellers. This is essentially a

function of the higher level of services usually found in urban areas. Such studies, however, have treated the urban areas as one undifferentiated mass, ignoring the fact that the urban poor live under some of the worst conditions. Yet, others have even shown the lack of any link between poor housing and the spread of disease, in both rural and urban areas - see, for example, Macpherson (1979). Again in these cases, there exists the problem of quantifying any effect, even if it is observed to exist as a trend.

The case for the effect on health of the three main environmental determinants, water, sanitation, and housing, is by no means a clear cut one. While it is agreed that all of these factors do contribute to the health of a population, their effect is difficult to determine with accuracy. These factors all operate under the same broad guidelines: their mere presence is not sufficient to affect positive change. In fact their partial presence could be more harmful than useful. Moreover, two essential factors must exist in conjunction in order for them to have the desired positive effect. First, the coverage of the facilities must be widespread across the population, and second, they must be accompanied with a certain level of education or raised awareness among the population.

The Jordanian Experience

The case for examining the effects of water supplies, sanitation, and housing on Jordan's population promises to be interesting. Due to its geographical location, Jordan is poor in both rainfall and natural water resources such as lakes and rivers. As discussed earlier, the climate is hot and dry in most of the country except for an area of the Ghor Wadi which is irrigated by the River Jordan and tends to become very

humid in the summer months. However, while the major areas of Jordan are arid, the vast majority (around 93 per cent) of the population is concentrated in the regions of the Kingdom which enjoy the existing water resources, with the South and East virtually uninhabited, and the North sparsely populated.

The basic problem, however, remains one of a lack of water resources. Jordan's ability to have achieved significant improvements in the health status of the population despite the shortage of water is of interest for the present study. The explanation may be that, due to the presence of other factors, such as high levels of education, it has not been especially important to have full coverage of readily available water in order to affect positive developments in health. Alternatively, it may lie in the fact that Jordan's use of its water resources has been very efficient, and equitably distributed.

Jordan is a middle-income developing country, which was by the late 1960s, relatively well-off financially as compared to other developing countries of the world. As such, Jordan is not constrained by overly tight finances in its infra-structural plans, to the same extent as other developing countries. Hence, Jordan has better chances and a higher potential for improving its water and sanitation facilities than most other poorer countries. This state of affairs applies particularly to the period prior to September 1988, when new strict economic measures were enforced. Up until then, Jordan had more funds at its disposal, including, as was pointed out previously, funds from international development agencies, and financial development assistance from richer friendly countries.

Jordan has invested much effort into establishing infrastructure, including water and sanitation facilities, on

a country-wide scale as far as possible. In fact, the implementation of large scale plans was started during the early period of the State's creation, and during the British mandate. This will be examined in more detail below.

Infrastructural Services

During the economic "boom" years, Jordan experienced a concurrent boom in building. Many Jordanians working in the Gulf sent money home to build houses for themselves and their families. Investors built many more houses for profit. This was most evident in the large towns and cities, especially Amman. Houses and blocks of flats began to spring up everywhere. Many Jordanian towns expanded horizontally to such an extent that they almost became unrecognizable.

During the same time, the Government was attempting to meet another of its commitments to social development: affordable housing of relatively good standard. To this end, the Housing Corporation and the Urban Development Department were set up. Their duties included planning and supervising the building of affordable housing, as well as upgrading existing housing. The Housing Bank was created with the aim of providing low interest loans for families and individuals of the middle and lower income brackets to enable them to buy or rent.

These various developments, actually led to the creation of a situation of a surplus of housing. As a result, housing prices remained low. This situation continued until the middle of 1991, when the influx of large numbers of refugees and returnees from Iraq and the Gulf countries created a shortage in available housing. This has in turn led to steep increases in prices. It is still tooearly to assess the impact of these changes.

Proper water and sanitation services to the population of Jordan were taken up and improved by the British mandatory authorities at the beginning of the mandate (early 1920s). By 1927, the authorities had completed the water supply system for Salt, the second largest town at the time. During that year, a drop of around 50 per cent which occurred in the incidence of typhoid, was in fact attributed to this water system[5]. Interestingly, the water scheme for Amman was not started until two years later, in 1929, but was completed in 1930. The Government was anxious to build and outfit more such projects and in 1930, the Madaba water scheme was begun. Plans for the improvement of water and sanitation services in the rural areas were also being discussed at that time. However, these plans were shelved for a while, because of failure to obtain funds from the British authorities. It was during that period that the problems of serving the large numbers of nomadic and semi-nomadic population were first realized[6]. At the same time, improvements in the major centres of population continued. Water schemes for Madaba, Jerash, and Fuhais village were completed by 1931. The need for implementing safe water and sanitation facilities appears to have been clear to the Department of Health at an early stage. In its annual report for 1933, the Department of Health considered "the unhygienic conditions under which babies are brought up whether as to houses, clothing, general cleanliness or diet, especially the impure drinking water often given to babies"[7] to be the major factor contributing to the extremely high level of Infant Mortality (220).

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5. Department of Health (1927), p. 19.

6. Department of Health (1930), p. 47.

7. Department of Health (1933), p. 34.

It was also generally recognized that the problems of contaminated water intensifies during the summer when shortages occur, forcing people to return to using these contaminated sources. The Department of Health, however, was chronically under-funded and "the Department had several small schemes in view for improving the sanitary condition of water supplies in villages, but on account of the economic depression, they were postponed"[8].

Although the authorities had made clear progress in delivering clean water to the population, yet by 1948, two years after Jordan gained its independence, "only four towns in the Kingdom enjoy[ed] the boon of pure water supplied in taps to the premises viz: Amman, Irbid, Kerak, and Madaba"[9], and then by no means to cover the entire population of these towns. The towns of Salt and Jerash were to be next in being linked to a system of indoor water taps.

From 1952, interest in the sanitary conditions prevailing in the environment were beginning to be treated with much more concern. During that year, the Environmental Sanitation Division was established at the Ministry of Health. Upon its establishment, the Division proceeded to survey the sanitary conditions of the Amman municipality and to supply the Municipality with sanitary equipment. The Division also started a sewage treatment plant for the city of Salt, and a project to supply the Municipality of Ma'an with a safe water system. In 1954, the same Division started a country-wide sanitary survey for water sources. They also initiated a rodent and insect control programme.

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8. Department of Health (1931), p. 41.

9. Ministry of Health (1948), p. 49.

By 1956, concern was growing about the situation in rural Jordan, and the Rural Sanitation Project (RSP) was set up with expertise and funding from the "United States Works Mission". The aim of the RSP was to provide families with safe piped water and with private latrines. By 1957, the RSP was responsible for building 4165 latrines. Those were built using the labour of the villagers who were benefiting from the project. In 1958, the provision of villagers with adequate water supplies was considered to be the main priority, and work was started to build spring boxes and small water tanks, and to chlorinate the water systems. For the Municipal water supplies, the Division operated a programme for the collection and analysis of water samples. The activities of this Division continued to expand, and by 1969, they had managed to protect 725 rural water sources, and had built 15,754 family latrine units[10].

In 1961, the first population and housing census was carried out in Jordan, the aggregate results of which covered both the East and the West Banks. Some of the indicators that resulted from that census are found in Table 4.1 below. From these indicators, it is clear that as late as 1961, the housing conditions and the water and sanitation services were still badly lacking. However, the superior conditions to be found in the urban areas as compared to the rural areas are very clear.

From the early 1960s, however, improvements to the water and sanitary services began to occur quite rapidly. By 1979, the proportion of urban households supplied with piped water

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10. Ministry of Health (1951-1957), (1959-1965), and (1960-1969). It is not clear whether figure refer to the East or West Banks or both. However, the services in Palestine were much more advanced, and it is assumed that most rural improvements took place in areas of the East Bank.

had risen from approximately 49 per cent in 1961, to around 87 per cent. However, only 36 per cent of the incorporated villages had water services by 1979. Table 4.2 below illustrates the degree of improvement in water supply. Overall, around 85 per cent of the total households had access to safe water, and water consumption was estimated at 60 litres per capita per day. However, sewage connections were still lagging behind. Only 26 per cent of urban households were connected to a sewage system, while the majority of the population relied on septic tanks, which sometimes resulted in the contamination of the water supplies[11].

In 1984, WHO provided some estimates of water and sanitation services and coverage in Jordan as part of the International Drinking Water Supply and Sanitation Decade, and these show further improvements. These figures show that in December of 1980, only 11 per cent of the Jordanian population was <u>without</u> safe water, while 24 per cent were without sanitation. Such a high level of safe water coverage, however, "may be subject to query. Of the 3926 water samples taken from the water sources throughout the country in 1979, 17.9 per cent were found to be unsafe"[12]. WHO also estimates the incidence of water-borne diseases to be only 4 per cent.

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11. World Bank (1984).

12. Darwish and Ghawi (1981).

Table 4.1: Household characteristics and services, 1961

	Jordan total (%)	Urban total (%)	Rural total (%)	Bedouin total (%)
No Latrine	43.0	8.2	64.1	100.0
Indoor Latrine	20.6	43.3	5.3	0.0
Outdoor Shared Latrine	8.5	8.4	9.5	0.0
Indoor Piped Water	21.3	48.6	2.3	0.0
Outside Piped Water	15.0	20.1	12.5	0.0
Public Cistern	12.1	4.4	17.7	15.4
Electricity	17.0	39.2	1.6	0.0
Radio	30.6	44.0	2.3	2.0
Refrigerator	2.6	6.0	0.2	0.0
Stove	2.2	5.2	0.2	0.0
Temporary House	10.7	2.3	8.2	100.0
Permanent House	88.5	96.1	91.5	0.0

* Calculated from the results of the 1961 population census

Table 4.2: Source of Drinking Water, 1979

Source	Per Cent of Total
Tap in house	74.08
Public Tap	10.42
Private Well	4.78
Public Well	2.16
Spring	4.43
Other	4.13
Total	100.00

* Compiled from 1979 census

As was discussed above, how people use water and sanitation services is as important as the availability of these services. This utilization is in turn determined by several factors, among which are education and awareness of health issues. Another important determining factor is the societal directives on personal and community hygiene and cleanliness. All societies have their guidelines on hygiene and hygienic practices. Jordan's Arab/ Muslim culture is no exception. Arab/ Muslim culture actively promotes cleanliness and hygiene, and has some quite strict directives on the subject. Looking at Islam, one finds that the Qur'an decrees

that a Muslim may not come to his or her five mandatory daily prayers (dawn, morning, noon, dusk, and evening) unless cleansed. The Qur'an stipulates that Muslims must perform these ablutions (*Wudu'*) on their feet, hands, arms, elbows, face, head, and neck [5:6]:

"Believers, when you rise to pray wash your faces and your hands as far as the elbow, and wipe your heads and your feet to the ankle.
If you are polluted cleanse yourselves.
But if you are sick or travelling the road; or if, when you have just relieved yourselves or had intercourse with women, you can find no water, take some sand and rub your hands and faces with it.
God does not wish to burden you; He seeks only to purify you and to perfect His favour to you, so that you may give thanks".

The performance of ablutions seems to be deep-rooted in the society. The Bedouin have been known to literally perform the Wudu' using sand when water is unavailable or scarce[13]. Still, the fact remains that <u>some</u> form of cleansing procedure was being maintained, which serves as an indication of how important cleansing is.

Although many people may these days be lax in the thoroughness with which they perform the ritual Wudu' cleansing, the tradition of cleanliness is strong in the society. Moreover, with the spread of facilities, people now have more opportunities to clean themselves all over, in addition to the ablutions.

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13. It would be interesting to discover just how hygienic such a practice is.

Such rituals have a positive influence on personal hygiene. Although no empirical studies exist on the subject, it is not unreasonable to assume that they have the potential to aid in curbing the spread of diseases. Since prayer takes place before the intake of the three main meals, then these ablutions also take place before eating. In this way, the danger of contaminating food is lessened. This code of cleanliness is not only an Islamic feature, but is a more general cultural/ social norm which cuts across religious backgrounds. For example, many proverbs exist which illustrate the importance of cleanliness and hygiene ("Cleanliness is proof of Belief").

Another cultural tradition and practice with implications for hygiene is prevalent in Jordanian society, Muslim and Christian alike. Arab and Jordanian culture has a strong tradition of the individual washing him/herself with water after urination or defecation. It is actually socially stigmatizing not to conform to this practice. As such, this is practised almost universally. Therefore, it probably has a degree of influence on the incidence of faecally transmitted diseases among the population.

The availability and use of soap in washing has been linked with better standards of hygiene, as well as with better health status[14]. Soap and its manufacture from olive oil, have been associated with the region of Palestine and TransJordan for centuries (especially with the city of Nablus)[15]. Soap is used for personal washing, as well as for clothes, and utensils. It is common for rural families to produce their own need of soap for the year from the left-over

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14. Greenough (1985), p. 217.

15. Graham-Brown (1988).

olive oil of the harvest. Home-manufacture on a large scale is only recently beginning to disappear, with people buying either imported or "westernized" soap, or relying on the large olive-oil soap factories.

As part of a study on the effects of an upgrading programme in squatter areas of Amman (Wahdat, Jofeh, Wadi Rimam, Nuzha, and Wadi Haddadeh), Bisharat and Zagha (1985) examined the use of soap in the household. They were able to show that with a rise in the number of households connected to mains water (from 49 to 90 percent between 1983 and 1985), the presence of soap next to the tap rose from 17 to 60 per cent. It is assumed that the presence of soap is correlated with its use for washing.

Jordanian society is "culturally prepared" towards hygiene. Although water is scarce as a natural resource, its scarcity does not constitute a large constraint in terms of domestic use. Soap is historically known, and is a common feature among the population. With the rapid expansion in water and sanitation services, and the improvement in the quality and availability of housing, the effect is to further improve the health status of the population.

General Living Conditions

As described in Chapter Three, Jordan has three distinct types of living and housing situations. These are the bedouin, the rural, and the urban patterns of dwelling. Each is distinct in terms of the socio-economic characteristics of the people, as well as the physical and environmental characteristics of the housing and amenities provided.

Bedouin Areas

Bedouin dwellers have gradually decreased both in numbers and as a proportion of the total population of Jordan since the establishment of the state. According to the highest estimate, the nomadic Bedouin population of Jordan is now no more than 5 per cent of the total population. Bedouins of Jordan, as was described earlier, are nomadic in their pattern of settlement. They travel in a defined area of land, which they consider the property of their tribe. The way of life is simple, and relies on raising sheep and camels. Possessions are kept to a minimum. The Bedouin of Jordan have been studied extensively by a number of researchers including Abu-Jaber and Gharaibeh (1977), Abu-Jaber et al (1976), Al-Ahyawi (1985), Baydoun (1989), Lewis (1986), Shawareb (1985), and the Queen Alia Jordan Social Welfare Fund (1979).

The majority of Bedouin, as described in Chapter Three, have now given up their totally nomadic ways. Although the Bedouin are now for the most part settled, their living conditions are significant for the discussion of the present study. It was only a few decades ago that the majority of Jordanians shared the same patterns and general conditions of living. The conditions under which the Bedouin live are, therefore, relevant to any discussion of the changes that have been occurring in Jordanian society and the living environment.

While most Bedouin are no longer nomadic, many still maintain their goats' hair tents, usually kept alongside the new concrete houses. Sometimes, the houses are used by the animals while the family continues to use the tent in its day to day life, especially in the hot summer months. It has even been suggested that the only reason that the houses are built in the first place, is as a prestige symbol.

In the cases where the family owns only a tent, the space is often shared with the goats and sheep; especially at night. Even when people live in concrete houses, the situation is more or less the same, with humans and animals occupying a limited enclosed space.

The tents and houses boast very little in terms of design or furniture. Tents usually have two or three compartments, totally open on one side. Houses range from one room to three or four, depending on the economic standing of the family. Furniture consists of a heap of mattresses which are used for guests to sit on, and at night for the family members to sleep on. Occasionally, the family may own some mats or rugs to cover the floor. The family usually owns blankets, a few pots and pans for cooking, a few glasses and dishes, but little else. Some families have their own small electricity generators which are mainly used to run the television sets, otherwise the Bedouin rely on kerosene lamps.

Water has been a serious problem for the Bedouin, especially in the past when there were no connections of any kind to Government water supplies. The community had to move in search of water sources and wells. Clean water was always in short supply, with the result that water which existed was used with caution. Since the majority of the Bedouin community have now settled, they are now much closer and have relatively easy access to the water and sanitation services of the Government.

Since Bedouin living habits dictate great spread and distance between dwellings, and where open uninhabited space is plentiful, waste disposal is not a grave problem. Waste is easily disposed of in the open away from the dwellings, where it is immediately exposed to dry hot weather. In this way it does not have too much of an adverse effect on the health of

the population. When communities and tribes moved from one place to another during the year, waste did not accumulate. It also had time to disintegrate and decompose by the time the tribe came to settle in the area again, several months later.

For the casual observer, the living conditions of the Bedouin appear to be very impoverished. With most floors consisting of dirt, and very few areas considered off-limits to animals, the impression is of very limited hygiene. Links to the Government electricity supply has yet to reach the majority of the Bedouin. Modern sanitation facilities are usually non-existent, and people use the empty spaces outside their encampments for waste disposal.

The situation, however, is not very desperate. As mentioned above, because of the climate and the availability of space, waste disposal in the open is not a grave problem. The Bedouin, it should also be kept in mind, have by all accounts been an advantaged and favoured segment of the Jordanian population because of their loyalty to the Government. Their needs and demands have generally been met with as little delay as possible. In as far as it is possible to service Bedouin encampments, their settlements have been advantaged in terms of Government services. Bedouin dwellings are being increasingly connected to water supplies. In the area of Jebel Bani Hamidah, for example, one of the most impoverished areas in Jordan, personal observation revealed that water connections with a tap had been made outside each of the Bedouin dwellings. But, problems do remain. For example in the Bani Hamidah area water was only received twice a week, each time for only one or two hours. This resulted in a rush to fill barrels and other containers to serve for washing, drinking, and irrigation, until the next time the water came. Often this water is stored uncovered or in filthy containers,

which actually poses a threat to the health of the population, not least the children.

Rural Areas

The line differentiating rural and Bedouin areas and dwellings is becoming increasingly difficult to distinguish. This is mainly due to the fact that increasing numbers of Bedouin are settling into a rural way of life. In fact the distinction between the two people is becoming mainly an issue of identity and origin, rather than one of life-style. As a matter of fact, the rural areas exhibit the same general overall squalor, as that described for the Bedouin. To some extent, space in rural Jordan also is shared with the animals and the winter provisions. Rural dwellers, however, enjoy having more furniture, and equipment than their more Bedouin counterparts. Infra-structural facilities of water, sanitation services, electricity, and telephones have spread rapidly into rural Jordan. The majority of rural dwellings are linked to the electricity network. Almost all have at least one tap and sink in the house. Sanitary facilities, however, are lagging behind, and most households rely on pit latrines in their back yards.

Services are generally available. Although by no means universal on a country-wide basis, these facilities have reached virtually all but the remotest of villages or hamlets. Conditions in the rural areas have, nonetheless, been considerably lagging behind those that exist in the urban areas. Some of the living conditions in rural areas of Jordan were highlighted by Dajani (1979), Dajani and Murdock (1978), and Shami and Taminian (1990) in studies of general conditions in rural Jordan. Rural houses were found to be made from a variety of materials ranging from mud to cut-stone. Houses range in size with the economic situation of the family.

"Most of the houses visited have an outhouse and a cesspool"[16], and in the Southern Ghor area, Dajani observed that "all new housing projects provide for such a facility [pit-latrine] outside of the main structure"[17]. Solid waste disposal was cited as a problem area, and waste tended to be dumped at a short distance from residential areas.

As for water, it was not cited as a grave problem, even though not all villages were connected to piped sources and some villagers had to travel considerable distances, to obtain clean water, or to pay to have it delivered on a regular basis. There is awareness among the rural population of the need for a safe water supply and "villages that have water problems have continuously identified water supply to be their most pressing need on which they place the highest priority"[18].

While, in comparison with the urban areas, the rural services are still lacking, the general situation is one of relative easy access to most modern amenities. And while there may be room for improvement, conditions are not bad when compared to other parts of the world.

Most houses are owner-occupied and they house nuclear families, sometimes with an addition of a mother or a sister to the nuclear family, but no extended families in the classic sense. Rural households, however, do suffer from a degree of over-crowding. But, while that may be true, care should be

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16. Dajani and M.Murdock (1978), p. 43.

17. Dajani (1979), p. 21.

18. Op.cit, p. 44.

taken in generalizing from this situation to a causal relation of ill health. Rural societies in all developing countries have large households, but, as in the case of Jordan people spend most of the day outside the home. Houses are relatively spacious, well-aired, and well-lit. As such, it is unlikely that, given all the services and amenities available in the rural areas, over-crowding, per se, would have a significant negative effect on health.

Urban Areas

Urbanization has been shown to generally affect health in various ways: both positive and negative. Negative aspects of urbanization manifest themselves clearly in third world cities. This is especially true when the rate of urbanization is fast and the authorities, even when committed, are unable to cope with the inflow of immigrants into the cities. Over-crowding and insanitary living conditions often accompany third world urbanization. Families live in cramped conditions. They are at the same time isolated from relatives and the larger kin group on which they used to depend in the rural areas. This usually affects the women more then the men since it is the women who spend most of their time in the home. Very often young mothers find themselves totally isolated when the family moves to the city. They have no one to turn to for help in looking after the children, and no one whose advice they can seek about their children and their own illnesses. In Amman, the support group was found to be missing and children were at times being neglected (Bisharat and Zagha, 1984).

Furthermore, the urban, or the 'modern', way of life itself has been shown to be linked with increased ill health. Illnesses associated with stress and anxiety such as high blood pressure are more common in urban settings.

On the other hand, the urban way of life usually implicitly dictates smaller families because of the economic constraints of providing for a large family. Couples are therefore more likely to practice family planning or birth spacing to ensure that their family size remains manageable and affordable. The lowering of the fertility and birth rates have, it has been argued above, very good positive effects on raising the level of health of mothers and infants.

In any discussion of the living situation in the urban areas of Jordan two sets of distinctions should be made. The first is between the well-to-do areas and the slums and refugee camps. The second is between the conditions in the capital city Amman and the rest of the urban areas.

As in any city in the industrialized or the developing nations, the slums and camps of Jordan are characterized by their states of squalor and overcrowding, as well as by the lack of facilities. The proportion of these "urban-poor" is quite significant in Jordan. Madanat (1987), for example, estimated that squatters and refugees constitute around 25 per cent of households in Amman. The poor, the refugees, and the slum dwellers of Jordan share the problems faced by most of the other poor urban areas in the world. Among their problems are having a large proportion of new migrants in the community, the lack of familiar social-familial networks, and the environmentally unsafe surroundings.

In Jordan, slum areas can be classified as being of two types. First there are the "conventional" slum areas where poor immigrants to the city live, often as squatters. As in most of the countries of the world, these urban areas are often under-serviced and neglected by the authorities.

Houses come in various degrees of disrepair depending on the wealth of the family. Tapped water and latrine facilities vary with the variations in the income, and, therefore, with the household type. Despite the fact that these are urban built-up areas with very little open space, children are observed to move outside their homes freely going from one household to another, possibly as a result of the overcrowding in the homes. In many cases, conditions can be said to be comparable to those in the rural areas which have been linked to water and sanitation services.

The second type of slums found in Jordan are the refugee camps. Those are run by UNRWA which is responsible for providing the camp dwellers with all facilities including housing, water, and sanitation. The conditions of the camps will be explored in detail in Chapter Nine.

Jordan does not conform to the more common pattern which is found in some other developing countries; where slums often enjoy better environmental conditions than those prevalent in neglected rural areas. There is general agreement that with few exceptions, slum and shanty town dwellers in Jordan are the most disadvantaged segment of society. Conditions in slums and camps in Jordan have been found to be in many cases worse than those in rural and bedouin areas. This is likely due to two factors: First, the nature of the climate in rural Jordan which is hot and dry, as opposed to the hot and humid climates of tropical parts of the world. Second, the nature of residence patterns in the villages, which are usually sparsely populated with dwellings each at a good distance one from the other. This holds to a greater extent for the bedouin communities that were prevalent in earlier times and of which there are still a few now.

On the other hand, conditions in the more prosperous parts of the urban areas, are excellent; being comparable only to what one might expect to find in any city of an industrialized nation. Piped water, electricity, a telecommunications network, and an efficient and hygienic sewage system are taken for granted as the norm.

Conditions in the urban slums and shanty towns of Jordan may appear dismal when compared to the conditions prevalent in the middle class areas of the cities. However, in comparison to the shanty towns of poorer countries, Jordanian slums are well-serviced and relatively healthy places to live. While this is a dangerous generalization to make, it serves to contextualize the situation in Jordan.

A prominent feature of Jordanian urbanity is the obvious governmental advantages conferred on Amman, the capital. Amman serves as a classic example of the developing country primate city. It is far larger than the next largest city, Irbid, and is home to over 40 per cent of the total population. Amman attracts the overwhelming majority of rural migrants, as it attracted the majority of Palestinian refugees in 1948 and 1967. After the Gulf War, Amman again attracted the overwhelming majority of returnees from the Gulf. The numbers pouring into Amman since early 1991, have been large enough to create a housing shortage, and to be a strain on the water resources[19].

Governmental authority is centralized in Amman in the form of the decision making seats of the ministries and official infra-structural offices. There is no doubt that the quality and quantity of services in Amman is far superior to

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19. From a personal interview with the Director of Services of the "Jordan Water Authority", March 1991.

what is available in the rest of the country. It is commonly accepted and acknowledged that the post of Mayor/ Governor of Amman is one of the three most influential in the country. As a result, the capital inevitably receives priority in most projects. Living conditions in Amman for the middle and upper classes are comparable to European standards.

On the other hand it is exactly these services which attract the migrants. This in turn is the main cause of the phenomenon of increasing overcrowding and urban sprawl. With the deteriorating economic conditions in the country, this move to the urban centres, especially Amman, threatens to become a major problem for the Jordanian authorities. While able to cope relatively well with the population growth before the new wave of returnees from the Gulf, Jordan now finds itself facing a situation of infrastructure which is stretched to the limit. Jordan's economy at this stage does not allow it to expand the services sectors to the degree where they are able to accommodate the large influx of population. This increase in the urban population threatens to be one of the major problems that will be facing Jordan in the next few years.

The fact that the population of Jordan is more than 60 per cent urban[20], has significant implications for health status. In most developing countries, Jordan being no exception, living in an urban centre, usually entails being closer to health services, such as health centres, clinics and hospitals. This is in addition to the fact that urban dwellers usually have much better access to clean and safe drinking water and sanitation. Access, in terms of availability and travel time, to a health professional is much easier than in

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20. Zagha (1987) estimates that more than 60 per cent of the population of Jordan live within a radius of 30 kms of a city centre.

the rural areas. All this gives urban dwellers a health advantage over their rural counterparts. There is also some indication that those who move to urban centres are usually the more educated. This is especially true in cases like Jordan where there is a lack of plans and programmes to distribute resources better in the rural areas, in order to curb the frustration of the rural population and to halt the resulting migration to the cities.

Transportation is another factor which needs to be examined in terms of the provision of ready access to services in Jordan. Jordan enjoys a relatively good network of roads which link the major urban centres, the major regions. It extends into most rural towns and villages. Although roads do exist for most areas, these roads are not necessarily very good or very easy to travel. Dirt paths and lanes are still the principal roads for remote areas. On the whole it is possible to generalize and say that it should not be too difficult for any person in Jordan to reach any destination. Cars are abundant, and many families own their own (0.074 per capita). Furthermore, public transportation is very cheap, reliable, and efficient. Towns and cities have their in-town bus and "service-taxi" networks and routes; their cost is controlled by the government and does not exceed JD 0.150 but is usually around JD 0.070. Very few people are unable to afford these rates. Buses and service-taxis are also frequent and cheap between villages, towns, and cities. Exceptions to this exist in the remote areas, such as in Jebel Bani Hamidah, and remote villages in the South of the country, where hire of transport is likely to be more costly.

Because of the good transport system which exists, and because the actual distances between centres of population are not very far, especially when compared with other much larger countries, facilities such as schools and health centre are

within reach of most of the population. This probably has an effect on the utilization of such services, as the time and financial costs of reaching these services are affordable. This in turn may be linked to improvements in health.

Rural-urban differentials in coverage with infrastructural services are still apparent, however. While the WHO figures (1984) indicated that the coverage of the urban population with safe water had reached 100 per cent, (78 per cent through house connections, and 22 per cent through public standpost), the coverage in rural areas was only 65 per cent. Differentials are even greater for sanitation services. While 94 per cent of the urban population is provided with sanitation, (18 per cent by sewer connection, and 76 per cent by other means), only 34 per cent of the rural population is served[21].

The Government of Jordan has remained committed to the provision of infrastructural services to as wide a segment of the population as possible. It is estimated that the 1981-1985 Five Year Plan had managed to provide about 90 per cent of the country's population with the necessary water for domestic and industrial use[22]. At the same time the 1986-1990 plan had set as its aim the provision of domestic and industrial water to all populated areas of the country. The plan also aimed to construct waste-water networks for at least 65 per cent of the population by the year 2000. This commitment to a policy of providing basic services to the population is very much in line with the Government's general policy of investing in human resources. The position was stated quite explicitly by

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21. WHO (1984), p. 110 & 112.

22. Ministry of Planning (1986), p. 4.

Taher Kana'an, former Minister of Development, that Jordan viewed an investment in services to the population as an investment in improving the manpower resources of the country[23].

The living conditions of two segments of Jordanian society, the Bedouin, and the urban slum dwellers, remained more difficult to service. The conditions of the small number of remaining Bedouin dwellers of Jordan are difficult to assess very accurately. A 1985 Unicef memo has described the water situation as follows: "almost half of the households now have piped water, but very few of them have private water supply. The other half rely on shallow wells, springs and pools for their water supply spending a great deal of time and effort bringing water from the source to the dwellings. In many cases, these water sources are polluted, being also used for washing clothes and dishes and in many places, they are also used by animals"[24]. As for the sanitation situation and the general environmental conditions, they are more or less as they were at the beginning of the century. Waste and excreta disposal take place in the open. Overcrowding does not pose a problem as people have the chance to spill out into the open spaces surrounding Bedouin settlements.

The situation of the urban poor of Jordan is of particular interest to the present study. This is the segment of Jordanian society that is believed to live under the most adverse conditions. In fact, the conditions of the poor urban areas is an issue which has been under discussion in Jordan for some time now. The Government's interest in improving the living conditions for this segment of the population is

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23. Kana'an (1990).

24. Shawareb (1986), p. 2-3.

reflected in the establishment of a special Government body to deal with such problems, the Urban Development Department (UDD). In 1982, the UDD published the findings of its baseline study of five slum areas of Amman. Table 4.3 below is a summary of what the study's main findings. Although it is not conclusive, this study paints a good picture of the actual prevailing conditions.

By 1985, mostly as a result of the efforts of the UDD, the majority of these conditions improved remarkably. The connection to electricity through mains or from neighbours' supply had risen from 74 to 81 per cent, while those without electricity had fallen from 24 to 19 per cent. At the same time, connections to mains water rose from 49 to 90 per cent. By far the most remarkable achievement, however, was the rise in sewer connections from 5 to 91 per cent, while no households remained without some form of sanitary facility. Not surprisingly, health improvements among young children were observed in the population during this period.

Table 4.3: Living conditions in Amman slums (1982)

Facilities (by type of house)#	1 (%)	2 (%)	3 (%)	All (%)
Electricity				
main connection	90	53	10	63
neighbour	9	13	14	11
none	2	31	73	24
Water				
main connection	75	28	9	49
hose-neighbour	20	39	39	29
hose-tank	1	13	22	9
carried/other	2	17	27	12
Sanitation				
sewer connection	8	4	0	5
pit latrine	90	82	78	86
none	2	12	21	9
Food Storage				
refrigerator	72	41	9	51
shelves	20	31	39	27
floor/other	6	23	45	19
Density (ave no. persons)				
per house	6.8	6.8	6.6	6.8
per room	3.9	4.5	4.6	4.2

Source: Urban Development Department (1982), p.65.
#: Houses were classified by type of construction. 1: concrete walls and roof, 2: concrete walls and other roof, and 3: other walls and roof.

Impact on Health Status

The Jordanian Government is committed to providing basic services to all the population, in as far as its resources permit. The economy of Jordan was discussed in detail in Chapter Three above. Suffice it to say here, that, primarily as a function of regional and international politics, Jordan has been able to obtain the resources needed. Building the services sectors of Jordan has not been easy, especially since the majority of the work has had to be initiated without the existence of any prior structures. As discussed above, this commitment to infrastructure was also linked to a policy of strengthening the human resource base.

Over the relatively short period of its history, since the mandate, Jordan has managed to change and improve the living conditions of the vast majority of its population. It was able to achieve this through large-scale, infra-structure implementation work. Jordan had managed to progress so rapidly in the building of infra-structure that it was in a position to project for 1990, the end of the WHO decade for safe water and sanitation, total coverage of the Urban population with safe water (95 per cent with house connection) and total coverage with sanitation (73 per cent with sewer connection). Rural areas were also targeted with 95 per cent coverage of safe water, and 74 per cent coverage with sanitation. In fact, a UNICEF study in 1990 found the overall coverage of safe water to be 88 per cent (Urban 92 per cent; Rural 78 per cent). These achievements become even more significant if one keeps in mind that in 1927, there was no sewage system in the country and very limited water systems. Services in Jordan have progressed from being virtually non-existent to reaching the overwhelming majority of the population, all in the space of just over sixty three years. Table 4.4 below highlights the achievements of Jordan in the provision of accessible water and sanitation services to the population, in comparison to a number of other countries.

It appears that by the mid 1980s, Jordan had reached levels of coverage with water services which are generally higher than those reached by countries with comparable income levels. The coverage rates of Jordan correspond to those reached by the richer countries, such as Libya and Saudi Arabia. In terms of sanitation, while data seems to be limited, the emerging picture is still similar to that of water coverage. International data sets appear to confirm that Jordanian authorities have been committed to the provision of basic infrastructural services to as large a segment of the population as possible. This is further borne out by the

relatively low disparity between coverage with safe water for the rural and urban populations.

Table 4.4: Water & sanitation indicators for selected countries

	Access to safe water (%) (1985-1987)	Access to sanitation (%) (1985-1987)	Rur-Urb disparity in water services#
Jordan	**96**	**61**	**88**
Algeria	68	57	65
Egypt	73	..	61
Iraq	87	75	54
Kuwait	..	..	..
Lebanon	93	..	89
Libya	97	..	90
Morocco	60	..	25
Oman	53	31	54
S.Arabia	97	..	88
Syria	76	..	55
Tunisia	68	52	31
YemenAR	42	..	25
Yemen,PDR	54	..	38
CostaRica	91	94	83
SriLanka	40	45	35
Thailand	64	53	118

Source: Compiled from UNDP (1990).
#: 100 = Rural-Urban parity.

These developments in the environmental health of the country have probably affected the health of the population to a great extent. Taking into account the fact that the population has also had, over the same period of time, an increasing rate of education, which most of the other Arab countries have yet to achieve, it is reasonable to assume that the water and sanitary facilities that were implemented were probably used to improve personal and community hygiene. A detailed discussion of Jordan's achievements in terms of educational attainment levels is presented in Chapter Six.

The educational attainment level of Jordan would, in turn, have aided in the improvement of the health status of the population. The upgrading of urban derelict areas has been recognized as a priority area to which the Government needs to

The population of Jordan, similar to Costa Rica, but unlike the case of most other developing countries, is in the majority an urban one. It is estimated that over 70 per cent of the Jordanian population live in cities and large towns. Urban populations in developing countries are usually assumed to be financially better-off than rural dwellers, who tend to be mainly poor farmers. Furthermore, due to both the wealth as well as the concentration of the population, it is usually a much easier task to provide the urban population with services and to link them to existing networks, than it is with the rural population. As discussed above, this may not, however, be the case for the poorer and often neglected slum areas.

As such, it would be assumed that if coverage and quality of facilities had actually improved rapidly in Jordan, this would have had a significant positive effect on the health status of the population. The economic conditions prevalent until recently in Jordan, have allowed the Government to purchase and pay for the infrastructure necessary for ensuring a healthy living environment for the majority of the population. The finances, the geographical spread of the population, and the educational level among Jordanians would have resulted in maximizing the effect of having the infrastructural services.

direct its efforts. In the slum and squatter areas of Amman programmes which have been implemented show that environmental improvements were in the first instance utilized, and secondly, they did improve the health of the population.

Improvements in health status are not restricted to the slum areas of Amman. Improvements in water, sanitation, and general living conditions, have been occurring in all regions of the country and across all types of habitat and settlement. It is, therefore, quite reasonable to conclude that improvements in environmental conditions have led to improvements in the overall health status of the population. In the case of Jordan, given the other social and economic conditions outlined before, and considering the developments in those conditions, especially education, this result would appear inevitable.

It is reasonable to assume that, for want of a ready model, Jordan follows the "Costa Rica model" in terms of the development of water and sanitary services, and the effect that the introduction of such services has had on the health status of the population. Following that model, the impact of water and sanitation services on the health of Jordanians would have acted in the following manner: After certain gains in the health status of the Jordanian population, accompanied by definite gains in education, had been achieved, the wide-scale introduction of water and sanitation services began. The ensuing improvements and expansion in water and sanitation services as well as general environment and housing improvements, coupled with an educated population, would have led to further improvements in the mortality and morbidity rates from infectious and communicable diseases. The relatively high and almost total educational coverage over the last three decades, resulted in more efficient utilization of such water and sanitation services as existed.

CHAPTER FIVE

Nutritional Status

Nutritional status, whether of an individual or a population, is primarily determined by the caloric and nutrient intake of the persons concerned. Caloric and nutrient intake in turn are determined by two main factors, the physiological/metabolic functions of the given person, and the availability of food and its quality. The focus of the present chapter, however, is on the assessment of the nutritional status of the Jordanian population as a whole. Since studying the particular physiology and metabolism of every individual of the population is impracticable, the discussion needs to centre on the factor of the availability of food, and access to it by the various sectors of the population. For the purposes of this study, therefore, physiology and metabolism, while they play a major role in determining the nutritional status of an individual, will be assumed not to influence the nutritional status as it relates to the Jordanian population.

The availability of food to the population is determined by two key factors: first, actual availability on the market and accessibility for the population; and second, cultural prescriptions governing food intake. These factors will be

examined below as they relate to the particular case of Jordan.

Availability and Accessibility of Food

The main determinant of food availability in a country is the agricultural capacity to produce the required food supply for the population. Barring that, food availability would need to be secured through the ability of the country to purchase the amount of food it needs. Jordan is an example of a country incapable of being self-sufficient in terms of its food production. A 1986 United Nations Food and Agriculture Organization (FAO) Food Security Mission report on Jordan clearly stated that: "at present Jordan is deficient in most basic foodstuffs". The agricultural potential of Jordan is limited by its terrain and climatic realities. Jordan has neither the fertile land, nor the water resources necessary to produce its agricultural needs.

As described in earlier sections, close to three-fourths of the land area of Jordan is desertic and totally unsuitable for agricultural production. Optimistic estimates put the total area which is potentially agriculturally productive at around 11 per cent of the total area, mainly the Ghor Valley area. Rainfall is limited to between 150-800 mm. per year in the highlands, with the desert areas receiving less than 100 mm. annually.

In addition, the size of agricultural land holdings is quite small on average. Department of Statistics figures for 1975 show that the majority of landholdings were medium or small. In 1975, fifty per cent of the total number of landholdings were equal to or less than three hectares. Furthermore, there is a clear trend in Jordan of the

population leaving rural areas and abandoning agriculture as a means of livelihood. The 1961 census found that 33.5 per cent of the population were engaged in agriculture. This figure dropped to 10.3 per cent in the 1979 census, apparently because agricultural activity is perceived as not being a profitable occupation. All these geographical and social factors combine to restrain the agricultural potential and capacity of Jordan. In early 1992, the Ministry of Agriculture actually decided to cut by half the areas planted through reliance on irrigation in order to save on water.

The situation was marginally better between 1948-1967, when Jordan was in control of the West Bank area with its relatively more fertile lands. Even then, however, Jordan was not capable of supplying the food needs of the population from local agriculture.

In the 1920s and 1930s, however, this inability to be self sufficient in food production was not a major issue for the country. Although, as mentioned previously, there were some forms of agricultural activity in TransJordan during that period, the then much smaller population was more dependant on pastoralism and herding than on agriculture or farming. In terms of agriculture, the Ghor Valley immediately east of the Jordan river, for instance is quite a fertile strip, and it does produce a number of crops like wheat, olives, vegetables, and fruits. Although at present the production of the Ghor Valley is nowhere near being sufficient for the needs of the population, in the 1920s and 1930s, the produce had been adequate. What little else was needed in terms of food, was easily brought over from Palestine or Syria.

Over the years, and mainly as a result of technological advances (especially modern irrigation techniques), considerable improvements in crop yields and varieties have

been achieved. Jordan is now in a position to export a number of agricultural products to the surrounding Arab countries, including aubergines and citrus fruits. Even with these advances, Jordan remains a country with poor agricultural resources and low production capacity.

This poor agricultural potential has resulted in Jordan having to rely very heavily on imports in order to meet the food needs of the population. The FAO Food Security Mission (1986) has pointed to this stating that, "given the limitations on domestic production, food security in Jordan will depend to a large extent on the Government's ability to buy adequate supplies from international markets; to hold sufficient stocks to cover unforeseen disruptions in supplies; and assure access of the poor to reasonably priced food supplies".

The importation of food into Jordan has taken two distinct forms; as straight-forward commodity importation, and as food aid. This reliance on food imports is, in fact, true of the majority of Arab countries, most of which suffer similar inhospitable agricultural conditions[1].

Haddad (1985) concluded that despite the various measures that the Government has taken to improve the agricultural sector and to encourage agricultural industries (according to World Bank estimates, Jordan's average index of food production per capita has actually risen from 100 in base year 1979/80 to 121 for 1983-85; a figure that, according to the same World Bank estimates, is, in fact, one of the highest in the world), Jordan has not yet been able to achieve a

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1. Zahlan (1985) has estimated that Arab countries as a whole import 50 per cent of the food consumed in those countries.

reasonable degree of self-sufficiency in meeting the increasing domestic need for agricultural commodities.

Jordan, therefore, has had to rely on the other option open to it; that of importing a substantial proportion of its food requirements. Over the past few decades, food consumption in Jordan has risen rapidly, and with it the import of foodstuffs. Saket (1985) has found that "Jordan's food deficit has increased every year since 1964, when it was approximately JD 10.2 million. In 1982 it stood at 151.6 million. This rise is attributed to the growing demand for food and insufficient domestic production"[2]. To meet the population's rising demands, Jordan now finds itself heavily reliant on food imports, with the result that, "with the exception of a few commodities, most of Jordan's basic foodstuffs, particularly cereals, meat, sugar, coffee, and rice are imported from abroad. Indeed, agricultural imports accounted for about a quarter of Jordan's trade deficit during the period [1973-1981]"[3].

The Government has exempted most foodstuffs from import tariffs in order to keep prices down. Items such as wheat, flour, barley, lentils, corn, rice, potatoes, eggs, and some fruits are totally exempt. While the tariff on sugar was 0.35 per cent in 1981, that on red meat was 10 percent, and fish was taxed at 11 per cent. It is the Ministry of Supply which is responsible for trying to ensure food security. As such, "the Ministry of Supply is sole importer of a number of basic commodities. In addition, it undertakes domestic procurement of cereals and legumes at support prices and fixes wholesale

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2. Saket (1985), p. 29.

3. Haddad (1985), p. 66.

and retail prices for a number of foodstuffs"[4]. In this way the Government has tried to ensure that the more disadvantaged segments of society are able to buy the essentials of their basic diet. Certain other "essential" items, such as bread, are also subject to Government subsidy in order to keep their price low.

Additionally, Jordan receives supplies of food as aid which help balance the demand. While the share of agriculture in GDP has continued to fall, "the ready availability of food aid, especially wheat and flour, has allowed supplies to be kept at normal levels"[5]. Given Jordan's dependency on outside aid and assistance, this is not surprising. Food aid to Jordan has taken the form of either deliveries from the Unites States of America and Europe, or assistance delivered through agencies such as the United Nations' World food Programme (WFP). WFP programmes in Jordan will be discussed in detail later.

Interestingly, World Bank statistics in recent years have shown a drop in total food aid (in cereals, at least) from 79 tons for 1974/75 to 28 tons for 1984/1985. This is probably a reflection not of Jordan's self-sufficiency in food production, rather it appears to be a reflection of Jordan's increasing ability to pay for its purchases of food. FAO (1986) figures show that Jordan had, in fact, imported JD 175 million (US$ 855 million) worth of foodstuffs in 1985; of which basic foods such as wheat and other cereals, sugar, and meat accounted for JD 72 million (over 40 per cent).

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4. FAO (1986), p. viii.

5. Saket (1985), p. 34.

Meanwhile, and despite the reliance on imports, food consumption in Jordan has been rising at an exceptionally high rate. This phenomenon was attributed by Haddad (1985) to two factors. Firstly, the rapid increase in population size which by definition would lead to the creation of more demand for food. Secondly, the rapidly rising per capita income has led to the creation of more consumption and hence, to more demand. The result has been an increase in the consumption of basic foodstuffs, particularly meat, milk, and dairy products. It is also estimated that per capita consumption of cereals, for example, has increased from 115.2 kg/year in 1973 to 233.2 kg/year in 1981, while that of milk and milk products has risen from 46.3 kg to 58.6 kg during the same period. In addition to the two above-mentioned factors, Haddad suggests that changing social patterns have also resulted in an increase in domestic food consumption. He argues, for example, that the increased participation of mothers in employment has led to an increase in the consumption of infant food products such as powdered or bottled milk.

Changing life-style has also led to an increase in the import of "fancy" western food items. Any supermarket and grocery store in Jordan is stocked with various imported items that one would expect to find in a European store. Processed cheeses, canned fruits, canned juices, and breakfast cereals are among such items.

Food is, in fact, the major focus of consumption expenditure in Jordan. It is "predominant as regards private consumption"[6]. Between 1973-1981, average expenditure on food accounted for approximately 50 per cent of total private consumption expenditure, and 43 per cent of GDP. According to the Family Expenditure Survey carried out by the Department of

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6. Haddad (1985), p. 56.

Statistics in 1980, just over 42 per cent of the expenditure of Jordanian families went on food items (rural: 45.21 and urban: 40.88 per cent).

Imports are especially important in wheat, which is used as a staple in the form of bread, and other grains as well as vegetables and fruits. These imports of vegetables and fruit are of both foodstuffs that are not grown by Jordan and those that are grown, but in insufficient quantities. According to World Bank statistics, the cereal imports of Jordan rose from 171 tons in 1974 to 720 tons in 1985 (an increase of 4.2 fold compared with an increase in the population of 1.5 times). Meats are also an important import item for Jordan, and in 1985, around 56 million tons were imported into the country.

Cultural Directives on Food and its Consumption

The major cultural determinant in Jordanian society is evidenced through Islamic tradition. Islam as compared to other religions is not very concerned with dietary habits. There are few instances where Islam interferes with preference for food or where certain rituals, whether of eating or abstinence, are imposed. Islam, for example, is unlike cultures that have dietary restrictions on women who have just given birth. This is true of Jordanian-Arab-Islamic culture, with the exception of a limited number of cases where Islam actually takes a position on certain food items or practices. Those instances are referred to in the Qur'an, and will be dealt with briefly in the following section.

Prohibited food: The diet of Moslems is based on the principle that [5:5]:
"All good things have this day been made lawful to you". This is with the exception of the following [5:3]:

"You are forbidden carrion, blood, and the flesh of swine; also any flesh dedicated to any other than God. You are forbidden the flesh of strangled animals and of those beaten or gored to death; of those killed by a fall or mangled by beasts of prey".

Those restrictions on food do not really constitute a threat to proper nutrition. The prohibition on the eating of pork, for example, does not affect nutritional status either positively or negatively. Pigs are not very common in the Middle East region any longer, and ready alternatives of sheep, goats, and cows are available. In the case of the other restrictions mentioned, it would appear that those are for the most part beneficial, such as the restriction on eating an already dead animal. That restriction, for example, would seem to be a safeguard against eating a diseased animal. While the other restrictions appear to be without any direct implications on nutritional status or health.

Exceptions, however, exist even for the restrictions. The Qur'an allows those in need to break the restrictions [5:3]:
"He that is constrained by hunger to eat of what is forbidden, not intending to commit sin, will find God forgiving and merciful".

Promoted practices: The Qur'an actively promotes the breastfeeding of infants, and that for the duration of two years [2:233]:
"Mothers shall give suck to their children for two whole years if the father wishes the sucking to be completed"[7].

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7. This verse from the Qur'an is often used in Arab countries (such as Jordan, Egypt, and Yemen) as part of official Health Education messages to promote breastfeeding.

This practice is one whose merit does not need to be discussed. Suffice it to say that such a directive on breastfeeding is very much in accord with a basic principle of primary health care. Such a practice, in fact, when applied, has a very positive impact on nutrition and health. In a study of breast feeding patterns in Jordan, Hijazi et al (1990), found that less than 3 per cent of children had never been breast fed. They also found that 50 per cent were breast fed at age 6 months, and 24 per cent were breast fed at age 12 months.

Caution: The "food" that the Qur'an cautions Moslems about is alcohol. There is much controversy surrounding the proscriptions on alcohol. Some interpret the Qur'an as completely prohibiting the intake of alcohol. More often the following verses are cited:
"Believers, do not approach your prayers when you are drunk, but wait till you can grasp the meaning of your words" [4:43], and
"Believers, wine ... are abominations devised by Satan. Avoid them, so that you may prosper" [5:90].

From a health point of view, abstinence or moderation in the intake of alcohol are practices perceived as healthy, rather than as practices which damage health.

Fasting: Fasting is one of the five pillars of Islam. It is the duty of every adult Moslem to fast during the month of Ramadan (Moslem calendar), such that no food or drink is taken between sunrise and sunset. [2:183-4]:
"Believers, fasting is decreed for you as it was decreed for those before you", and
"Therefore whoever of you is present in that month let him fast".

It can be argued that the Ramadan fast, when adhered to properly[8], can be strenuous on the body. The stipulation for the fast, however, rests on the principle that the person fasting is an adult and in a healthy state. Those who are ill, or who find themselves in a situation which makes fasting awkward are exempt from the fast, provided they make up for un-fasted days when their personal situation improves [2:185]:

"But he who is ill or on a journey shall fast a similar number of days later on.
God desires your well-being, not your discomfort."

The fast is relatively mild in its effect on nutritional status. It is practised by already healthy adults, and is limited to a few hours each day for only between 28 and 29 days of the year. It does not, therefore, constitute a real detriment to health.

As for the Christian minority of Jordan, they have the same basic eating habits as their Moslem compatriots. Some Greek Orthodox Jordanians observe the forty day fast which precedes Easter. During this time they refrain from eating any animal or dairy products. Strict practice of this fast is, however, limited and then mainly to adults. It would be surprising if this dietary practice had any significant influence on the nutritional and health status of the population.

Vemury (1980) in a study of beliefs about food and dietary habits in rural Jordan undertaken by CARE and USAID made a number of observation regarding food consumption. Vemury did not find any practices which were particularly

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8. That is when people maintain their normal daily routine. Often nowadays, day and night are simply interchanged during ramadan, such that people go about their daily business after nightfall, and then sleep through the daytime hours of the fast.

harmful to nutritional status or health. He did, however, find some disparity between the quantity and quality of the male and female diets, and that "the male head of the household is given preference regarding choiciest portions of the family meal". This preferential treatment of males with regard to diet is an important socio-cultural factor which deserves further discussion.

This "inequality" in food consumption had also been remarked upon by Dajani and Murdock (1978) who stated that "because of the cultural practice of men and male children eating before women, the first group usually tends to get the more nutritious part of a meal. Thus, it is more likely for females to suffer from nutrition related diseases than it is for men".

A World Bank (1983) report also remarks on this phenomenon in Jordan. The report notes that although "malnutrition in Jordan appears to be low in incidence", it also found sex-disparities in nutritional status and found that the incidence of existing malnutrition was higher and more common in girls than boys, especially in the poorer families.

Jordanian society, as is typical of the other Arab countries as well as of many other "developing" countries, is still characterized by a high degree of male dominance and by negative discrimination against its female members. This low status accorded to women and girls is bound to be reflected in every day behaviour such as feeding and eating habits. As Hijazi (1977) put it, "we know in this community that fathers are the last to suffer". In traditional tribal Bedouin society, for example, it is the accepted norm that women and girls eat only after the males of the family have had their fill, which often results in them receiving only insufficient

left-overs. Needless to say, the "best" foods are "reserved" for the male members, and the second class foods are left for the females.

This trend is also reflected in other consumption patterns. Hijazi showed that breast-feeding of male children was more frequent, and lasted for a longer period. Male children were also favoured in terms of weaning habits and the patterns and choice of weaning foods. It has also been documented by the 1964 ICNND study (see below) that the incidence of marasmus, prekwashiorkor and kwashiorkor were significantly higher among the female children than among the male children. Interestingly, this finding was somewhat more pronounced for refugee, ration-receiving children than for non-refugee children. This male-bias in the feeding of children was also documented for Jordanian society by Damen (1984) and by Bisharat et al for the Urban Development Department (1982). The Urban Development Department study found that "females are less likely than males to be breastfed. They are also less likely to be given any other food. In fact, ... males are about twice as likely to have most other food items added to their diet than are females".

This phenomenon was again highlighted for Arab countries in a Unicef-MENA paper (1990). Any effects of this male-bias in society needs to looked at more closely as it affects health, and more relevantly for this section, as it affects health through the availability of good nutrition to the female.

As regard the quality of the Jordanian diet, apart from casual observation, the only field survey available is that carried out by Vemury (1980) on rural Jordanians. Vemury found that the diet of the rural Jordanian family was "primarily grain based containing wheat, rice and bulgar made from wheat

... They are the major sources of calories and proteins in the diet". Potatoes were a common food item. The source of animal proteins were goat/ lamb/ beef, eggs, and dairy products. However, the consumption of those as well as of fruits and vegetables was somewhat limited. All of which shows that the Jordanian diet, when resources allow, is varied and balanced.

Assessment of the Nutritional Status of the Population

The nutritional status of those Palestinian refugees whose welfare responsibilities lie with UNRWA will be discussed in detail in Chapter Nine.

Accurate assessment, or indeed descriptions, of the nutritional status of the population of Jordan especially on a nation-wide scale, have been scarce and hard to come by. This is especially true for the earlier periods of the country's history. Generally, however, ill health and disease among Jordanians had for a long time been blamed on, or at least associated with, the overall poverty and lack of adequate food available to the population. In fact, as early as 1933, the then Department of Health of TransJordan in its annual report recognized malnutrition as a leading factor, contributing to the high rate of infant mortality in the country.

Malnutrition as a health problem and as a primary cause of health problems was most strongly associated with the health of the Bedouin population of Jordan. As they were described in a Desert Mobile Medical Unit (DMMU) report of 1937, the Bedouin are "a race existing very near the margin of nutrition sufficient to support life. Thus one or two bad years with poor crops and loss of stock could cause a state of semi-famine with consequent lowered resistance to disease and

the appearance of epidemics". Such a statement is not surprising given the limited foods that the Bedouin would have available to them anyway. Anthropologists and travellers to the area of the late nineteenth and early twentieth centuries have described the Bedouin diet as very poor and plain. The Bedouin subsist on milk from their camel, sheep, or goat herds, bread, rice, dates, and occasionally, some fat (*semneh*). Eggs, vegetables and fruits are rarities for the Bedouin as the nomadic nature of their life renders the process of planting and growing crops extremely difficult. Such commodities the Bedouin usually come by through the markets they attend to sell their own herds and products.

In 1934, Dr.N.Maclennan (Senior Medical Officer, Endemic Diseases- Palestine Health Department) made a survey of the health conditions prevailing among the Bedouin population of Trans-Jordan. Maclennan's main finding was that there was an exceptionally high incidence of malnutrition among them; this in addition to the general overall inadequacy of their everyday diet. Maclennan remarked that "the diet of even the poorer African tribes is infinitely superior in quantity and quality to that of the Bedouin". Major Glubb, also in 1937, wrote an extended report to the Colonial office regarding the poor health conditions prevalent among the Bedouin, the backbone of the Army. He too attributed many of their illnesses to the paucity and inadequacy of their diet.

Again in 1937, with the establishment of the DMMU, the Unit's first report emphasized the prevalence of malnutrition among the population and attributed the high incidence of disease, especially Tuberculosis, to "their lowered resistance owing to the amazingly deficient diet upon which they exist in late summer and early winter". The unit also found among the population a number of diseases associated with food deficiencies such as chronic inflammation of the eyes (vitamin

A deficiency), neuritri symptoms (vitamin B deficiency), and "signs of vitamin C deficiency were very common indeed, especially in summer while a few active cases of scurvy were seen".

No major constructive steps were taken, however, to remedy this situation; and as far as the author of this study is aware, to this day, no major policies were ever formulated to address this issue of inadequate nutrition. This is true with the exception of one or two programmes designed to serve only the Bedouin of the Desert Patrol, elements vital to the border and internal security of the country. One such project was suggested by Major Glubb, for the improvement of the health of the men of the Desert Patrol. His project involved creating a situation of self-sufficiency among these people, by having them start vegetable gardens and raise poultry. Both these tasks were to be the responsibility of the women and children of the tribes. Nowhere is it clear, however, whether Glubb's suggestions were ever taken up by the Department of Health. In 1936, the report from the Department of Health, mentions that "arrangements were made between the O.C.Desert Patrol Force and this office that the diet of all the men of that Force should be well looked after". Here again, however, there is no further detail of what "the office" aims to do, nor is there any later mention of whether anything had in fact been done or not.

Although it is not clearly stated anywhere, it is nevertheless implied that, during that time, the nutritional condition of the other segments of the population, the settled inhabitants, was historically better than that of the Bedouin, if only as a result of better access to food. It is also reasonable to assume that the nutritional status of the settled population themselves, could not have been very high, given the climatic and geographical conditions and the

resulting poor agricultural production potential of the country. As discussed earlier, the area was never very highly favoured by either the Ottomans or the British when they were in control of the region. Jordan was not important geopolitically, due to its lack of urban centres and educated population. As a result, until the 1940s, little trade took place with TransJordan, and the country had to be reliant on its own production for food. Additionally, it does not appear that the country received any food aid or assistance then. All of these factors would seem to support the idea that the nutrition of the population, was of a mediocre standing, quite possibly with a fair amount of under-nutrition as well as some incidence of malnutrition.

It would be reasonable to assume that, as a result of the war of 1948, the incidence of malnutrition in the country increased, especially among the refugee population. That would have been a normal pattern of events in such a situation. A report of the Ministry of Health in 1950 pointed to this problem in discussing the health of the Palestinian refugees, where "it was noticed that there was an apparent increase of nutritional diseases more marked among the refugees", and that the susceptibility of the population to tuberculosis had increased as a direct result of "the prevailing malnutrition". However, in the long run, the total population probably benefited as a result of the addition of the West Bank to Jordan in the aftermath of 1948, since it was an area of higher fertility than the East Bank.

Another major incident in Jordan's history which should in theory have had an effect on the nutritional status of the population is the 1967 war. In its aftermath, Jordan lost the fertile lands it was beginning to depend on. At first sight, it would appear inevitable that the population suffered a decrease in available foods, and that the price of food

commodities would undoubtedly have risen substantially resulting in a poorer dietary intake, especially for the more disadvantaged segments of the population.

On the other hand, however, the European countries, and more importantly the United States of America and the oil-rich Arab countries, came to the economic rescue of Jordan, offering economic and food assistance and aid. These went some way towards countering the adverse effects of the war and the ensuing defeat and loss of important resources. Again, it was the Palestinian refugees who suffered the most from the turn of events, and this time there were even larger numbers of them needing food.

Very few empirical studies have been undertaken so far to assess nutritional status in Jordan. As a result, determining the level of the Jordanian population's nutritional status and the incidence of malnutrition in the country with a high degree of accuracy is quite difficult. Those studies that do exist, deal mostly with the infant and child rather than the adult population. Therefore, in trying to assess the variable of nutritional status one has to rely on the few small scale studies that have been carried out, as well as on more indirect sources. Such sources include consumption data for the population (such as that discussed above) and the incidence of diseases and conditions known to result from the presence of under- or mal-nutrition.

Three relatively comprehensive empirical studies have been carried out on the nutritional status of Jordanian children. Although those studies are now somewhat out of date, they are useful in presenting an indicator of the overall nutritional and health status of the population. Their results bear relevance to the present day situation on two main levels. First, ill health due to nutritional deficiencies

manifests itself first in infants and children who are the group most vulnerable to nutritional fluctuations. Furthermore, the nutritional status of children ultimately affects the health profile of the whole population. Second, those particular studies were carried out between 1962 and 1977, a crucial period in Jordan's economic development. That period is probably the one that would exhibit the "worst-case scenario" in terms of negative implications for the nutritional status.

The first two national nutritional status studies were carried out by the United States Department of Defence in 1962 and 1964, the second being a follow-up of the first. The first survey showed that "there were low levels of intake of vitamin A and riboflavin among all sections of the population with confirmatory biochemical evidence and clinically manifest deficiencies of these nutrients in certain groups". It also revealed the presence of "severe forms of malnutrition among infants and young children, and also growth retardation in children" (ICNND, 1962). When the second survey was undertaken, its results were very similar to those of the earlier study. The results provided definite evidence of malnutrition in Jordanian children, especially as reflected in their weight and height patterns, "the dietary pattern, low vitamin A and carotene levels, low riboflavin excretion, anaemia, and the presence of clinical cases of marasmus, pre-kwashiorkor and kwashiorkor" (ICNND, 1964). A number of different reports and small-scale studies, mainly from Jordanian hospitals, appear to support these findings. These reports indicated that between 25-30 per cent of total hospital admissions were of children suffering from different forms of malnutrition, and exhibiting a high mortality rate (Pharaon, 1962; Pharaon & Hijazi, 1967; Hijazi & Mango, 1970).

A larger scale study, Child Growth and Nutrition in Jordan, was carried out in 1977 by Sa'ad Hijazi. This study was undertaken in a further effort to determine and assess any changes that might have affected the nutritional status of Jordanian children since the 1964 survey. In this study, Hijazi found an unexpectedly high level of wasting among children aged between five and seven years. This finding, Hijazi postulates, is a direct result of the times during the late 1960's and early 1970's when the country was undergoing major political troubles. Hijazi's explanation is that "many deaths, displacements, injuries, short periods of food shortage together with poor hygiene and health care were some of the features of those events. It might be suggested that the deprivation imposed on these children during that period might have produced wasting which was probably not followed by a proper 'catch up' period."

Hijazi's main conclusion was that the nutritional status of the children, as measured by their growth performance was better than that reported by the 1964 study. This he concludes was "attributed mainly to socio-economic and educational developments which occurred in the country during the past ten years". In an attempt to determine the factors that cause the malnutrition which was found among his sample, Hijazi concludes that it is a mixture of lower economic status, unsafe water and sanitary conditions, shorter periods of breastfeeding and earlier weaning, and insufficient knowledge on the part of the mothers of concepts of health and hygiene. Interestingly, he found no significant relation between nutritional status and the mothers' age at marriage or their total number of pregnancies. Hijazi also estimates the numbers of underweight infants (those born with weights under the WHO standard of 2500 gms) to fall at only between 0.7-1.2 per cent of male infants and 0.2 per cent of female infants.

World Bank studies carried out in 1974 and 1980 also relate the existing malnutrition among the population to prevalent socio-economic factors. Those include, particularly, poverty, the young age of mothers, the high fertility, inadequate breast-feeding and diet supplementation, as well as a deficiency in the knowledge of dietary and health practices.

Darwish and Ghawi (1981) found that the availability and accessibility of food supplies were not a problem in Jordan. They did, however, find evidence of some nutrition-related problems among both children and women. According to them, 1977 statistics showed that 7.6 per cent of the cases of hospitalized infants were due to avitaminoses and nutritional diseases. These diseases were also responsible for 6.8 per cent of infant deaths. They also found that 3.2 per cent of the cases of hospitalized women were due to nutritional and metabolic diseases.

Very few assessments of the more recent nutritional status of the Jordanian population have been carried out, and apart from noting that the population is relatively well nourished, very little data is available from which deductions or predictions can be made. The World Bank has made one of the few available assessments, stating in the World Development Report (1987) that the average per capita calorie intake had risen from 2591 kcal in 1965, to 2947 kcal in 1985. Both of these figures compare very favourably with those of the averages for the middle income countries of which Jordan is a member according to the World Bank's classifications. However, as was mentioned in Chapter Two above, caution should be exercised when using World Bank figures as no reference is given to exactly where these are derived from. Table 5.1 below illustrates some nutritional indicators of Jordan as compared with other Arab countries, both richer and poorer, as well as

with a number of other countries with internationally acknowledged good health status.

Table 5.1: Nutritional indicators for selected countries

	Daily Calorie Supply Per Capita (1986)	Daily Calorie Supply (% of requirement) (1964-1966)	(1984-1986)
Jordan	**2,990**	**93**	**121**
Algeria	2,720	72	112
Egypt	3,340	97	132
Iraq	2,930	89	124
Kuwait	3,020	...	...
Lebanon	.....	99	125
Libya	3,600	83	153
Morocco	2,920	92	118
Oman	.....	...	...
Saudi Arabia	3,000	79	125
Syria	3,260	89	131
Tunisia	2,990	94	123
U.A.E.	3,730	...	...
Yemen (AR)	2,320	80	94
Yemen (PDR)	2,300	84	96
Costa Rica	2,800	104	124
Sri Lanka	2,400	100	110
Thailand	2,330	95	105

Source: Compiled from UNDP (1990) indicators.

In 1985 a team of researchers assessing the impact of feeding programmes in schools (see below) found that in the two decades between 1962 and 1981, "an apparent improvement in height and weight for Jordanian children, males and females, for the ages 6 to 14"[9] had taken place. "The apparent improvement in height/age in 1981 over 1962 indicates that the 1981 schoolchildren were exposed during their infancy to better nutrition among other environmental conditions, including sanitation, housing and clean drinking water. In addition, the apparent improvement in their weight/age

9. Hijazi et al (1985), p. 60.

indicates that they were better nourished at the time when the measurements were recorded"[10].

The preliminary results of a large study carried out in 1987, with the aim of assessing the situation of the Jordanian child, illustrate in some detail the practice of feeding and weaning of infants and children throughout Jordan[11]. The component of the study dealing with nutritional status was carried out on a group of children from the less advantaged socio-economic strata. The study concentrated on children at the time of weaning. Results from the study should, therefore, be treated with caution when generalizing about the Jordanian population as a whole. The fact that the sample is taken from the under-privileged sector of society, increases the likelihood of finding more nutrition related problems.

Additionally, it is an accepted fact among health researchers that the period of weaning is a particularly difficult one for the child. Nutritional problems often appear during this period of transition. If attention is not given to the child's subsequent diet, problems encountered at the time of weaning could develop into serious growth retardation. The child, however, given the chance, is normally able to compensate for the nutritional stress experienced, and damage is minimal.

In light of the above, the findings of the study showed that children were receiving only 80 per cent of their bodily requirements of calories, and 70 per cent of their recommended daily intake. Children were, on the other hand, receiving 130 per cent of their bodily requirements of proteins, and 115 per

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10. Hijazi et al (1985), p. 60.

11. Tuq et al (1987).

cent of the recommended daily intake. The researchers, argue, however, that the children were having to use the extra proteins to make up for deficiencies in their intake of calories. Children were also found to be receiving only 60 per cent of their bodily requirements of iron, and 78 per cent of vitamin A, while the intake of vitamin B was found to be adequate.

The study, however, fails to come to any conclusions regarding the overall nutritional status of children. It does not discuss what incidence of nutrition-related problems exist among the children (such as stunting or wasting).

In 1989, the World Bank report on Jordan's health sector stated that "during the last two decades ... nutritional status has improved". The report did not expand much on this assertion except to state that the nutritional status of infants and children had witnessed improvements.

As the foregoing discussion illustrates, the Jordanian population is in principle provided with sufficient foodstuffs to have a good level of nutrition. However, a significant problem, which appears to exist in the nutritional status of Jordan, seems to be the existence of disparities between socio-economic classes (as well as between sexes as illustrated above). A study carried out by Haddad (referred to in Haddad, 1985) indicated the presence of marked disparities in food-stuffs consumption between various geographic regions of Jordan, and that, "despite the apparent improvements in the general income level throughout the Kingdom, income disparities are still marked in various regions, accounting for the varying rates of per capita consumption for various food commodities".

Nutrition-Related Services

There are a number of services and programmes provided by the Government and Government-related authorities, in an effort to improve nutritional status and food distribution. Some of these programmes will be discussed below.

World Food Programme aid

The World Food Programme (WFP) is a United Nations agency which distributes food aid to governments and development or relief agencies in the third world. WFP programmes operate through the direct distribution of food aid (for example to refugees via the UNHCR) or in collaboration with development oriented projects that operate on a food-for work principle. WFP has a number of programmes that it supports and runs in Jordan of the two types of operations.

WFP supplies food aid to UNRWA for distribution to the registered refugees and displaced persons. The role of WFP in this respect will be discussed in the relevant section in Chapter Nine.

WFP has for a number of years collaborated with the Jordanian Ministry of Agriculture on a number of projects. The projects are aimed at improving land usage, afforestation, better animal outputs, and improved crop production. In such projects WFP is responsible for supplying each participating farmer with a "food basket" that is supposed to supply his family's needs of basic food stuffs, as an incentive for participating in the agricultural project. Depending on the particular project, this payment may be made to compensate the farmer for lost revenue in cases where he is being asked to change the usage of his land, or simply as a bonus for participating.

Participating farmers and their families are normally from the lower income groups. For example, in 1983, participating farmers were chosen from the group whose yearly family income did not exceed US$1,000, at the time when the World Bank had estimated the average GNP per capita in Jordan to be US$1,800[12]. A typical family "basket" consists of the following items: Wheat flour, edible oil, dried skim milk, canned luncheon meat, pulses, sugar, and dates. Not all items are necessarily included in the baskets of different projects, nor are they necessarily included in the same amounts. In some cases WFP assistance is estimated to represent around 25 per cent of the participating farmers' income[13].

The scale of WFP's assistance also varies with the different projects and their duration. In a four-year project aimed at improving agriculture in the highland areas, for example, WFP was expected to provide Jordan with wheat, wheat flour, dried skim milk, edible oil, sugar, and dates. The supplied food was estimated to cost US$17,485,000 (including freight and supervision)[14].

The other main WFP programme in Jordan is the Supplementary Feeding Programme for underprivileged school children. WFP shares the responsibility for designing and implementing this programme with the Ministry of Education's School Health Programme.

The supplementary feeding programme for school children was first started in 1965 by WFP. It covered 85,000 children in the least privileged areas of the country, and had a

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12. WFP/FAO (1985).

13. WFP (1986), p. 5.

14. Ibid, p.6.

duration of one year. When the programme was found to be successful, it was renewed for a further three years, and has been periodically renewed since then. In 1967/1968 an independent Directorate of Supplementary Feeding was created at the Ministry of Education, but in 1975/1976 it was joined with the School Health Programme under one Directorate.

The number of beneficiaries of the supplementary feeding programme had been increasing until they had reached 140,000 children for the period 1982-1985. However, by 1985, the programme had lost popularity and halfway through 1985-1988 it was decided to decrease the numbers of students and spread the resources over a longer period. So, for 1987/1988 the numbers were reduced to 40,000. The project consists of offering all elementary school children in underprivileged areas one nutritionally balanced meal every day at the school. The meal consists of a combination from the supplies of tinned cheese, tinned meat, and dates provided by the WFP, such that each student under this scheme is supplied with 691 Kcal, 31 g protein, and 10 g fat every day. Until 1987, children were also given flour and were asked to bring bread into school. The flour rations were stopped, however, because the WFP judged that Jordan was no longer classified as being in grave need.

Hijazi et al (1985) carried out an evaluation/ assessment study of the impact of the WFP supplementary feeding programme on school children. Children receiving rations in the years 1979/80 and 1981 were studied for the effect of the extra food on their general health as indicated by anthropometric measurements. Their investigation indicated that Jordanian children were in some respects not up to the standards of American children of the same age group. This, however, was not considered to be a very significant finding for two main reasons. Firstly, that the discrepancy was not

large; and secondly, because the Jordanian children were themselves representative of the lowest economic strata, which was precisely why they were chosen for supplementary feeding.

This study did not actually fulfil its stated aim of assessing the impact of the programme. Rather, it concentrated on measuring the nutritional status of the children as they were found at the time of the study. Nevertheless, the findings were useful as they showed that those underprivileged children were not suffering from any major nutritional problems. Some incidence of stunting, as compared to the American averages, was observed. Wasting, however, was not a significant finding. As mentioned above, Jordanian children in 1981 were found to be in better shape than their predecessors of two decades earlier.

A number of other foreign organizations have also had feeding programmes for children in various parts of both rural Jordan (see Dajani & Murdock, 1978). Those have included USAID, CARE, and the Mennonites. The programmes run by these organizations have been of a small scale. Most of those programmes had closed down by the early 1980s. Those programmes were never of a large enough scale to have much of an impact on the nutritional and health status of the population.

Health education and growth monitoring

These activities are mainly the responsibility of the Mother and Child Health (MCH) centres, now found all over Jordan (116 MCH centres in 1987). Health education sessions on the importance of proper nutrition for both mothers and children are held for mothers attending the MCH centres. The nutrition and diet of pregnant women is given particular attention. Women are advised about which foods to eat and which to avoid,

for the benefit of their health and that of their unborn child.

Furthermore, pregnant women and children attending the clinics are routinely weighed, and records of the measurements are kept on individual charts in order to monitor developments and changes. In the case of children, and part of the MCH centres' growth monitoring activities, measurements of height are also routinely recorded and charted. There are different growth monitoring charts for girls and boys. Cases of imbalance (over-weight or under-weight) are referred to the Health Education/ Nutrition division who then have the responsibility for addressing the problem with the mothers, and for regular monitoring of the cases. Cases of a severe nature are referred to the physician for treatment.

Treatment of nutrition deficiency cases

Hijazi (1977) explains in his study that there exist in most of the hospitals in Jordan some facilities for the treatment of severely malnourished children. Hospital treatment, he goes on to state, is expensive and has been very ineffective in terms of money spent for each complete recovery. Although hospitals in Jordan treat malnourished children in significant numbers, the treatment given is often inadequate because of lack of facilities and trained personnel. Treatment is usually focused on the complications of the intercurrent episodes such as bronchopneumonia, diarrhoea and measles, and the child may return to his home as malnourished as he was when treatment began. Generally there is no coordination between the curative measures given at the hospital and the follow up provided by the Health Centres after the child's discharge. The net result of inadequate hospital treatment with no follow up is that the resources expanded for each fully-recovered child can be very high.

Implications for the Health of the Jordanian Population:

In its recent history Jordan has gone through several periods (1948, 1967, 1970) which were potentially detrimental to the health of its population, not least because of economic restraints and the resultant restraints on nutritional intakes. Forecasted dramatic worsening in nutritional standards did not, however, take place. Instead the general trend (since the 1950's) appears to have been one of an overall steady improvement in the nutritional status of the population. This is evident from the decrease in the number of cases and the incidence of malnutrition and nutritional deficiency diseases, as well as from the rising per capita food consumption, and the rising per capita caloric intake.

Although local food production is inadequate for the needs of the population, Jordan has been able to purchase its requirements of food from the international market. In this way, the Jordanian population has never really had to suffer from the lack of availability and accessibility to basic food items. As long as Jordan is able to afford to buy on the international market, this would be a reasonable option for the middle income country. This situation, however, has a certain degree of precariousness built into it. Reliance on purchases from the international market, imply a dependence on favourable political conditions. The FAO Food Security Mission to Jordan (1986) warned that, "although the <u>ability</u> to purchase food from the international market is not considered a fundamental problem, <u>access</u> to international supplies may prove to be a bottleneck". For this reason, the Ministry of Supply has in recent years started to build storage silos for grain. The Ministry of Agriculture has also been studying the possibilities of increasing and improving local food production.

The political position of Jordan, on both the regional and the international scenes, has prompted the United States of America, and the Arab Gulf countries to give it financial assistance, grants, and food aid. These have acted to counterbalance the food shortages and potential nutritional disasters which could have resulted. The aid has helped Jordan maintain the trend of nutritional improvement, and the concurrent health improvement.

The Government of Jordan controls pricing policies for all basic foodstuffs, often subsidizing certain items. In this way, the Government tries to maintain low and affordable prices, especially for the benefit of the less advantaged groups. This way the price of imported items is kept relatively low.

When nutritional problems do appear in the population, they are more often problems of under-nutrition rather than of mal-nutrition. The severity of such cases is normally less than the resulting problems associated with malnutrition.

One major set of problems remains. That is of the inequality of the distribution of food. The groups discriminated against are the poorer economic classes, for economic reasons; and the females, for socio-cultural reasons. Both these inequalities need to be addressed, and strategies for overcoming them need to be formulated, before total coverage, in terms of adequate nutrition, can be said to have been reached in the Jordanian population. The nutritional problems of Jordan may not be very obvious, and therefore, somewhat difficult to tackle. What is under discussion is not so much the incidence of nutritional diseases, as it is a question of differences in nutritional status. Therefore, the problems of inequality and inequitable distribution are more important and relevant for the welfare of the Jordanian

population than are questions of extreme and obvious malnutrition and the unavailability of food to the population.

Since around 1982-83 Jordan has suffered from the same economic recession that has hit the Arab Gulf countries. The logical assumption would be that as a result nowadays less is being spent on "fancy" imported foods and more "reasonable" spending patterns would be emerging. Consumption patterns, however, did not begin to change significantly until the end of 1988, when the Government decided to devalue the Jordanian Dinar. In April 1989, the Southern Governorates of Jordan witnessed a number of days of rioting, as protestation against the rise in the price of basic foodstuffs. A Unicef report published in 1990 claims that while the inflation rate for 1989 was 25 per cent, the price of some imported food items had doubled or trebled in price, and locally produced items had also increased in price.

This newly emerged economic situation is likely to result in the population having less to spend, while choosing to direct this spending on precisely those novel western imported foods, forsaking the achievement of a balanced nutritional diet in the process. If this is to be the case, one would expect pronounced effects to begin to become apparent by the beginning to middle of the 1990s. It is, however, still too early for a proper assessment of the impact on nutrition to be properly recorded. Unicef (1990a), nevertheless warned that "the problem will surely get worse, as families adjust their spending to the demands of Jordan's austerity programme"[15].

The "Gulf War" seems to have negatively affected the food situation in Jordan. This is a result of the

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15. UNICEF (1990a), p.19.

deteriorating internal economic situation, as well as of the cuts in aid that Jordan is receiving. These factors would seem to point to an increase in the levels of food aid needed to sustain the population. Whether or not this aid materializes, and in what quantities, remains an issue intertwined with the recently emerging international political process of making aid conditional on political affiliations and positions.

With the changes taking place in life-style, especially with increasing "westernization", new patterns of nutrition-related problems are starting to emerge among the population. Overeating, "junk foods", and excessive dieting are among the problems that health professionals will need to seriously consider in the near future. Such problems are part of the overall shift that Jordan is exhibiting in its move from the diseases of poverty to those of prosperity. In the case of Jordan, this is likely to be occurring now in conjunction with an increase in poverty related conditions. Again, while it is still too early to assess the impact of these changes, Jordanian health planners cannot afford to ignore them altogether.

CHAPTER SIX

Education

Education and Health

Most health scientists would agree that of all socio-economic factors, education is the one which has a definite positive influence on the level of health in a population. WHO has recognized the importance of education in determining health status among individuals as well as populations. This is reflected in several key WHO documents including the WHO-UNICEF Alma-Ata Declaration on Primary Health Care (1978), where "education about prevailing diseases and health problems and their control" was cited as one of the eight essential elements of Primary Health Care. This narrow interpretation which is confined to health-related knowledge is not all that is meant in terms of education and its influence on health. It is widely accepted that education in its own right plays a significant role in affecting change in health. In fact, it has come to be universally acknowledged that "health-for-all goals and universal primary education are vitally interlinked: they have to be achieved concurrently and they are both equity oriented"[1].

1. WHO (1986), p. 79.

There is no clear agreement on the definition of the actual causal relationship between education and health, nor on its quantification. There is, nevertheless, agreement that in most cases, the influence of education on health status is positive. Cochrane (1979) and Cochrane et al (1986) have done extensive work in the field of education and its effect on health status. She has reviewed a large number of country cases and studies, both inter- and intra- countries, that have attempted to describe and quantify the relationship between education and health. From her work, it emerges that three broad mechanisms are assumed to influence health. First, through the dissipation of knowledge, education may enhance the individual's and the community's capacity to respond to health initiatives; second, education may raise the level of overall consciousness within the family and community; and third, education appears to influence reproductive behaviour, causing fertility rates to fall and, hence, the overall health of the family to improve.

Furthermore, and perhaps more significantly in terms of future policies, there appears to be general agreement on the principle that education of women in a population has a much more dramatic effect on the community's health than male education (Cleland and van Ginneken, 1988; Victora et al, 1992). Women play a key role in the provision of health care, and hence, their education is of great importance in influencing health in the family and the community.

The most obvious way in which education could have an influence on health status, appears to be through directly increasing knowledge of health and health-enhancing practices. That is, through programmes specifically aimed at health education for individuals and the community. This kind of education, however, is not very common nor very practicable in terms of coverage. The alternative is through the

dissemination of general knowledge. This in fact appears to be the main basis of education's influence on health. Through gained knowledge of the wider world, and through an increased ability to communicate and receive information, knowledge about health and how to improve health can be gained.

Moreover, what has been termed the "modernization" process often follows from education. Modernization is assumed to act through exposing people to new ideas and concepts, as well as to a new way of life, which they would then strive to emulate. It is hypothesized that through this process education would act primarily to change tastes and value systems. For example, people with education would want to live in a more hygienic environment, and they would start to like and expect good food and sanitation. It is also believed that in an educated society, children become more important and valuable in their own right. As such the effort of keeping them healthy becomes a legitimate one.

The concept that it is the fact of having been to school and having been exposed to the learning process that influences health, and not the quality of education received as such is supported by many researchers. Caldwell and Caldwell (1985), Caldwell and McDonald (1981), Cochrane (1979), Gunatilleke (1984), and Jain (1985a, 1985b), among others, have all advocated this view. This has also been claimed by WHO (1986), and by the Bellagio conference (1985). All have stressed that the fact of having been to school seems to be more important than the quality of the schooling. In addition to increased knowledge, it seems that having been to school acts as an essential ingredient for building confidence in people. "Even a few years of schooling provide basic skills and some capacity for continued learning which make a vital difference to the individual's ability to handle life situations and cope with a changing environment. This

capacity, however rudimentary, can have far-reaching implications for health behaviour and learning about health"[2].

Effects on Women

In most regions of the world, the way in which the gender-division of duties operates especially in infant and child care, places women - as mothers - as the primary agents responsible for maintaining and improving the health of the family. Women are responsible for health as the "carers" at times of illness, and as "providers" through the role they play as the educators and socialisers of children. It is from the mother that children learn about hygiene and other health-related practices. It is through the provision of food and through the mechanisms of distribution of household resources that the basic health levels of the family are determined and improved. Additionally, the mother has a decided influence on the health of her infants through the way she behaves and acts during her pregnancy, delivery, and the post-natal care of her infants. Cochrane et al (1986) in a study for the World Bank found that "maternal education is closely related to child health whether measured by nutritional status or infant and child mortality. The evidence on the significance of the relationship is unequivocal, the magnitude is more difficult to determine"[3].

Again the mechanisms through which the education of women works to affect improvements in health are varied. Different mechanisms may operate at different times, and with

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2. WHO (1986), p. 75.

3. Cochrane et al (1986), p. 92. Similar trends were observed by Cleland and Van Ginneken (1988) and Victora et al (1992).

varied degrees of influence. The basic sectors that education affects are: knowledge, status, role, and fertility behaviour.

Knowledge: On the most basic level, an educated mother has more information and general knowledge at her disposal which she can use to understand and make sense of the world around her than her uneducated counterparts. Education, through acquired information, acts to increase women's awareness of diseases and their causes. Education de-mystifies the causes and effects of disease. The role and importance of factors such as hygiene and proper nutrition become clearer.

Through education, the woman gains confidence about her ability to interpret situations and make decisions, and confidence to contradict her elders' definitions, interpretations, and advice. On the whole, education improves women's skills for survival and their capacity for self and child care, and the maintenance of good health during pregnancy.

Status: The education of women affects a change in their role and status in the family and the community. This change is manifested both in their own perception of themselves, as well as in the perception of others in the community. An educated woman usually enjoys a higher status both inside and outside the home and family. This higher status itself appears to be a function of different mechanisms. On one level, the woman's status improves simply as a direct result of her education.

The woman's status is thought to improve through the better marriage she is able to secure by virtue of her education. It has been found that educated women are more likely to marry men who have higher incomes, and to, therefore, possess all the benefits that follow from such a financial advantage.

As an indicator of improved status, it has been noted that an educated mother is more likely to be assertive and vocal in household and family issues. She is more likely to insist that her children not be made to work as labourers outside the home at young ages. She is also more likely to insist that a sick child should be allowed to rest. Furthermore, an educated mother is more inclined to insist on sending her own children to school.

Moreover, an educated woman is more likely to insist on sharing resources, including food, more equitably within the family. In this way she ensures that both she and her children receive better shares. In fact, Caldwell and McDonald (1981) have argued that the increase in command over household resources which is accrued to educated women is the primary mechanism through which the wife's education leads to improved child health. Educated mothers are also more likely to realize the importance of and to insist upon more spending of limited resources on health-related matters such as visits to the clinic, medicines and improved sanitation and hygiene.

On another level, as stated above, educated women are more likely to contradict the older women, especially their mothers-in-law. Sociologists and anthropologists have indicated what appears to be a clear tendency for traditional-minded mothers-in-law to "allow" their educated daughters-in-law to contradict them and to make independent decisions. The more significant of these decisions being those concerned with child bearing and child rearing practices. This is in addition to the gained status that an educated wife has with regard to her husband. The husband is also more willing to listen to an educated wife and to allow her to make decisions on her own initiative.

Outside the home, and as far as health related matters are concerned, educated mothers have been shown to be much more confident and strong-willed in demanding their rights and proper service from the health providers. Not only is an educated mother willing to travel for long distances to reach a health centre or a doctor, she is also better able to explain her case and to vocalize her demands. She is better able to make health workers listen to her, and is able to demand that they explain any treatment to her. Hence, educated women are enabled to benefit better from health care services and more significantly, are in a position to better understand and apply advice given by physicians and health staff.

Fertility: The effect of rising education levels on declines in fertility are well documented in health and demographic literature. One of the main findings of the World Fertility Survey (WFS) (1985), for example, was the strong link between fertility decline and education. Education appears to lead to lower levels of infant and child mortality, by inducing mothers to take better care of themselves during pregnancy, and of their infants and young children. Mortality declines with increases in education were also noted by the WFS. On another level, education has positive effects on the acceptance and use of family planning methods, which causes a change in overall reproductive behaviour. Birth-spacing and birth control, in turn, influence infant, child, and mother's health. Birth spacing allows the mother time to rest and allows for longer periods of breast-feeding of infants. Having less children means that there are fewer persons among whom food and resources are shared.

In a statement by Cochrane (1979) which bears particular relevance for the case of Jordan, she says that "in general, the evidence of an inverse relation between education and fertility in aggregate data is strongest for countries at the

middle level of development"[4]. That is to say, the assumption is that a strong relation of this kind would exist in Jordan, which is among the middle level developing countries and which has high levels of female education. This, however, does not appear to be the case. The reasons for this need to be explored further, and more detailed attention will be accorded to them in Chapter Seven.

Role: Another indirect effect of education is the change in the traditional role of women as wives and mothers. Education is linked to the increased employment of women outside the home. As women become more educated, they tend to seek employment in the labour market in order to enhance the family income. This allows them a larger degree of economic and financial independence. They also gain prestige and are, therefore, able to be more decisive inside, as well as outside the family.

The case for Arab/ Islamic countries varies slightly from this norm. Women in Arab countries, even if highly educated, have a much lower labour participation rate than in other regions of the world. Arab women who work outside the home mostly do so only before marriage. They also tend to leave their jobs at the onset of marriage. The number who leave paid employment increases further with child-bearing. Mujahid (1985) in his study of female labour force participation in Jordan has documented these patterns of behaviour. Nevertheless, Mujahid did find that the experience of labour market participation has some positive effects on fertility and the overall health of the family. Confidence and independence, however slight, which have been gained from working outside the family domain help women to make their own

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4. Cochrane (1979), p. 6.

decisions and to defend them. The extra income, whether pooled into the 'family-fund' (which is the usual case), or kept for the sole use of the woman, increases health status through increased spending power on health and health related items.

The high education and employment of mothers outside the home do not always have a positive impact, however. There are serious drawbacks to mothers with young infants who go out to work without the proper supportive infrastructure to ensure their infants' well-being. In many developing countries, a common result is that the more educated mothers are likely to go out to work soon after birth leaving their infants in the care either of uneducated maids or inexperienced and uneducated female relatives. The more educated are also less inclined to breast-feed their babies, believing that breast-feeding is a sign of backwardness, and preferring bottle-feeding, a practice which often leads to adverse results. Highly educated working mothers are also more likely to wean their infants too soon, which often results in nutritional deficiencies and growth stunting.

Effects on Children

So far the discussion of the effects of education on health has concentrated on the effects of parental education on the family and the offspring. The effects on health have been presented from the perspective of the effect of education in affecting change in the adults of a given population. The literature has on the whole mostly preferred to deal with parental education rather than the effects of education on the children themselves.

Caldwell and Caldwell (1985), however, have attempted to assess the effect of education on children who are themselves the recipients of this education. They suggest that "it seems

reasonable to suppose that school children are treated sufficiently differently from children who do not go to school by both parents and the community that mortality differentials exist between the two groups. Such differentials are likely to be intensified by the intervention of schools in giving treatment or, more often, in identifying illness and advising that some actions be taken. Schools set standards of dress, of moderate activity, and advise about hygiene, diet and other healthful activities"[5].

Caldwell and McDonald (1981) have also tried to examine the effect of children's education on determining health status. Their findings while indicating a general trend , were nonetheless inconclusive. They stated that "at older ages the children's own education probably also plays a role, but no analysis of this phenomenon seems yet to have been attempted"[6]. One reason suggested for this by Caldwell and Caldwell (1985) may be that the indicator of health usually used is the infant mortality rate, or at least rarely more than the age five mortality rate, for which the children's education does not apply. Another possible reason, also cited by Caldwell and Caldwell (1985), is that the study of parental child loss is of living persons, whereas studying the children themselves, involves studying all children, both alive and dead, a much more complicated and problematic undertaking.

Even though very few studies have been undertaken to determine the relationship between children's education and health, it is still reasonable to assume that education affects children's health positively in much the same way as

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5. Caldwell and Caldwell (1985), p. 182.

6. Caldwell and McDonald (1981), p. 92.

it does with adults. The mechanisms through which children's education affects health operates through three main principles. First, gained knowledge, both general and particular itself leads to health improvement. Second, education creates changes in children's own behaviour to make them more "healthy". And third, there seems to be an "education" of mothers, resulting from what they pick up from their children. This effect is especially common among communities where the schools are aware of the needs of the community, and where school projects are designed with the aim of involving the whole family.

Effects on Life-style

As the levels of education among a population rise, the trend of migration from the rural areas to urban centres becomes more pronounced. This rural to urban migration is usually brought on by expectations for better-paid and higher prestige jobs. These expectations in turn are increased with the achievement of higher levels of education. Education also seems to create expectations of a better "life-style", which is to be found in the cities.

The incidence and volume of rural to urban migration varies from one country to another depending on the services and opportunities available in the rural areas and the opportunities to be found in the urban areas. In a country like Jordan, the initial "pull" of the cities, especially Amman, was very strong and was then reinforced by the rising levels of education among the population. Jordan presents a classic case of job opportunities being abundant in the cities, especially in the armed forces, while conditions and services in the villages and smaller towns, are neglected and beginning to deteriorate. As a result, Jordan has, since 1950,

suffered from a very high rate of urbanization (ranging between 3 and 4 per cent annually).

Urbanization, and in particular rapid urbanization, is the cause of both positive and negative effects on the health of the population. A detailed examination of the effects of urbanization of health is presented in Chapter Four above.

Education in Jordan

Jordan shares with its Arab neighbours an Islamic tradition and culture which strongly encourages education. The Qur'an advocates learning and promotes knowledge on several occasions. For example, [39:9]:

"Are those who have knowledge the equal of those who have none?"
and [58:11]:
"God will raise to high ranks those that have faith and knowledge among you."

Jordanians, however, seem to have accepted, internalized, and acted upon these principles to a larger extent than the majority of other Arab countries. This is especially true when taking into account the rate of female participation in the educational process. Table 6.1 highlights some comparative educational indicators. The figures show a trend which was already clear in 1965. Jordan's recent history offers a host of contributing social, economic, and political factors that must have played significant roles in causing the rapid education of the population.

Table 6.1: Education indicators for selected countries, 1965

	Gross Elementary Enrolment Rates (%)		
	Total	Male	Female
Jordan	**95**	**105**	**83**
Algeria	68	81	53
Egypt	75	90	60
Iraq	74	102	45
Kuwait	116	129	103
Lebanon	106	118	93
Libya	78	111	44
Saudi Arabia	24	36	11
Syria	78	103	52
Tunisia	91	116	65
Comp. Group (#)	83	94	71

Source: World Development Report (1989).
#: European, North African, & Middle Eastern low to middle income countries.

Educational provision in Jordan, although it continues to be deficient in areas of total coverage and equity, nonetheless, moved at an exceptionally rapid pace. During the past few decades, the country underwent some remarkable developments in its educational sector. By 1981 the achievements of Jordan in the education sector were so well established, that the World Bank remarked that "Jordan's general education system is well-developed. Basic education (Grades 1-9) is compulsory, and female and rural students are equitably represented in primary and secondary schools"[7].

Before the establishment of the state of TransJordan, there were very few institutions for teaching. According to Abu-Nowar (1989), before 1919 there were only six pre-elementary schools, three elementary schools, and one secondary school in the whole country. The curricula at these schools was very rudimentary, consisting mainly of lessons on the Qur'an, in Turkish and Arabic grammar and dictation, and some arithmetic. Most children who received an education (the

7. World Bank (1981), p. 3.

practice was mainly limited to boys) were educated at the Kuttab, where they learned the Qur'an, Arabic, and basic arithmetic. The elementary school certificate was so important, that it had to be signed by fourteen members of the Administrative Council. Neighbouring Lebanon, by comparison, already enjoyed the benefits of institutions of higher education.

By 1920, however, the number of schools had actually dropped to four due to lack of funds. In 1922, at the beginning of the British mandatory rule, illiteracy for over-10 year olds was in excess of 80 per cent, while the illiteracy rate of the female population of the same age group exceeded 95 per cent. The state of education in TransJordan at the time of the establishment of the State was so rudimentary that "only a handful of individuals had had the benefit of an education"[8] which was anything more than Qur'anic studies and basic dictation and arithmetic.

In 1923, after the establishment of the British mandate, the Department of Education and Antiquities was founded in 1923. By 1926, the Law of Elementary Education was passed. This law essentially sets out the national elementary education curriculum[9]. Tables 6.2 and 6.3 below outline the developments in the number of schools and pupils between 1920 and 1929.

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8. Al-Amad (1981), p. 10.

9. The national curriculum consisted of the following subjects: The Qura'n, religious education, Arabic, mathematics, geometry, geography, history, flora and fauna, biology, health education, civil duties, behaviour, economics, art, handcrafts, national songs, sports, and military training. Taken from Abu-Nowar (1989), p. 224-5.

Table 6.2: Schools in TransJordan, 1920-1929

Year	Government Schools		Private Schools		Total
	Boys	Girls	Boys	Girls	
1920	4	—	4	—	8
1921	10	—	4	—	14
1922	26	3	13	2	44
1923	29	3	16	2	50
1924	29	3	19	2	53
1925	41	3	33	2	79
1926	46	3	47	2	98
1927	46	3	162	2	213
1928	46	3	117	2	168
1929	46	3	117	2	168

Source: Abu-Nowar, (1989).

Table 6.3: Graduates in TransJordan, 1922-1929

Year	Elementary	Secondary	Arts & Crafts
1922	25	—	—
1923	31	—	—
1924	44	—	—
1925	55	27	15
1926	65	43	4
1927	60	47	3
1928	94	65	3
1929	95	82	
Total	469	264	25

Source: Abu-Nowar (1989).

The state of education only began to improve significantly after 1939, when a Statute on Education was announced and a proper educational administration was set up in the country. The Statute contained the first declaration of compulsory education. It was decided that four years compulsory education would be provided in the rural areas, and five in the urban.

Conditions continued to improve rapidly. "In the period of independence, the state began to guarantee education for its citizens without distinction, within the limits of its capacities, as stipulated in the amended Constitution of 1952. Compulsory education now included the entire primary phase,

and continued for seven years until it was changed to six years from the start of the 1954/55 academic year"[10].

Considerable progress was made during the 1950s. This was heightened by the arrival of large numbers of Palestinian refugees. The arrival of the refugees brought with it UNRWA's extensive educational services. UNRWA educational services will be examined in detail in Chapter Nine. What is relevant in the present chapter is the effect that the establishment of UNRWA and the arrival of the refugees had on the development of the overall educational sector of Jordan.

With the arrival of the Palestinian refugees, a substantial number of educated persons (male and female) had arrived in Jordan. These became the main pool of teachers who also eventually became the main support for the educational system. Another less direct effect of the influx of Palestinians into Jordan was the rise in demand for education. This came about as a result of two main factors. The first was the mere increase in the population, and their concentration in urban areas which is itself a trigger for increased demand. Perhaps more significant is the trend which had become distinct among Palestinians. After the loss of country and land, many Palestinians began to regard an education as the only "asset" they could rely on, and that could not be taken away as land and other material resources could. This challenging demand was reflected in the general population of Jordan, and it led to the Government assigning more resources to meeting it. Schools at all educational levels were opened, and a rapid increase in enrolment began to take place.

The result of the 1967 war acted to reinforce the "enthusiasm" for education among the population. The war

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10. Al-Amad (1981), p. 32.

brought home to many the realization that they may never return to their land and property. This caused a surge in commitment to education as the surest and safest investment for the future.

Moreover, by the late 1960s, early 1970s, a new factor was beginning to emerge with considerable implications for the development of education in Jordan. It was during that period that the Jordanian Government began to regard its human resources as its most important asset. Policies to improve the human resources base were being formulated. Paramount among development policies was a concentration on educating and training the population. Services were expanded in a reflection of the Government's belief that "education is a form of investment which contributes to social and economic progress"[11].

Educational services expanded to such an extent that a Ministry of Education report in 1972 stated that the proportion of students had reached 17 per cent of the population. The report also stated that great strides had been made in the area of education in the past ten years. The report went on to stress that "the wide expansion in education will be appreciated if we take into consideration the difficult economic circumstances".

As a result, Jordan was well on the way to becoming a training centre of manpower which it would eventually export to the oil rich Gulf states. "Constrained by a meager natural resource base, Jordanian planners have for many years placed high priority on the development of the country's human resources through education and training... it has enabled the country to place its well-qualified labour force in the

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11. Al-Amad (1981), p. 32.

oil-rich states of the Gulf. During the late 1970s, when employment in the Gulf States was expanding, over one-third of the Jordanian labour force emigrated to these countries. The resulting inflow of worker remittances contributed substantially to Jordan's domestic economic growth, which averaged 12 per cent per annum for the period 1975-80"[12].

This policy has been extremely successful. It has led to even more demand for education as people began to realize the economic benefits of being educated and skilled. Furthermore, and in addition to increasing Jordan's revenues and helping to ease looming unemployment problems, this policy eventually resulted in an actual manpower shortage for the local market.

This itself resulted in another positive impact: an increase in female education. Due to the strategies employed to deal with the manpower shortages. One way that the Government dealt with this problem was to import cheap foreign labour from countries like Egypt and Pakistan. Another, was to rely on the untapped potential to be found in the female population. This the Government did by encouraging educated women to enter the labour market, and by planning to increase this pool by increasing the number of educated women.

In 1976, the Second Symposium of Manpower Development was held in Amman. It focused on the importance of the role of women in the labour force. That was the start of serious Government interest in the education and training of women in order to enable them to enter the labour market. Women's labour was perceived as necessary in order to augment family incomes hard hit by the then rising levels of inflation

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12. World Bank (1987), p. 1.

(estimated by the IMF at 36.7 per cent for 1977)[13]. Women's incomes were also needed to replace the local incomes of the males who were by then working in the Gulf countries. More will be said about the participation of Jordanian females in the labour force in Chapter Seven.

By, 1979 when the census of the population was taken, the rates of illiteracy had dropped to 6.6 and 10.99 per cent for the total population and for females respectively. This is a remarkable drop to have been achieved in 57 years. The number of students had risen from 240,300 in 1955 to 863,900 in 1985 while the number of teachers had increased from 6788 to 34,119 during the same period[14]. Table 6.4 below outlines the main developments in the educational sector of Jordan over the period 1950-1987. Figure 6.1 (end of Chapter) illustrates the increase in the number of schools in Jordan between 1963-1987.

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13. Hijab (1988).

14. It is reasonable to assume that these improvements are even more substantial than claimed, as the 1955 figures almost certainly included both the East as well as the West Banks.

Table 6.4: General Education Indicators

Year	Teachers	Schools (rural)	Students Tot (000s)	Students Fem (000s)	% of Budget
1950	------	------	76.6*	20.8*	1.4
1951	------	------	86.6*	21.4*	4
1952	4,442	958	101.8*	23.3*	4
1953	5,081	964	118.2*	23.5*	7
1954	5,720	1,011	137.1*	24.2*	7
1955	5,517	1,121	151.5*	25.7*	7.1
1956	7,432	1,212	163.8*	-----	7.4
1957	8,019	1,337	176.1*	31.2*	7.2
1958	8,620	1,430	279.2	32.7	----
....	.....	.....	.....	.....	....
1963	11,374	1,815	------	------	8.3
1964	11,860	1,875	------	------	8.2
1965	12,647	1,963	------	------	7.3
1966	13,331	2,042	------	------	6.8
1967	8,193	1,222	------	------	8.1
1968	9,296	1,311	322.7	39.8	6.5
1969	10,681	1,402	350.3	40.2	6.2
1970	11,942	1,529	387.9	41.4	7.4
1971	13,136	1,711	416.7	42.5	6.7
1972	14,421	1,891	466.1	42.9	5.6
1973	15,991	2,061	497.1	43.7	4.7
1974	17,811	2,231	535	44.2	7.2
1975	19,523	2,356	572.2	44.6	6.8
1976	21,128	2,430	611.8	44.8	7.1
1977	23,438	2,518	647.6	45	6.7
1978	25,333	2,582	687.9	45.7	7.1
1979	27,113	2,698	730.5	46.3	7
1980	28,641	2,750	762.4	46.4	7.5
1981	30,115	2,841	796	46.6	8
1982	31,008	2,895	820.1	46.9	8
1983	31,476	3,000	856.3	47	8.2
1984	33,968	3,082	879	47.2	8.5
1985	37,516	3,205	864	47.9	8.6
1986	39,607	3,365	919.7	47.8	8.5
1987	42,533	3,565	963.3	48.5	----

Source: Various Ministry of Education Annual Reports and Annual Statistical Reports for the years 1950-1987.
*: Figure refer only to Government schools. Other figures include vocational training.

Furthermore, in 1984 the enrolment rates of 6-12 year olds in elementary education was almost universal. These rates and this performance compare very well with other developing countries. Moreover, compared to the other Arab and Islamic countries, Jordan has managed very well, particularly in terms of overcoming the obstacles and problems traditionally connected with female education. Overall adult literacy has increased at an impressive rate. (See Table 6.5 below).

Table 6.5: Adult Literacy Rates in Selected Countries

	Adult Literacy Rate (%)	
	1970	1985
Jordan	**47**	**75**
Algeria	25	50
Egypt	35	45
Iraq	34	89
Kuwait	54	70
Lebanon	69	78
Libya	37	66
Morocco	22	34
Oman	..	30
Saudi Arabia	9	..
Syria	40	60
Tunisia	31	55
U.A.E.	16	..
Yemen A.R.	5	25
Yemen, P.D.R.	20	42
Middle East & North Africa	34	54

Source: From UNDP (1990).

As stated above, female illiteracy in Jordan has also dropped sharply, though it is still appreciably higher than that of the male population which stood at 2.4 per cent in 1979 (see Tables 6.6 and 6.7 below) (see also Figure 6.2, end of Chapter). This is apparently a result of the lag - also typical of other developing countries - which has occurred between the educational campaigns and projects aimed at males and those aimed at Jordanian females.

Table 6.6: Illiteracy rate for population over 15, (1979) (per cent)

Age Group	Total	Female	Male
15-19	6.6	10.99	2.4
20-24	13.0	21.0	4.7
25-29	22.0	36.0	6.99
30-34	31.8	50.9	10.3
35-39	41.4	66.8	16.7
40-44	52.3	77.8	27.0
45-49	58.7	82.9	35.3
50-54	60.4	84.7	38.8
55-59	66.4	88.0	45.9
60-64	73.7	92.0	56.4
65+	83.0	95.0	72.4
Total	33.5	48.2	18.9

Source: Calculated from Department of Statistics: Housing & Population Census (1979).

Table 6.7: Female Literacy Rates for Some Arab Countries, 1985

	Total	Male	Female
Jordan	**75**	**87**	**63**
Algeria	50	63	37
Egypt	45	59	30
Iraq	89	90	87
Kuwait	70	76	63
Lebanon	78	86	69
Libya	66	81	50
Morocco	34	45	22
Oman	30	47	12
Saudi Arabia	..	71	31
Syria	60	76	43
Tunisia	55	68	41
U.A.E.	..	..	..
Yemen A.R.	25	42	7
Yemen, PDR	42	59	25
Middle East & N.Africa	54	66	41

Source: From UNDP (1990).

The Jordanian Ministry of Education was as early as 1958, aware of the gender differentials in education and was prompted to increase the number of girls' schools in the country, especially in the rural areas. "The ministry preferred the opening of new schools for girls in the rural areas where such schools did not exist, and that is to spread

elementary education among the girls, so that they catch up with the boys. That is because the proportion of boys enroled in schools throughout the Kingdom was double that of girls"[15]. The implementation of the Government's policy of compulsory education (which first appeared in 1939 and was subsequently amended in 1952), has also played a role in speeding the process of the spread of education, to both males and females, at the rapid pace exhibited.

The concept of compulsory education in Jordan, particularly as it relates to the education of females deserves to be examined in some detail. Compulsory education in Jordan means that the Government is under an obligation to provide schooling opportunities and facilities to the population for the primary and preparatory cycles in all areas, but not that parents or guardians are forced to send their children to school (Al-Tell, 1985).

The nature of 'compulsory' education in Jordan, therefore, often means that decisions about the education of children are left under the influence of cultural and social attitudes, which may still lead to decisions not to send children to school. This applies more often to decisions dealing with the education of daughters, while the education of sons has become a much more straight forward undertaking in Jordanian society. Al-Tell (1985) has cited that as the reason why "it would not be true to say that the Jordanian woman is able to practice her right to education without encountering obstacles and discrimination, and that there do not exist grave educational problems facing Jordanian society like illiteracy and a high drop-out rate".

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15. Ministry of Education (1958-1959), p. 8.

Female education in Jordan still suffers from a somewhat high drop-out rate, which is more marked between the different educational stages than within each stage. For although the primary school enrolment rates for females are very high (over 90 per cent), higher up the educational scale, this rate drops markedly in relation to the primary level as compared with the rates for males. Predictably this problem is more acute in the rural than in the urban areas, and has been noted to rise markedly during planting and harvest times.

This seems to be the result of a weaker conviction and commitment to the necessity of continuing education for females. "Female education was, in the early 1970s at least, pursued on an 'in case' basis: it broadened women's horizons, produced better wives and mothers, and was there 'in case' a marriage ended in widowhood or divorce and the woman had to support herself" speculates Hijab[16].

Still, the rates of female to male enrolment in the elementary education cycle in Jordan in 1991 stood at 101 per cent[17]. This ratio had been at this level for more than a decade. Female secondary and higher education enrolment also compares very well with that of their male counterparts, and stands at around 45 per cent of the total. The rates of female enrolment over the period 1952-1987 are illustrated by Table 6.8 below. Figures 6.3 - 6.8 (end of Chapter) also show the trend of increasing female enrolment at all educational levels.

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16. Hijab (1988), p. 96.

17. Unicef (1991a).

Table 6.8: Total and Female Enrolment in Education

Year	Elem. Total (000s)	% Female	Prep. Total (000s)	% Female	Secon. Total (000s)	% Female
1952	145.8	27	12.62	18.6	2.49	22
1953	166.4	29	16.88	18	3.12	19.5
1954	183.5	30	22.43	17.1	4.12	19
1955	195.4	28	28.93	18	6.6	18
1956	199.0	32.5	35.21	19.6	9.21	15.3
1957	205.1	34	39.3	21.8	11.6	16.2
1958	212.8	35	42.7	23	12.8	18.3
....	.....	....	.....	.....	.....	.....
1963	179.8	37.1	54.99*	27.6*	26.7*	23.3*
1964	195.2	38.9	63.3 *	29 *	29.2*	24 *
1965	208.7	39.9	68.03*	30.2*	30.3*	26 *
1966	224.7	40.9	74.05*	31.2*	29.7*	27 *
1967	142.1	40.6	32.05	30	18.2	26.7
1968	155.1	41.5	34.8	31.2	17.8	28.8
1969	170.9	41.8	39.9	31.2	19.3	30.9
1970	190.1	43	45.3	34.7	24.8	31.7
1971	205.5	43.7	46.9	37.4	25.5	34
1972	326.1	45.2	78.04	39.5	31	32.3
1973	-----	-----	88.2	40.2	33.3	35
1974	352.7	45.7	100.7	41.2	37.2	37.7
1975	371.6	46	115.6	41.7	42.1	39.7
1976	386.0	46.5	125	42.6	53.2	40.8
1977	402.4	46.7	138.8	43.4	62.1	40.5
1978	414.5	46.8	148.3	44.6	73.5	41.6
1979	431.1	47.2	158.6	45.5	80.2	43.5
1980	448.8	47.5	164.7	45.6	87.7	45.3
1981	454.4	47.7	173.4	46.1	90.6	47.9
1982	473.0	47.8	181.4	46.3	94	48.9
1983	487.9	47.9	190.5	46.9	95.9	48.9
1984	501.3	47.7	198.4	47.1	96.8	49.2
1985	530.9	47.7	208.6	47.4	96.4	50.8
1986	542.5	48.1	214.7	47.3	98.8	51.4
1987	570.9	52	220.8	47.1	103.1	52.4

Source: Various Ministry of Education Annual Reports.

Notes: Numbers refer to students in both Government and private schools.

Secondary education figures include Vocational training.

*: refers to both East and West Banks

This trend is also reflected in the enrolment rates in vocational secondary education, where the number of females is at the same level as males. In vocational training, however, there are sex-differences in enrolment based on the field of study, with the majority of female students enroled in training programmes in nursing, teaching, and secretarial work, and virtually none in more technical vocations.

The commitment to the provision of education to all the Jordanian population remains a very strong one. Coupled with the ever high demand for educational services, this has created in Jordan a situation of high levels of education, both in terms of numbers, and level of educational attainment.

Educational Services

As in the case of the provision of health services, the education sector of Jordan suffers from the multiplicity of agencies providing the various services. The different agencies include the Ministry of Education, UNRWA, the private sector, and the Army services. The private sector is in turn divided between profit-making ventures and charitable institutions. The number of agencies involved rises even more when special educational facilities are considered. This situation is similar for the higher education sector also; with both the Government and the private sector running a large number of community colleges and universities.

The role of UNRWA in the provision of education services is quite significant in Jordan. It will be examined in further detail in Chapter Nine.

Academic services

Academic education is available in Jordan at all levels of the educational scale. It is on, the whole, readily available to those who want it up to university level. In spite of the existence of the various providers (Government, UNRWA, private-profit making, private-charity), still, the overall responsibility for supervision rests with the Ministry of Education. The Ministry is solely responsible for designing and agreeing curricula up to the end of secondary schooling. All Jordanian youth wishing to complete their schooling must sit for general Governmental *Tawjihi* exams at the end of the secondary phase. Those wishing to continue their education at the university level are offered places according to their scores in those exams. It is estimated that over 22 per cent of Jordanians in the age cohort are university educated, giving Jordan an extremely high rate by world standards.

The Ministry is also responsible for the design, printing and distribution of school books free of charge. While some private schools may choose to use different texts, this is often practised in addition to the assigned Governmental ones, especially since degrees are not recognized unless the Government exams are passed. This strict regulation ensures a uniformity of education, and acts as a measure by which to determine access to further education.

The main problem facing school education is the lack of space, resulting in schools very often running two shifts. This is a problem that the Government was hoping to address in the late 1980s/ early 1990s.

Still, the Government's coordinating effort and commitment to education have resulted in ensuring that education is within reach of those who need it and want it. A

World Bank report as early as 1981 had stated that, "access to schooling is equitably provided to youth in rural and remote locations, due to the Ministry of Education policy of providing classrooms in any catchment area with 15 or more students"[18].

Supervision and co-ordination of vocational education is also the responsibility of the Ministry of Education. Vocational training is available after the completion of the elementary level, and follows an especially designed curriculum. Training is available in skills ranging from typing to mechanics and electronics. Vocational training has played an important role in Jordan's policy of manpower training for export. It has also been very important in the local economic development.

Special Education Services

In addition to conventional academic and vocational education, the government of Jordan provides the population, with a number of more specialized and complementary programmes. These involve both programmes designed to take care of special educational needs and programmes that are more health oriented, dealing specifically with improving the health of children.

Special-needs education

Education for the handicapped

Jordan offers its citizens with special needs some facilities, though these are for the most part still limited and

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18. Hijab (1988), p. 4.

inadequate for the country's needs. There is some awareness of the special educational needs of mentally and physically handicapped children. Special institutions have been in existence for some time now, but their work is restricted and their impact limited. In 1984/1985 the total number of special schools (Government and private) was 12, with a total of 930 students. This is compared with 6 schools in 1977/1978 and 9 schools in 1972/1973, when the number of students was 452 and 476 respectively. These numbers are very small considering that they refer to the categories of deaf and dumb, blind, mentally handicapped, and orphaned children.

These low rates are probably a reflection of cultural restrictions familiar in many parts of the developing world. People tend to keep handicapped children at home away from society, treating them as a source of shame to the family. This is an area to which the Jordanian government needs to pay attention, in order to help those handicapped children and adults.

Pre-school education

This is the area in which educational services in Jordan are most lacking and deficient. What exists is very little and is fragmented. Most of the services for toddlers and pre-schoolers are offered by the private sector, which means that as far the vast majority of the population are concerned, these services are inaccessible because of the expense involved.

On the one hand, it appears that the Government has not, so far, felt that there is a need for pre-school facilities. In a society like Jordan's, most mothers stay at home with their children until they reach school age. Even when mothers go out to work, there are always the grandmothers, the aunts,

the sisters, or the older daughters to take care of children. On the other hand, this lack of facilities is probably playing a significant role in discouraging women from joining the labour force in larger numbers.

Adult literacy programmes

The Government of Jordan is committed to tackling the problems and needs of the estimated 30 per cent of the population over 12 years of age who are considered to be illiterate. The majority of the Jordanian illiterates are adults in the older age groups. The Ministry of Education tries to encourage adults and out-of-school youths to attend day and evening classes that cover in four years - recently reduced from six years - the content of the primary curriculum adapted to adult learning needs[19]. The Ministry uses in these campaigns the media powers of radio and television to a large extent. But, progress has been considered to be quite slow in this area.

The Government offers literacy classes for adults in all regions of Jordan. These, however, are for the most part not very well organized, and are usually held in an unplanned form and on a seasonal basis depending on demand. Nevertheless, there has been a considerable positive reaction to these classes as is evidenced by the number of persons that register for them each year. The number of persons attending the classes has risen from 3,200 in 1969/1970 to 11,000 in 1979/1980[20]. These numbers are especially high for females, who for most years constitute between two-thirds and three quarters of the enrolment.

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19. World Bank (1981), p. 6.

20. World Bank (1981), p. 6.

However, the number of people who actually persevere and continue studying throughout the year are much lower than the number of those who registered. For example, while there were 690 adult literacy centres in the country in 1988, the average enrolment rate was four persons per class. There is, furthermore, a striking drop-out rate from these literacy classes which leads to the conclusion that there must be something lacking in these programmes. This, in turn, leads to questions about the effectiveness of these programmes and about ways of making them better, especially as the initial response of the population is very good.

Health promotion programmes

Jordan's Ministry of Education runs two programmes aimed at the promotion of better health among those children enroled in the educational system, both governmental and private. These are the School Health Programme, run jointly with the Ministry of Health and the Supplementary Feeding Programme. The details of those programmes are examined in Chapters Eight and Five respectively.

From the foregoing discussion, a picture of the developments in the Jordanian educational sector becomes clear. Jordan has been, from its early days, and because of the influence of several factors, keen on raising the educational level of its population. The problems and obstacles of providing the educational infrastructure were tackled with determination because of the importance accorded to education. This is evidenced both from the steadily rising number and proportions of students, teachers, and schools, as well as by the relatively high spending by the Government on the educational sector (see Figure 6.9, end of Chapter), and the interest and involvement in improving services exhibited.

Whenever the Government has found itself unable to meet the costs or unable to increase its educational spending, it has relied on the private sector. The private sector has played a significant role in Jordan's education, providing an ever demanding population with services.

The Jordanian authorities have also realized early on, earlier than most other Arab countries, the importance of female education, and have striven to achieve rates of female education comparable to the rates of males. Jordanian women, although still lagging in levels and rates behind the men, are nonetheless among the best educated in the Middle East region. Their rates of participation in education rose to almost exactly match those of the men, and more surprisingly, they have done so across the educational ladder.

Education continues to be a major focus of the Jordanian Government and authorities. The developments in the education sector of Jordan are particularly remarkable because of the pace at which they have moved and the rate at which literacy has increased in the population. While the Government is pleased with these developments, it is still interested in and committed to educational development projects. As a matter of fact, in 1988 the Government finalized the terms of the Eighth Education Sector Project agreement with the World Bank. Projects One to Six having dealt with building and expanding schools, and project Seven with teacher training and curricula updating. The proposed Eighth project is concerned with sorting out the remaining problems and loose ends of the Jordan educational sector.

There are several such problem areas as viewed by the Ministry of Education and the Department of Education at the Ministry of Planning. One area is the need for more school buildings, required so that there may be less reliance on the

practice of holding two school shifts, which is commonly found in the urban areas. Another area is the need to expand the production and distribution of educational materials such as books. The curricula it is felt also need updating and improving. Another area of need is in improving teacher training and the upgrading of the training levels of existing teachers through offering them further training schemes. A fourth very important area, which the Government is particularly concerned about, is reducing the Urban-Rural differentials.

The rural-urban differential is believed to be primarily the result of less female participation in the rural areas, which is assumed to be the result of two factors. Firstly, most rural schools are co-educational, and in the absence of girls-only facilities, parents prefer to remove their daughters at around grade 5 (or age 10-11 years). At that age there is increasing social pressure, especially in traditional settings, to segregate the adolescent girls from the adolescent boys. Secondly, schools are, for the most part, at a relatively long travel distance. Again parents do not like to have their daughters travelling long distances daily. This is one of the priorities of the new project which is aimed to provide more school buildings and, more importantly, more female teaching staff for new girls' schools.

The five-year plan of 1986-1990 outlined more projects. These also include plans for more buildings, for more teachers and for the further training of teachers already working in the schools. There were also plans to build and run seven extra school health centres to increase the capacity for examinations, vaccinations, and health education. Another project aimed to build teacher housing in remote areas, to encourage these teachers to work in the remote areas and to stay in them. There were also plans for vocational education

development with two agricultural schools and a printing school proposed.

In the aftermath of the "Gulf War" these considerations (lack of space, personnel, and finance) have become more pronounced. A new influx of population arrived in Jordan, virtually all to the urban areas. Coming from the more prosperous Gulf states and Iraq, the newly arrived population placed the Government and the existing educational services under much strain. They demanded adequate schooling for their children, and while many may be in a position to pay for private services, the system is unable to absorb the extra numbers without problems. The impact of the arrival of the returnees cannot yet be assessed fully. However, it is certain that both the Government and the private sector will have to make plans to provide the extra services needed.

Furthermore, because one of the results of the Gulf War has been the closing of the Gulf market for Jordanian manpower, this poses a concern for the future of education in Jordan. On one level, increasing levels of education, and, therefore, of expectations, in the population coupled with less work opportunities are likely to lead to much discontent. On another, the rising unemployment, if not resolved, threatens to lead to less education for females, while all effort begins to become concentrated in training and providing jobs for Jordanian males. These are issues that must be addressed by Jordanian policy makers as soon as possible.

An interesting feature of the education sector in Jordan is not only the fact that so much has been achieved in a relatively short time span, but that the Government has begun to realize the importance of priorities other than merely raising the number in the compulsory education cycle. Jordan, for example, has realized the importance of vocational

training. The 1986-1990 plan set as an objective the direction of 40 per cent of Secondary cycle students into vocational programmes. This is a reflection of Jordan's policy of trying to tackle the problems facing it in a simultaneous fashion. Hence, elementary, preparatory, secondary, and higher education, as well as the education of females at all these levels, have progressed and grown. These attempts at improving the educational sector at all the different levels is another reflection of the policy of training manpower as an important resource base.

The efforts of the Ministry of Education, impressive as they are, do not on their own explain the success exhibited in increasing the level of education in Jordan, particularly among females. The general population themselves seem to have realized that education is an important "asset" to be had by their sons and, to a somewhat lesser extent, their daughters. An obvious factor which encouraged this process was the fact that government schools were very cheap and readily available and accessible.

Through urbanization, for example, families did not, as before, need the labour of their sons, or their daughters, in agricultural activities any longer. Children were free to go to school and pursue an education. This was not only because their economic contribution was no longer substantial, but also because education was perceived as a valuable investment in its own right. Education is seen as an investment which would lead to better opportunities and higher earnings, in adult life.

Education became a prized "possession" when it was realized that it was linked to achieving better incomes and positions in society. As outlined above, this last realization was hastened and magnified by the Palestinian refugees'

experience. Education became for many of them the sole asset that they continued to possess. Land was lost and wealth was lost; often social position was lost too. Education was all that remained. It could not be taken away and it was a means of rebuilding and of improving economic as well as social status.

The Palestinians came to Jordan with higher levels of education, as well as high levels of expectations and demands for education for their children. They both created demand for services and acted as a trained base of teachers and educational staff to provide these services. This created a ready platform for education services to flourish.

The impact of education on health status in Jordan

Jordan has reached the high levels of education and interest in education among the population thought necessary by health researchers for achieving improvements in health status. The overwhelming majority of Jordanians have received a basic education. Levels of illiteracy have fallen considerably, and now remain mainly among the older generations.

The widespread coverage of education in Jordan, leads to speculation about the influence that this has had on raising health status. This is especially true, since both education and health appear to have improved dramatically, and to have done so over the same period of time. It appears that education has had a major and decisive role to play in improving the health conditions in Jordan. Furthermore, this was probably achieved through the knowledge, confidence, changes in roles, and changes in life-style and expectations that have resulted for the population in general, and for women in particular.

Significantly, advances in education have concentrated on reaching the female population. This would have led to affecting changes in behaviour among that segment of the population, the women, highlighted earlier as the one with the most potential to affect health. Figures 6.10 and 6.11 (end of Chapter) seem to support the idea that health status in Jordan (as evidenced by the infant mortality rate) has shown a steady trend of improvement which appears to be related to the rising levels of female education.

At the same time, the importance of the children themselves was also seen as an educational priority, as consecutive generations of Jordanians have been growing up armed with education and raised awareness. The Jordanian authorities have tapped into this situation by including the institution of a School Health Programme and Supplementary Feeding programmes in its educational strategy. The effect of these measures are quite straightforward in their effect on health. Both programmes are aimed at directly influencing the health situation of children. This is a way of ensuring that the population has a healthy base on which to build.

Moreover, since 1969 the significance of educating children specifically in health matters has been realized and acted upon. Health Education is an integral part of the school curriculum. While through the School Health Programme, the authorities have also implemented a policy of utilizing the educational system not only to give children information about health but also as a good basis from which to screen and follow-up children with health problems.

It, therefore, appears that the interest and commitment exhibited by the Jordanian Government and population, and the accompanying advances in education, have led to significant improvements in health status. In this respect, Jordan seems

to follow the norm of other developing countries (among which are Costa Rica and Kerala State-India) which have achieved high levels of education. Jordan, however, is different in one very important respect: rising levels of education in the population have not resulted in any significant drop in fertility rates. Though studies in Jordan have shown the number of children to decrease and the rate of contraceptive use to increase with increased education, the overall effects on the population have been minimal. The explanation may lie in the high drop-out rate of females at the end of the compulsory period, when, as Dr Sami Khoury argues[21], it is the secondary cycle which is crucial for the acceptance of family planning ideas. Alternatively, it could be that education's effect on fertility is not as straightforward as some researchers have argued, or because in Jordan itself, the other factors educational and otherwise have so far been extremely powerful in improving health. This might in turn lead us to expect an even greater improvement when fertility does start to drop. The issue of Jordanian fertility will be examined in more detail in Chapter Seven.

Now that the basic educational foundations have been established, the Government should perhaps start considering an aggressive policy of pre-school services. That would be not only to the benefit of overworked mothers, but would also as suggested by Tuq et al (1987) in their study of the situation and needs of Jordanian children under the age of six, benefit the children of Jordan tremendously. Pre-schooling would encourage their creativity, independence and would prepare

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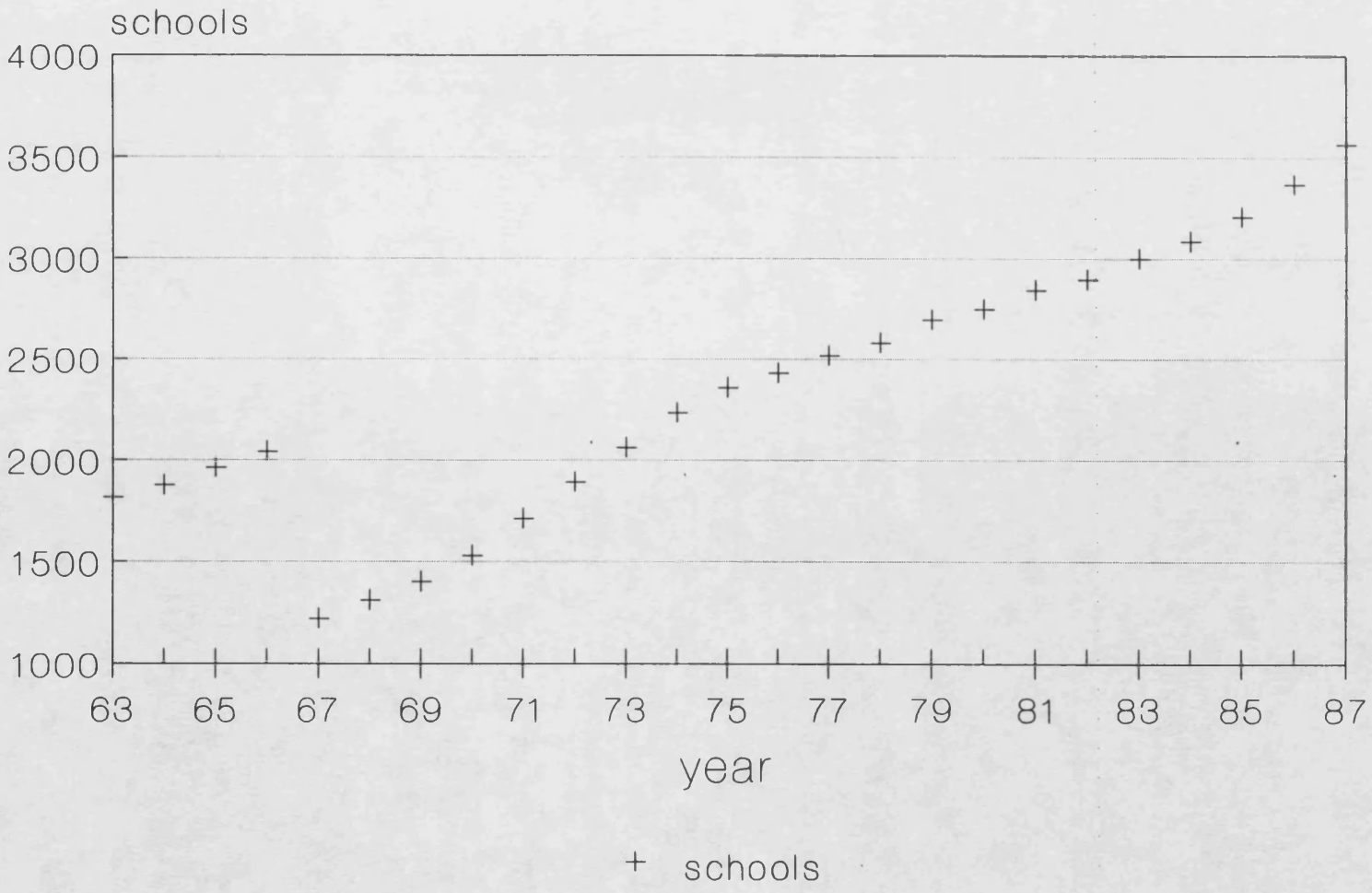
21. Dr. Khoury is the Chairman of Community Medicine, Jordan University. Private communication, Nov, 1988.

them better for academic education later on in life[22]. All of which would ultimately have a positive impact of the health of the future Jordanian generations.

22. Tuq (1987).

Number of Schools



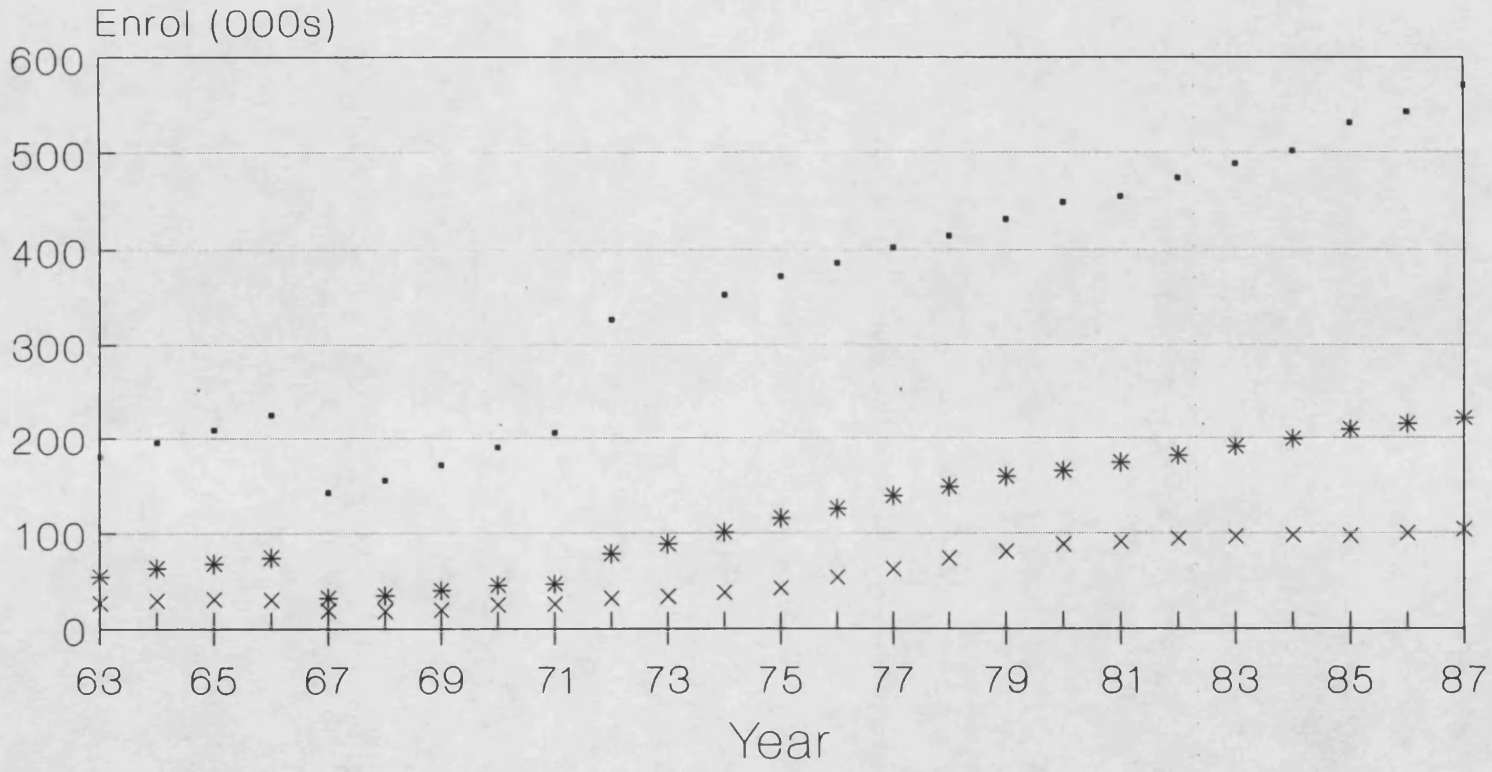
1963-1987

Figure 6.1

Illiteracy
1979

Figure 6.2

Total Enrolment
(elem, prep, sec)



1963-1987

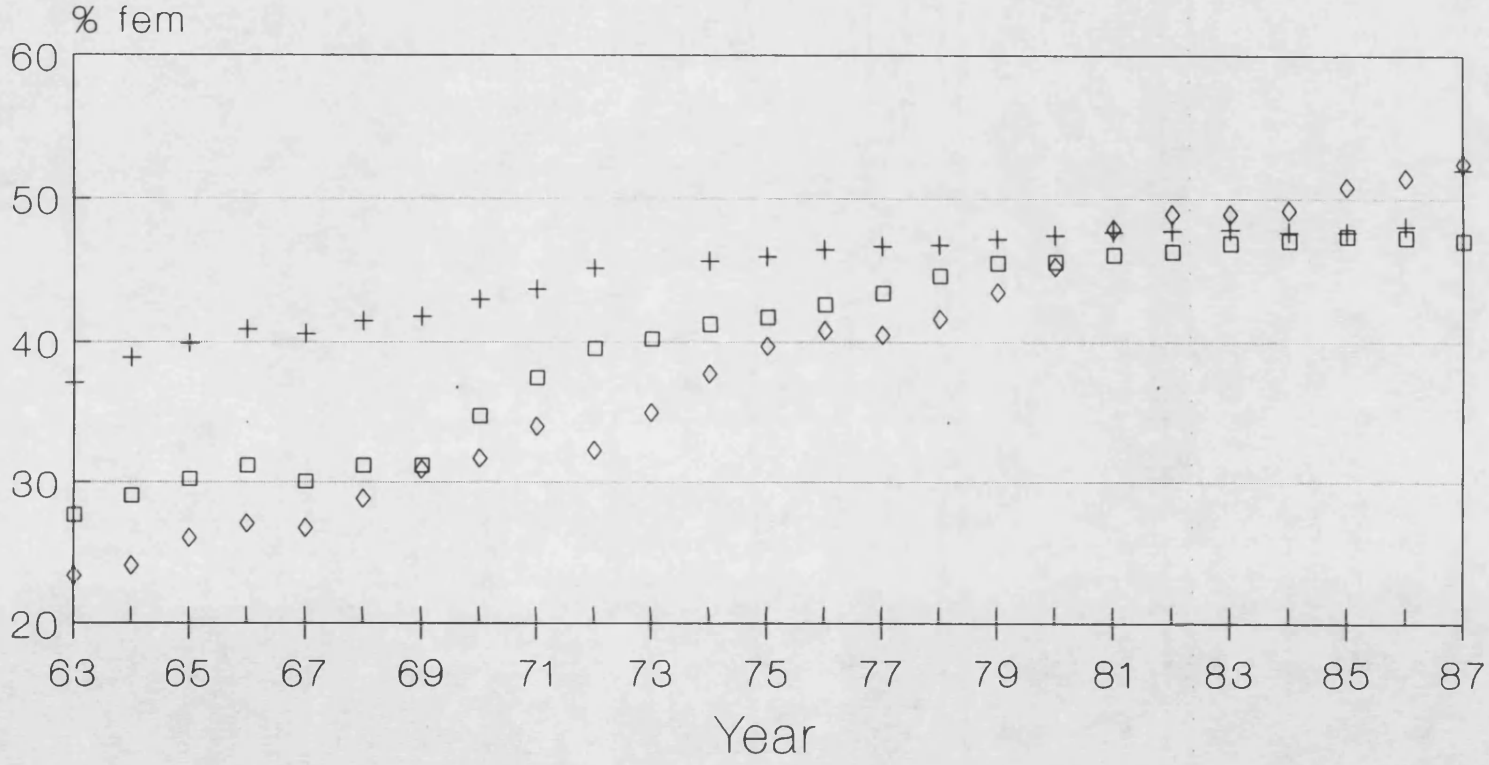
Figure 6.3

enrollment
elem, prep, sec
enrl(000's)
300
250
200
150
100
50
0
63
65
67
69
71
73
75
77
79
81
83
85
87
year
Fem elem
Fem prep
Fem secon

Figure 6.4

Female Enrolment

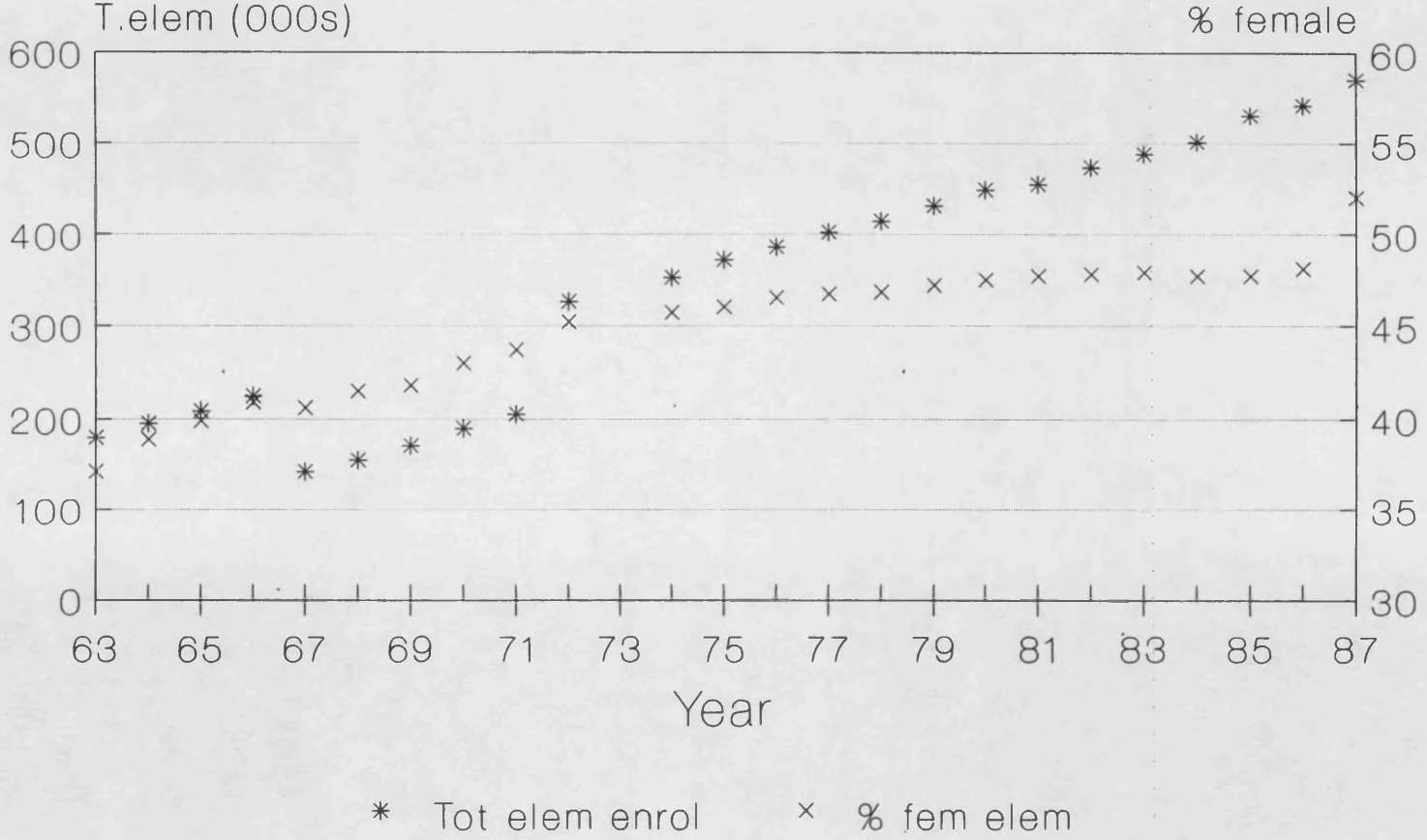
Per cent



1963-1987

Figure 6.5

Female Elementary Enrolment
(% of total)



1963-1987

Figure 6.6

Female Prep. Enrol.
(% of total)

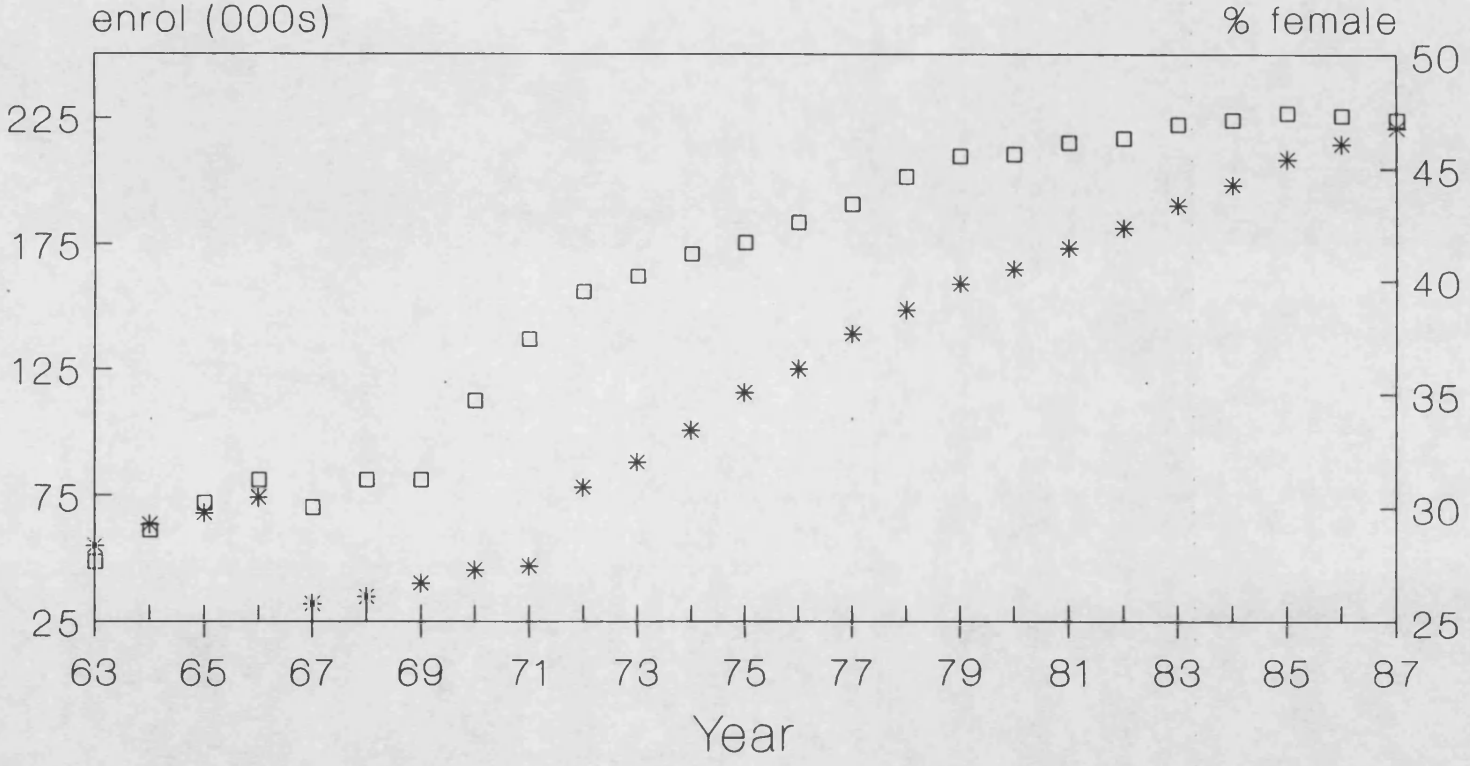


Figure 6.7

Female Secon. Enrol.
(% of total)

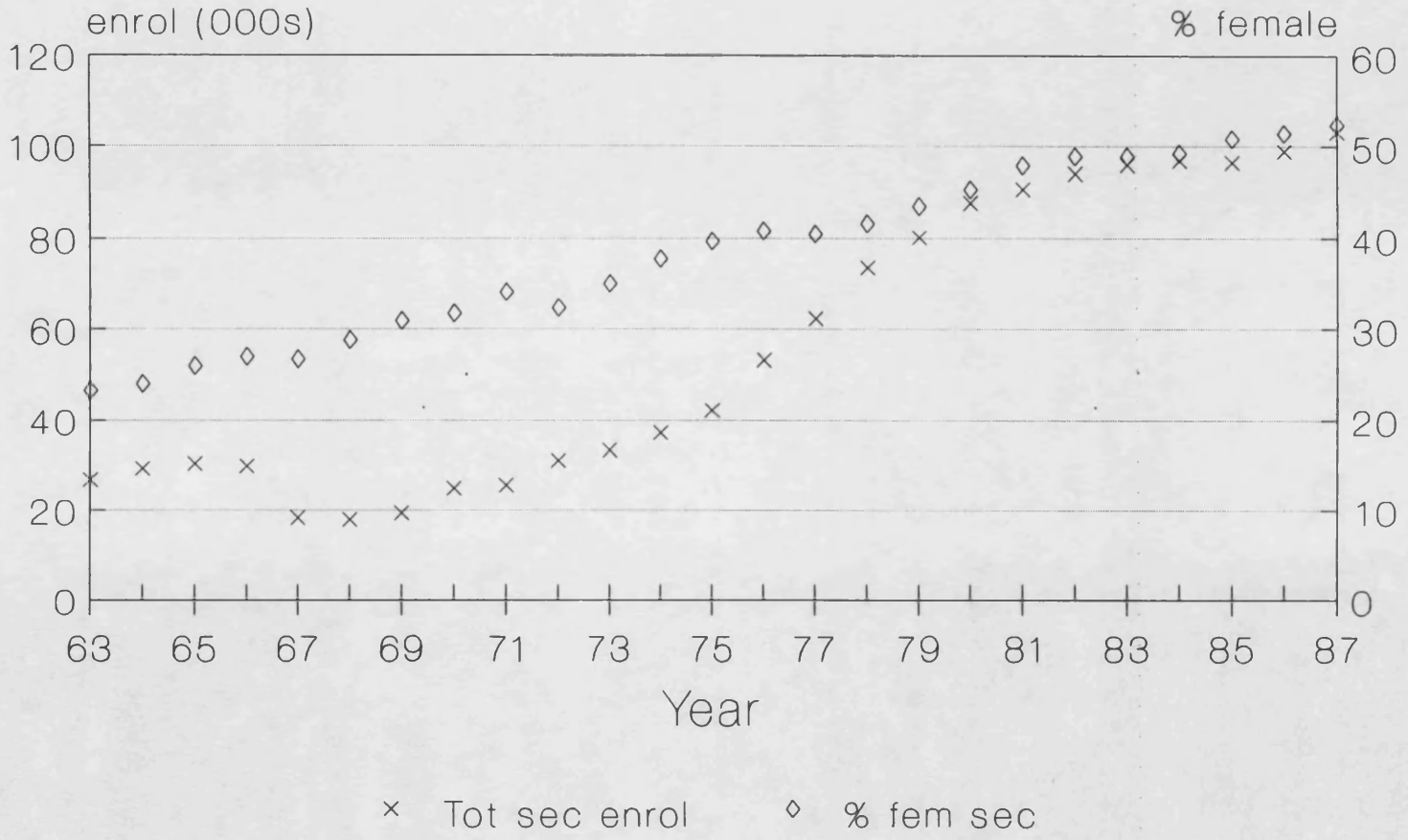
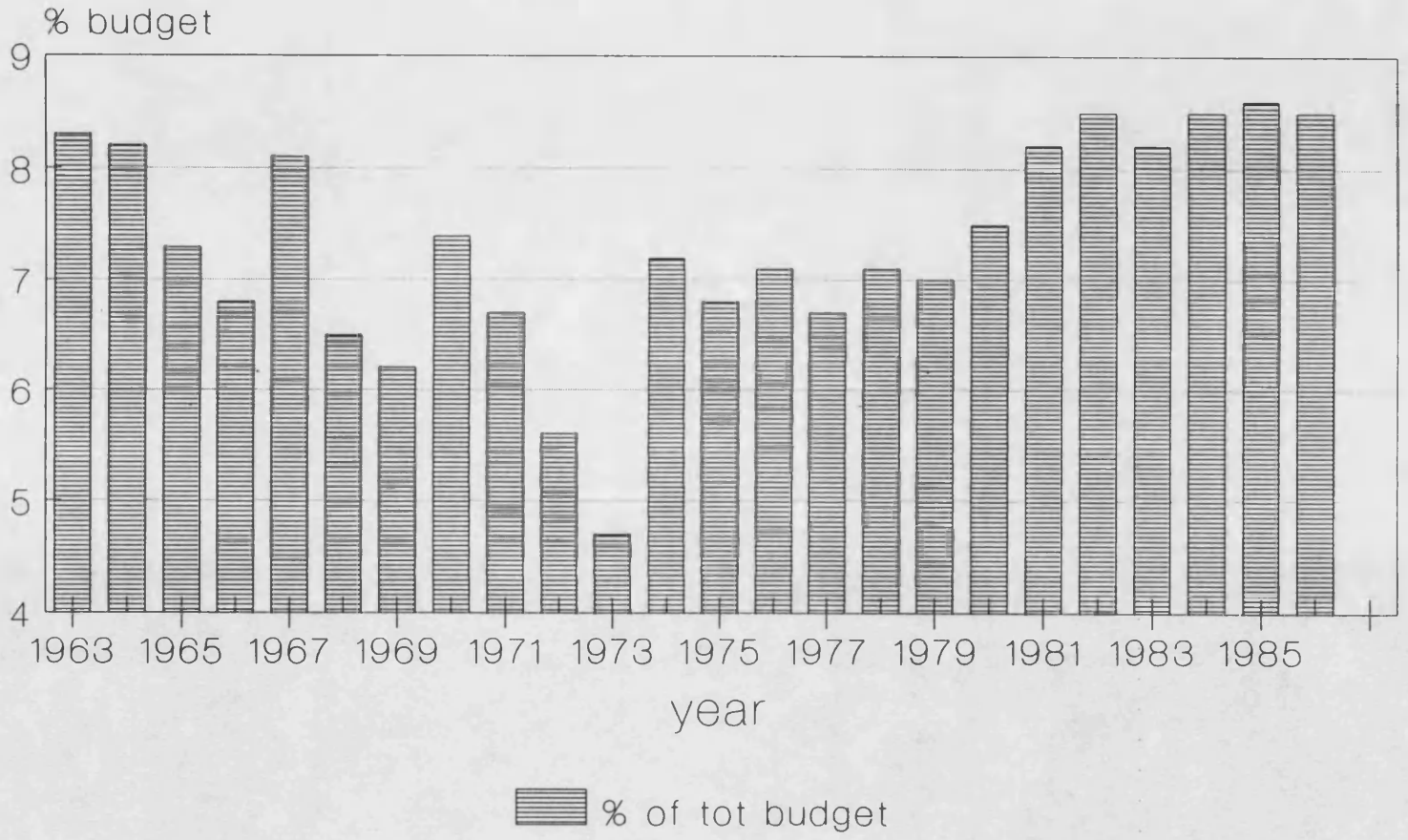


Figure 6.8

Educ budget

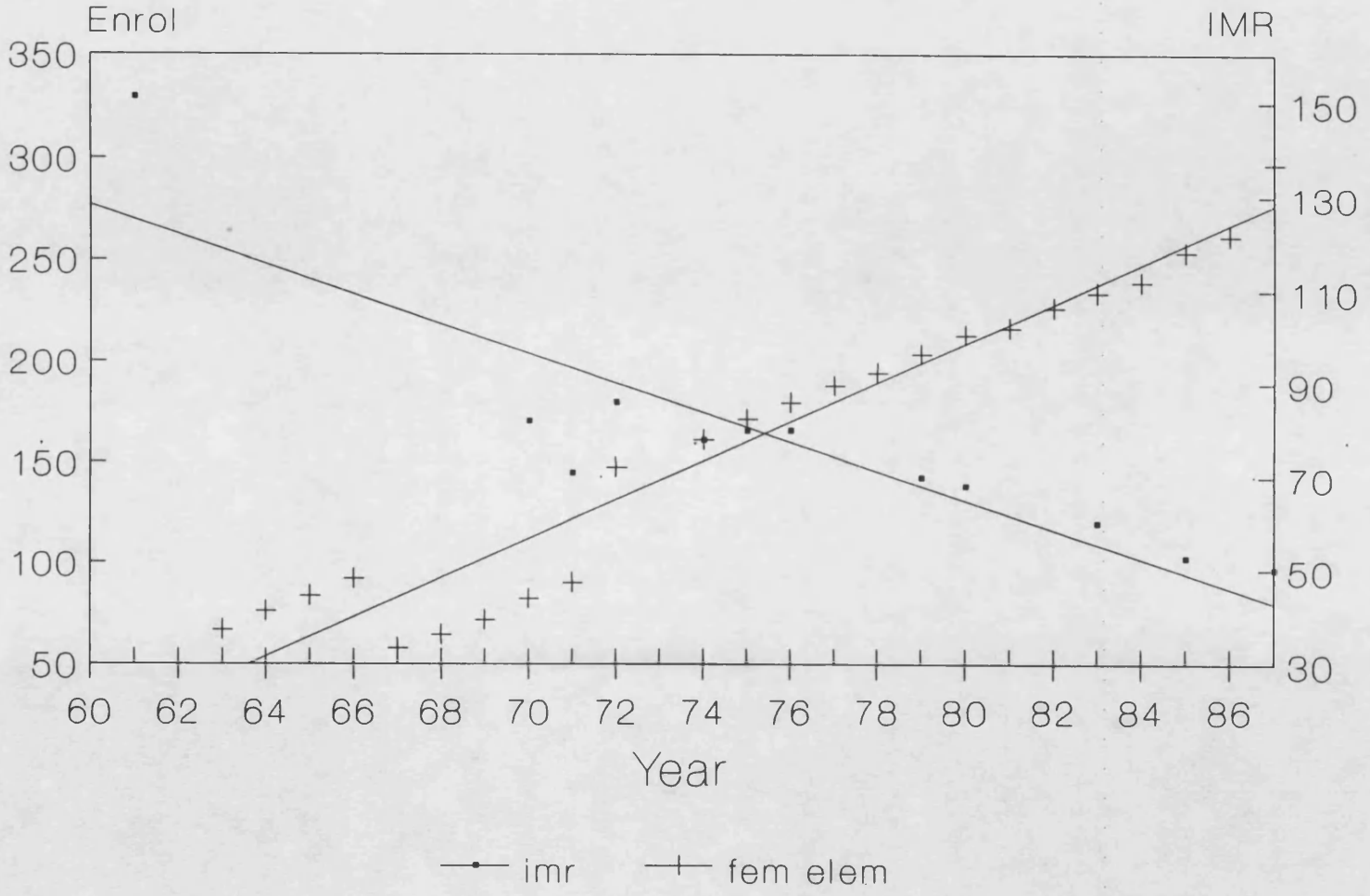
% of total



1963-1986

Figure 6.9

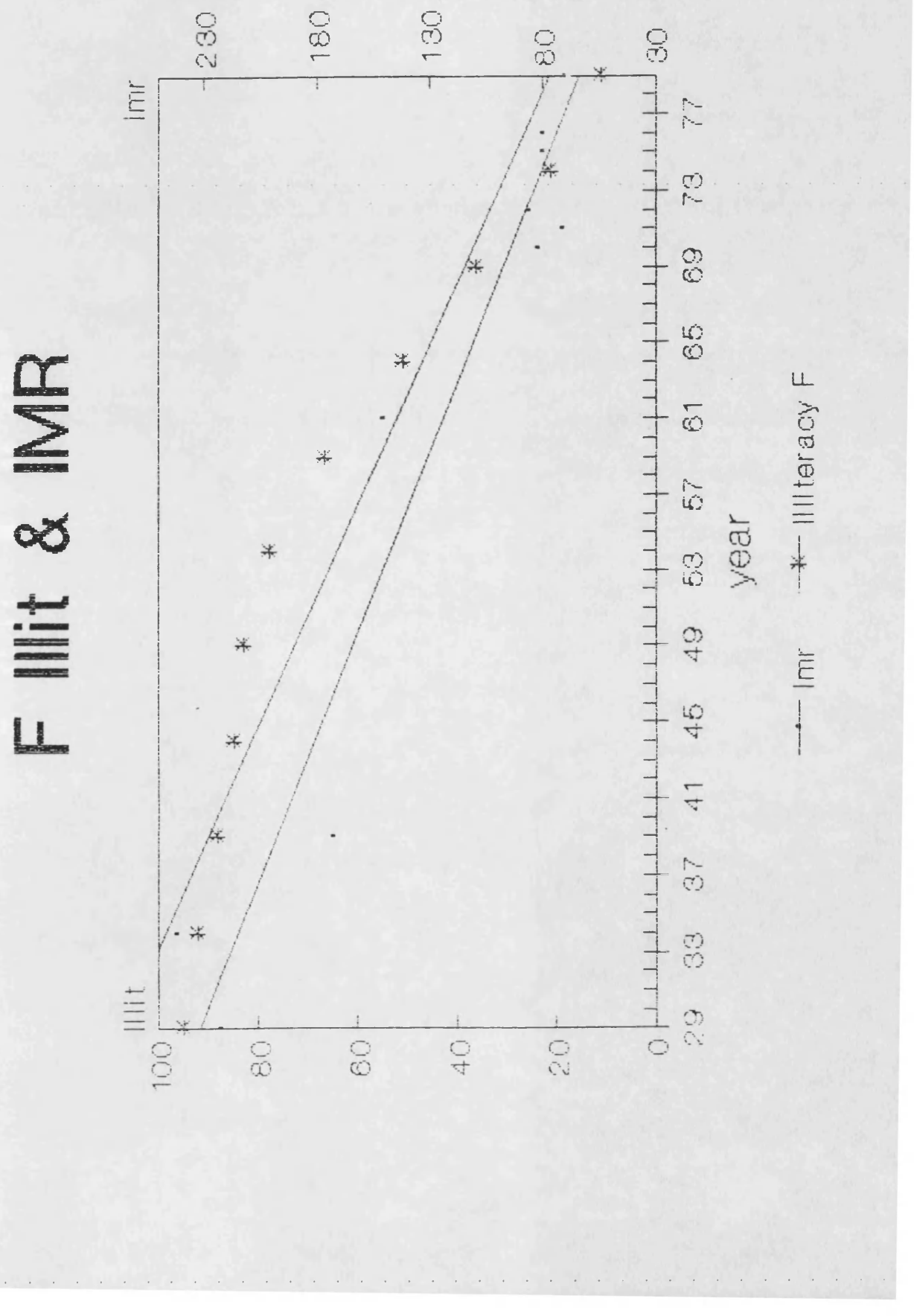
IMR & Elem.Fem.Enrol.



1960-1987

Figure 6.10

Figure 6.11


F Illit & IMR
Illit
imr
100
80
60
40
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29 33 37 41 45 49 53 57 61 65 69 73 77
year
imr
Illiteracy F

CHAPTER SEVEN

Fertility

Fertility and Health

Health researchers have often argued that a high fertility rate has an adverse effect on health. It is commonly thought that a high number of pregnancies has negative implications for the health of the mother. It is also believed that when a woman has a large number of consecutive pregnancies, she does not have sufficient time to recover between pregnancies and childbirths. High fertility has also been linked with poorer child health, as it is assumed that when a family has a large number of children, scarce resources have to be distributed among a larger number of people. Moreover, a large number of children results in the mother having less time to attend to the needs of each of her children.

Much has been written about fertility and its effect on health, especially in the developing world. Abu-Lughod (1984), Caldwell (1981), Caldwell and Caldwell (1982), Cleland (1985), Cleland and Rodriguez (1988), Cochrane (1979), Cochrane and Gibney (1991), Cochrane et al (1986), MacCormack (1988), Mosely (1985), Singh and Casterline (1985), and Zurayk (1987), are among the large number of studies dealing with fertility in the developing countries. Susan Cochrane (1979), presents

the core argument of the current thinking, and argues that fertility is determined through three main variables:

1. The biological supply of children,
2. The demand for children - by both husbands and wives,
3. The regulation of fertility

The supply of children is influenced by the proportion of the population who are married, and the probability of marriage; the age at first marriage; the health of existing children; and infant and child mortality rates. As such fertility will begin to decline when these factors themselves begin to show some change. Cochrane maintains that education plays the major role in bringing about change in these factors, eventually leading to a drop in the fertility rate. In addition, she asserts that education affects demand through its influence on the perceived costs and benefits of children, and on family size preference.

The issue of fertility is especially interesting in the case of Jordan. While health researchers have generally assumed that high fertility is linked to poor health in a population, the Jordanian case appears to challenge this hypothesis. In the case of Jordan, improvements in health status appear to have taken place **in spite of** an extremely high fertility rate. However, before fertility in Jordan and its determinants are examined further, it is essential to keep in mind that until recently this has been a very sensitive issue in Jordan. Caution, as well as diplomacy, is required when dealing with the subject.

Jordan has consistently shown exceptionally high rates of population growth (3.8 per cent in 1985), as well as extremely high levels of fertility (6.6) and birth rate (35/000). Together these factors have resulted in Jordan

having the second highest growth rate in the world. They have also led to an extremely young age structure in the population. More than 50 per cent of Jordanians are under the age of fifteen years, and approximately 20 per cent are under the age of five. Yet, as described earlier in this study, the health of Jordanians has been exhibiting a trend of steady improvement. Tables 7.1, 7.2, and 7.3 below illustrate some of the fertility and growth trends of Jordan between 1965 and 1988.

Table 7.1: Fertility of Some Arab Countries, (1965 & 1988)

	1965	1988
Jordan	**8.0**	**6.5**
Algeria	7.4	5.4
Egypt	6.8	4.5
Iraq	7.2	6.3
Lebanon	6.2	...
Morocco	7.1	4.7
Syria	7.7	6.7
Tunis	7.0	4.1
Middle income countries	5.6	3.8

Source: From World Development Report (1990)

Table 7.2: Total Fertility Rate (TFR) & Total Number of Children (TNC) to Mothers (45-49 years), 1976-1983

	1976	1979	1981	1982	1983
TFR	7.7	8.8	7.1	6.6	6.6
TNC	8.6	8.0	8.4	8.1	7.8

Sources:
1976: Jordan Fertility Survey (WFS)
1979: Jordan Census of Population
1981: Jordan Demographic Survey
1982: Jordan Manpower Survey
1983: Jordan Fertility & Family Health Survey

Table 7.3: Growth Rate (%) of Some Arab Countries (1965-80 & 1980-88)

	1965-1980	1980-1988
Jordan	**2.5**	**3.7**
Algeria	3.1	3.1
Egypt	2.1	2.6
Iraq	3.4	3.6
Lebanon	1.7	...
Morocco	2.5	2.7
Syria	3.4	3.6
Tunis	2.1	2.5
Middle income countries	2.4	2.2

Source: From World Development Report (1990).

This poses a number of questions. Is a drop in fertility rates a desirable objective *per se*? Can achievements in health improvement be reached with high levels of fertility? Does a drop in fertility necessarily affect health in a positive direction? And, does a drop in fertility necessarily follow from certain socio-economic changes? Caldwell and Caldwell (1982) in a study of fertility changes in the Middle East reached the conclusion that "certainly the region provides many examples that urban life, high per capita income, and mortality decline are not of themselves sufficient to reduce birth rates". This condition appears to apply to Jordan.

But first, a closer examination of the Jordanian fertility rates and what affects them is required. Why these rates have continued at their high levels is of primary interest to the present study.

The latest fertility survey in Jordan was carried out in 1990. The results from it are still in the stage of analysis, however. Preliminary results cited in Shakhatrah (1992) show a steady trend of change in a number of factors which lead to a lowered fertility rate, such as age at marriage and use of

contraceptives. Table 7.4 below highlights some of the indicators presented by Shakhatrah.

Table 7.4: Demographic, Social, & Economic indicators for Jordanian Women (1972, 1979, 1990).

	1972	1979	1990
Age < 15 years	50.3	51.0	43.5
Age 15-64 years	47.5	46.3	53.6
Age > 65 years	2.2	2.7	2.9
Age at marriage	17.9	21.3	24.1
TFR for married	7.9	7.5	5.6
Contraceptive use (%)	21.0	24.0	34.9
Elem. ed. enrol. (%)	79.1	83.9	95.9
Secon. ed. enrol. (%)	27.5	56.8	65.6
Tert. ed. enrol. (%)	6.0	15.6	23.7
Particp. labour (%)	6.8	7.7	13.8

Source: From Shakhatrah (1992).

These figures illustrate some interesting developments in Jordanian fertility. However, as they are still in the preliminary stage, it is probably too soon to judge their accuracy and reliability. While they do serve to highlight important trends, the main focus of this study is on the period up to 1988. Jordanian fertility will, therefore, be discussed mainly within that time framework.

In 1983, the Jordan Fertility and Family Health Survey found the fertility rate to be 6.6 on average in Jordan. The Survey attributed those fertility levels to several other indicators. Among those were very short birth intervals (27 months), modest levels of breast feeding (11 months), and moderate levels of contraceptive use (acceptors were only 26 per cent of women at risk). These variables, and the socio-cultural factors that influence them, need to be understood. This is necessary for a clear understanding of the different components involved in fertility control.

Several considerations arise. Fertility in Jordan has remained high, resulting in a rapid growth rate (3.4 per cent in 1988) despite the presence of a number of social and economic changes. Most notable of these changes is the rising level of education, especially among females. The economy, until the late 1980s was showing steady growth and progress, and while economic growth may have slowed or even halted during some periods, these negative economic trends only began to occur recently.

Why then are there such low levels of family planning practice and of contraception use among the Jordanian population? This is despite the fact that the country has been committed, albeit unofficially, to reducing its fertility rate since at least 1963. What, if any, are the cultural, social, and religious restraints on the lowering of fertility? What are the incentives? What effect has female education had in this process? Has the role of women been redefined such that their status is not entirely dependant on the number of sons she bears? What caused the Government in the late 1980s to take a firm stand behind its declared fertility control aims?

Historically, the Jordanian Government has passively supported family planning, although it has not committed itself to either a clear population policy, nor to a fertility control policy. A family planning association, The Jordanian Family Planning and Protection Association (JFPPA), was, however, established in 1963 to serve the population in the provision of services and advice. The JFPPA received Governmental support through the Ministry of Social Affairs until the war of 1967.

The JFPPA served both the West and the East Banks of Jordan, but "many of the activities in the area of family planning were centred in the now-occupied West Bank, (and it

is only) since 1972 (that) activities have been growing in the East Bank"[1]. In 1972, "The Conference on Population Policy in Relation to Urban Development" was held in Amman. It was at this conference, that a recommendation was made, for the first time, that the Government adopt a population policy.

By 1975, government authorities were beginning to become concerned about the rapid growth rate of population, and the "National Statement Concerning Population Change and Development" was prepared by the Population Commission of Jordan[2]. The "National Statement" pointed to the necessity of a clear population policy, and appeared to suggest that such a policy was to follow soon. That, however, did not take place.

By the middle of the 1980s, the effects of the economic recession in Jordan were beginning to be felt, and interest in the issue of population growth was again rising. In 1984, Jordan hosted a meeting of officials from all the Arab states which centred on the discussion of population and population policies. The meeting resulted in the "Amman Declaration on Population in the Arab World". Jordan along with the rest of the Arab countries signed the Amman Declaration, essentially committing itself to addressing the issue of population growth and population policies. The declaration was careful to point out that the conditions of each country were different, and that the formulation of particular country policies was left up to the various governments. The eighth article of the

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1. Allman (1978), p. 23. Words in parentheses added.

2. This "Statement" is an unpublished document.

recommendations sums up well the attitude adopted by Jordan until the middle of 1988:

> "The practice of birth control by couples is a human right guaranteed by international covenants. Family planning also has a clearly beneficial effect on the health of the mother and family life. The Arab countries should endeavour to safeguard this right by providing facilities for the dissemination of knowledge and effective means for the practice of family planning on the basis of free choice. However, the extent to which this right may be exercised will remain dependent, as in the case of other human rights, on the type of the desired development and the extent of accomplishments achieved in the countries of the Arab World".

In mid-1988, the Ministry of Health took a seemingly sudden decision to tackle the phenomenon of high population growth more forcefully. Furthermore, the Government appeared to be standing firm behind a commitment to support efforts in family planning. This new campaign is presumed to have the full support of the King, and the Government. It is speculated that these authorities have recently been made aware of the "certain dangers" that are likely to ensue if Jordan were to continue to have such high fertility levels. Foreign agencies (especially agencies such as Unicef, the World Bank and USAID) allegedly applied increasing pressure on the Government to support family planning. The primary agency behind this seems to have been the USAID, which offered financial support to a multi-million dinar "Birth Spacing" project in Jordan.

The Ministry of Health has been very "gentle" and has kept a low-profile in handling the issues. The authorities are

always quick to point out that the choice of the label Birth Spacing, is deliberate, and that the Government does not want to interfere in the number of children a couple chooses to have. Its interest lies in trying to ensure the promotion of healthier pregnancy and delivery practices. This is then seen to be in line with the Government's policy of maternity and child health promotion.

Despite its declared commitment, the Government still chooses a somewhat subtle approach. For example, promotion of health education and support for programmes that promote longer breastfeeding, rather than an aggressive family planning programme, are seen as the paths to achieving lower fertility rates[3].

In Jordan the discussion of the issues of family planning and fertility control are sensitive on two main levels: culturally and politically. Culturally and religiously it is not difficult to understand the stigma and high sensitivities that surround these issues in an Arab country, although Jordan is not considered among the more conservative states. Fertility rates in almost all the Arab countries have remained at high levels. To varying degrees, much of the discussion to follow applies to other Arab countries as well.

Arab / Islamic Considerations

There are several myths and misconceptions surrounding the prescriptives of Islamic religion on birth control and contraception. Whereas, "direct opposition to contraception

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3. For example, in October 1988, a two-day conference with star performances by the Jelliffes was held in Amman. Participants came from all sectors connected with health, and the event received massive media coverage.

has never been expressed in the Islamic code", religion and culture are often confused around this issue[4]. Musallam (1983) presents the argument that historically, medieval Islam, in contrast to Judaeo-Christianity, is not adverse to birth control. Islam encourages sexual activity not merely as a means of procreation. According to Musallam, Islamic texts, and jurisprudence viewed contraception as legitimate for reasons as diverse as economic hardship, health, and preserving the beauty and youthfulness of the woman. "In fact," said Allman (1978) "it can be argued that Islam is more favourable to family planning than other religions and that the obstacles to economic and social development which many Islamic countries face are the major determinants of their 'traditional' demographic behaviour".

With the decline of the Islamic nation, Muslims, Arabs among them, have been exhibiting the type of fertility behaviour common in the other developing regions in the world. For while Islam permits the practice of birth control, it does not *actively* encourage it[5]. Therefore, bearing in mind that while Islam, as evidenced by various "*suras*" and "*hadiths*" as well as by the work of religious jurists, is accepting of the concept and practice of family planning, Arab/ Islamic culture is also very pro-natalist in nature. Furthermore, traditional Arab society is also quite fatalistic in its attitude. Many believe that things will change when God wills them to, and that otherwise He will take care of problems as He knows best.

While the Qura'n, for example, refers to the need to ensure that one can adequately provide for children before

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4. Fakhr El-Islam et al (1988), p. 941.

5. There is actually reference to a Muslim Hanbali sect jurist insisting that contraception be practised in enemy territory. ("Coitus interruptus is mandatory in enemy territory"). In Musallam (1983), p.120.

having them and that couples should plan their families so that children and mothers can maintain good health, common Arab proverbs declare that "Children come and bring their fortune with them". The expense incurred by having children is not considered a cause for worry; since God will provide for them. It is stated in the Qur'an [17:31] that:

"Slay not your children, fearing a fall to poverty. We shall provide for them and for you".

Islam, however, requires that the father has a duty towards his offspring and their upbringing and maintenance.

The other side of this argument is that children in traditional Arab society, similar to other traditional societies, are perceived as sources of income in themselves. Myntti (1978) in a study in Lebanon found that "when children are grown and supporting themselves, they are expected to support their parents financially". Barakat (1985) writing on the Arab family has said that "an extra child is seen not as another mouth to feed or another person to educate but as an extension of family power and prestige and an additional source of labour".

The issue of childbearing and contraception in an Arab society is a clear example of where the lines between religion overlap with societal norms, and values become blurred. Many Jordanians perceive contraception as being against the teachings of Islam. And while that may not be true, many cite religion as the reason why they do not practice contraception. There is a tendency to believe that children come because God wishes it so, and that it is not a decision for people to interfere in. The 1985 Husband's Fertility Survey, conducted by the Jordan Department of Statistics, found that over half the husbands interviewed stated 'religion' as the most common

reason for non-use of contraception. They also stated that family size decisions are "up to God".

Attempts have been made to overcome this potential "religious" obstacle to family planning. In the early 1960s, for example, the Mufti of Jerusalem publicly approved family planning in a "*fatwa*"[6] he issued. Although on the whole, it is ambiguous ground, it is possible to utilize religion to advocate the practice of family planning. A number of programmes, in several Arab countries, have tried relying on religion to promote their aims. A case in point is the strategy used by the Egyptian authorities to promote family planning, (see Longworthy and Fienman, 1988). The Egyptian Government's campaign relied on verses from the Qur'an advocating that mothers should breast feed their children for two whole years in order to ensure that they would not breast feed a later child at the expense of the earlier born one. As a means of ensuring that this is possible, modern contraception was presented as the solution[7].

While previous studies and discussion of these issues has focused on the Muslim majority of Jordan, a limited number of studies have examined the fertility of the Christian minority. Some researchers, such as Rizk (1978), have found Muslim fertility to be higher than that of Christians, but

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6. Religious decree, based on jurisprudential interpretation by a Mufti of religious law.

7. [2:233]: "Mothers shall give suck to their children for two whole years if the father wishes the sucking to be completed". The same Qur'anic arguments are common in Yemen where the Government and Unicef are trying to promote birth spacing.

only significantly so in the upper socio-economic classes, while no differences were found among the lower classes[8].

Role and Position of Women

A WHO report by the Director General (1985), stated that "the major restraint on the practice of family planning by women is related to their status ... In many countries the value of a woman in the eyes of society is based on the number of children she has"[9]. The same report also noted that "the situation is exacerbated by a preference for sons, a tendency that can seen in many countries"[10]. Hence, the examination of the role and position of women in an Arab society such as Jordan's, is especially important to the discussion of fertility and its determination. It reflects on why women may view a large number of children favourably, as well as why they may not be more forceful in taking decisions to limit fertility.

Women in a traditionally Arab culture have a narrow and strictly defined set of roles. The roles they are "allowed" to take are primarily those of daughters, sisters, wives, and mothers, as opposed to professional roles outside the sphere of the home and family. Arab women are expected to remain in the role of economic dependents, whereby "explicit provisions are made within the kinship unit for a male relative from the agnatic line to be economically, legally, and morally

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8. Rizk in his analysis of the data from the Jordan 1972 fertility survey also found that Muslims marry at an earlier age than their Christian counterparts.

9. WHO (1985), p.9. (Underlining in original text).

10. Ibid, p. 9. See also UNICEF (1990b).

responsible for a kinswoman regardless of her marital status"[11]. Furthermore, a man's honour is deeply intertwined with that of his womenfolk and their behaviour. Preserving that honour is perceived as being the responsibility of the male members of the family.

Female infanticide, a practice which was common before Islam, is an exaggerated representation of the position of women in traditional Arab society[12]. Female infanticide was reportedly practised as a result of more or less the same perception of women as an economic as well as an honour burden which was to be borne by her family. Although this practice has long been abandoned, the perception of daughters as a burden has remained.

Hence, Arab societies are found to favour early marriage for women, as a way of safeguarding their honour. The move into the husband's domain is made early on in the girl's life in order to dispel doubts about her honour by ensuring that it remains untarnished. By marrying their daughters off, the responsibility for their honour is shifted over to the husband. Youssef (1978) summed this complex tangle of relations as follows: "Tight control through an early and parentally supervised/ controlled marriage, as well as strict seclusion before that event, instill the idea that only one life exists for the woman. Motivation is channelled in the direction of marriage by creating desires for familial roles,

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11. Youssef (1978), p. 77.

12. Female infanticide, common in pre-Islamic Arabia, was banned by Islam and was especially criticized by the prophet Muhammad.

by extolling the rewards accruing from the wife-mother status"[13].

Preference for early marriages, by its very nature, results in higher levels of fertility. In a society like Jordan, where the overwhelming majority of childbirths occur within wedlock, the earlier a woman marries the longer the period of exposure to pregnancy; that is, the risk period. Therefore, women have a potentially higher resulting fertility. Furthermore, the woman is under pressure to start reproducing as soon as possible after marriage. The decision-making process regarding childbearing is not exclusively the husband and wife's. The extended family, most notably, but not exclusively, the woman's mother-in-law, have decision-making powers too. "Many relatives regard it as their right to exert effective pressure towards higher fertility or against fertility limitation"[14].

The first child often arrives within the first year of marriage. This is generally encouraged by the husband, his family, the wife's family, as well as by the woman herself. Among Arab countries, however, Jordan along with Tunis, has higher average ages at first marriage than the others. As reported in the 1981 Demographic Survey of Jordan, the average age stood at 22.8 years for women. Women's age at first marriage also showed a trend of being on the rise[15]. The 1981 Jordan Demographic Survey found that 53.8 per cent of women

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13. Youssef (1978), p.78.

14. Caldwell and Caldwell (1982), p.102.

15. As a matter of fact, the Fertility Survey of 1983, the decline in the fertility rate from 7.7 to 6.6 between 1971-1975 and 1980-1983, were attributed mainly to the increase in the age at marriage, and not to increases in contraception use.

were married by the time they had reached the age of 20-24 years. The Survey also found that the percentage of women who were married by the age of 20-24 years had actually fallen from 73 per cent in 1972 and 64.1 per cent in 1976.

Furthermore, the woman's "security" and status rise with the number of children she has. "A daughter-in-law gains status and thus authority in the family, and her husband's kin in general, through a number of factors [among them] the number of children she has"[16]. In so far as she bears children, her status rises primarily as a function of the number of male children that she bears. This is illustrated by several studies, which have pointed to the preference for male children in Jordan (Bisharat and Zagha, 1986; Hijazi, 1977; Jalal El-Deen, 1982; Shami and Taminian, 1985; UNICEF, 1990). This preference for male children also acts as the principal reason for women to continue childbearing even after they have attained their optimal number of children. If a woman has not had the desired number of *male* children she may continue to try.

In a study carried out in 1982, Jalal El-Deen illustrated this trend by showing that Jordanian and Sudanese women's desire to cease childbearing increased as a function of the male children the woman already had. Shami and Taminian (1985) in their study of reproductive behaviour in squatter settlements of Amman also found that whether or not a mother chooses to continue childbearing is foremost a function of the number of sons she has already borne. Smyke (1991) assessed WFS data in terms of son-preference. Table 7.5 below illustrates mother's preference for the next child they bear to be male as a ratio over those who prefer a female child.

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16. Shami and Taminian (1985), p. 7-8. Words in brackets added.

Jordan was ranked by her in the category "Strong Son Preference". This desire puts the woman under increasing pressure to have more and more children in order to reach the acceptable number of sons which will ensure her position in the household and the family.

Table 7.5: Son-Preference Index

Jordan	**1.9**
Pakistan	4.9
Nepal	4.0
Bangladesh	3.3
Korea	3.0
Syria	2.3
Egypt	1.5
Sudan	1.5
Tunisia	1.3
Yemen A.R.	1.3
Morocco	1.2

Source: Smyke (1991)

As stated by Youssef (1978), "children represent much more than a form of social insurance against the threat of divorce or polygamy, for women derive status from motherhood even when divorced or rejected for a second wife. Offspring guarantee to the woman status and respect that extend far beyond her position in the conjugal home and reaches into the heart of her own family's and the community's valuation of her. Hence we may expect women to continue childbearing activities throughout their reproductive years- whether they are happy in their marriage or not. When Muslim countries report an average of seven live births per married woman and the extension of reproductive behaviour to more advanced ages beyond thirty-five years, we should be able to appreciate the importance of maternal-related roles"[17].

17. Youssef (1978), p.86-87.

These social factors seem to have played a highly significant role in Jordan. Although women have become increasingly educated, their education has been slow in translating into participation in the labour force. Table 7.6 below shows Jordanian women's participation in the labour force as compared with a number of other Arab countries, as well as with countries with higher and lower fertility rates than Jordan's.

The sketchy outline of women's traditional position and roles presented above, highlights the way in which Jordanian society views childbearing and family planning. Through the regulation of women's roles, Jordanian society tends to act against the principles of limiting births and discourages the practice of contraception. This would seem to suggest that for change to occur in this area, a process of re-definition of female social roles becomes necessary.

Table 7.6: Women's Labour Participation and Fertility Rates for Selected Countries, 1988.

	Women in labour force (% of total)	Fertility rate
Jordan	**9.9**	**7.2**
Algeria	9.3	6.0
Egypt	9.8	4.8
Iraq	21.0	6.3
Kuwait	14.2	4.8
Lebanon	27.2	3.3
Libya	8.7	6.8
Morocco	20.3	4.8
Oman	8.1	7.2
Saudi Arabia	7.1	7.2
Syria	16.8	6.7
Tunisia	23.9	4.0
U.A.E.	6.2	4.8
Yemen A.R.	13.4	7.0
Yemen, P.D.R.	11.8	6.7
Costa Rica	21.7	3.2
Sri Lanka	26.8	2.6
Thailand	45.1	2.5
Kenya	40.3	8.1

Source: Compiled from UNDP (1990) figures.

This is not to imply that no change has been taking place in the social and familial roles of Jordanian women (see Table 7.4 above). Rather, the case is that these changes have been very slow in translating into a lowering of fertility rates. This can be explained as either a function of them being unimportant in determining fertility, or because other factors play a more significant role in terms of Jordanian fertility.

Yet, Jordan has been moving in the direction of change, being largely affected by the impact of changing life styles, economic conditions and perhaps more importantly, high levels of female education. In fact, several studies and surveys bear this out. Rizk (1978), the World Fertility Survey-Jordan (1976), the Jordan Fertility and Family Health Survey (1983), The Symposium on Population, Fertility, and Family Health in Jordan (1984), and the Jordan Husband's Fertility Survey (1985), are among the studies that have examined the effect of education on Jordanian fertility. All these studies find that an important inverse relationship exists between education and the number of children a woman has. Rizk (1978), for example, in analyzing the results of the 1972 fertility survey found that among a number of socio-economic factors, "education is the strongest factor affecting fertility levels. There is an inverse relation between the level of educational attainment of wives and the average number of live births". Table 7.7 below illustrates the findings, which were already apparent at the time of the 1976 World Fertility Survey in Jordan, of the effect of education and residence on fertility.

Table 7.7: Total Fertility Rate by Mothers' Education and Residence.

Residence				Educational Attainment				
Cities	Towns	Rural	Total	None	Elem.	Prep.	Sec.	Total
6.45	7.02	9.07	7.34	9.01	6.07	5.02	3.17	7.34

Source: WFS (1980)

As educational levels rise further, Jordan is likely to witness some significant effects on fertility levels. Education may act as a means of further delaying the age at first marriage of women, and hence shorten the risk period of marital parity. Education may also act to change women's perceptions of their roles within society to include more than just motherhood and being a good wife. Additionally, education may further alter Jordanian women's economic expectations, making them favour less children in the interest of a higher standard of living. This is all in addition to the 'awareness' that is presumed to be gained through education; whereby women realise their and their husband's right to make conscious decisions on the size of their family. Education is also offering Jordanian men and women alike the knowledge of where and how best they can realise their family planning objectives.

Political Considerations

The other set of factors acting against family planning in Jordan are more political in nature. These political factors are of different types.

First, prior to 1988, no Jordanian Government body or agency had considered that the society would accept a strong commitment to a population policy. The Government had been worried that the population's reaction would be unfavourable. Sahawneh (1982), in a discussion of family planning in Jordan

concludes by stating that "the government, however, seems to feel that the adoption of a population policy now is politically unwise". This, however, is by no means peculiar to Jordan and Jordanian society. It is an obstacle which is being faced by many developing countries in the world today.

Second, the Government of Jordan has been committed to the principle that human resources are its most valuable asset. This principle, itself, is one which encourages an increase in population. At the very least, it is opposed to the concept of limiting the number of Jordanians. UNFPA (1978), in a report of population assistance needs assessment mission found that, "Jordan has concluded that the people are its greatest resource. Partly because of this view ... Jordan has not as yet adopted a population policy relevant to controlling population growth"[18].

Third, the issue is politically highly charged as perceived by the majority of the population of Jordan, the Palestinians (or those who consider themselves of Palestinian origin). Palestinians are, as a result of their recent history, extremely wary, sensitive, and suspicious of any efforts to limit their number. They tend to view such efforts as attempts to hasten the process of their "extinction", and elimination. There is a great deal of mistrust of family planning programmes since these are perceived as eventually leading to fewer numbers of Palestinians. Given the importance that has been given to the "demographic argument" as a means of explaining and backing claims to the lands of Palestine, this mistrust becomes "understandable". Any family planning programmes, and in particular such programmes that are sponsored or supported by foreign western organizations, are

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18. UNFPA (1978), p. 1.

viewed with a great deal of suspicion as "plots" to weaken the Palestinians in their national struggle.

It should also be remembered, that for those Palestinians classified as refugees, the major expense of children is undertaken by UNRWA. Shelter, health and education are provided free of charge. Food and financial assistance are also available for those families who may be facing severe hardship. In that sense families do not need to consider the economic burden of a large number of children.

A further form of political opposition to family planning and to reductions in the birth rates comes from a feeling among the general Jordanian population that they are a "front line state" in the Arab-Israeli conflict. This, it is thought, applies equally to Palestinians and Jordanians. People feel that not only should they not have to limit their numbers, but that they should be bearing more and more "fighters" for the future to strengthen their military and strategic position. Discussion with a variety of Jordanians, of different socio-economic and educational backgrounds, show this mistrust of population policies to be a widely spread feeling. Influential community figures are often as indignant about family planning programmes as the least educated and the poorest in the community.

The above has outlined the importance of various levels of political factors that are to some degree influencing the manner in which family planning in Jordan is addressed. Compounded, these factors have actually created a reaction against family planning. This may explain why the authorities have been inactive in pursuing a population growth policy and programmes of family planning.

Against the background described above, it becomes easier to understand why, despite the Government's undeclared, but implied, commitment to family planning since 1963, the birth rate and fertility rate have hardly changed A significant reason for this is that the Government's implied commitment has been essentially a case of paying lip service. The stated commitment had not been translated into policies or actions. As a matter of fact, the Government's actions appear to indicate a definite neglect of the issue.

Although it is the responsibility of the Government, through the Ministry of Health, to provide family planning services and promotion to the whole population, the reality has been considerably different. Calls for more official involvement had been coming from those concerned for a long time, but an official position was not taken until 1988.

Until the middle of 1988 it was the case that the JFPPA, primary health clinics, maternity and child health centres, as well as all other involved Government and voluntary sectors, were not allowed to (according to an unwritten law) actively promote family planning in any form. All these agencies were resigned to the passive role of providing the services to women who explicitly asked for them. Many physicians and health workers in the field who were asked about this, complained bitterly about how their hands were tied and how they were under the threat of losing their jobs if they were accused of "pushing" family planning or contraception. This rule, as it appears, was applied in all cases, even when health workers were dealing with a woman who was clearly at risk from further pregnancies which was not an overt medical risk.

Another "rule" that applied is that the woman would not be given any family planning method without the written

permission of her husband[19]. There is no need to go into the overwhelming constraints that such measures and rules have had on the spread of the practice of family planning in Jordan. It is indicative to point out, however, that according to the Jordan Fertility and Family Health Survey (1983), the use of contraception increased only from 23 to 25 per cent between 1976 and 1983. Perhaps more significantly, most contraceptive users, obtained the service from either private physicians or private pharmacists, with Government services being used the least. Khoury et al (1986) found that while the use of contraceptives was linked to the educational levels of both husband and wife, "health education provided by the health team in paediatric and obstetric and gynaecology departments could improve acceptability of contraceptive methods by not less than 16%"[20].

Considered from the Jordanian Government's point of view and taking into account the cultural/ religious/ political stigma attached to the whole concept, the reluctant position of the authorities is better understood. The Government has, in effect, been afraid of actively promoting family planning, because of worries about upsetting the population and causing unrest. Sahawneh (1982) summed up the equivocal attitude prevalent until a few years ago, "the government does not run family planning programmes, but nor does it try to stop them. It has been quite neutral regarding the private family

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19. This is another "unwritten" rule. Among others, Mrs M.Hamzah (Director, Department of Health Education, MoH) and Dr S. Khoury (Chairman, Family Medicine, Jordan University) referred to this practice as a major obstacle.

20. Khoury et al (1986), p. 245.

planning clinics, established on the East Bank since 1972. It follows this experiment with interest"[21].

With the changes in the official attitude and position in 1988, family planning programmes have begun to be more prominent in Jordan. In spite of this, suspicion among the population remains. Interestingly, those who are wary of the Government's and foreign organizations' motives are not only the less educated, "less aware" population; rather, they include some highly qualified, respected, and influential physicians in the country. Many believe the programme to be part of a ploy to force the demographic argument to the benefit of the Israelis. This apprehension on the part of respected figures in the community and the health profession, makes the task all that more difficult.

Furthermore, many people do not appear to have much confidence in the Ministry of Health's commitment. The family planning programme is seen as yet another attempt by the Ministry to put itself in the "good books" again, especially after losing face in the fight over control of the hospitals to then newly established National Medical Institute. (These developments are examined in more detail in Chapter Eight). All this contributes to making it dubious as to how far the latest efforts will be able to go in producing a decrease in the current level of fertility.

One factor, or set of factors that may lead to the lowering of fertility levels, however, may be the rapid deterioration of the Jordanian economy in the last few years, which has been especially rapid since September 1988. In addition to the local economic hardships, large numbers of

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21. Sahawneh (1982), p. 135.

Jordanians have had to return from lucrative jobs in the Gulf, because of the latter countries' own economic stagnation. An extra blow has fallen on Jordan in the form of the recent Gulf war. Even more Jordanians and Palestinians came to settle in Jordan. The population again grew in size at an unanticipated rate. This has resulted in mounting pressure on all public services and facilities. The effects of the increase in population are felt in all spheres of Jordanian life, not least in the job market. These unfortunate occurrences may, however, become an incentive for Jordanians to start designing and planning for a viable population policy.

The other potentially very powerful factor which may change fertility behaviour is the effect of ever-increasing female education in Jordan. Female education could act on fertility in more than one way. Education, combined with the economic hardships that Jordan is facing, may lead to a quick reduction in fertility. As families realise the expense of having a large number of children, and as more women are forced to seek employment outside the home, changes on many levels may begin to emerge in Jordanian society. Traditional value systems, and the importance they accord to children are likely to be supplanted with changing female roles and aspirations.

Impact of Fertility on Health in Jordan

The question posed earlier, arises again: How important is a reduction in the fertility rate to improvements in the overall health status of Jordan? If it is important, then is it necessary to devote resources and energy into family planning programmes? The answer to the first part of the question appears to be a resounding Yes. That is, a reduction in the fertility rate and, therefore, in the number of pregnancies a

woman goes through, and the number of children she has to raise, will ultimately lead to improvements in health status. Whether or not relatively scarce resources need to be poured into a family planning programme is a different matter.

Yet, Jordan has already done admirably well in improving the health status of the population without pursuing a population reduction policy or a strong family planning programme. Moreover, attitudes in Jordan appear to be moving, albeit slowly, toward lower fertility levels as a result of socio-cultural changes, the most significant of which is rising levels of education, especially that of females. Economic constraints, it would also appear, have a very important role to play in forcing changes in family sizes to occur.

It is not possible at this point to determine what effects a rate of fertility lower than the existing one would have on the health status of Jordan. While, the arguments supporting the positive role that a lowered fertility rate can play, it is difficult to perceive of a scenario whereby health status in Jordan could have improved at a rate significantly faster than that which it has exhibited so far. It appears that in Jordan the presence of a number of factors, in combination, has led to the desired health improvements. High levels of educational coverage, infrastructural facilities (water, sanitation, shelter), nutritional availability, and a good health service structure seem to have acted together to counter any negative impact of high fertility. It actually appears that even if Jordanian women have many children, they are well prepared and equipped, as well as being supported by the Governmental structures to be able to raise them in a healthy environment.

Although there has been a strong argument in favour of limiting the population growth rate of Jordan since the late 1980s, it is not clear that scarce resources should necessarily be diverted to such programmes at a time of more pressing needs. This is especially true since Jordan's record shows that population programmes have not had a very significant role in the past. Additionally, an overly aggressive policy or programme would be an obvious mistake in view of the high sensitivities on the various levels that exist in the country. It would, therefore, appear that a low-key strategy like the one the government is already following, with the need for improvements in organization and efficiency, is the best and most sensitive way to deal with the issue.

Current fertility rates do seem to indicate that they are on a steady, though admittedly slow, course of decline. With this decline, further gains and improvements in health are bound to also appear.

CHAPTER EIGHT

Health Care Services and Facilities

Health researchers disagree on the extent of the influence of the availability and quality of health care services on the health status of a population. There is, nevertheless, general agreement that the provision of health care services which are **accessible** and **acceptable** to the population have a positive impact on health.

A definition of "health services" needs to be agreed upon before the discussion can proceed further. The term "health services" in this chapter will be used to refer to a general and encompassing system made up of "health workers, buildings, and logistic support (and the financial resources underlying these things)"[1]. In other words, health services are all the elements involved in the provision of "the whole range of clinical services, extending from the cardiovascular surgeon in the referral hospital to the health auxiliary administering oral rehydration solution in the home or health post"[2].

1. Joseph (1985), p. 222.

2. Ibid, p. 222.

Curative health services have been a favourite black sheep of proponents of cheap alternatives to achieving improved health. Curative services seem in most cases to be assumed to consume a disproportionate share of scarce resource, while serving only a privileged few.

The quality and quantity of health services needed to improve the health of a given population vary significantly with the socio-economic characteristics of the population, as well as with the health aims and goals of the providers. High-tech modern specialized hospitals offer the solution to prevalent problems in an industrialized setting. It would probably have a minimal effect on the health status of a population suffering from mortality associated with infectious diseases. Conversely, primary health care outposts are of little use to a population where the major causes of death are cardiovascular diseases and carcinomas.

Thus, health service delivery systems need to be analyzed and discussed not only in terms of how appropriate a response they are to the conditions of a given area, but also in terms of their functioning and efficiency as a system. Issues which must be discussed and resolved include, for example, the degree to which manpower considerations are taken into account in the plans for a particular service, the insurance of a non-overlapping, and the functioning of the referral system. Only then could the overall "evaluation" of the health service delivery system be attempted in the light of its effect on and reception by the target population. In other words, the accessibility, affordability, and acceptability of the service has to be assessed from the point of view of those designated as the recipients.

The contribution of health service to health needs also to be assessed in terms of its cost and the relative benefits

achieved. The method of paying for the service needs also to be looked at critically. That is, assessment of the degree to which a funding scheme is likely to remain feasible in the future should be attempted.

This chapter, however, will attempt to present only an overview of existing health facilities in Jordan, and their development and historical advancement from the early days of the TransJordanian state. It is beyond the scope of the present work to attempt a detailed quantitative examination of the various health services delivery systems operating in Jordan[3]. Some preliminary analyses are attempted based on the limited parameters of this work. The health care delivery systems of Jordan will be dealt with in terms of the effect that they have had in improving the health status of the population.

Historical Overview of Health Service Delivery

The advances in the economic and social sectors of Jordan have been accompanied by equal, if not more impressive developments in the health sector. Table 8.1 below highlights some of the achievements of the health services sector of Jordan as compared with a number of other Arab countries. Table 8.1 also compares Jordan with a number of other developing countries, known to have achieved good levels of health. However, as in the case of general population data, health information has been somewhat incomplete and difficult to assess because of

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3. For detailed descriptions of the various channels of the health delivery systems in Jordan, refer to: various World Bank health sector review documents on Jordan, WHO and UNICEF reports, as well as the Annual Reports of the Jordan Ministry of Health, the Annual Statistical Reports of the Jordan Department of Statistics, and various Jordan Development Plans.

the various political and military events that have affected the country.

Table 8.1: Some Health Service Indicators for Selected Countries

	Access to services (% of pop.)	Doctors/ 000 population	Health Expend. (% of GNP)	
	1985-1987	1984	1960	1986
Jordan	**97**	**0.91**	**0.6**	**1.9**
Algeria	88	0.43	1.2	2.2
Egypt	..	1.25	0.6	1.0
Iraq	93	0.59	1.0	0.8
Kuwait	100	1.67	...	2.9
Lebanon	..	....	...	...
Libya	..	1.43	1.3	3.0
Morocco	70	0.06	1.0	1.0
Oman	91	0.59	...	3.3
Saudi Arabia	97	1.43	0.6	4.0
Syria	76	0.77	0.4	0.8
Tunisia	90	0.45	1.6	2.7
U.A.E.	90	1.00	...	1.0
Yemen A.R.	35	0.16	...	1.1
Yemen, P.D.R.	30	0.23	...	2.0
Costa Rica	80	1.00	3.0	5.4
Sri Lanka	93	0.18	2.0	1.3
Thailand	70	0.16	0.4	1.3
Middle East & North Africa	76	0.27	0.9	2.0

Source: Compiled and calculated from UNDP (1990).

Prior to the creation of the state of TransJordan, some health care services existed in the area. Those, however, were extremely rudimentary in nature. In 1883, a small hospital with 15 beds was opened in Salt by the Christian Missionary Society; it was the only medical facility in the area at the time. It was only in 1921 that a small hospital for women and children was established in Amman by the same Society. In the meantime the Italian National Association had established a small hospital in Kerak in 1919, and a private clinic in Irbid in 1920.

For the majority of TransJordanians, however, the only form of health service they had access to were still the traditional practitioners, who mainly provided them with some herbal remedies, dietary formulae, and practised "*Kai*"[4].

In 1923, and with the advent of the British mandate, the Department of Health was established. The Department employed two doctors for each of eight administrative districts. Two years later, a municipal hospital was established in Amman. This hospital was replaced by a twenty-bed Government hospital in 1926.

At that time, the Health Law of 1926 was passed, which included provisions that reports on births, deaths, burials, epidemics, inoculations, and doctors' licensing, be presented annually by the Department of Health. A national Anti-Malaria campaign was also begun in 1926.

The first clear and coherent accounts of health-related conditions in Jordan, however, are to be found in the records of the British Colonial Office, in the reports of the TransJordan Department of Health. The mandate authorities began producing annual reports soon after taking control of TransJordan. The first such report was produced in 1926. This practice continued throughout the mandate period and was then taken up after independence by the Jordanians. These reports are useful in portraying the overall picture of health conditions at the time.

It was in 1926 that the first ever numerical estimates were made of the area and its inhabitants, including the size of the population, their health conditions, the condition of

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4. Traditional healing practice based on the principle of localized application of red hot metal to the affected parts.

sanitary facilities, and the existing health care facilities and their condition. On 1 January, 1926, the registration of births and deaths in Jordan began, and this process became compulsory by law for all citizens on 1 March of the same year[5].

According to the 1926 Report, there was one Government hospital situated in Amman with 20 beds, which was opened, "staffed and equipped on modern lines" to replace the old municipal hospital. There were also a number of District Health Dispensaries in the larger towns of TransJordan[6]. During that year the Department of Health granted 26 licenses for Medical practitioners, 6 for pharmacists, and one for a dentist, but, the report noted, there were no qualified midwives.

It thus appears that, as early as 1926, there was a good degree of awareness of the needs of the population and of the deficiencies in the existing situation: "The country is in need of more Pharmacists, Dentists, and especially qualified Midwives. All the midwives of the country are unqualified and practically every woman acts as a midwife. The Department started the registration of a limited number of midwives, considering their comparative capabilities, with the object of issuing to them Certificates of Registration for control purposes. The Department is taking up with the Government the matter of employing four municipal qualified midwives for Amman, Irbid, Kerak, and Ma'an Towns, to be paid by those

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5. The 1926 annual report of the Department of Health, however, declined to make any estimates of the size of the population or of the incidence of health related conditions.

6. By comparison, Lebanon in 1921 already had 9 hospitals.

Municipalities until such time as private qualified midwives practice that profession in TransJordan"[7].

The 1927 Annual Health Report cited figures for the expenditure (£P 10,253)[8] and revenues (£P 633) of the Department. During the period 1927-1929, the department was mainly concerned by the difficulties it was facing in implementing Public Health projects because of lack of training and the dispersal of the population, especially the Bedouin. Trachoma was described as a major problem in TransJordan, and it was emphasized that education of the mother would be a much more effective method of controlling this disease than any curative measures. There was concern at the lack of maternity and child health centres as well as concern for school health and health services. It was also repeated that the country needed more qualified medical practitioners, pharmacists, dentists, and especially midwives. In fact, a special sum was put in the 1928-1929 Public Health budget to be used for the training of five midwives. An urgent need for hospitals at Irbid and Kerak was also expressed.

Improvements were, however, beginning to take place. By 1927, there were 99 hospital beds run by various charities as compared with 66 in the previous year. The mandate powers were also trying to establish the health infrastructure with the limited budget they had. A small laboratory was established in Amman which could undertake examinations of stool and blood. At the same time, the rate of vaccinations increased, and anti-malarial measures were intensified. Notification of births and deaths was also obviously improving, and the

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7. Department of Health (1926), p. 8.

8. £P = Palestinian Pound.

available statistics became more reliable and more useful for planning purposes.

Some public health measures were being implemented, and a number of Municipal and district water schemes were carried out. Mobile epidemic units and equipment were used on several occasions to reach the nomadic Bedouin population. In 1928 the first Infant Welfare Centre was opened in Amman, by the wife of the British Representative, as part of the Catholic Missionary Service hospital there. However, the authorities expressed discontent with the inadequacy of the budget, and concerns about the shortage of Government hospital beds, dispensaries, medical practitioners and midwives were being repeated every year. The Department was also concerned about a number of other conditions and factors; the high incidence of eye-disease among the whole population, in particular of Trachoma, which was estimated as affecting 27.1 per cent of all school children in 1930; the lack of facilities and funds to care for the mentally ill; access to the Bedouins,especially in times of epidemics; and foremost, the exceptionally high Infant Mortality Rate in the country.

By 1933, the number of practising medical practitioners was 17, of practising dentists 3, of practising pharmacists 4, and of midwives 3. It appears that not all licensed medical personnel went into practice. The total number of Government hospital beds was 20 - all in Amman. Private and mission hospitals consisted of the Italian hospital in Amman, the English hospital in Amman, and the Iraq Petroleum Company's 8-bedded quarantine hospital at Mafraq. The Catholic Mission Service hospital was closed down because of lack of funds, while the Italians were building another hospital at Kerak.

Government dispensaries were being affected by the lack of funds. "We are still short of staff and also require

additional funds for medical stores to meet the requirements ... It is not at all advisable to cut down the work as the largest number, if not practically all, are Government and poor patients, and charitable medical work in the country, other than the Government's work is very limited. The clinics are a great help to the Department in the rapid discovery of a large number of infectious disease cases, which naturally assist in the control"[9]. Furthermore, the Department of Health was complaining that "the share of the Department is only 3.4 percent of the total Government budget"[10]. This small share in the budget was a complaint repeatedly raised by the Department and ignored by the authorities[11].

The Department appears to have been aware of the importance of preventive and public health measures in the improvement of the conditions prevailing among the population. The opening of a maternity ward at the Government hospital in Amman which would also serve as a training centre for midwives was strongly urged. "It is the poor class who really require special attention, knowing the great danger to the mother and child when left to be treated at home by ignorant unqualified midwives practising their profession"[12]. More Infant Welfare Centres were also recommended, emphasizing that the two

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9. Department of Health (1933), p. 16.

10. Ibid, p. 15.

11. In 1934 Sir John Campbell commenting on the budget said: "I had the curiosity to look up the expenditures in India. For 1927-28, the latest report I can get hold of without having to make the calculation myself-the percentage total expenditures on public health was 1% only. And I can recall cases where a Colony depended solely on agriculture, and spent less than 3% of its total expenditure on that! In the light of this, 3.4% does not seem so bad". From Comment on the Health Report of 1932, CO 831/28/5.

12. Department of Health (1933), p. 22.

already present in the country were not enough to cover the population, especially as "the one in Salt is not worthy of its name"[13]. Additional infant welfare centres, more hospital beds, and more schools for girls were recommended to alleviate the factors leading to the very high levels of infant mortality.

"The ignorance of the largest percentage of mothers, the unhygienic conditions under which babies are brought up whether as to houses, clothing, general cleanliness or diet, especially the impure drinking water often given to babies,[and] the poverty of the inhabitants in many villages and amongst a number of Bedouin"[14] were sited as the reasons for these conditions. The Department also urged the rapid establishment of safe water networks in the country as a primary objective.

In 1938, the number of practising medical practitioners in TransJordan had risen to 24, of pharmacists to 5, of dentists to 6, and of midwives to 9. Attendances at both Government and voluntary clinics and hospitals were increasing, as were attendances at the Infant Welfare Centre in Amman as well as the home visits by the nurse at the Centre. A Dr.McLean began building a new hospital at Ajlun, to be completed at the end of 1939, and approval had been obtained for a new Government hospital in Amman, with construction to begin in early 1939. A new small charitable health centre was also opened at Jerash.

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13. Comment by Chief Minister Ibrahim, attached to the Department of Health (1933) report. CO 831/32/1.

14. Department of Health (1933), p. 24.

An Infant Welfare Centre was also opened in Zerqa by the Medical Authorities of the TransJordan Frontier Force, which was a separate authority responsible for the health care and health services of the armed forces. This authority worked closely with the Department of Health, and is the precursor of the present day Royal Medical Services. Much like the Royal Medical Services, "although [the service] was only intended for the families of Officers and Men of that Force, yet they have carried out the work amongst the civil population of that village and neighbouring villages and bedouins with very satisfactory results"[15].

One of the most interesting development of the period, however, was the setting up of the Desert Mobile Medical Unit in 1937, following a thorough survey of the health conditions of the Bedouin tribes of TransJordan in 1934. The unit was financed jointly by the Transjordan and the Palestine Departments of health, as the Palestine authorities found that it would be useful for them to have infectious diseases checked before migratory Bedouins moved into Palestine and infected its population[16].

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15. Department of Health (1933), p. 31.

16. The survey highlighted the health problems of the Bedouin, especially those occurring as a result of poverty like, malnutrition; and also referred to the extremely high incidence of Tuberculosis among the Bedouin. The staff of the unit consisted of, in addition to the Medical Officer, a driver for the dispensary car and four medical orderlies, who were required to travel on horse and mule-back to reach Bedouins in remote areas. The team set up large tents to use as clinics in the places where they stopped. The general policy of the unit was that they could not take on in-patients as that would be incompatible with their mobility, and that clinics were placed as close as possible to a water source, and "near the largest groups of tents found and that as far as possible moved to follow tribal migration". As it was not possible for the Medical Officer in charge to deal with all cases, "the medical orderly [had] to use his commonsense in the diagnosis and treatment of simple ailments. They were found to show wisdom and discretion on these occasions".

Financially, the total expenditure of the Department for 1938, was £P 16,448 and the revenue was £P 820. The budget of the Department was 2.6 per cent of the total Trans Jordan Government budget (a drop from 3.7 per cent the previous year).

Improvements in the health services infrastructures continued in a steady fashion until the late 1940s. After the war of 1948 in Palestine, and the influx of thousands of refugees into Jordan, all infrastructural service sectors had to undergo major expansion. At the end of 1948, Jordan had ten general and specialized Government hospitals with 147 beds, and four voluntary hospitals with 164 beds. There were 55 Medical Practitioners, 24 pharmacists, 21 dentists , and 24 qualified midwives. The Infant Welfare Centre in Amman was receiving an increasing number of infants (32,535 attendances, and 2,846 visits by the Nurse), while the Infant Welfare Centre at Salt was reopened after years of inactivity.

The problems of health care of the refugees appear not to have been considered very seriously in the 1948 report, and the only mention of the refugees, apart from their numbers, is that, "the Public Health Department used its utmost of health efforts to congregate and isolate the refugees in available camps and shelters, to facilitate the execution of health and sanitary measures amongst them"[17]. With the refugees, came the establishment of UNRWA, and the services offered by it. The Royal Medical Services (RMS), a separate military health and medical services institution, independent of the Public Health Department, was also established.

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17. Department of Health (1948), p. 6.

The year 1948 represents a significant milestone in the history of health services development in Jordan: there were now four institutions providing health care and services to the population. These were the Government, the Private and Voluntary Sector, the Military, and UNRWA.

By 1950 There were a total of 192 Government hospital beds with 75 physicians (45 in Amman & 12 in Irbid), 26 dentists (15 in Amman & 7 in Irbid), 42 pharmacists (29 in Amman & 6 in Irbid), and 39 qualified midwives (26 in Amman & in Zerqa) practising in the country. Additionally, during that year, 246 unqualified midwives were licensed to practice of whom 73 were in Amman, and 74 in Irbid.

Furthermore, on 4 December, 1950, the Department of Health was declared a Ministry. The budget, however, was still very deficient being only 1.5 per cent of the total Government budget.

Health Services Systems

Traditional Medical Systems

Very little information exists about traditional medical practices in modern Jordan. Unlike many other developing countries, however, available information support the thesis that Jordan does not have a traditional health/medical system which is capable of being an alternative to the "western" medical services model. Kawar (1987) while working in a rural community in Kerak found that "traditional medicine has become almost extinct". There are a few practitioners, however, who perform a very limited role in the provision of services to the general population. Although the medieval Arab contribution to medical science was significant, this was by

and large more a function of integrating and institutionalizing the Greek system[18].

The few traditional practitioners to be found in modern day Jordan are of two types: herbalists, and bone-setters. Their role is minimal when it comes to its effect on the general population. Herbalists are limited to offering a few traditional remedies for upset stomachs, while bone-setters mainly deal with simple sprains and strains. Traditional medicine is not an important feature of Jordanian society or health systems.

Ministry of Health (MoH)

Published documented information on the work of the newly established Ministry of Health was not available until 1958, when the Ministry published a report to cover its activities between 1951 and 1957. This delay was in large part due to the deteriorating political and economic situation in the country in the early 1950s.

In 1953, the Government, with the help of the American Point Four programme, opened a new college of nursing. In 1954 a Midwifery school was opened with the help of UNICEF. The budget of the Ministry had again begun to rise, reaching 2.2 per cent of the total Government budget for 1954 (or JD 0.382 per person). This represented a significant increase to the 1951 budget, when the share of the health sector was only 1.6 percent, or JD 0.175 per person.

The progress in terms of health and health services over this period 1951-1957, was such that by the end of 1957, there

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18. For brief overviews of medieval Arab medicine see Polunin (1976) and Burgel (1976).

were 21 Government hospitals, 28 Maternity and Child Health centres, and tens of new clinics in the remote rural areas. There were also 213 practising physicians, 37 dentists, 102 pharmacists, 136 midwives, and 200 Nurses. These numbers, moreover, exclude the work of the RMS, UNRWA, and the private sector.

Meanwhile, the Anti-Malaria campaign was continued and intensified, with emphasis on both preventive and curative work. Work also continued in preventing and curing tuberculosis, with financial and technical assistance from the American Government and WHO.

In 1965 the first national health insurance plan was established in Jordan. This was along very similar lines to that in use by the Royal Medical Services, whereby each Government employee pays a minimal monthly rate (JD 0.5) in exchange for protection for themselves and their families. The patient has only to make a minimal payment for some drugs and "extras". Those classified as "Poor" were exempt from any payment providing they produced the appropriate documents.

Over the next decade or so, especially with the Arab-Israeli war of 1967, as mentioned previously, the internal political situation was quite unstable. In addition to the financial and manpower losses suffered by Jordan, the internal instability resulted in numerous changes of the cabinet. With these changes came an almost continuous rotation of both ministers and ministries, causing an administrative weakening of the Ministry of Health. This is reflected in the fact that only two reports were published, one covering the period 1958-1965, and the other, the period 1960-1969.

Nonetheless, some progress was made, and in 1969, there were 28 Government and 31 private hospitals with 1,954 and

1,529 beds respectively, as well as 228 Government clinics and 107 private ones. There were additionally 38 Maternity and Child Health Centres, 15 X-Ray centres, and 14 Government and 26 private laboratories. Servicing these facilities were 420 physicians, 66 dentists, 190 pharmacists, and 280 midwives practising in the country. Many health-trained people left the country during this period to find better paid employment in the neighbouring Arab countries. Of those remaining in the country, 176 physicians were employed by the Government, and 244 were in the private sector. For pharmacists the numbers were 16 and 174, for midwives 98 and 182, while for nurses they were 197 and 155 respectively. It should be noted that, relative to the number of doctors, nurses in Jordan were relatively few; and were, unlike other health care practitioners, employed by the government in greater proportions relative to the private sector.

The Government had also established a new law for the recruitment of newly graduated physicians, dentists, pharmacists, and bacteriologists to work for the Ministry. Under this law, new recruits had to serve either with the Ministry of Health services or the Royal Medical Services for a period of two years before they were accepted as full members of the staff. This is one of the main reasons why such large numbers preferred to work in the private sector. Material gains and better working conditions were the reasons most commonly cited as being behind the preference of health professionals for private work. To counter this trend away from the public services sectors, the Ministry of health stated that it was aiming to raise the professional and payment levels of the Ministry services to entice those people to stay with them.

In 1968 a new school of practical nursing was opened with the help of UNICEF. Nursing staff had been an area which

had not been accorded enough importance. The results of this lack of attention can still be felt in the health delivery systems of Jordan in the 1990s. There is a chronic shortage of trained nurses, and Jordan has had to import nursing staff, mainly from Asia.

The positive trends in health services improvement continued at a relatively fast pace due in part to the huge economic progress that Jordan was undergoing in the 1970s. More clinics, more hospital beds, and more infrastructural services were opened. In addition, more medical personnel, at all levels were being trained. The benefits of this increase was, however, diminished as many of the newly trained migrated to work in the Gulf states.

By 1984, the population was served by physicians at a rate of 11.4 per cent, hospital beds were available at the rate of 18.8 per 10,000 population, and there was in the country 150 health centres. The evident progress in health services provision was, however, being criticised by the authorities for lack of efficiency and it was hoped that with better organization, and better distribution of resources, even more could be achieved.

Tables 8.2 and 8.3 below illustrate some of the trends that have taken place in the development of the health services system of Jordan, in terms of the number of physicians and the number of hospital beds[19].

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19. There exists an almost complete set of Ministry of Health Reports (and Department of Health Reports for the earlier periods) which clearly show the developments in all aspects of the health services delivery system of Jordan.

Table 8.2: Number of Registered Physicians in Jordan, 1954 - 1985

Year	Number	Year	Number	Year	Number	Year	Number
1954	213	1962	460	1970	972	1978	2,758
1955	236	1963	498	1971	1,046	1979	3,137
1956	270	1964	531	1972	1,191	1980	3,512
1957	296	1965	597	1973	1,440	1981	4,009
1958	326	1966	653	1974	1,608	1982	4,418
1959	355	1967	727	1975	1,830	1983	4,863
1960	383	1968	876	1976	2,111	1984	5,445
1961	424	1969	869	1977	2,415	1985	5,901

* Source: Jordan University of Science & Technology (1986).

Table 8.3: Hospital Beds, all providers (1986)

Governorate	Beds/ 1000 persons
Amman	2.7
Zerqa	1.7
Balqa	0.8
Irbid	1.3
Mafraq	1.1
Karak	1.4
Tafieleh	1.0
Ma'an	1.5

Source: Ministry of Health (1986).

Ministry of Health Services

Before a brief overview of the different responsibilities of the Ministry of Health is presented, it is important to note that the Ministry also has responsibility for the supervision of the services on offer by the other agencies, including the private sector. While the Ministry is not involved in the day-to-day running of the work of the other health providers, it is nonetheless involved in ensuring that the quality of care on offer matches up to that adopted by the Ministry. The Ministry, for example, has to approve and license any new services, or personnel.

Hospitals: tertiary and secondary

The Ministry of Health in Jordan has the responsibility for running one main tertiary referral hospital, the Al-Bashir in Amman. This is a hospital equipped and staffed at the same level as any such facility in an industrialized country. The Ministry is able to offer virtually all the newest technological medical treatments. These facilities are often used as a referral post by the health systems of neighbouring Arab countries.

In addition, there is a network of smaller hospital capable of offering secondary health care. These secondary health care facilities do not maintain the same high standard as the tertiary care. Facilities are, on the whole, older and in need of repair and technological updating. Secondary care services are still, however, of a good quality. All the types of service that one would expect to find in such a facility are available. These hospitals are not, however, as "luxurious" as those managed by the private sector, due to limited resources.

Health Centres

In 1986, the Directorate of Health Education at the Ministry of Health estimated that 94.12 per cent of Jordanians live at a distance of less than 6 km. from a Primary Health Care centre. These centres are meant to act as the first point of contact between the population and the health delivery system. Over the years, there has been an attempt to spread such facilities as widely as possible in all regions of the country, and centres are normally run by nursing, technical, and auxiliary staff. The presence of one or more physicians ranges from once a week to daily coverage. This is dependant on the size of the centre and the size of the population it

serves. Table 8.4 illustrates the rapid increase between 1980 - 1987 in the number of the Ministry of Health's health centres, Maternal and Child health centres, and dental clinics in Jordan.

Table 8.4: Ministry of Health PHC Centres, 1980 - 1987

	'80	'81	'82	'83	'84	'85	'86	'87
Health Centres	88	89	96	99	150	188	197	227
Village Clinics	283	283	270	278	245	227	227	218
MCH Centres	62	69	78	93	100	101	102	116
Dental Clinics	43	43	44	46	57	58	58	69

Source: Ministry of Health (1987).

Facilities include all the basic services such as, ante-natal, delivery, and post-natal care for women, immunization, routine follow-up of infants and young children, growth monitoring, nutritional advice and treatment, as well as health education. This is in addition to simple curative measures such as emergency treatment for accidents and small wounds and the treatment of common illnesses and childhood diseases.

Although these services are accessible to most Jordanians, the utilization rates of the facilities are not high. Jordanians appear to prefer to use private practitioners and hospital out-patient departments.

Mother and Child Health (MCH) Centres

The first MCH centre in Jordan was opened in 1955. After a slow start, the Directorate of Health was, in 1988, responsible for 143 MCH centres distributed throughout the country, with the majority located in the rural areas. MCH centres provide a variety of services aimed at women in the child bearing age, and their children. Services for women

include pre-natal care, delivery, and post-natal care for mother and infant. Services for children include mainly growth monitoring, immunization, and the administration of oral rehydration therapy to children suffering from severe diarrhoea.

The work of MCH centres is based on the concept of comprehensive family care. Members of the same family all have individual records within the same family file. In this way staff are better able to monitor health conditions in the community, and are better able to judge follow-up cases. MCH staff are also required to provide out-reach care through home visiting in the community. This aspect of the work, however, is deficient, with very few community visits actually taking place. Abbas (1983) found that only between 10 and 12 per cent of pregnant women received visits both antenatally and postnatally - a very low proportion.

The bulk of the work of MCH centres appears to be in monitoring pregnant women and the progress of their young children. Mothers are weighed routinely and are advised about diet and proper nutrition. They are also immunized against tetanus. Deliveries are either referred to a nearby hospital, or in cases of uncomplicated delivery, are performed by a midwife from the centre at the mother's home. Family planning education is offered along with services. As stated above, services for children are mainly concerned with growth monitoring and nutritional assessment. Severe cases of under-nutrition are referred to the physician. Some nutritional supplements are offered to those women and children at risk of severe under-nutrition.

MCH centres are staffed primarily by nurses, midwives, and nutritionists. A physician visits the centre twice a week or more, depending on need. The larger centres, may have a

resident physician. Physicians deal with the more complicated cases that are referred to them.

The MCH centres are also used extensively for the purposes of health manpower training. Fifth-year medical students, nursing students, midwives, and para-medical trainees for both the Ministry of Health and the RMS are among those trained in MCH centres.

A number of studies have been done on the utilization of the MCH services in Jordan, among which are WHO (1982), Abbas (1983), Barakat (1986), and Obermeyer and Joseph (1991). All show a disappointing rate of usage of the services, attributed in the main to lack of information about the services, deficiencies in the services themselves, and distance from potential users. All of those factors should be addressed by the Ministry of Health in future plans.

Immunization

An Expanded Programme of Immunization (EPI) begun in Jordan in 1971. At the time, however, only those children registered at a health centre benefitted from the programme. It was not until 1979 that the EPI programme was expanded to offer coverage of DPT and OPV immunization to the entire population. Immunization against Measles was added to the programme in 1980. The general supervisor of the EPI programme is the Director of Communicable Diseases Control at the Ministry of Health. There is also a national Consultative Committee for EPI, whose members represent all the major health services providers in the country.

The target group for the campaign are children under one year of age, school entrants, and pregnant mothers. EPI activity is carried out in health centres, and MCH centres

around the country, as well as by a number of mobile teams who try to reach the population in far away places. In 1982, there were 21 such mobile teams.

In an assessment of the EPI programme in Jordan, WHO (1982) found high coverage rates for DPT/OPV (86 per cent in towns and 74 per cent in villages) while coverage for measles was lower (56 per cent in towns and 49 per cent in villages). Vaccination rates of pregnant women for tetanus were, however, quite low, (7 per cent in towns and 11 per cent in villages). In November 1984, and then in April 1985, the Ministry carried out national week-long vaccination campaigns. The campaigns aimed at vaccinating those that had slipped through the net of regular EPI work, as well as to raise awareness among the population of the importance of immunization. Another evaluation of vaccination coverage was carried out by Unicef and the Ministry of Health in 1985. The rates of coverage were found to have reached 93.7 per cent for polio and DPT for children under two years, and 88.6 per cent for children under one year. Coverage for measles had also risen sharply to 79.5 percent for children under two, and 65 per cent for those under one year, ranking among the highest rates for developing countries[20].

In Jordan, immunization is not the sole responsibility of the EPI programme teams. Other providers include the School Health Directorate, UNRWA services, RMS services, the Jordan University Hospital, as well as physicians in the private sector.

Part of the vaccine requirements for the programme are provided by UNICEF, while the rest is bought on the international market.

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20. Ministry of Health and UNICEF (1985).

Health Education

Health education activities are primarily the responsibility of the Directorate of Health Education at the Ministry of Health. The Directorate is responsible for designing and coordinating all efforts and programmes of health education for the population. This entails programmes for distribution via the mass media (audio-visual, and written), via public campaigns of meetings and national symposiums, and via health education sessions held at PHC and MCH centres. The Directorate has its own production unit which designs and produces health education aids and material, relevant to the Jordanian context.

In terms of national campaigns, the Health Education Directorate has worked on several topics. These include the encouragement of breast-feeding, anti-smoking campaigns, nutritional education, immunization campaigns, and AIDS awareness campaigns. Health topics discussed at Health Education sessions in health centres are varied, and tend to cover those areas of concern to the mothers and the health workers.

The Directorate also undertook in 1986 a national survey of popular health perceptions and beliefs among Jordanian mothers, to be used as the basis of its future work[21]. However, it remains underfunded and is given a relatively low priority.

The School Health Programme

The school health programme (SHP) is in fact a joint venture programme whose responsibility lies between the Directorates

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21. Directorate of Health Education (1986).

of school health in the Ministries of Health and of Education. The Education Law number 16 of 1964, expressed the need to raise the individual and the community levels of health through the dissipation of health information and the promotion of healthy behaviour. Based on these principles, the School Health Programme was started in the Government schools of Jordan in 1975, as an effort to monitor and screening for health problems among the school age population.

The aims of the SHP are to provide preventive health and dental services to school children, to discover illnesses at their early stages, to protect school children against communicable diseases, to raise the level of health knowledge and awareness among students and academic staff, and to correct school environments. The SHP hopes to achieve these goals through total periodic examinations, fighting communicable diseases especially with vaccinations, raising the level of health knowledge through health education campaigns, supervision of school meals, involvement in the drafting of curricula, and monitoring of the school environment[22].

The programme operates on two levels: screening and prevention for general health, and screening and prevention for dental health and hygiene. The programme, it was agreed, would depend for the actual screening on physicians and health staff from the Ministry of Health, and would receive its budget from the Ministry of Education. Until 1988-89, because of limited funding, the programme has relied on the examination and screening only of children in the first Elementary grade, and the first Preparatory grade in most

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22. School Health Services (1987), Ministry of Education (1980), and Ministry of Education (1987).

parts of the country. It was hoped that in the coming years the programme would expand to involve the screening of Elementary grades 1 and 4, of Preparatory grade 1, and of Secondary grade 1, and that it would cover the entire country. At smaller schools more children from more grades would be examined, depending on the work load of the health teams.

In 1987-88, the number of teams had reached 16 general health teams and 16 dental health teams, all of which are essentially mobile teams to enable them to divide their time and services among all the country's schools. The teams however, are hampered by a limited number of cars for use in their touring. During 1987-88, the health teams examined 128,165 boys and girls from a total of 134,099 in those towns served by the programme. Illnesses were found among around 20 per cent of those children, the most common being diseases of the ears, nose, and throat and of respiratory diseases as well as diseases of the eyes. The dental teams on the other hand examined a total of 118,429 out of 130,497 children. The dental illnesses found among those students were very common, amounting to around 70 per cent. Students with problems are referred to their local health clinic or in serious cases to the hospital with a special referral note from the School Health physician. Dental health teams offer treatment depending on the case and on their work load, and also resort to referral themselves.

Health teams are also responsible for surveying the environment of schools and school buildings. In 1987-88, they tested the water supply and they supplied fluoride to all students of the fourth and fifth elementary grades.

Although the Ministry of Health's programme covers only those students registered at Government schools, UNRWA and Armed Services schools were required to carry out provisions

for the monitoring of the health of their pupils. Moreover, schools in the private sector are required to show proof of a contractual agreement with a physician before their annual permit can be renewed.

In addition, the Ministry of Health in co-operation with the Ministry of Education and with UNICEF funding and support, began a comprehensive programme of health education in the schools, with the aim of reaching the parents through the child. The programme was designed with help from UNICEF, UNESCO, and WHO. It employs the policy of introducing health components into the existing school curriculum. For example, topics such as nutrition and hygiene are discussed as part of the class subjects in Arabic or science, and as part of extracurricular activities such as scouting. UNICEF actually claims that "Jordan is the first country to implement the programme, which will be adapted for use in other developing countries following preliminary evaluation of the Jordanian pilot programme[23].

The Supplementary Feeding Programme

The nutrition and supplementary feeding programme is another programme under the co-direction and supervision of the Directorate of School Health, at the Ministry of Education. The responsibility for this programme is shared with the UN's World Food Programme (WFP). The supplementary feeding programme was discussed in detail in Chapter Five above.

UNRWA refugee students are also under a supplementary feeding programme, but the latter's programme is part of an overall nutritional policy and programme covering the whole refugee population. It is discussed in Chapter Nine.

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23. Unicef (1990), p. 24.

From the attention and the efforts made through these two programmes (school health, and supplementary feeding) one sees that the Government of Jordan has made some positive steps toward reaching a vulnerable segment of the population, children. The picture gathered from annual reports, official interviews, and field visits, however, leads one to conclude that the goals of these programmes are admirable, but that the practice does not always meet the expectations. It is conceivable that such projects and programmes have contributed to the improvements in health status over the years, but it is doubtful that their contribution has been as effective as their declared goals. This is, as usual, due to lack of organization and insufficient resources.

Family Planning Services

As discussed above in Chapter Seven, the services offered in terms of family planning have, until recently, been limited and on the whole not particularly efficient. In addition to the clinics run by the Jordan FPPA, there are a number of other outlets. The Government provides services through the Ministry of Health's clinics as well as through the Maternity and Child Health clinics. UNRWA clinics and MCH centres play the same role among the refugee population.

However, most women requiring family planning services appear to prefer to go either to private physicians, or buy the contraceptives they need directly from private pharmacists. The main reason for this seems to be the inefficiency of the Government run services. Women often find staff unsympathetic, in addition to a shortage of supplies of contraceptives in the clinics. JFPPA records show that women who initially went to the Association's centres, for the most part stopped going after a certain type of contraceptive was given to them. It appears that women preferred to go directly to a

pharmacist, as they found it easier and less time-consuming to buy the contraceptives they need directly.

The other providers of family planning services are the foreign non-governmental organizations working in Jordan such as Save the Children Federation who play an educational role. These too have to be careful to avoid appearing as if they are pushing family planning, and are extremely "low-key" in their handling of the issues.

Royal Medical Services (RMS)

The Royal Medical Services (RMS) is the health care delivery system run by the armed forces in Jordan. The following discussion of the RMS is somewhat deficient in terms of quantitative data, and is largely descriptive in nature. This is due to the limited availability and accessibility of documentation on the RMS. The RMS are reluctant to release information because of their role in the country's armed forces, and therefore, of the national defense system. The RMS avoid discussing expenditure and budgetary processes in depth, as that could reflect on the financial status of the armed forces. Most of the information on the RMS, therefore, comes from personal interviews with the Director and Deputy Director of the RMS. Some limited historical descriptive information was found in the few documents to which access was granted.

The role of the RMS has varied in importance since its creation. Until the autumn of 1988, the RMS were for all practical purposes seen to be operating a total service system, which ran in parallel to that of the Ministry of Health. However, after the establishment of the National Medical Institute (see below), and the re-definition of the whole of the public sector health services in the country, the RMS have reverted to the traditional role of an army-based

health service, catering primarily to the health requirements of army personnel and their families.

In discussing the developments of the RMS over the past few decades, it is worthwhile bearing in mind the importance of the armed forces in Jordan and the highly political nature of the support and services accorded to the members of these services.

The RMS were established in 1948 as a small medical unit having as its primary aim the provision of medical support for the army. At the time of its establishment, it was a small organization staffed primarily by non-Jordanian doctors. This continued to be the case throughout the 1950s, with a gradual expansion in the services offered but not in the aims and objectives. The early 1960s were a time of re-definition of the objectives and scope of work of the Service. The main trigger of the changes which subsequently took place in the Service was the "result of the implementation of the military health insurance schemes", whereby, "the RMS took the responsibility to provide health-care not only for the army, but for all dependents (families of soldiers and officers"[24]. The main motive for this decision was to encourage more men to enlist in the Army.

The number of men enlisting in the Army actually began to grow at an incredibly fast rate, making the Jordanian army one of the largest in the world in terms of the ratio of the army to the total population. Keeping in mind the fact that Jordan exhibits a very large family size[25], and that in Jordan

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24. Ajlouni (1989).

25. Usually assumed to be between 6 and 7 persons, however, the majority of army personnel originate from the lower socio-economic classes where the average number of persons per family is estimated at around 10.

the majority of families have members of the extended family as dependants, the increase in those registered for RMS services also grew rapidly. In fact it is estimated that the number of dependants grew from about a quarter of a million people in 1964 to over half a million by 1976. This move is estimated to have resulted in approximately a six-fold increase in the RMS' work load[26]. In response, the RMS went into what officials like to call its "horizontal expansion phase", which was characterized by an expansion of facilities and manpower in order to accommodate the growing number of persons eligible for the services.

In the mid-1970s, as a result of the increase of the numbers of users and their varied demographic characteristics, the RMS found itself increasingly developing specialized services. Whereas armed forces personnel normally comprise a defined age and sex group with its defined health-related problems, their dependants represented a wider spectrum of health problems. Those, in turn, required a wider array of services. This is referred to as the "vertical expansion" phase of the RMS. Sophisticated technologies were introduced to deal with all sub-specialties in medicine and surgery, at levels equivalent to what was available for the highly developed medical care systems of industrialized countries. During that period, the implementation and proliferation of ambitious and extensive training programmes for physicians, nurses, and other health professionals was also achieved.

By the late 1970s, the RMS had far exceeded its role as medical provider for the Jordanian armed services, and had become a truly major health care provider for the whole country. In fact, in 1985, those dependants relying on RMS

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26. Private interview with Dr Ajlouni, Director of RMS, 19 November 1988.

services had reached one million and the RMS were caring for all dependants as well as many non-dependant civilians wherever their health problems could not be treated or diagnosed elsewhere in the country. The Service was responsible for the management of eight hospitals, three of which were high-technology, and highly specialized hospitals grouped in the King Hussein Medical Centre (KHMC). Jordan, for example, had become the centre for the whole Arab region for heart surgery and other related specialties. At the same time, the RMS was contributing to the overall health system of Jordan by acting as a centre for medical education and training of both pre- and post-graduate medical students. Also on the national level, the RMS became increasingly involved in the planning of the health sector for Jordan and as such was represented in the Supreme Health Council, for example.

Although this period was one of expansion and increasing national and regional importance for the RMS, it was, nevertheless, a source of problems and resulted in a number of developments which could have had a negative impact on the health sector of Jordan as whole. As the KHMC rapidly acquired a position of medical importance, becoming something of a regional referral centre, its political power and importance also grew. Being an impressive "show piece" which was also actually functional and efficient as well as productive, the KHMC appeared to draw more and more funding and support from the government. Although it was planned for it to eventually become a "national" institution, it remained under the exclusive control of the Armed services.

On the other hand, it seems to be quite reasonable to assume that the success of the KHMC and its very high profile in Jordan and the region, has affected negatively the development of the other health sectors of Jordan. For, in a country of limited resources and funds, the large scale

diversion of funds into the KHMC inevitably occurred at the expense of the other services, especially the Ministry of Health's budget.

The period from 1985 to early 1988 marked another distinct phase in the development of the RMS. During this period, problems began to arise, mainly due to rapid increases in the numbers of persons eligible for the services. The RMS found itself unable to cope with the more than one million persons it now found itself responsible for without an increase in funds. That same period, however, was one of increasing economic pressures on Jordan and one where cut-backs rather than expansions had to be considered. A decline began to take place in the services offered especially in the more general services which began to be neglected to the benefit of the more sophisticated and prestigious services and specialties. It was also felt that the original and primary objective of the Service, that of catering for the specific needs of army personnel, was being neglected and gradually deteriorating. RMS officials began to feel that "it was obvious that the mission of the RMS needed to be carefully reviewed"[27].

The Government and the RMS decided that the situation should not continue as it was, and that a major reassessment of the whole Jordanian health sector was due. So, in spite of the negative aspects of the problems faced by RMS during this period, it is thought by RMS officials that these problems resulted in two positive developments. First, in order to cope with the increased pressure, the RMS had to undergo advances and improvements in its health management and administration structures and skills. More attention began to be given to these issues and more manpower was trained to undertake such

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27. Ajlouni (1989).

tasks. The importance of planning for the services and for health in general became increasingly apparent, and more efforts were directed at this goal.

This led to the second development, the active involvement of the RMS and its personnel in health planning for the whole of Jordan. This interest in health planning played an exceedingly important role in the major re-definition of the role and objectives of RMS which took place in the early part of 1988. These developments were also instrumental in the setting up of the new Jordanian health planning body, the National Medical Institute (NMI).

Thus with the restructuring of the whole health sector of Jordan in 1988, the RMS, with the exception of the KHMC, reverted to being what it was intended to be, an institution responsible for providing a system of medical support for the Jordanian troops. The role of RMS is now once again that of caring for army personnel at times of war which involves skills like war-time surgery, and at times of preparation of these personnel to withstand physical and psychological pressure which involves skills like providing balanced diets. The RMS is now coping with the needs of only a very specific age-sex segment of the Jordanian population. Care of the civilian population and their different needs are now no longer in the hands of the army Service. In the words of Major-General Ajlouni, "This is the beginning of the fourth stage of development of the RMS. Its size is much smaller and its objectives sharply defined, but nevertheless, its mission is vital for the armed forces. However, the RMS is not going to expand, except in depth, where it plans to fully develop its objectives, through careful utilization of resources"[28].

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28. Ajlouni (1989).

National Medical Institute (NMI)

At this point in the discussion it is important to introduce the already mentioned National Medical Institute, NMI. It is, however, significant to note that the NMI was set up mainly through the efforts and campaigning of the RMS and its officials. The then head of RMS for more than a decade (Dr Hanania), went on to become head of NMI, and the present head of the RMS (Dr Ajlouni), played a significant "unofficial" role in the setting up and running of a planning unit at NMI.

The NMI, in actual fact, survived for no longer than two years. It has now been abandoned, as a concept too complicated to be achieved under the difficult condition which were facing Jordan in the late 1980s - early 1990s. The NMI at the time of its creation, however, had a lot of potential and promise to be quite a powerful and influential agency. In fact, if the NMI had managed to achieve its stated aims, and if the Government had managed to affect the changes in the overall health care system of Jordan which should have arisen from the establishment of the NMI, then Jordan would have achieved the implementation of an entirely novel successful health care system which could be emulated in other middle-income developing countries.

The basic idea behind the establishment of the NMI is the effective separation of primary and rehabilitation health care services from secondary and tertiary health care services. The idea of the separation was to have two different and independent Government-related bodies responsible for health services provision. The first, the Ministry of Health, would be responsible for the community - and preventative - oriented services, while the second, the NMI would be responsible for the provision and planning of curative oriented and hospitalization services. This involved a total

re-organization of the whole country-wide system. These changes had, in fact, already begun, by the end of 1989. Formerly Ministry of Health run hospitals were being handed over to the NMI, while the Ministry was left to expand and improve its PHC and preventative role.

As a concept, the separation of the two aspects of the services, is a promising one; certainly an interesting one. However, in practice it has caused some conflict in the country, especially on the part of the Ministry of Health. The Ministry of Health felt that a large part of its job, and, therefore, "prestige", had been taken from it by turning the hospitals over to the NMI. The Ministry also believed, unfortunately rightly so, that this would significantly reduce its budget and staffing. Since all the hospitals were being removed from the control and jurisdiction of the Ministry, then the fear that this would lead to a deterioration in the funds and attention awarded to the Ministry, and thus to the low-profile, long range programmes of primary and rehabilitative health work increased. Sadly, the common belief is that no matter how often the Government says that it is dedicated to the promotion of primary and preventative care, priority in funding and campaigning is inevitably directed at higher-profile hospitals. This was reinforced.

The NMI provided a bright possibility for the future of health delivery services in Jordan and other middle-income countries. The experiment, unfortunately could not be sustained. Common thought is that maybe it should be attempted again, but with a greater degree of pre-planning. In discussing this development, a World Bank report (1989), described it as "a courageous step in the right direction but remains incomplete"[29].

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29. World Bank (1989), p. 11.

UNRWA

The health services of UNRWA are discussed in detail in Chapter Nine. Suffice it to mention here, that the UNRWA is responsible for the direct provision of primary health care and health education to the refugees, as well as for the provision of services to refugees and non-refugees at times of emergency. Secondary and tertiary health care is provided to the refugee population through the facilities of the Ministry of Health which is reimbursed for these services by UNRWA. As for the Agency's PHC and health education programmes, that is acclaimed by all health professionals in Jordan and elsewhere to be an excellent one, with good levels of staffing and good coverage and adequacy.

Jordan University Hospital (JUH)

The Jordan University Hospital (JUH) was built in the early 1970s, and was opened in 1973. The JUH was originally intended to be a referral hospital for the Ministry of Health. In 1975, however, following a Royal decree, the JUH became a teaching hospital attached to Jordan University. JUH has over 465 beds and is equipped and staffed to provide general, specialist, and emergency out-patient and in-patient care.

The JUH is an institution for secondary and tertiary medical care. It serves as a principal referral centre for a relatively large segment of the Jordanian population. These include employees of the University and the Hospital and their dependants, University students, all doctors in Jordan, Government employees and their dependants referred by various Ministry of Health services, those persons classified as "poor" by the Ministry of Social Affairs, patients with carcinoma, and those patients admitted specifically for teaching. This is in addition to such private sector employees

with whom the JUH has institutional medical arrangements. Various categories of patients referred to JUH are required to contribute towards various percentages of the cost of their treatment.

Private Sector

As in any other country, whether industrialized or developing, it is extremely difficult in Jordan to determine the role and contribution of the private sector either financially, or in terms of services offered and utilization rates. The issue is further complicated by the diversity of both the quality and quantity of services offered by various private practitioners and organizations. However, the private sector in Jordan can never be ignored in any discussion of the health services because of the very large role which the private sector is believed to play in the country. Various estimates, including official Ministry of Health figures, believe that the private sector is responsible 25 per cent of the health care services offered in Jordan in terms of utilisation.

The private health care sector of Jordan is basically comprised of two institutions: private hospitals, and private practitioners. The total number of private hospitals was 19 in 1980. This figure had risen to 29 in 1987. Private hospitals offer a wide variety of services, ranging from general medicine to obstetrics and gynaecology and to plastic surgery. In 1989, a World Bank report found that "the private sector is a major provider of secondary care. The cost of secondary care (either in-patient or out-patient) in private hospitals or polyclinics is affordable to upper-middle class patients or to patients who have some form of health insurance"[30].

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30. World Bank (1989), p. 16.

Private hospital facilities are capable of carrying out the more common procedures, including laboratory investigations, X-ray, Ultra sound and C.A.T. scans, and operations. In 1980, Longford et al, found that "about 36% of all admissions in the private sector are for maternity care"[31]. Predictably, the majority of private hospitals are located in the capital Amman.

There are large numbers of physicians practising out of private clinics in Jordan. In 1989, it was estimated that "the second most important share (38%) of primary care is delivered by private physicians in their offices or in walk-in clinics of private hospitals"[32]. Quantifying the work that is undertaken by such private physicians, however, is extremely difficult as records are not kept of their activities on any regular basis. Most Jordanians who are able to afford a private physician will consult one. Private physicians also offer a wide range of services to the paying public. A report in 1980 estimated that about two-thirds of private general practitioners have clinics/ surgeries in the capital Amman.

Another form of private health institution, is the small health centres, and Mother and Child Health centres funded and run by charitable and voluntary agencies - both local and foreign. These agencies mostly concentrate their health services efforts on the provision of primary health care and health education services.

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31. Longford and Mills (1980), p. 23.

32. World Bank (1989), p. 17.

Pharmaceuticals

It was found to be beyond the limits of this work to study in any depth the pharmaceutical situation in Jordan. The discussion shall, therefore, be limited to the availability of medicines. There are two sources for medicines in Jordan; imports and locally manufactured products. It is the responsibility of the Ministry of Health to supervise the importation and manufacture of drugs. The Ministry also regulates the sales of drugs in terms of licensing pharmacists. Pricing is also regulated and determined by the authorities. Jordan produces many of the essential drugs (such as analgesics and antibiotics) locally. The price of locally manufactured items is considerably lower than that of imports. Imports for which there are local alternatives are taxed at a higher rate. Jordan, in fact, exports many of its production to neighbouring Arab countries.

Manpower and Training

Along with the rapid developments in health services provision, have been rapid increases in the number of trained health manpower. In 1986, there were 3,700 physicians in the country, giving a ratio of approximately 1.5 physicians per 1,000 population. This ratio is about half that found in Europe. Tables 8.5 and 8.6 below highlight some of the achievements of Jordan in terms of health manpower. Both tables illustrate the insufficient number of nursing staff, especially as compared to the number of physicians in the country. This the Government is becoming increasingly aware of, and appears to be trying to address this manpower imbalance in the future.

Table 8.5: Ministry of Health Manpower, 1960 - 1987

	Phys.	Dentists	Pharm.	Nurses	Midwiv.	Auxill.	Tech.
1960	98	—	9	115	61	425	104
1965	169	1	15	155	127	725	205
1969	238	22	21	176	122	922	249
1972	217	23	20	175	94	760	307
1975	307	31	21	142	135	963	441
1978	469	58	33	215	144	1321	525
1980	629	62	34	229	151	1338	610
1982	734	75	34	259	171	1543	706
1984	934	84	47	313	173	1873	1015
1985	1110	84	66	335	173	n/a	n/a
1986	1240	99	89	394	208	n/a	n/a
1987	1450	110	96	439	275	n/a	n/a

Source: Directorate of Health Planning (1985) & Ministry of Health (1987).
n/a: not available

Table 8.6: Health Manpower, 1987

	Manpower/ 1000 persons
Physicians (total)	1.5
Physicians (by Governorate)	
Amman	2.3
Zerqa	1.0
Balqa	0.9
Irbid	0.9
Mafraq	0.7
Karak	1.0
Tafieleh	1.0
Ma'an	1.0
Pharmacists	0.5
Registered Nurses	0.65
Registered Midwives	0.35
Dentists	0.2

Source: Ministry of Health (1987).

Jordan has two medical schools to serve the needs of the population. There is, however, such a high demand for the study of medicine that a large number study medicine abroad. A physician enjoys relatively high status and a high income in Jordan, hence, it is a position which is sought after.

There are, actually, too many physicians for the health system of the country to support; especially as virtually all

wish to remain in Amman or in the major cities. Many Jordanian doctors had been working outside Jordan, mainly in the Gulf states. With the recession, followed by the Gulf war, many of those have been returning to Jordan. The country now faces a surplus of physicians, and saturation in the cities.

The situation is different for other health manpower levels. For example, Jordan is chronically short of nursing staff. There were only 1,600 nurses in 1986. The physician to nurse ratio is two to one, instead of the commonly accepted one to three[33]. It has to rely on imported labour from outside. Often nursing staff are recruited from the Asian Sub-continent, the Philippines, Thailand, or China. The result is often problems due to communication - because of linguistic or cultural reasons. This is an area which needs to be addressed as a priority by the Government.

Other paramedical staff are also deficient, which is reflected in the staffing and services of primary health centres. The training of more practical and auxiliary nurses, of midwives and health technicians is also needed to correct the imbalance created by too many physicians. The problem, however, is not as exacerbated as for nurses.

From the outline presented above, a picture of the health delivery systems available in Jordan begins to emerge. Through the effect of several factors, foremost the high number of providers, Jordan has achieved relatively high levels of health care coverage. The health sector appears to enjoy relatively high priority. In 1987, the share of the health sector in GDP was 6.8 per cent, a rate which is comparable to that of industrialized countries. Much emphasis has been accorded to curative care, and a large proportion of

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33. World Bank (1989), p. 10.

health budgets are spent on high-technology tertiary care. As a result Jordan has achieved standards and quality of tertiary care that meet international standards.

In terms of the available secondary care, while the quality and performance may be good compared to poorer countries, they need improvement in order to be comparable to the high standards of tertiary care. The main deficiency appears to be that facilities and equipment are ageing. The scientific, technological, and manpower base is sound. More funding is, however, needed to upgrade and modernize facilities. In 1989, the World Bank judged that bed capacity in Jordan was just sufficient to meet needs. More financing will be needed to enable the authorities to cope with the rising demands which have come with the returnees after the Gulf war, as well as with the predicted natural population increases.

Meanwhile, at the primary level, effort is devoted to making front-line curative care available to all income groups, by both public and private providers. However, while the network of various primary services (for example, health centres, MCH, and health education) has been strengthened in recent years, the population seems to rely more on secondary care. The result can be described as under consumption of primary care and overconsumption of hospital care[34].

Another major problem area for the Jordanian health sector is the large number of providers operating in the country. There is a lot of overlap in the work of the various authorities and agencies, resulting in duplication of effort and the inefficient utilization of scarce resources. The NMI was proposed as a step in the direction of administrative re-

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34. World Bank (1989), p. 18.

organization of the sector, but that trial has now failed. More effort should be exerted to put a stop to the duplication of services, such that resources could be spread more evenly.

The 1986 - 1990 development plan of the Ministry of Planning has summed up the prevalent situation of the health sector of Jordan very well. Although the following observations are now a few years old, they still seem relevant to the conditions as they are:

"1. The growth was somewhat haphazard and was based on varying emphases, with the involvement of several agencies.

2. The multiplicity of public and private sector institutions offering health care gave rise to duplication as well as to discrepancies in the level of care, costs, and medical advice.

3. The civilian and military organs of Government bear the brunt of medical care at a cost almost impossible to sustain if the present criteria continue. Also, there is an imbalance of allocations to the Ministry of Health and the Royal Medical Services.

4. There has been undue emphasis on secondary and tertiary health care. The present situation calls for concentrated attention on primary care.

5. There are obvious discrepancies in health insurance schemes offered by the Ministry of Health, the Royal Medical Services, and private insurance companies and societies. Despite large expenditures, a sizeable segment of the population have no insurance coverage to protect them against the high costs of medical treatment.

6. The great demand on medical education (medicine, pharmacy, dentistry) has led to an unacceptable surplus of graduates, who can no longer be absorbed by the Arab oil-producing states as they were in the past. The result has been rising unemployment of doctors, pharmacists, and

dentists. By contrast, the parallel lack of interest in paramedical and ancillary studies has produced a shortage threatening the growth of the health sector as a whole"[35].

Impact on Health

At the time of the establishment of the state of TransJordan, there were virtually no health care provision services in the country. Six decades later, however, the curative services provided in Jordan serve as a referral centre for the whole Arab region. A concentration on sophisticated and technological curative services results in the major part of the health budget being spent on these services rather than on primary and preventive health care. This has been recognized and acknowledged by the Jordan authorities as well as international assessors.

While, the primary levels of services may have been accorded secondary importance to high-technology, this is not to imply that they have been neglected. Achievements in service provision have their parallel in more basic/ PHC services. The provision of basic services, as the first point of contact has itself progressed at a remarkable rate. Services in Mother and Child Health, Expanded Programmes of Immunization, School Health, and Health education, bear out the notion that there is a commitment to primary health care, even if it is not always translated into a comparable budgetary commitment. Jordanian PHC services and their utilization, and ultimately effectiveness rates have been questioned.

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35. Ministry of Planning (1985), p. 213-214.

The World Bank in a report on the Jordanian health sector (1989) posed the following question: is there a contradiction between the favourable health status indicators and the apparent deficiencies in the primary health care system? The report went on to propose that "if health status has improved in recent years and progress cannot be attributed to primary care services, one can conclude that progress in health status came from the rapid socioeconomic development in recent years ... In times of economic growth, expanding education, improved nutrition, water supply and housing can by themselves improve health status, even in the absence of an efficient primary care system"[36].

Previous discussions in earlier chapters can support the rapid improvements in these sectors, and their positive impact on health, but that is not to imply a dismissal of the role of primary health care services. While it is acknowledged that primary services are deficient **in comparison with** the more sophisticated hospital services, they are by no means totally irrelevant or inconsequential. Jordan has managed to achieve a high level of coverage of the population with services. As stated earlier, it is estimated that over 90 per cent of Jordanians are less than 6 kms away from a health facility. This achievement is impressive.

For, although having multiple agencies responsible for health care services, inevitably leads to a duplication of effort - and the resulting wasting of limited resources - the end result has been an extensive coverage for the overwhelming majority of the population. Most Jordanians are within easy access to a health facility, whether public or private. Eligibility for the services of at least one provider has also been ensured through the various private and public insurance

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36. World Bank (1989), p. 10.

schemes. Private care, which is easily affordable for the middle and high income classes, is also available in all regions of the country.

Furthermore, developing countries are often criticised for the type of disproportionate spending on secondary and tertiary care as exhibited by Jordan. It should not be forgotten, however, that the pattern of diseases and morbidity of the Jordanian population is moving quickly into the "diseases of affluence" pattern. The major causes of death in Jordan over the last fifteen years have been cardiovascular illnesses, carcinomas, and accidents. All of these conditions require sophisticated facilities to be treated.

Whereas, however, the Government had been able to meet the high cost developments in health care services in the past, the economic conditions are now not as prosperous as they had been. This situation will entail a major redefinition of health sector goals and priorities. It is probable that with the deterioration of the economic situation, both individuals and Government will have less money to spend. People would probably begin to turn more towards Government services, preferring those to private medicine.

The Government, therefore, needs to improve its services' delivery systems, especially in terms of basic services. In this case, limited resources must be directed towards improving the efficiency of the primary health care sector, in order for it to be able to fulfil its preventive role competently. More effort needs to be directed at addressing the problem of duplication, especially in order to curtail the resulting wastage. In that way, the Government would have a chance of redressing the issue of primary health care, as well as being able to maintain and periodically update its other secondary and tertiary care facilities.

CHAPTER NINE

Palestinian Refugees

For over forty years, Palestinian refugees have been a characteristic landmark of the Arab Middle East. Every Arab country has refugees from Palestine among its resident population. Lebanon, Syria, Jordan, and the West Bank and Gaza Strip have a very large population of Palestinian refugees, a substantial part of whom live in camps established by UNRWA -the United Nations Relief and Works Agency for Palestine Refugees. Jordan, itself, is temporary (or permanent) home to the largest number of refugees to be found outside historical Palestine. Even the most conservative estimates find that, to this day, the number of Palestinians, both those residing in camps and outside, exceeds that of East Bank Jordanians in Jordan. For that reason, no study of socio-economic conditions in Jordan would be complete without an examination of the conditions particular to those refugees, especially those living in camps and reliant on UNRWA assistance and services for almost all their basic needs.

Brief Historical Overview of Conflict and Displacement

The Palestinians became refugees in 1948 as a result of the UN's partition of their country. The problem, however, had historical roots going back to the First World War. In the

aftermath of the defeat of the Ottomans in the war, the territories under Ottoman rule were divided among the victors. France and Britain then proceeded to divide the Arab Middle East between them according to the 1916 Sykes-Picot Agreement[1]. Britain was hence awarded the mandate of Palestine and TransJordan which it swiftly began to administer. Meanwhile, and since the beginning of the century, Zionist ideology, based on the idea of the foundation of an exclusively Jewish state on the land of Palestine, was growing in Europe. In 1917, the British Foreign Minister, Lord Arthur Balfour, issued the "Balfour Declaration", promising the Zionists a state in Palestine. By the 1920's growing levels of Jewish immigration into Palestine had become a problem for Britain who had to answer to the fears of the Palestinians. The numbers of immigrants grew even more rapidly during the Second World War when Jews from Europe were seeking a safe place to turn to, away from Nazi persecution. The world Zionist movement found this a great opportunity to implement its designs on Palestine, and pushed for more and more emigration[2].

Britain which was at that time controlling Palestine through the mandate, had already commited itself to this idea. Immigration into Palestine increased and intensified. Conflict between the Palestinians and the new settler colonial Zionists became more and more frequent and it became increasingly difficult for Britain to arbitrate between the two. Finally,

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1. This Agreement was signed in 1916 between the French and the British. In it they agreed on how they would divide the Middle East in the case of their winning the war against the Ottomans. See Hadawi (1979), p. 13-14.

2. There are allegations by historians that the Zionists went so far as to collaborate with the Nazis in order to achieve their goal of forcing the European Jews to Palestine. See Arendt (1963).

in 1947, Britain turned the problem over to the United Nations.

The UN decided to divide the country between the Palestinians and the Zionists, giving them almost equal parts, but with the more fertile areas given to the Jews. This was despite the fact that the Jewish citizens were no more than one third of the total population of Palestine. On 14 May, 1948, virtually overnight, Britain withdrew from Palestine. It left behind it a war raging between the new Israeli-Jewish state and the Palestinians helped by other Arabs. At the end of that war Israel had expanded its territory; Egypt had control of the Gaza Strip, and Jordan of the West Bank region. Around 720,000 Palestinian refugees who had fled the fighting and the massacres were the most pressing human cost[3]. These refugees dispersed to the neighbouring Arab countries, and a few left for the United States or Europe. Jordan was the country which received the largest numbers. More than 100,000 of those refugees were homeless on the East Bank of Jordan, while around half a million were refugees on the West Bank. In total, the population of Jordan after the 1948 war, including refugees and non-refugee Palestinians, had increased - almost overnight - by almost three-fold from around 470,000 to 1,220,000.

In addition to the refugees and their descendants who arrived after the first Arab-Israeli conflict in 1948, about 150,000 registered refugees fled to Jordan at the time of the 1967 Arab-Israeli war. A further 240,000 persons, displaced for the first time in 1967, when Israel occupied the West Bank, also arrived in Jordan, needing shelter and services. These latter are not given the "Refugee" status by UNRWA,

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3. See Morris (1987) and Dodd and Barakat (1969).

rather they are referred to as "Displaced Persons", though they are for the most part eligible for many of the agency's services. However, the Jordanian Government tends to pay for many of the services offered to these Displaced Persons.

Palestinian refugees in Jordan enjoy a different status vis a vis the Jordanian Government than do Palestinian refugees in other Arab countries. When they arrived, Jordan offered the Palestinians full citizenship, including Jordanian passports for travel. Palestinians in Jordan with such documents are subject to all the rights and obligations of any Jordanian citizen. This applies to camp residents and non-camp residents alike. Palestinians in Syria, however, were offered limited priveleges. They may own property, and can be employed in the Government and civil service. However, they may not vote, and they travel on special refugee travel documents. In Lebanon and Gaza, on the other hand, their status is one of refugees in a host country. They are even sometimes denied return to these countries.

The United Nations Relief and Works Agency for Palestinian Refugees (UNRWA)

At the time of the first Palestinian displacement, the international community, especially the UN, felt guilty and responsible for the fate of the refugees. It was, after all, through the action of the UN that the Palestinians had become refugees in the first place. The UN in fact, went as far as to single out the Palestinians, by choosing to take responsibility for them directly and not through any of its already existing agencies, such as the United Nations High Commission for Refugees (UNHCR). UNRWA was thus set up as an 'operational' agency which was to look after the Palestinians, until they are repatriated, not only through the benevolence

of other parties, but by providing the necessary services itself[4].

UNRWA's mandate is for its services to cover all Palestinian refugees, defined as "those people or their descendants whose normal residence was Palestine for a minimum of two years preceding the Arab-Israeli conflict in 1948, and who, as a result of that conflict, lost both their homes and their means of livelihood". UNRWA has also accepted the responsibility for the off-spring of those 1948 refugees, and in many cases, is already taking care of the fourth generation of Palestinian refugees. Perhaps more interesting politically, is the policy followed by UNRWA of not striking from its records those refugees who later may acquire an independent means of livelihood. For such refugees, "although they may lose their eligibility for some UNRWA services, they remain covered by whatever political promise UNRWA's existence conveys"[5].

The explanation for this 'special treatment' is not clear, and nowhere is it plainly stated. It is probable however, that "the UN reasoned it could not do less for the Palestinians than it had done for the Jews"[6]. It was Count Folke Bernadotte, a UN appointed mediator in the 1948 war who first argued that the duty of the UN was not only to provide relief services to the Palestinians, but to assure their return to their homes.

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4. UNRWA was established by the UN General Assembly resolution 302 (IV) of 8 December, 1949.

5. Viorst (1984), p. 6.

6. Ibid, p. 7.

In late 1948, Count Bernadotte was assassinated by a Jewish terrorist group, the Stern Gang, who did not approve of his sympathies with the Palestinian refugees. However, the UN carried on according to Count Bernadotte's recommendations, and a vote was taken to provide economic relief for the Palestine refugees. Thus, in December 1948, the United Nations Relief for Palestine Refugees (UNRPR) was established. By the end of 1949, this agency was superceded and replaced by UNRWA: the United Nations Relief and Works Agency.

But the UN "went a major step further, in making to the Palestinians a promise it made to no other refugee group. In paragraph 11 of Resolution 194 (III), the UN - by proclaiming for the dispossessed a right of repatriation or compensation - fixed the terms of the international debate that has surrounded the Palestinian refugees ever since"[7]. Central to paragraph 11 was the important declaration "that the refugees wishing to return to their homes and live in peace with their neighbours should be permitted to do so at the earliest practicable date..." and proceeded to add that "compensation should be paid for the property of those choosing not to return..." The UN, thus, not only gave the choice of repatriation or compensation to the refugees, it gave it to them alone. This has been a major politically determining issue in the conflict and, therefore, the overall situation ever since. It has caused numerous persons to choose to remain refugees in camps rather than risk losing their right of repatriation, which has resulted in a large segment of the population remaining distinct and apart from the rest.

UNRWA, as evidenced from the "W" in its acronym, was originally conceived along the ideas of helping the refugees

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7. Viorst (1984), p. 7-8.

become economically independent, with the aim of helping them integrate into the societies in which they found themselves. This, however, is almost diametrically opposed to the political theme and commitment that the UN and UNRWA have made, and it appeared, that they intended to keep, of repatriating the Palestinians to their homeland. However, it must be kept in mind, that the projections of the day forsaw an imminent end to the problem and the repatriation of the displaced. The Palestinians, the Arabs, and the international community believed that the Palestinian refugees would be a passing phenomenon and that they would be resettled, repatriated, or compensated within a few months. In fact, UNRWA in 1951, when there was some talk of Israel allowing the refugees to return to their homes, had thought that it would be needed for only a further two to three years, after which it was believed, few refugees would still be dependant on its services. The UN General Assembly, actually went so far as to formally instruct UNRWA to prepare plans to dissolve itself promptly, and to prepare to turn over any residual functions to the 'host' Arab states. The conflict between Israel and the Palestinians and Arabs, however, deteriorated further, and any moves in the direction of repatriation have long since been abandoned. With the realization that the Palestinian refugees were unlikely to return to their land for a long time, UNRWA had to re-think its role and functions.

At that time a new factor began to come into play. Both the Palestinians and the other Arab states took a stance by which they made it clear that the Palestinians, if not repatriated to their own country, were not going to simply dissolve into and integrate with the populations of the other Arab countries. There emerged a reluctance and defiance of any moves undertaken by UNRWA to integrate the refugees into the host countries and to make them economically independent. This reaction came not only from the Palestinian leadership, but

and even more expressly from the refugees themselves[8]. The refugees began to view with suspicion any moves to integrate them, as an imperialist plot to retract on the international community's promise to let them 'Return'; UNRWA became the embodiment of that promise. As long as UNRWA was providing welfare and relief services to people who were still in camps, their status remained temporary. They did not need to integrate into or become citizens of a new country; they would soon return to their own. In 1983, Hanna Siniora, the editor of the Palestinian Al-Fajr newspaper, voiced this still present sentiment by saying that "the camps, the schools, the clinics are a symbol. UNRWA's work will be over only when the Palestinian state is created, and not before"[9]. This feeling is very strong among all levels of Palestinian society, and critics of UNRWA's relief role should be aware of these issues when evaluating its work.

UNRWA's role is perceived as being primarily a political one. Its mere presence plays a role in the conflict between Israel and the Palestinians and its future is part and parcel of any resolution of the conflict. This political legacy which binds UNRWA is reflected in several ways. One such political aspect is the fact that UNRWA's mandate is still to this day a short-term one which gets renewed every two or three years, albeit routinely and as a matter of course, by the General Assembly.

The matter of UNRWA funds has also been a highly politicized one from its earliest days. The former USSR and Eastern Block countries consistently refused flat-out to fund

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8. See Dodd and Barakat (1969).

9. Hanna Siniora speaking to M. Viorst, in Viorst (1984), p. 11-12.

UNRWA, arguing that UNRWA is the result of Western imperialism in the Middle East, of which they would have no part. The Arab countries began to contribute more than symbolic sums only after the rise in oil prices. But even then, the maximum Arab contribution was only 10 per cent. The Arabs believe that they are the victims in this affair and do not see why they have to pay the costs on top of everything else. More recently, and after the drop in oil prices, the Arab contribution has fallen to around 3 per cent. Meanwhile, the 'host' countries - Jordan, Lebanon, Syria, and to some extent Israel - make some contributions in terms of education, health, and transportation services, but very little in funds. The major contributors to UNRWA are the United States, the European countries, Japan, and the European Community as a bloc.

In fact, "historically, the United States has been UNRWA's most consistent and generous supporter. Though it has long since receded from the two-thirds of the budget it once provided, Washington still pays a third, without which UNRWA would certainly collapse"[10]. The role that the US plays through its funding is essentially a political one. The contributions of the Europeans and the Japanese are themselves determined, to a large degree, by the US's policy. All this makes UNRWA's financial position a precarious one. But, although the US has brought down the level of its contribution, and, pushed by the pro-Israel lobby, periodically threatens to cut its funding altogether, the importance of UNRWA to what the US sees as "regional stability", would forestall any such efforts. The US State Department's Middle East professionals have been behind the continued support that UNRWA receives from the US. That itself is due to the fact that they "argue that within the context of

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10. Viorst (1984), p. 1-2.

a policy generally perceived as pro-Israeli, Washington's central role in supporting UNRWA wins praise from the Arab states. UNRWA's functions, they contend, are not contrary to Israel's interests. The UNRWA commitment to the refugees, according to their thinking, keeps bridges open to the Arab capitals and is, thereby, vital for preserving American diplomatic options in the region"[11].

The level and extent of US involvement and interference in UNRWA's affairs, sometimes leads to open threats from the US and its allies. A ready example is the threat by the United States to withdraw funding completely when accusations were made that some PLO fighters were using one of UNRWA's schools in Lebanon at the time of the Israeli invasion of that country in 1982. Hence, although it is true to say that on the whole UNRWA's mandate is usually renewed every few years simply "as a matter of course", the constant political and financial threat under which it finds itself is an issue which cannot be ignored.

Another remark often levelled at UNRWA and its work is that it is partial to the Palestinians' cause in the Palestinian-Israeli conflict. In fact, out of 17,470 employees in 1984, which incidentally make UNRWA one of the largest UN agencies, only 130 were international staff. The majority of UNRWA staff are locals, and except for a handful, they are Palestinians, for the most part refugees themselves. Although UNRWA's policy and strategy aim to make the Agency as impartial as possible, it is often difficult to have the staff totally objective on the issues at hand.

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11. Viorst (1984), p. 4.

UNRWA's presence and existence is clearly a highly political issue, and the refugee status which labels so many Palestinians, and the conditions under which these people survive, are not matters simply of funds, administration, or logistics.

UNRWA headquarters were originally set up in Beirut, Lebanon. However, as a result of the civil war in Lebanon, UNRWA moved its headquarters to Vienna, with some of its offices in Amman. The Agency, though, still hopes to move back to an Arab host country where it could be closer to the ground activities. UNRWA maintains liaison offices in Cairo and New York.

UNRWA's Responsibilities

UNRWA is responsible for several services that it is supposed to provide to the refugees. These are:

- The up-keep and maintenance of UNRWA refugee camps, and the sanitation and general living conditions in those camps. UNRWA does not actually "operate" the camps in the sense of day-to-day administration, neither does the Agency have any security or policing powers in the camps. Unofficially, it tends to take some responsibility, but it always defers to the regular civil authorities.

- Social Welfare services. These, until recently, included the provision of food rations to all registered refugees. Since 1982, however, this practice has been stopped and only those refugee families that UNRWA classifies as "hardship cases" are

now eligible for these rations[12]. In spite of financial shortages, UNRWA also attempts to provide services and care for the elderly, the handicapped, and the disabled in the community. Emphasis is given to self-help programmes and additional income generating projects. UNRWA also runs youth and women's centres for the refugee community though not as much work as is desired has been done in this area mainly, as mentioned earlier, due to limited resources.

- Education: the education programme of UNRWA comprises the largest sector of the agency, taking up approximately 63 per cent of the total budget as well as the majority of the staff. The attention awarded to the educational sector came about as a reaction to the Agency's failure to implement an employment and economic programme in the 1950s. "UNRWA's educational program at first supplemented and in 1960 supplanted economic measures as a means of rehabilitation... This fundamental shift of emphasis meant abandonment of UNRWA's initial objective of rapid integration for a goal realizable only in terms of a new generation, and it carried the further consequence that the traditional, rural ways of the older generation would be replaced in the younger with a mobile, urban outlook"[13].

UNRWA runs its own schools at both the elementary and secondary levels. It is commonly stated that the educational system of UNRWA is superior to most Government systems found in the Arab countries. At the level of higher education, UNRWA offers the refugee pupils a limited number of scholarships,

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12. This new policy, however, does not apply in Lebanon where all refugees are considered hardship cases.

13. Buehrig (1971), p. 147.

but relies to a large extent on grants and scholarships offered by the Arab countries, especially the host countries. UNRWA also runs a number of vocational and teacher training centres which are very popular because they prepare the refugees for future employment.

- Health services: UNRWA is committed to Primary Health Care, and has virtually no facilities of its own for secondary or tertiary care. For such services it relies on contracts and agreements with the host countries for the utilization of their services. The Agency's PHC programme relies heavily on environmental sanitation, health education, and a highly subscribed immunization programme. It is certainly to the credit of UNRWA and its health maintenance commitment that, throughout the history of the Palestinian refugees, there have never been any epidemics or uncontrollable outbreaks of communicable diseases, not even during the Israeli invasion of Lebanon and the siege of the refugee camps.

As part of the health programme, UNRWA runs several special nutritional programmes aimed at the vulnerable groups in the community. Pregnant women and children until the age of six, are covered by a supplementary feeding programme. School children are also covered by a nutritional programme; they are given a mid-day meal, six days a week. Infants over six months are supplied with skim and whole milk.

UNRWA Services in Jordan

In Jordan, it is now estimated that more than 850,000 persons, that is around one third of the total population, carry the UNRWA registration cards. The number of the total refugee population is only a rough estimate. UNRWA in Jordan, as well as elsewhere, faces a very serious problem in its registration

system. In 1950-51 a cooperative effort by the Jordanian government and UNRWA to carry out a census of the refugee population yielded unsatisfactory results. Then when the Agency attempted another census in 1953, the Government intervened to stop the effort, because they feared the effects of the hostility that the refugees had exhibited towards the project. The refugees were extremely wary of the reasons for this census. They understood it to be an attempt to limit the promise that was made to them, or as an attempt to reduce the rations and services offered to them. These suspicions remained in the subsequent years.

Between 1961 and 1964 some advances were made in terms of weeding out the dead and the absentees from the registers, but it was not until 1967, that anything substantial was done. Still, "throughout most of its existence, UNRWA's rolls in Jordan have remained grossly inaccurate and the cause of great frustration to the Agency"[14]. This situation of a lack of a proper and thorough census is still the case today, though estimates put forward are thought to be adequate enough for plans to be made and executed. Despite the inability of the Agency to state the numbers of refugees accurately, various estimates claim that around 60 per cent of the Palestinian refugees outside historical Palestine are in Jordan. In total the Palestinians make up over one half of the entire Jordanian population. For these reasons we can assume that UNRWA plays a far more significant role in Jordan than in any other 'host' country.

An UNRWA survey carried out in 1987, described the average Palestinian refugee as being 27.6 years old, from a family of three children, Muslim, and third generation

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14. Buehrig (1971), p. 137.

refugee. This appears to fit the general image of the Palestinian refugee in Jordan relatively well. The Jordan refugees, however, differ significantly from this "average" on two important issues. While the average refugee family has 6.4 members, the Jordan refugee family has 7.9 - that is, an extra 1.5 (or 23 per cent) members. However, overall, more than half the refugee families live in households of eight or more persons. These usually include grandparents or other relatives. Furthermore, while the average refugee family has 3.4 children (2.1 sons and 1.6 daughters), the Jordan refugee family has the highest numbers with an average of 4.7 children per family (2.5 sons and 2.2 daughters). It appears that in Jordan, "the average family also is home to another child - nephew, niece, stepson or other relative"[15]. These differences appear even more dramatic when compared to the averages of refugee families in other regions. (See Table 9.1).

Table 9.1: Profiles of Average Refugee Families

Region	Ave. household size#	Ave. Number of children
Jordan	**7.9**	**4.7**
West Bank	5.9	2.6
Gaza Strip	5.6	3.2
Lebanon	5.3	2.9
Syrian Arab Republic	5.9	3.3
Average	**6.4**	**3.4**

Source: UNRWA (1987).
#: Includes parents, children and other relatives.

The infant mortality rate among UNRWA refugees in Jordan is relatively good. In October of 1986, it was found to be on average 39.5. Differentials, however, existed between the different camps with, for example, the rate in Jerash camp falling from 66 to 47 between 1982 and 1986, while in Suf camp

15. UNRWA (1987), p. 8.

it fell from 54 to 32 over the same period. According to Dr Fathi Mousa, Senior Medical Officer for Statistics and Planning at UNRWA headquarters, these differentials in the infant mortality rate between individual camps "are the result of climatic, socio-economic, and demographic diversity"[16].

In a personal interview with the head of the Jordan Field Health Division, the author of this study was told that the infant mortality rate had always been found by the Agency to be more or less consistent with the rates prevalent in the country as a whole. He went on to add that in the light of the recent Ministry of Health infant mortality rates of 35/000, UNRWA expected its own rates to fall between 30-35/000. Life expectancy, he also said, was consistent with national averages, too. That is, although the Agency does not report life expectancy figures in the annual reports, UNRWA estimates for Jordan put the average life expectancy at around 67 years for males, and 71 years for females.

Evidence, however, suggests that the infant mortality rates have been better than the country average for some years. The claim that they are compatible is probably a political stand. It is reasonable to assume that the Government would be put out if UNRWA was shown to be doing better than its own efforts.

Socially and culturally, the Palestinian refugees differ little from the rest of the Jordanian population. They cannot be distinguished from the "East Bankers" on grounds of ethnicity, religion, or culture. The Palestinians are Arab, and in the majority Muslim, and as such share the characteristics of these groups as discussed in an earlier

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16. Dr Mousa cited in UNRWA (1986), p. 12.

part of the thesis. The Palestinians living in camps have tended to re-group themselves into their original "villages". They have attempted to recreate the social structure and kin groups of their native land. Now, the camps look, to the unknowing observer, like the towns and villages to be found anywhere else in Jordan or Palestine.

One characteristic may be assumed to be more pronounced among the refugees than the rest of the Jordanian population, and that is that they have considerably fewer reservations about sending their daughters to school. This particular aspect, seems to have played an important role in furthering female education in Jordan as a whole, which will be discussed further later on.

The annual budget of UNRWA-Jordan was US$ 62 million in 1987. The expenditure of UNRWA within Jordan is also substantial, having amounted to around US$ 52 million in 1983. UNRWA's activities in Jordan focus on the provision of, shelter, services, and basic infrastructure to the more than 850,000 refugees registered with the Agency. In 1987, 258,500 persons of those, or around one quarter, were living in UNRWA camps for both those with refugee status as well as those whose status is that of a Displaced Person. These camps consist of four established camps constructed mainly of concrete shelters before 1967, and accommodating the refugees who were in East Jordan prior to 1967, and six emergency camps (5 of which were constructed of prefab shelters in 1968 and one of concrete shelters built by the Iranian Red Lion and Crescent Society) to accommodate those people who were displaced from the West Bank in 1967 (Displaced Persons).

In all, around 91 per cent of the registered refugees in Jordan are registered to receive all the Agency's services. More than 26,000 of those are what the Agency classifies as

"hardship cases". UNRWA, for the benefit of the refugees, runs 197 schools which have an enrollment of over 136,000 pupils, 2 training centres, and 17 health clinics with the help of a staff of 5,500.

Camps and Housing

Camp housing services are limited and often in bad repair. Camps are crowded and have the physical appearance of urban slums. It is the responsibility of the Environmental Health Division of UNRWA (EHD) to supervise and maintain the water, sewage, and waste disposal systems in the camp. The EHD is responsible for regularly checking the water quality, and for the control and operation of the water supply of three camps. It is now estimated that around 70 per cent of the camp population have private water connections. The Division is also responsible for the family latrine construction programme and the public latrine facilities. It is estimated that now 99 per cent of camp dwellers have private latrines. Solid waste collection and disposal, insect and rodent control, and the provision of slaughter houses, are also the responsibility of the Division.

Although the environmental health conditions in the camps have been improving steadily, it is not uncommon for at least part of some refugee camps to still have an open sewage system which runs between the dwellings. Waste disposal is also in some cases unhygienic, and a number of refugee families still depend on communal taps for drinking water. As the camps were originally intended for a limited number of people, and for a limited time, drainage is now a problem. During the days of heavy rainfall in the winter, the already muddy streets and lanes between the shacks become flooded and

sometimes flow into the refugees' homes. The same conditions do prevail more or less in the "conventional" slums of Jordan.

The reason for singling out the UNRWA refugee camps for special discussion, however, is just that; they are UNRWA camps. Unlike the other slum areas, UNRWA has a commitment and a mandate to improve the health and living conditions of these people, especially since they have been in these camps for a long time; over twenty years, while many have been there for more than forty years. Conditions have, however, improved considerably from the earlier days when writing in 1971, Beuhrig described the pre-1967 camps in Jordan. "..In Jordan, for example, a typical family plot in a camp established prior to 1967 is only 105 square meters, with a concrete block or mud brick hut three and one-half by three meters and a second room being added in the case of the largest families. The refugee may add to this, often building a wall around his small compound. That such meagre shelter should attract and hold the refugees is owing to even less desirable housing generally available to them outside the camps"[17].

These days, conditions in the refugee camps are somewhat better than before, but are still on the whole only comparable to those of the Ammani squatter areas. Table 9.2 below outlines the main water and sanitation services in all the UNRWA camps of Jordan:

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17. Buehrig (1971), p. 129.

Table 9.2: UNRWA Refugee Camps: Services, 1983

Camp	Population	Public Latrines	Family Latrines	Public Water Tap	Private Water
Pre 1967					
Amman New	36809	0	3903	0	2315
Hussein	27539	0	2784	0	2744
Zerqa	14187	4	1338	0	1268
Irbid	17565	0	1874	100	1459
Post 1967					
Baqu'a	84137	14	5755	242	742
Jerash	15298	10	1398	86	6
Suf	10137	8	924	80	4
Husn	16375	0	1299	133	7
Marka	30950	6	2963	132	7
Talbeih	6895	0	428	32	0

Source: Adapted from Abdullah (1984).

These camps have come a long way from the times when they were first established, in that they have now had to become centres of more permanent settlement, and services have therefore had to expand. Solutions and improvements have had to be found for drainage, water, and sanitation problems over the years. UNRWA now supplies the material and finances for drainage, water and sanitation projects. The Jordan Government contributes by making some of its facilities accessible to UNRWA for "hire". Those camps which fall within the municipal boundaries of the larger cities, Amman, Zerqa, and Irbid, are connected, or are undergoing connections now, to the main sewage systems of those cities. The Government also provides disinfection and transportation of water to the camps' water reservoirs, which UNRWA later distribute free of charge to the refugees. Here too, camps falling within municipal boundaries of the main cities are connected to the main network.

Education

The Jordan Field Office follows the same trend as the overall UNRWA policy of allocating the lion's share of both effort and resources to the Education programme. The same historical reasons of the failure of the Agency to work for the integration of the refugees into host societies have governed the policy decisions in Jordan as elsewhere. It is thought that perhaps these integration efforts were, in fact, felt more strongly, and therefore resisted more strongly in Jordan because of the diminished differences between the indigenous and the refugee populations.

In Jordan as elsewhere, the Palestinian refugees after the loss of land and homes, predictably turned to education, a trend which is as evident and as strongly vocalized in the community today as it was twenty years ago. Among the refugees there is a strong perception that education is the only guaranteed asset that they can own, and which unlike money or land, cannot be taken from them. The pursuit of education, and more significantly the pursuit of equal education for sons and daughters, is a highly significant characteristic of these communities. The rate of female enrollment at schools has steadily increased from 36 per cent of the total in 1958 to 47 per cent in the early 1970s to 49 per cent since 1985. This promises also to have an influence on Jordanian society as a whole.

UNRWA runs its education programme according to an agreement it has with UNESCO which dates from 1950, whereby the latter is responsible for the professional aspects of the programme. As UNRWA's educational programme follows the system adopted in the host country, that adopted in Jordan consists of six years of elementary education, followed by three years of preparatory education. The Agency today runs 197 of its own

schools in Jordan. This number was slightly higher in the late 1970's and early 1980's when it was between 200 and 215. The reduction in the actual number of schools appears to have come about as a result of an attempt by the Agency to close run-down and derelict facilities. At the higher educational levels, UNRWA provides a limited number of scholarships to those refugee children who pass the Government's General Secondary Examination, including those educated at schools not run by UNRWA. UNRWA also provides vocational and teacher co-educational training in its two residential training centres[18].

The Jordan Education Field is divided into five separate education areas, each headed by an Area Education Officer who is assisted by several school supervisors. Registered refugee children are accepted into the first grade at UNRWA schools at the age of 5:08. Throughout the educational cycle, the Agency provides pupils with textbooks free of charge. However, textbooks newly prescribed by the Jordanian government have to be cleared by the Director General of UNESCO before they can be used by the Agency.

There is a large demand for schooling which has put the Agency and its facilities under a lot of pressure. More than 90 per cent of the schools are on a double-shift schedule. This in fact constitutes the Education programme's severest problem. In 1988, the Education programme of UNRWA had a budget of US$ 52.5 million, and was 77.4 per cent of the total Jordan budget.

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18. These are both located in or very near Amman: Amman Training Centre and Wadi Seer Training Centre.

Table 9.3: UNRWA Educational Statistics, 1988/89

	Male	Female	Total
Pupils			
Elem.	47568	46122	93690
Prep.	21153	19802	40955
Total	68721	66224	134645
Teachers			
Elem.	1107	1169	2276
Prep.	621	599	1220
Total	1728	1768	3496
Schools			
Single Shift			19
Double Shift			178
Total			197
Trainees			
Amman TC			733
Wadi Seer TC			772
Univ. students			126

Source: UNRWA (1989).

UNRWA pupils are also under a school health scheme similar to that which covers students at Jordanian Government schools. The Agency's scheme however is reportedly better than the one run by the Government.

Welfare

The Welfare Division in the UNRWA structure is part of the Relief Services Department. It in turn is responsible for a variety of services which it offers to the refugee population. Welfare is the division which takes care of the Special Hardship Programme, the Self Help and the Self Support Projects, the Women's Programme Centres, the Sewing Centres, and the Community Centres for the Disabled. In Jordan, the total staff of the Welfare Division is forty-four. Figures for the Division's budget were not available; for 1988, however, the budget of the Relief Services Department as a whole was

approximately US$ 3.3 million, or around 5 per cent of the total field budget.

Hardship Cases Programme:

This special programme was set up by UNRWA to enable the Agency to devote more care to a specific segment of the refugee population, whom its social workers believes suffer very bad economic or social conditions. The categories that the "hardship case" covers are, the elderly, the handicapped, widows, the chronically ill, as well as those refugees who seem, for a variety of reasons, unable to support themselves and their families. These refugees, in effect are offered the whole range of UNRWA services including the full food rations for all members of the family. In 1988, of the total registered refugee families in Jordan, 4.9 per cent (or 5760) were confirmed as hardship families, and were as such eligible for the additional welfare assistance provided by the Agency.

The additional assistance consists of food rations (see Table 9.4), of which, UNRWA distributes from its own stocks dry rations to 25,461 members of hardship families. In addition, the Agency distributes around 191,170 rations to non-refugee Displaced persons from stocks provided by the Jordanian government.

Cash in hand in the amount of JD 2 per person per annum is also provided[19]. In addition to this, needy refugees are provided with blankets, used clothing, and new clothing for children between the ages of six and fifteen, shelter reconstruction and repair services, and hospitalization costs as well as the provision of prosthetic devices as recommended by specialists. Refugees who are classed as hardship cases also receive preferential treatment when they want to enroll at UNRWA vocational and teacher training schemes. These hardship case refugees are also offered the opportunity to be involved in Self Support Projects if they are able to.

Table 9.4: UNRWA Basic Monthly Rations for Special Hardship Cases

Item	Quantity
Flour	20000 grams
Rice	2000 grams
Sugar	2000 grams
Oil	1500 grams
Burghol	1000 grams
Corned Beef	12 Oz. (3 tins)
Tomato Paste	440 grams (2 tins)
Sardines	3 tins

Source: UNRWA Rations Announcement, 22 August 1988.

Projects for the disabled:

Prior to 1979, UNRWA did not have any special programmes aimed at the disabled among the refugees. Those who were severely handicapped were sent to special institutions, and not much else was done for them. In 1979, the Agency requested that the UN Centre for Social Development and Humanitarian Affairs (UNCSDHA) carry out a study of its existing programme for the disabled and comment on it. The UNCSDHA's report found that UNRWA relied too heavily on institutionalized care, and that

19. At 1988 prices, when the Dept of Relief Services fact sheet came out, this was equivalent to US$ 5.3.

not much effort was made to integrate the disabled into the community.

UNRWA decided to start with a trial in Community Care and the first centre was opened in March 1983. The project was a success and since then three more such centres have been opened in Jordan. Two of these centres are supported by OXFAM-UK, while the other two are supported one by the Mennonite Central Committee, and the other by Diakonia of Sweden. Meanwhile, the Norwegian Refugee Council agreed to sponsor a fifth centre to be opened in 1989. UNRWA's rehabilitation efforts are based mainly on the policies and strategies of the relatively recently developed Community Based Rehabilitation concepts. Various other local and foreign agencies and charities are helping to expand and modify the existing centres. These centres cater for a range of disabilities. They provide for the deaf and dumb, for the blind, for other physical disabilities, as well as for mental handicap. All these centres are located inside the various refugee camps.

Women's Centres:

UNRWA in Jordan provides several centres for women's activities. The Agency operates four Women's Programme Centres (WPCs), and it is planned that four new centres would be open by 1991. These centres have the general aim of helping refugee women and girls to "extend their horizon and thinking beyond their restricted environment and to improve the living standards of the members and their families"[20]. In addition to these WPCs, the Agency also operates sewing courses aimed at young refugee women. Five such sewing centres exist and are run by UNRWA, while eight more are run by various other

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20. UNRWA (1988), p. 2.

voluntary organizations. All Women's Centres are located inside the various refugee camps.

Self Support projects:

This is a programme through which UNRWA helps disadvantaged refugees to set up businesses by supplying them with small amounts of seed money. The project was launched in Jordan in 1984, during which year around 20 refugees were helped to make an independent economic step, thereby removing themselves from the Agency's hardship cases rolls. Assistance is sustained until the refugee is able to support himself and his family[21].

Health Services

UNRWA operates and supervises a number of health services which are offered to the refugee community. These services are normally available only to Palestinian refugees registered with the Agency, and to UNRWA staff and their dependents. However, exceptionally and as what is referred to as a temporary measure, out-patient medical care services are offered to families and individuals who were displaced from their homes in the West Bank and the Gaza Strip as a result of the 1967 war, and who reside in post-1967 refugee camps. UNRWA also operates a policy of attending to any person who asks for services in times of emergency.

Although the reliance of the refugee population for health care is mainly on UNRWA services, there are many who opt for the private sector. Private health services and physicians are available and accessible to most refugees if

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21. From UNRWA (1984), p. 2.

they so choose. Many physicians even have private clinics inside the camps proper; in fact, in Baqa'a camp alone, 17 physicians have private practices that are totally independent of the Agency's services.

The Palestinians, unlike other world refugee populations, do not have a well-developed tradition of native healers. Some camps have their resident older men known for their skills in treating fractures ("*mujabbir*"), however, the utilization of the services of such men has never been very popular and is dwindling very fast in favour of western medical services[22].

The services that UNRWA offers in the sphere of health care include a wide-spread programme of immunization, maternity and child health, school health, sanitation, health education, health personnel training, and some elements of curative medicine.

The UNRWA health sector in Jordan has, as an organizational structure, a Field Health Officer who has under his control five Divisions, each headed by a Divisional Head. These are the Curative Medicine, the Preventive Medicine, the Nursing, the Environmental Health, and the Nutrition and Supplementary Feeding Divisions.

In accordance with its general policy, UNRWA in Jordan devotes the majority of its efforts and resources to preventive rather than curative care, and to health and environmental education and early detection and referral. The Agency's programmes cover the control of communicable diseases through a very comprehensive immunization programme, whereby

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22. Lilienfield et al (1986), p. 595-600.

infants are followed through to the completion of their schooling and immunized against T.B., Diptheria, Pertussis, Tetanus, Poliomyelitis, and Measles. School girls between 11-12 years old, and non-pregnant women in the child bearing age, are also vaccinated against German Measles. A WHO (1982) study assessing the EPI programme in Jordan found that refugee women had very high rates of retention of their and their children's vaccination cards - an indication of the high awareness amongst them of the importance of immunization.

UNRWA also offers special care to mothers, infants, and pre-school children through its network of MCH clinics, which are functional units within the health centres. These provide ante-natal care, with an aim of beginning as early as possible, attendance at delivery, and post partum care to mothers and infants. Pregnant women are given Tetanus Toxoid to prevent Tetanus Neonatrum. Pregnant and lactating women are given extra dry food rations, which are discussed in more detail later.

The child health services are run through the Child Health Clinics, which provide out-patient preventive and curative care for infants up to the age of five years. At these clinics, the growth, nutritional status, and general welfare of the child is monitored and followed, through a system of follow-up visits to the clinic and selective home visiting. The opportunity is taken at these clinics to provide education to the mothers on child development and care in the form of classes and demonstrations. The primary and first booster immunization shots for the children are also given at these clinics. As for children in the school age groups, these

are covered under the general UNRWA health clinics, but also benefit from the School Health Services which the Agency runs.

Under this scheme, all school entrants are given full medical examinations, and all fourth elementary and first preparatory pupils are subjected to routine health screening examinations. Scheduled reinforcing immunizations of D.T., and BCG are given to all new entrants, while adult type Tetanus/ Diptheria and Rubella vaccines are given to all female 1st preparatory students. This particular service offered by the Agency is assumed to be far-reaching into the child population because of the extremely high subscription rates in education.

UNRWA also runs specialized Nutrition Rehabilitation Clinics, which investigate, evaluate and manage cases of malnutrition in infants and young children, especially those cases arising from diarrhoeal attacks. Staff at these NRC follow those cases they consider to be at risk of malnutrition, and offer nutrition education as well as Oral Rehydration Therapy for those children who suffer from diarrhoea and malnutrition[23].

The Agency's Environmental Health Division is also an active one. Its role in the promotion and maintenance of environmental hygiene has been discussed in detail in an earlier section.

In terms of curative care, the Agency takes care of simple treatments at its PHC clinics. Referrals to hospitals

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23. UNRWA claims they were the pioneers of Oral Rehydration Therapy (ORT). According to report in Palestine Refuges Today (1984)(no. 105), UNRWA with the help of WHO began to experiment with rehydration therapy as a way of tackling infant deaths from diarrhoea. In August, 1961, the first ever rehydration centre was established in Maghazi Camp in the Gaza Strip, initially as a five-month experiment.

are carried out under agreement with both Government and private hospitals for these hospitals to treat UNRWA patients, and the Agency would later reimburse these hospitals[24]. Although UNRWA offers many of the basic health services, "many refugees, although entitled to UNRWA services, use services provided by other agencies, either because they prefer to and are willing to pay, or because they qualify for them e.g. are government, military or university employees or are employed by companies providing insurance cover such as certain banks"[25].

UNRWA, however, operates its own specialized out-patient clinics for Diabetes, Cardio-vascular care, ENT, Opthalmology, and Dermatology. Furthermore, all medications needed by refugees are provided to them free of charge. UNRWA also has its own Dental clinics which provide both curative and preventive dental health care. This field in particular has undergone much improvement in recent years, with the number of dental teams rising from 6 to 9 between 1987 and 1988.

In 1988, the health programme budget was US$ 12 million, representing 17.7 per cent of the total budget. Table 9.5, illustrates the range and scope of UNRWA operations in Jordan in 1988.

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24. At one point, UNRWA did run its own hospitals, though that was usually carried out in agreement with other agencies. The Augusta Victoris Hospital in East Jerusalem, was one such example.

25. Longford et al (1980), p. 22.

Table 9.5: UNRWA Health Services in Jordan, Basic Figures, (1988).

Total sector budget (US $)	12 million
Sector budget as % of total	17.7%
Total number of health centres/points	17
In camps	10
Not in camps	7
Number of subsidized hospital beds	38
Total number of physicians	49
At health centres	36
At field office	3
At areas	2
Specialists	8
Number of staff nurses	21
Number of practical nurses	97
Number of dental surgeons	9
Number of dental hygienists	4
Number of environmental health staff	299
In camps	293
Not in camps	6
Number of supplement. feeding centres	17
In camps	15
Not in camps	2
Number of supplementary feeding staff	136
In camps	116
Not in camps	20
Daily average medical consultations	2876
In camps	2500
Not in camps	376
Daily average supp. feeding meals	7139
Dental treatments per year	53740

Source: UNRWA (1988) official figure sheet.

The services of UNRWA have not always been so comprehensive and wide-ranging, however. At the start of its work, the Agency was in fact criticized for not doing enough to maintain the health of the refugee population. In 1950, the Jordan Medical Journal ran an editorial in its inaugural issue which stated that: "We regret to say that the refugee in this country has not been saved out of privation and disease of which he suffered, but on the contrary his complaint increases and he now moanfully and painfully, but faintly cries, and

finds no body to help him out of his suffering"[26]. The Agency, however, has worked hard, and devoted its energy and resources since then to the improvement of the living conditions of the refugees.

In the early days, hopes were still high that the refugees status was a temporary one and that more comprehensive and durable services were not really needed. As time drew on, though, the Agency and the Western world realized that they needed to re-think the "Palestine refugee problem", and the main concern of the funding countries became to placate these refugees and to appear to be taking all possible care of them. The services that the Agency operated grew in terms of both numbers and the range of services offered to the refugee population. (See Table 9.6 below).

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26. Jordan Medical Journal, (1950), p. 23.

Table 9.6: UNRWA Jordan Health Statistics (1971-1987)

	1971	1975	1980	1987
Population	495483	625857	645484	860000
Physicians		37	42	41
Nurses		21	24	25
Hospital Beds	336	279	259	38
Bed/000 pop.	0.68	0.49	0.4	0.4
Gen. clinics	N/A	16	16	16
Pre-nat.clin.	10	11	14	15
Regis. deliv.	8979	8133	7402	10138
Home	8144	6704	5011	3931
Hosp./clin.	835	1429	2391	6207
Infant centr.	10	10	14	15
Rehyd./nutr. centre	8	8	8	N/A
Admissions	1028	639	750	N/A
Patient day	16430	14355	23764	N/A
Incid. diarr.				
0-3 years	20033	29682	30893	1697
over 3 yrs.	8684	11296	12262	753
Water/cap/day	12.3 L	10 L	9.4 L	N/A
No. taps	4072	5781	7403	N/A
Public	1047	1025	878	14.2%
Private	3025	4756	6525	82%
Public latr.	1981	482	66	0%
Private latr.	10682	18991	22271	100%

Source: Compiled from UNRWA (1971), (1975), (1980), & (1987).

Supplementary Feeding Programme

UNRWA's supplementary feeding programme (SFP) is a very important part of the Agency's health improvement services. The SFP plays an important role in maintaining the nutritional status of the refugee population at an adequate level, and ensures that the majority of refugees receive at least the minimal amount of calories and nutrients to sustain them. The SFP in Jordan is administered along the same lines as it is elsewhere, and the programme consists of several components. These are the Supplementary Rations for Pregnant and Nursing Mothers, the Supplementary Rations for Non-hospitalized TB Patients, The Mid-day Meal, and the Dry Milk Distribution programmes. As mentioned earlier, the Basic Rations scheme which used to cover the entire registered refugee population as well as most of the Displaced Persons up until 1982 and

which was restricted to hardship cases due to shortages in finances, is under the administration of another Division, the Welfare Division.

Supplementary Feeding Programmes are meant by the Agency to complement and improve the diet of the refugees, and not as a comprehensive feeding programme. UNRWA, in fact, has targeted the most vulnerable and disadvantaged groups of the population in order to improve their health. The supplementary feeding programme aimed at pregnant and nursing mothers consists of supplying these women with extra monthly rations (see Table 9.7 below).

Table 9.7: Monthly Rations for Pregnant and Nursing Mothers

Item	Quantity
Flour	10000 grams
Oil	800 grams
Sugar	2000 grams
Skimmed Milk	2000 grams
Corned Beef	12 Oz (4 tins)

Source: UNRWA rations announcement, 23 August 1988, Amman.

Because of the high participation rates of registered refugees in the Agency's health programmes and the high rates of attendance at clinics and MCH centres, reaching these pregnant and lactating mothers has not been too difficult a task. It is also safe to assume that virtually all these women receive the extra nutrition when they need it. This, doubtless, has a significant impact on their general health and consequently on the health of the whole family.

The second important supplementary feeding programme carried out among the refugees is the mid-day meal programme. This is aimed at children in the age group 0-6 years and is administered at the Agency's Supplementary Feeding Centres and Sub-centres, of which it operates 17 in Jordan. The programme aims to provide children with a well-balanced mid-day meal six

days a week. The meal is composed of dry rations plus fresh food stuffs and is calculated to yield about 600 KCal and 20 grms of protein for children above 2 years and between 300 and 400 KCal for infants between 0-24 months. At present around 9,000 refugee children as well as 2,000 Government registered Displaced Persons benefit from this scheme. The Jordan government bears the expense of the feeding of the Displaced Persons. The policy of the Agency is to offer 75 per cent of meals to those between 0-6 years and 25 per cent are kept for those over 6 years, who are selected by a physician after confirmation of the child's need for it. Each feeding period is for a duration of 3 months after which a re-evaluation and a fresh selection of children is made.

The mid-day meal programme has the further goal of health education for the beneficiaries and their mothers. This project is claimed by UNRWA staff to be a very successful one.

Another programme run by the Agency is the dry-milk distribution programme which aims to overcome any protein/ calorie deficiency among children. The Agency distributes whole and skimmed milk in the form of powder to infants between the ages of 6-36 months and on medical prescription only to non-breast fed infants under six months. The recommended portion for infants below 24 months is 1333 grams of skimmed milk and 500 grams of whole milk per month. Infants between 24-36 months receive 1333 grams of skim milk and 333 grams of whole milk per month. These rations are distributed from SF Centres and Health Points throughout Jordan.

The special attention that UNRWA has historically awarded nutrition and the maintenance of adequate nutritional levels among the refugees has probably played a significant role in the maintenance of good health and development among those refugees.

Although the Palestinian refugees have had a relatively good nutritional status, they have in the past suffered and in some cases still do from some nutrition related problems. In fact, in 1967 and 1973 two studies were made of the nutritional status of Palestinians who became refugees after the 1967 war. The first study, although it looked at the status of Palestinian refugees in all the Arab countries, reached conclusions that could be applicable to the situation in Jordan. It concluded that the nutritional status of the refugees was appalling and that "the diet of the refugees is nutritionally very poor, and comparable only to diets of the German Concentration camps"[27]. The second study's findings pointed to the presence of mild to moderate degrees of malnutrition together with deficiencies of vitamin A and riboflavin, and iron deficiency anaemia, in addition to extremely unhygienic conditions resulting in high prevalence of acute conjunctivitis, scabies, pediculosis, and flea bites. A further study conducted in 1970 also reported similar findings[28].

Additionally, the incidence of marasmus, prekwashiorkor and kwashiorkor were found to be significantly higher among the female children than among the male children[29] Interestingly, this finding was somewhat more pronounced for refugee, ration-receiving children than for non-refugee children in Jordan. This was also echoed in the 1970 study of the nutritional status of 1967 refugees and displaced persons. Contradictory on the surface, this finding is probably due to

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27. Khalidi (1969), p. 15.

28. Pharaon et al (1970), p. 39-55.

29. ICNND (1964).

the fact that the refugees were already in a worse off economic situation, which caused their lower nutritional status. The rations factor, while correlated, is not in a causal relationship with the increased incidence of the diseases.

These conditions have since improved markedly, such that it is now a rare occurrence for a child to be treated for nutritional diseases. The condition of refugees and displaced persons is not perfect, however, and they reflect the same problems as those exhibited by the rest of the Jordanian population. That is, there is evidence of stunting among the children, but not of wasting. This is indicative of long-term nutritional stress resulting from chronic under- rather than mal- nutrition. The latest survey that was conducted on the refugees was carried out in 1984 by UNRWA. The survey was conducted in Jordan, the West Bank, and Gaza, and found that there were virtually no cases of mal-nutrition among children under five years old. The survey, however, found a significant rate of protein-calorie malnutrition, especially to coincide with the start of the weaning period, (see Table 9.8). In addition, the survey restated the problem of the presence of long term chronic undernutrition reflected in stunted growth, such that the survey claimed that levels had stayed constant since 1974,[30] and the vast reductions in the prevelance of malnutrition has been achieved[31]. The majority of the improvements were attributed to the special supplementary feeding programmes that UNRWA conducts. The survey found that these programmes were, in fact, aimed at the under-privileged

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30. UNRWA (1986), p. 4.

31. That is except for the Gaza Strip were malnutrition was found to be prevalent among children.

and vulnerable segments of the refugee population, and that those in need were utilizing the services provided.

Table 9.8: Incidence of Wasting and Stunting among Refugee children under 5 years, Jordan, 1984.[f]

Age (months)	% Wasted	% Stunted
0-5	1.4	7.4
6-11	2.9	17.2
12-23	1.6	18.1
24-35	0.8	10.7
36-47	1.5	16.5
48-59	1.4	18.2
0-59	1.6	15.4

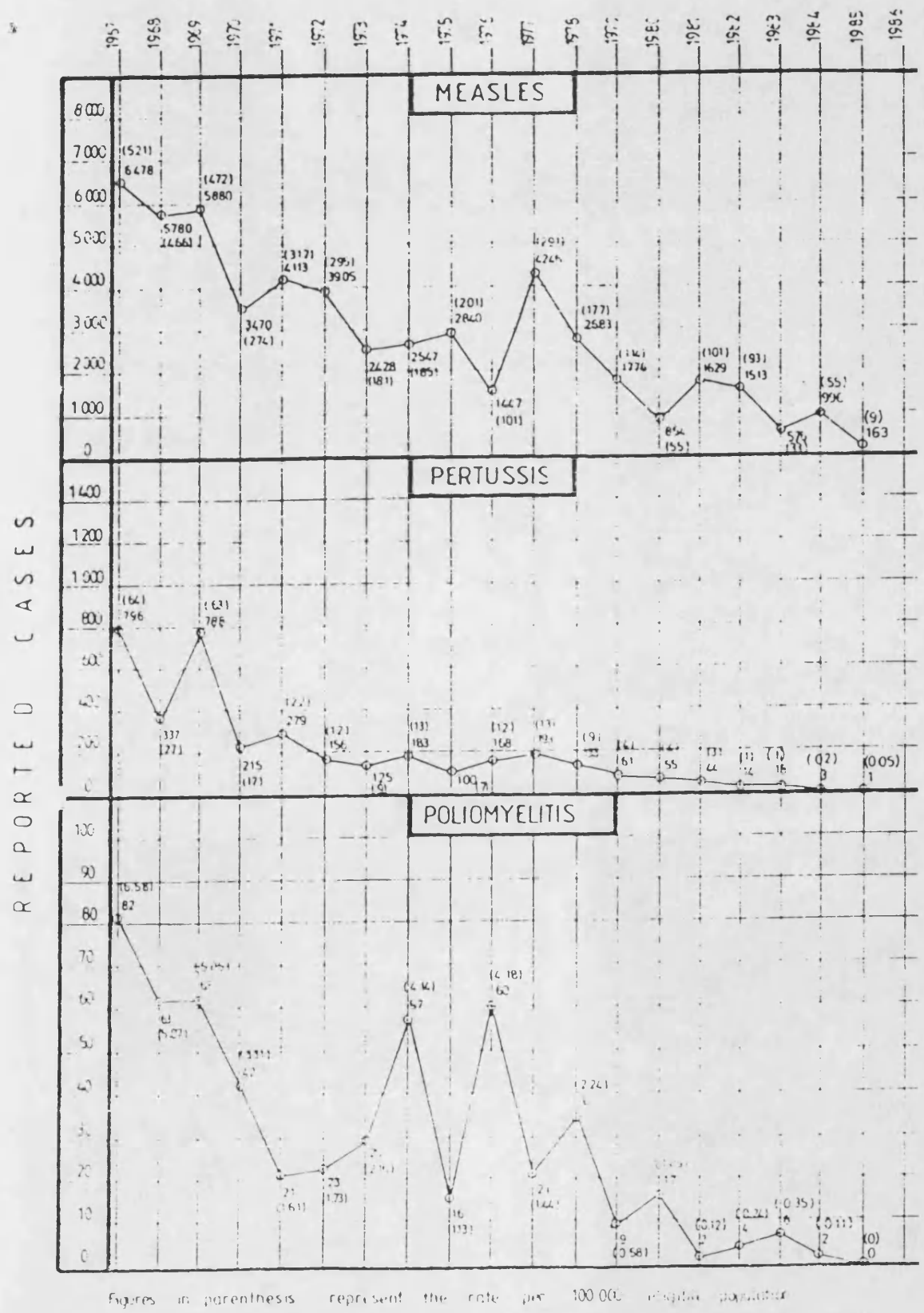
Source: Jabra (1984).

[f] In healthy communities, normally only 2.3% of the population are expected to be wasted or stunted.

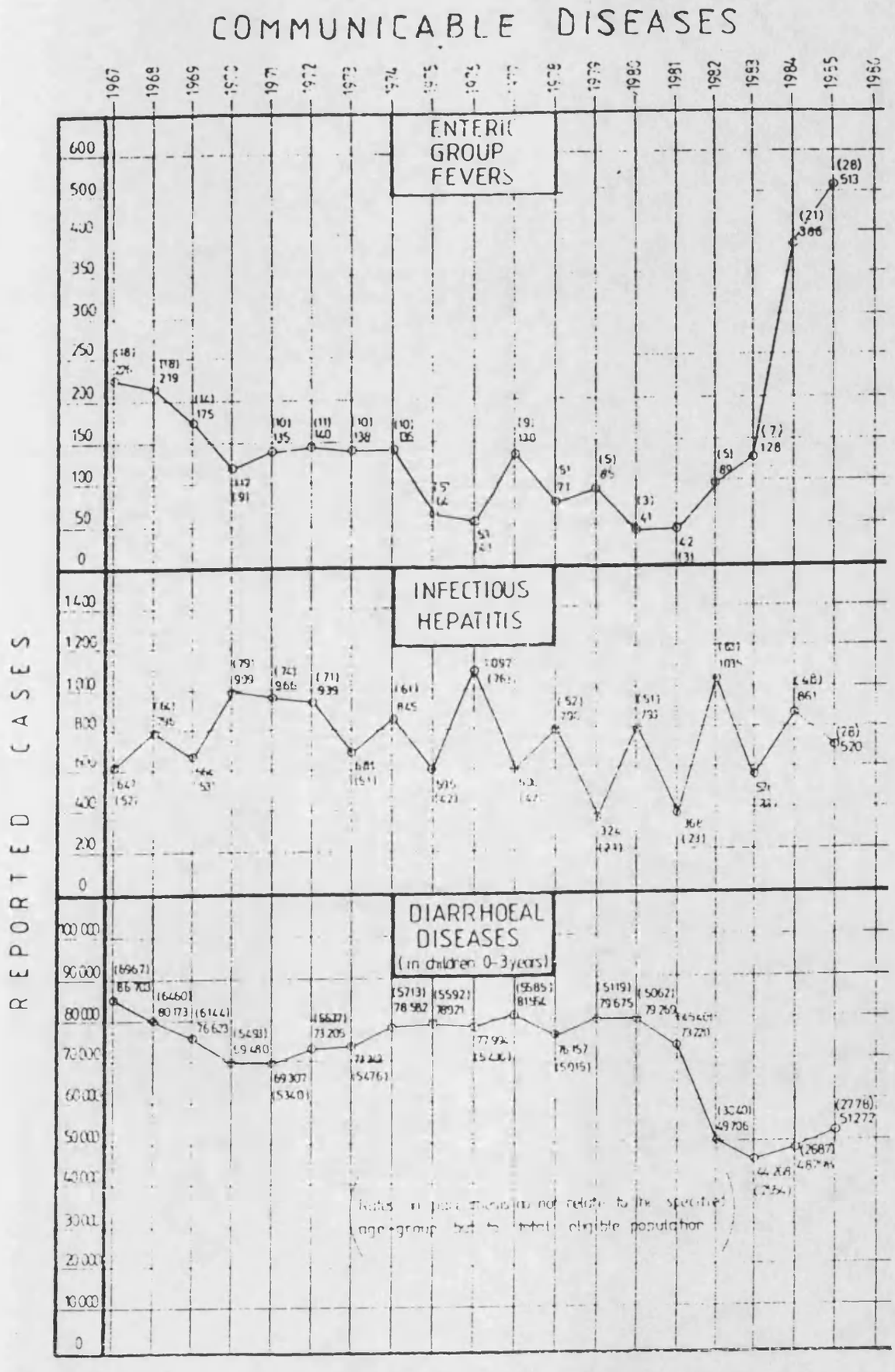
Health status of the refugee population in Jordan

It is clear that noticeable improvements in the health status of the Palestinian refugee population of Jordan have been achieved. This is mostly seen in the drop in the infant mortality rates over the years, as well as in decreases in the incidence of several diseases and illnesses (see figures 9.1-9.9).

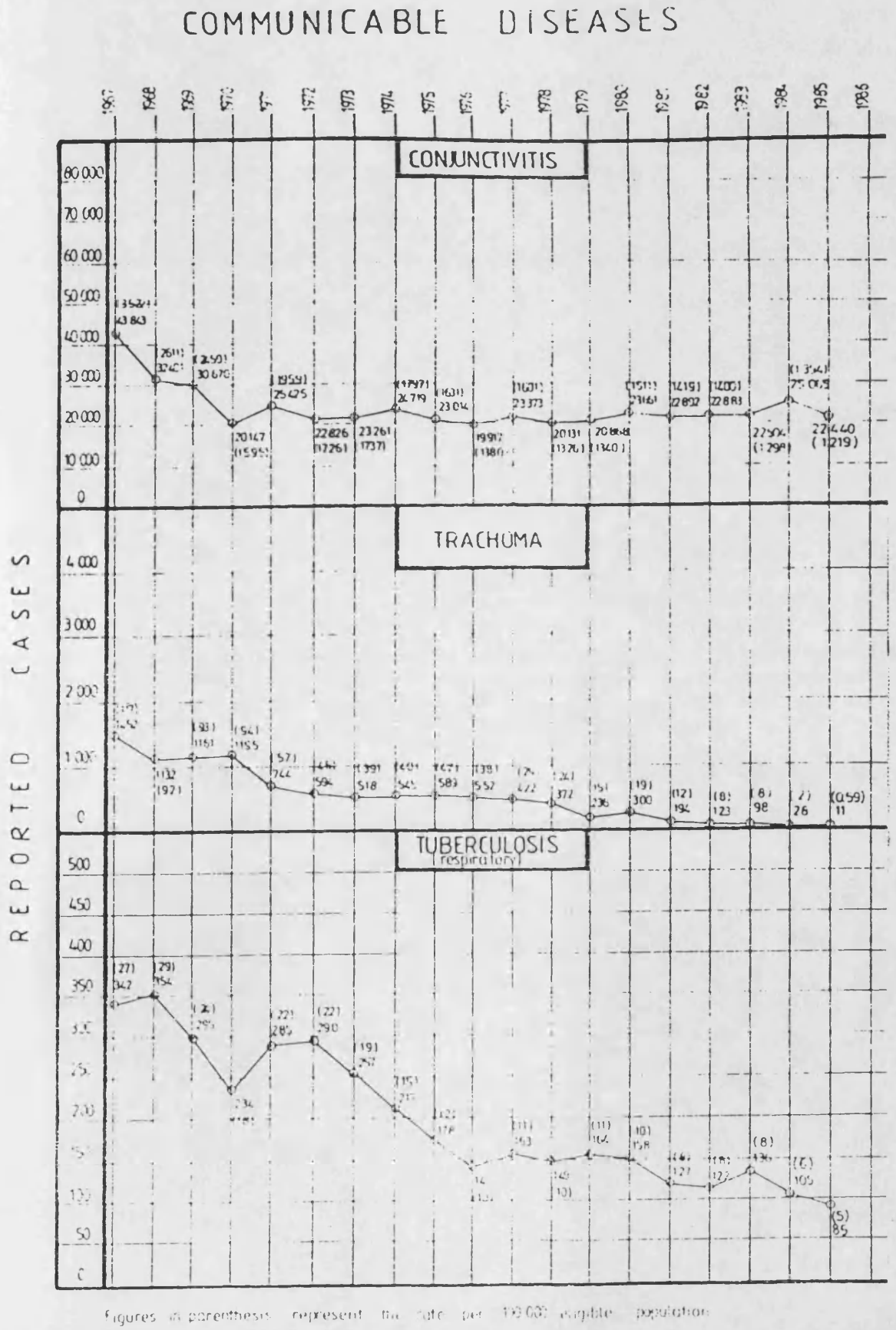
Figures 9.1, 9.2, and 9.3



Figures 9.4, 9.5, and 9.6



Figures 9.7, 9.8, 9.9



On the political level, these achievements have been reached in a manner which would be described as being very much a top-down approach, with virtually no space for "community participation". UNRWA, as an agency, plans for all the various social, educational, and health services according to what the Agency perceives as needs and requirements in the community. As discussed earlier, however, the presence of UNRWA itself is a political statement, and as such UNRWA's committment to the refugees and their overall welfare is political in its very nature. The underlying rationale for offering all these services is to keep both the Palestinian refugees, the Palestinians, and the Arabs from complaining about their situation. This committment, although not a "political committment" in the true sense in which this phrase has been used in this study, is nevertheless, a very strong one. Without it, it is doubtful whether the health status of the refugees would have been at the good level at which they are today.

Following from this committment on the part of UNRWA, the refugees haye been provided with all the essential ingredients of good health. Housing and a healthy environment, even if those could benefit from improvements, are available to all the camp resident in a fashion to suggest that the majority are covered by adequate services. Nutrition has not been allowed to play an adverse role in the health of the refugees. Through its various ration and feeding programmes, UNRWA keeps the nutritional status of the population under contol, proping up ther diets of various at-risk groups as and when needed. Education is free and available to all. The acceptance of education for both males and females is almost universal among the refugee population.

As for the health services, it is clear that UNRWA has attempted to provide the refugees with access to all types of

health services when they need them. With the Agency's own emphasis on primary health care, preventative care, immunization, and health education, it has reached the majority of its target population, and has managed to achieve high levels of benefit and effectiveness from these measures and policies.

Fertility Rate

The fertility rate for the refugees in Jordan is also very high. It is in fact thought to be higher than that for the general population. This issue is one for which it is difficult to reach firm conclusions, due to the paucity of available information. Hill (1982), in an ESCWA report on the fertility of Palstinians, used the levels prevailing in Jordan as those for the Palestinians. That study, however, was examining all Palestinians in Jordan and not only camp-residents. Hill, however, attempts to qualify the level of fertility in the camps by using registration data in the camps, which is not very conclusive. His finding is that "from the camp registration data, it seems that fertility in the camps is at least as high as in the whole East Bank population"[32]. Table 9.9 illustrates the finding of an earlier study, carried out in 1972 by the Jordan Department of Statistics, which compares fertility levels of the camp-residents with that of urban residents and the general population.

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32. Hill (1982), p. 57.

Table 9.9: Children ever born to ever married women by duration of marriage, 1972

Mar. Dur. (Yrs)	Camp Resd.	Urban Resd.	Jordan Total
0-4	1.41	1.06	1.05
5-9	3.66	3.16	3.28
10-14	5.83	5.21	5.38
15-19	7.57	6.78	6.95
20-24	9.18	8.13	8.30
25-29	9.46	8.76	8.85
30 and over	9.62	9.16	9.20

Source: Adapted from Rizk (1972), in Hill (1982).

It is the assumption of the present study that the fertility of Palestinian refugees is determined by the same factors as were discussed in Chapter Seven above. The camp population is, however, more politicized than the general population and more sensitive to the threat of the "demographic argument". Camp women are also often more constrained in terms of geographic mobility, and have less employment opportunities open to them.

While the camp population in Jordan does not, on the whole, behave differently from the general population, in terms of demographic trends; there does seem to be some variance in degree. The higher prominance of all these factors for camp residents are seen as the main reasons behind the slightly higher fertility exhibited by camp residents.

One factor that it would be very difficult to comment on, is the economic situation of the refugees. Whereas UNRWA places a lot of emphasis on education and training for the refugees in order to gain economic independence, it is not directly responsible for their employment, or for compensation to those not employed in any significant way. UNRWA's effect in this regard is through its provision of the various services and access to them to all the registered refugees regardless of their earnings. In that respect, UNRWA cuts across the economic strata, and makes them somewhat redundant

in their potential effect on the general overall health picture.

One aspect of the refugees' health has not been discussed here; that of the mental and psychological health of the refugee population. That is mainly because of the lack of information and accurate data. Their status of being temporary - long term refugees is bound to have had some negative effects on their mental well-being. It is not unreasonable to say that their situation has put them under a considerable amount of psychological stress which has the potential of manifesting itself in the form of mental illness. This issue is one that UNRWA will need to be tackling in its future plans.

Another factor deserves to be emphasized again; UNRWA's work is remarkable because it has achieved all these improvements in addition to, preventing the refugees from suffering from the epidemics and uncontrollable outbreaks of disease as is common among refugees and displaced populations.

Recently - since 1987 - the importance of caring appropriately for the elderly in the community has been highlighted by the department of health in UNRWA. In fact, Jordan was chosen for a pilot project in community care to be tried. Care of the elderly could be a problem for UNRWA, especially as the refugee population becomes older in the camps. These persons are likely to have all the problems associated with growing old intertwined with the social and psychological problems associated with being refugees with what after several generations, looks increasingly gloomy in terms of their chances of returning to their homes. UNRWA estimates in 1987, put the number of refugees over 60 years of age at 7.7 per cent, the rate for refugees in Jordan is, however, higher at 8.1 per cent or around 67,600 persons.

UNRWA hopes to cope with the health problems of those refugees such as heart disease, diabetes, and hypertension, as well as with their psychological problems resulting from a life time spent in "temporary" camps[33].

Effect of Refugees on Overall Health

The role that UNRWA plays in the economy of Jordan is not simply confined to its spending in that country. UNRWA's operations in Jordan have time and time again been criticized because of allegations that a huge racket in UNRWA ration cards was in operation. UNRWA ration cards were "leased" to the racketeers, who then obtained the food from UNRWA and proceeded to sell it on the black market. It is assumed that is one of the more important reasons why Jordan reacted so negatively to UNRWA's decision to stop the basic ration programme despite the general understanding that few refugees were going hungry.

In addition to the economic importance of UNRWA to Jordan, there remains the very sensitive role that UNRWA plays in maintaining both political and security stability in the country. Jordan is worried, many would argue rightly so, of UNRWA pulling out and leaving it with a highly volatile political situation. To Jordan, UNRWA's presence and operations are the symbol of the international community's unfulfilled promise. As such, it acts as a release valve for the pressure that the Government would be put under if it had to deal with the Palestinians' demands. If UNRWA were to close down its operations in Jordan, that would be tantamount to sending a signal to the Palestinians that they were to give up

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33. UNRWA (1987), p. 2-3.

their collective dream of returning to Palestine. This in turn would entail formal integration into Jordanian society, a matter in which Jordan would have little choice. "The UN could conveniently write a US$ 52 million check and let the Jordanian government take over UNRWA's work. Economically, it might even be to Jordan's advantage. But Jordan will not hear of it... In insisting that UNRWA's services be unimpaired, Jordan is signaling to the Palestinians that it remains unalterably pledged to their return home"[34].

In addition to the above factors which all promise to have some effect on the general well being of the refugees and on the whole population, the presence of the refugees has had the potential to affect more direct influences on the health of the Jordanian population. As refugees, resulting from the displacement and movement of large numbers of people, the Palestinians constituted a high risk group in terms of health. For the Jordanian Government, that has meant that the primary and still young structures and infrastructures have had to adapt to cope with an influx of people which just about trebled the population in 1948. More problems arose in 1967, with the loss of economic infra-structures, but with the additional "gain" of more homeless refugees.

The case of the Palestinian refugees has, however, been different from that of refugees elsewhere in the world, probably as a result of the presence of UNRWA and all the international involvement which that symbolizes. Palestinian refugees were quickly recognized as a disadvantaged group for whom all possible care had to be taken to ensure that they do not become a larger problem in terms of the Western world's "guilt". With the direct involvement of the UN in improving

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34. Viorst (1984), p. 31.

their welfare, disasters were more or less averted. Expected epidemics, and wide-spread deaths did not occur.

In that sense, the presence of refugees in Jordan did not affect negatively the overall health of the population. That is, the responsibility for them was quickly taken over by UNRWA who themselves acted to lessen the effects of displacement, and therefore did not allow the state of the refugees to affect the Jordanian population.

As a matter of fact, the presence of the refugees and implicitly of UNRWA and international intervention, appears to have helped in the hastening of the process by which the health of the Jordanian population themselves improved. This can be explained in two distinct ways. Firstly, with the presence of a number of refugee communities alongside the Jordanian town and villages, it became difficult for the Government not to provide at least the same level of services to the indigenous population as that which the refugees were receiving. This situation which had all the potential for civil unrest, if the refugees continued to be cared for while the Jordanians went without, acted as an incentive for the quickening of the process of socio-economic development of the whole country. Secondly, the presence of the refugees and the precarious security situation in which Jordan found itself as a result of being at war with Israel, triggered a vast amount of aid to start pouring in from the US and Europe. The aid came either directly to the benefit of the refugees, or indirectly to help the Jordanian regime stay a "friend" to these outside powers, by helping Jordan maintain its internal security. Aid, overt and covert, came for development and economic projects all over Jordan. The overall result has so far been one of general improvements in the welfare, standard of living, and health of the whole population.

CHAPTER TEN

Summary and Conclusions

Summary

This study aims to contribute to the debate surrounding the underlying medical, social, economic, and political determinants of health status improvement in developing countries. Jordan, a developing country with rapidly improving health status indicators, served as the case study for an in-depth, time-series analysis investigation into the factors which have been assumed to play a central role in the paradigm of health improvement predominant in recent years. These factors had been identified in earlier studies whose basis was the comparison of a number of country data sets. A few in-depth analysis studies have been carried out, most notably on Sri Lanka, Costa Rica, China, and Kerala State, India. From these studies and the previous literature a number of socio-economic and political factors have been identified as necessary for improvements in health status to take place. The present research is an attempt to add to the body of existing knowledge about developing countries that are undergoing rapid improvement in health, and to assess the impact of the factors defined previously. It is also an attempt to examine the determinants of health status improvement in a country which falls in a category of countries seldom studied before.

The Hashemite Kingdom of Jordan was chosen as the case study for a number of reasons. First, because it is a young state. Jordan was created in the 1920s, where no previous state-structures had existed. The presence of the British mandatory authorities, even though they regarded Jordan as a backwater, began a speedy process of infra-structure and administration building. Second, Jordan serves as an example of a middle-income developing country; and, third, Jordan is an Arab country. These last two categories have both been largely over-looked by previous health researchers, seemingly because of the relative wealth they are assumed to enjoy. It appears that there has been a general assumption that such countries have enough financial resources to "buy" development. In the case of Arab countries, the dearth of studies could also be the result of the limited number of researchers who have adequate command of the language, in addition to an understanding of the issues. Knowledge of the cultural background is essential for a sensitive understanding of the complexities and apparent contradictions of these societies.

Once the trust and co-operation of a large number of agencies and officials had been gained, access was granted to their material and data sets. Access was also gained to a number of key persons for interviews. Jordan, therefore, offered reasonably reliable and complete time-series data sets, that could be used in the analysis. Historical archival and anecdotal data and information was collected from Jordan, through extensive visiting of the main Government, private, and international agency authorities which share the responsibility for planning and design of the different chosen variables. These considerations were presented and discussed at greater length in Chapter Two.

This study has concentrated on investigating the determinants of health improvement in modern Jordan. The analysis concentrates on the variables of economic performance, national and international politics, urbanization, infrastructural developments in housing, water, and sanitation services, nutrition, education, fertility patterns and behaviour, and the availability of health services, and their coverage among the population. Particular emphasis was accorded to the effect that these variables have had on Jordanian women. Women's roles in society and the economy in Jordan are undergoing rapid change. This is also taken into account as it relates to changing attitudes, behaviour, and access to better health. An attempt was made to present and discuss the various factors in the light of the prevailing social and cultural background of Jordan.

The discussion of these socio-economic and political factors brought to the front many interesting avenues for further in-depth research. Time and space constraints, however, dictated that only the few factors cited in previous studies of other countries, could be examined in detail. Furthermore, the considerable number of factors investigated also dictated that their treatment and presentation be somewhat brief. Concern was primarily for a presentation of the overall changing situation in a country undergoing rapid social and economic changes, and the effect of these processes on the health of the population.

After a presentation of an ethically acceptable definition of health status, the infant mortality rate was chosen as the main indicator of the health status of the Jordanian population. The infant mortality rate of Jordan had fallen from 151 in 1961, to 35 in 1987. The infant mortality rate was chosen for the present study because of its ability as an indicator to reflect the effect on health of long-term

changes in the chosen variables, and its recognized role as a good indicator of overall development in a country. The use of Life Expectancy at birth data would have been desirable, but Jordan was found to have deficient data sets on this particular indicator. Moreover, the infant mortality rate data was found to be available for the major part of Jordan's history, and is, therefore, highly useful in highlighting changing trends over time.

The main conclusions of the analysis of the various variables and their impact in affecting improvements in the health status of the Jordanian population will be presented in this chapter. To summarize in a few paragraphs the complex interactions between the presence of a certain variable and the socio-cultural and economic factors affecting it, as well as its own interaction with other variables, would not be doing the work justice. More extensive discussion of each variable is found in the main text of the relevant sections of the thesis. To follow is a summary of the situation of the chosen socio-economic variables in Jordan, and their effect on the health of the population.

Infrastructural Services: The Government of Jordan appears to be committed to providing basic services to as large a proportion of the population as its financial resources permit. Mainly due to its particular political role in the region, Jordan has been able to rely on outside financial assistance to fund most such development projects. But, the implementation of infra-structural programmes has not been easy, for the modern State of Jordan has had to start from a situation where no services existed. This was true as late as the 1920s. During that same period neighbouring Arab countries (such as Lebanon, Egypt, Syria, and Palestine) already had sophisticated operational systems in place.

Through sustained effort and the provision of basic housing, roads, transportation, and safe water and sanitation, the Jordanian authorities have managed to change and improve the living conditions of the majority of the population. The authorities have also been quick in responding to problems as they have emerged. For example the influx of large numbers of Palestinian refugees at various periods, was handled without much of an adverse environmental effect. More recently, the Government has begun programmes to upgrade the more disadvantaged and derelict urban areas. These improvements in the environmental health situation appear to have played a significant role in improving health. It further appears that any new projects that are implemented, are actually being utilized by the population.

The provision of these services has exacerbated the migration from the rural to the urban areas. This has led to a high growth rate for the urban centres of Jordan, as well as to an extremely high growth rate for the city of Amman. This flooding into the cities has led to the creation of a number of slum areas and shanty towns. But it has, on the other hand, placed the majority of the population at accessible distances from most services. Rapid urbanization has also been accompanied by changing life-styles and habits, all of which play a role in determining the rates and direction of developments in health status.

Nutrition: Due to its geographic location and climate, Jordan is a country poor in agricultural resources. It is unable to meet the nutritional and food requirements of the population. However, and despite a number of potential nutritional disasters (the wars of 1948, 1967, and 1970, for example), the general trend has been one of steady improvement in the nutritional status of the population. This was found to be evident from the decrease in the incidence and severity of

nutritional deficiency illnesses, as well as by a rising per capita caloric intake.

Outside financial assistance has again been instrumental in making food available at accessible prices to the general population. Jordan as a middle-income country, even if it is heavily dependant on financial aid, is able to cover any deficiencies in its own production, through purchasing from other countries.

The main nutritional problem facing Jordanians is primarily a function of the presence of a certain degree of inequality in the actual distribution of food. The poorer economic classes, have a more limited access to food and their diet tends to be less varied and complete. Economic reasons related to purchasing power are behind this. More subsidy of a large number of dietary elements necessary for a healthy diet would seem to be the logical step for the Jordanian authorities to take. With the recession that is hitting Jordan, this seems unlikely to occur, even though it is now needed more than ever. UNICEF (1991b) in a preliminary report after the Gulf War, warned that "malnutrition and ill-health threaten over a quarter of a million children under the age of 12"[1]. The other type of unequal distribution is between males and females. Several research surveys have shown that, while the differences are not dramatic, there is a decided bias towards male children being better fed, and generally better looked after, than female children. This is a problem rooted in Arab culture, and needs to be addressed through the parameters of that culture. Changes are taking place in that respect especially with increasing education among the population, and with the changing position of women to include their roles outside the home.

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1. UNICEF (1991b), p. 4.

Discussions regarding nutritional status touched upon an important development in Jordan, but did not have the scope to study or assess it. That is the emerging trend of increased consumption of imported food items. This is becoming more and more evident with the changing life-styles of Jordanians particularly the middle and upper economic classes. A move from locally produced meats and vegetables, to the imported varieties of processed foods is noticeable, especially in the urban centres.

The changes in eating habits are accompanied by increased tobacco and alcohol consumption. While alcohol, is unlikely to become of problem proportions, tobacco smoking is already indulged in by the majority of adult males, and a considerable proportion of females. These factors will need to be studied carefully, as they threaten to become among the major health problems of a future Jordan.

Education: Jordan has reached remarkably high levels of educational attainment, over a relatively short period of time. Over a span of just over half a century Jordan managed to move from a situation of almost universal illiteracy, to a situation of near universal elementary education. Significant strides have also been taken in secondary and tertiary education. These achievements have been complemented by minimal gender differentials in educational attainment. Enrolment for girls and boys in elementary education is of equal proportions. Gender differentials begin to appear in the secondary and higher educational levels. Jordan's levels of female education are, however, among the highest for Arab countries. They are even higher than those of Arab countries with far higher financial resources, such as Saudi Arabia, Libya, and Oman. (See Table 6.1).

These exceptional achievements have been found to be due to two sets of factors. First is the belief among the population in the value of education as a tool for the future; and second is a commitment on the part of the Government to making education accessible to all. This is in part due to the Government's policy of investing in the Jordanian citizen as the most valuable economic asset available to Jordan. This issue will be discussed in more detail below.

As discussed in Chapter Six, education in the psyche of Jordanians and Palestinians has become a prized possession in its own right. Educational attainment is encouraged and pursued as an investment in the future, and one that cannot be lost or taken away. This phenomenon plays an important part in explaining the high rates of enrolment in educational programmes where those are available. The result of which has been that Jordan has been able to achieve substantial educational gains in a short space of time.

Taking advantage of the high enrolment rates in educational institutions, the Jordanian authorities targeted school children for a number of health promotion programmes. School Health teams that run regular checks on the health of pupils in schools, carry out routine environmental health checks, as well as immunizing certain age groups, are part of these programmes. School children have also been targeted for supplementary feeding programmes in cases of economic hardship. Classrooms are also used as venues for general health education.

Rising levels of educational enrolment and attainment by Jordanians, especially the female population, appear to be accompanied by improvements in health status. This finding is essentially in line with previous assumptions about the positive effect of education on health. But the Jordanian

experience digresses from the norm in one significant aspect, however. Rising levels of education were found not to be accompanied by any significant fall in the extremely high fertility rate. The phenomenon of high fertility and its determinants were discussed in greater length in a separate chapter, and will be highlighted below.

Fertility: In spite of a rapidly improving rate of educational attainment, specially among Jordanian women, the fertility rate remains one of the highest in the world. The large number of studies that have attempted to examine Jordanian fertility have all shown lower fertility rates among the better educated Jordanian women. These findings, however, do not appear to be generalizable in the case of the whole population. While the educational attainment levels of the whole population have risen significantly, fertility has remained very high. It is only in 1990[2], that fertility rates have begun to show some decline. Contrary to expectations based on current theories, fertility rates remained largely unaffected, failing to show the significant decline normally associated with improvements in education and economic status.

The high rates of fertility, moreover, were found to co-exist with a situation of steady and rapid health status improvement. These findings, which appear to contradict earlier wisdom, brought to the front a number of questions, which need to be researched further. The apparent contradictions need to be explained as they may hold significant implications for future health policy planning in Jordan, as well as other countries that are undergoing similar changes. The main questions which need to be addressed are whether increased educational attainment necessarily results

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2. Shakhatrah (1992) has quoted some preliminary results of a national fertility survey undertaken in 1990. See Chapter Seven.

in a drop in fertility rates; and whether a drop in fertility is a necessary condition for health status improvement. Jordan, however, has been heavily dependant on foreign financial assistance, which may explain why the rapid population growth has not been a problem in the past.

Further research that attempts to answer these questions is especially important at this time in the early 1990s, when the world, especially the western and international donor agencies, is witnessing a resurgence of interest in population policies as an intrinsic factor in developmental and environmental planning. Meanwhile, the Jordanian authorities appear to deal with the issue of fertility as one of secondary importance. Priority for health improvement, especially since the country is facing economic hardship, seems to lie elsewhere than in the lowering of fertility rates.

Health Services Provision: In the space of just over six decades, Jordan has managed to move from a situation of virtually no health care provision services to one where the majority of the population live within a distance of 6 kms from some form of health care facility. Furthermore, Jordan has achieved the status of being a major tertiary referral centre for the entire Middle East region.

As is the case elsewhere in the world, the concentration on sophisticated curative care entails the allocation of the major part of the health budget to those services. Still, primary levels of services have achieved a remarkable coverage for the population with basic/ first point of contact services. The existence of functioning programmes in MCH, EPI, School Health, and Supplementary Feeding, although deficient in many respects, highlight the underlying commitment to primary health care. Even though the extent of this commitment, as evidenced by budgetary proportions, may be

queried, there are clear indicators that a basic health care services system is in operation and, moreover, on a country-wide basis.

The main problems of health care delivery in Jordan are basically a function of the wastage in scarce Government resources resulting from the duplication of effort and services by the various public sector health delivery systems. With the deteriorating financial situation, the Government will need to begin a process for implementing a programme of change of the public sector health delivery systems. The State is unable to continue to afford the wasting of valuable resources on the duplicated effort, and the resulting inefficiencies of the present system. The implementation of a structure capable of bringing together all the various health services providers under one management and policy and planning authority will have to be treated as a priority in future country-wide and Ministry of Health plans. For this task, an in-depth investigation into the workings and interactions of the present systems, including finances, internal political considerations, and manpower issues, would have to be undertaken.

The health delivery system also suffers from a shortage of nursing and paramedical staff, which is exacerbated by an over-supply of physicians. The Jordanian Government, especially the Ministry of Health is aware of this problem of imbalance in manpower supply. A programme to redress this imbalance in health manpower will also need to be formulated, in order to increase efficiency at a time when finances are limited. Of primary importance is the training of more nursing staff, as that is the area with the largest discrepancies in rates. The formulation and enforcement of regulatory measures for the training and employment of more physicians is also recommended.

So far, the health delivery systems, despite the bias in favour of the more expensive tertiary care, have catered for both basic and sophisticated services. Jordanian health authorities, however, will need to improve planning and implementation of health programmes that tackle simultaneously both patterns of ill health evident in the country - those of "poverty" and those of "prosperity". Parallel programmes need to be implemented in such a way as to make the most efficient use of the scarce resources which have become the norm since the economic recession of the 1980s began. Furthermore, Jordan is presently at the stage where it can begin its attack on illnesses of "prosperity" while their incidence is still relatively limited. Health education for the population would be the best preventive measure. In the meantime, maintenance of the excellent standards of tertiary health care is essential to deal with the curative needs of other illnesses and causes of death.

The large refugee population resident in Jordan were also discussed at some length. The health status of the Palestinian refugees was found to be very similar to that of the rest of the Jordanian population, and to show the same rapid improvements. The health of refugees was also found to be affected by much the same factors as those that affect the rest of the population. The main difference between the two groups is that in the case of the refugees an outside international agency sets the priorities, the policies, and the strategies for achieving them. UNRWA, in effect, plays the role of a government in terms of making available and accessible, infrastructural, social, welfare, educational, and health services.

In comparison with other refugee populations, the Palestinians in their relationship with UNRWA are different in one major respect. Because of the long-term nature of their

displacement, their living conditions and the services offered by UNRWA appear to be much closer to "normal" living conditions. People, when they are able to, go out to work they have "homes", the children have schools to cater for their educational needs, and health services and personnel are available.

Again, educational levels are very high and the enrolment rates are very high among the refugees. Furthermore, education appears to have been a major agent of change for the refugee population. As such, it has played a major part in health status improvement.

As discussed in Chapter Nine, Jordan's being host to the refugees - with the political roots and implications of their situation - seems to have led to a hastening of the general developmental process. This, in turn, has shown its effect through a positive impact on health status improvement.

To sum up, the health of the Jordanian population was found to have been positively affected by the presence, availability, and wide spread coverage by a number of services which were provided mainly by the Government. Infrastructural services, such as housing, water, sanitation, and roads, have developed to meet the needs of the majority of Jordanians. Good levels of nutrition, high levels and coverage of education, as well as the availability and adequate distribution of health services were also found to have played important roles in the achievement of health improvements. Fertility, however, did not appear to have a determining effect on health.

Discussion and Conclusions

These findings raise another set of questions with regard to the actual role that these factors are capable of playing in the improvement of health. Significant as they may have been in affecting improvements in the health of Jordanians, these variables on their own cannot explain the remarkable rapid achievements which have taken place. Other developing middle income countries with similar potentials have been unable to reach similar rapid health advancements. Other neighbouring Arab countries with far stronger economies and a similarly high coverage of services, also appear to lag behind Jordan in achieving health status improvements. The particular case of Jordan is well illustrated by Table 1.1 (see Chapter One) which highlights the performance of Jordan as it compares with richer Arab countries.

Several other variables appear to come into play in the case of Jordan which seem to enhance the effects of the other factors discussed above. These over-riding variables are primarily a function of the social, political, and economic realities of Jordanian society discussed in Chapter Three. They appear to define the qualitative differences that exist between Jordan and most of its neighbours. It is the influence of these considerations on the factors of infrastructural services provision, nutritional status, provision of educational facilities, and provision of health care services, which acts to create the type of climate necessary for health improvements.

Jordan, it should not be forgotten, is essentially a small country. Both the size of the population and the geographic area of the country place it firmly in this category. This characteristic is particularly striking when Jordan is compared to other developing countries in the world,

such as India or Sri Lanka, or even to the majority of other Arab countries such as Egypt or Syria or Yemen. Furthermore, the majority of the population of Jordan is actually concentrated in the Western part of the country. This effectively implies that most of the population is within relatively easy access of services and facilities. This feature, puts Jordan at some advantage as compared with other developing countries and the problems of access faced by them.

By the late 1950s, the Government of Jordan had realized its disadvantaged economic state, in terms of an impoverished natural resources base, and its potential as an exporter of skilled and trained manpower to neighbouring oil-rich, but manpower-poor Arab states. With this realization came the formulation of policies directed at improving this manpower resource base in order to prepare it to become a major source of revenue for the country. This has led to an ongoing investment in the Jordanian citizen and his/ her overall wellbeing. Improving the living conditions for the population became in Jordan an economic as well as a political goal of the Government. Jordan's commitment to the well-being of its citizens as an essential human right, can be borne out and illustrated by the recently developed Human Development Index (HDI) of the United Nations Development Programme[3]. According to the 1990 Human Development Report, Jordan ranked seventy-third in the world with a national HDI of 0.752, a male HDI of 0.799, and a female HDI of 0.711. Compared to the other Arab country, Jordan's performance was remarkable, exceeded only slightly by Iraq (HDI: 0.759) and the United Arab Emirates (HDI: 0.782), and more significantly by Kuwait which had an

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3. UNDP (1990). The HDI is proposed as an indicator of social developments and is based on a combination of other indicators, notably: income, life expectancy, and education. See Murray (1991) for a discussion and critique of the HDI.

HDI of 0.861. All of these three Arab countries have far stronger economies than Jordan's.

This commitment on the part of the Government to having a healthy population, capable of being economically productive to such an extent that they can then be marketed for export, led to an investment in the infrastructure and services necessary for achieving this goal. This explains the remarkably rapid rates at which these services grew and improved. It also explains the financial and accompanying moral investments in bettering the status of the Jordanian citizen, bearing in mind that a healthy population is the ultimate goal. This has led to the formulation of policies and strategies to ensure that the population enjoys relatively good health.

On another political level, Jordan plays a central regional role in the Arab-Israeli conflict. As such, its internal stability is deemed important by both regional and international powers with interest in the region. A number of foreign Governments including the United States of America, the countries of Western Europe, and some of the rich Arab States have a vested interest in keeping a potentially volatile internal situation in Jordan, under control.

This has led to Jordan becoming the recipient of large amounts of financial aid from these countries, as well as from Western aid organizations. This financial aid and assistance was in turn directed and invested by the Jordanian Government, into the strengthening of infrastructural services and into more programmes for improving the manpower resource base.

Additionally, the influx of Palestinian refugees into Jordan, and the political implications resulting from their presence, attracted even more critically needed international

financial support. As discussed in Chapters Three and Nine above, the Palestinian refugee problem was generally met with an initial pouring into Jordan of financial assistance, primarily as an attempt to placate the refugees and the host country. The whole establishment and maintenance of an organization such as UNRWA bears witness to this. Financial aid began to flow into Jordan in an effort to prevent and contain any unrest that may result among the Palestinians. It was also presented as being part of the promise and international commitment to returning the Palestinians to their homeland. The financial resources, as well as the infra-structural services, although primarily targeted at the Palestinian refugees, ultimately diffused to affect the whole of the Jordanian economy and, therefore, the population.

On yet another level, the highly-charged political situation (both external and internal) in which Jordan finds itself, has resulted in a high level of consciousness and a raised awareness among the population. The Palestinian predicament affects the majority of the people of Jordan. This is due to the majority of Jordanian citizens being of Palestinian origin, as well as the fact the Jordan is a front-line state in the conflict. Living under conditions where politics and the issues of human rights and justice are very much alive and part of every-day life, has resulted in a politicized population. Jordanians are, as a result, aware of their needs and demands.

Jordan's journey to democratization, beginning with free elections for a new parliament in November 1989, has been slow. But it now looks like the achievement of democracy will be certain. In early August 1992, the Government was debating new draft laws allowing political parties and paving the way for democratic multi-party elections to take place in 1993. However, even though political parties as such had been

banned, a process of politicization of the population has been taking place. Several instances appear to suggest that it has. First, as soon as the "democratization" process of the country was embarked upon, political activities began to become an established and accepted way of life in Jordan. Second, there has always been a large rate of participation in voluntary and charitable organizations in Jordan. Estimates in the mid-1980s put the number of such organizations at over four hundred. This is a remarkable figure given the small size of the population. Participation in voluntary and charitable work is an indicator of a certain degree of awareness and political consciousness among Jordanians. The high level of awareness among the Jordanian population is also reflected in their active pursuance of educational attainment whenever given the chance.

The other main investment on the part of the Government, directly related to the goals of having a healthy and productive manpower, is the commitment and enthusiasm with which educational service provision was tackled. The Government of Jordan not only provides educational facility services, it has long played an active role in encouraging the population to acquire an education. It is perhaps even more significant to note that Jordanian women were as enthusiastically encouraged to acquire an education as their male compatriots. This is especially noticeable when the educational enrolment and attainment rates for Jordanian females are compared to other Arab females.

Educational attainment levels, in fact, appear to be one of the main determining factors behind much of improvements that have occurred in health status. From the discussions of the various sectors, it becomes clear that education has played its direct role in influencing health. It has also, however, lain behind a host of other pre-disposing functions,

acting in interaction with other factors such as health services utilization, more urbanization, and better economic prospects to result in improvements in health status.

Hence, the interaction of the different political and social considerations with the variables determining health improvement, is found to be crucial for the explanation of the rapid pace at which change is occurring. These considerations are essentially the basis and foundation for the effective realization of the potential of the variables examined in this study when they are present.

The example of Jordan has served as "an attractive and widely respected example of what can be made of an Arab society, even one whose full developmental potential is constrained by the forces of regional conflict and war"[4]. The example of Jordan has, in fact, highlighted the importance of variables which have been discussed before in relation to a number of other countries; those of political will and political commitment. These variables are, however, extremely difficult to quantify both in terms of the extent of their effect, or even in terms of their presence. The present work was not equipped to attain more than a mere detection of the presence of these variables, and the fact of their positive effect on health improvement. Future research into the mechanisms through which these variables function would be extremely valuable to the study of health determinants. They have been, on several previous occasions, acknowledged as playing a significant role, but there has been no attempt at their quantification, nor is there a proper understanding of the exact way in which they function within a culture or society.

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4. Khouri, (1983), p. 113-114.

While most variables and factors identified in Chapter One were found to behave in a predictable fashion in the way they have influenced health status, two variables appear not to. These are a high rate of fertility, and the presence of a large number of refugees. The effect of these two variables warrants some further discussion. Again, it was beyond the scope of this thesis to do more than illustrate and highlight general trends. Further analysis, preferably of a quantitative nature, should be undertaken.

Jordanian fertility both remained high in spite of rising educational levels, and did not appear to have a significant debilitating effect on health status. This posed a number of questions. This finding is opposed to theoretical predictions, and raises questions about the exact nature of the relationship between education and fertility, and between fertility and health. In the case of Jordan, it would be reasonable to assume that, before the late 1980s, neither the Government nor the population actually felt a real need to reduce fertility rates. Jordan has been in the somewhat privileged position among other developing countries of having its budget very heavily subsidized by outside finances. This has served to relieve it of the economic pressures of a growing population. Moreover, although the educational attainment levels of Jordanian females have been substantial, their economic participation in the labour market has been limited. This again is a function of the fact that the country had been so reliant on willing donors. Economic realities, however, are forcing increasing female labour force participation. With the changing economic situation, it is not surprising that the country is now witnessing both an active interest and support of family planning activities, as well as the beginnings of what may be the a transition towards lower fertility rates.

Further research, both cross-national, as well as time-series, in countries with economic conditions similar to Jordan's would need to be undertaken in order to explore further the relationship between the economy and fertility rates. This would enable better planning and priority setting for future health improvement policies, especially since a trend of increased interest in population policies and lowering fertility rates is emerging in the world.

The presence of a large number of refugees has usually been associated with worsening economic and social conditions for the host country. Jordan, being the country with the largest proportion of refugees among its population in the world, is proof that that assumption need not be true. In fact, the influx into Jordan of the Palestinian refugees has acted as a trigger for socio-economic developments and improvements.

Further research needs to be carried out to assess the reasons for the low labour force participation rates of Jordanian women. The relationship between women's employment outside the home and fertility also needs to be examined. More significantly perhaps, would be an assessment of the effect that having a well educated female population, which appears to be staying at home on health status improvement.

The Jordanian example illustrates the importance of the international political agenda in affecting social development and health status. An examination and analysis of these relationships could shed light on other mechanisms that influence health development. It is true that there has been a considerable amount of internal tension in Jordan in the past, which has been exacerbated by the presence of a large refugee population. Once that political hurdle had been surpassed, however, the net result has been one of steady

positive benefits for Jordan. This phenomenon should be examined more closely in future research, as it could stand to challenge the common wisdom prevalent in "refugee studies programmes".

In conclusion, a few final remarks need to be outlined. Politics in its various forms and manifestations has been central to the improvements of health status in Jordan. The different aspects of political influences have been highlighted throughout the text. Two specific political mechanisms will be described briefly here. On the one hand, internal politics has acted in a determined fashion to affect positive change and developments in health. This was achieved through a clear political commitment on the part of the Government to improving the living conditions of the population. This commitment was translated into an investment in infrastructure and the provision of the basics of a decent life: food, education, and health care services. All of which factors have been the main agents behind the impressive developments in health.

On the other hand, the external/ regional political situation has resulted in a considerable flow of foreign financial assistance into Jordan. Concern about Jordan's internal stability by some foreign governments, and concern about its military position in the Arab-Israeli conflict by others has led to it receiving financial support and aid. This aid has acted to counterbalance the poor economic productive base of the country, and has provided the necessary finances to support infrastructural building and services provision. The Government in its turn directed the aid into providing the basic needs and bettering the living conditions of the population. This has been demonstrated by the rapid improvements that have taken place in health status.

Weiss (1987) has described Jordan as belonging to "the small group of developing countries which enjoy both the continuous development commitment of their political leaderships over many years, and considerable administrative stability, despite ongoing political confrontation from the outside"[5]. This illustrates well the conditions which had prevailed in Jordan. It does not mention, however, the economic difficulties which have begun to hit the country.

Jordan in the early 1990s finds itself facing a situation the main components of which are a deteriorating economy, and a well-trained and educated manpower base. It has already attained admirable levels of health, in terms of the reduction in overall mortality rates, as well as in terms of diminishing the incidence and debilitating effects of many diseases associated with poor and developing countries. On the other hand, however, Jordan's diseases patterns are reflecting the same trends found in industrialized nations. This is especially apparent in the increase in importance of illnesses and deaths associated with longevity and life-style.

In order to maintain the gains already made, and to improve further on them, Jordan will need to be ready to face a number of emerging issues. Through strengthening the existing achievements, primarily through a continuing commitment to helping the Jordanian citizen improve his/ her living conditions, further strides in health improvements look set to occur. One of the main avenues towards this goal would be for the Jordanian authorities to maintain the efforts they are investing in education, particularly of women.

Countries that display similar, or higher, levels of economic standards, while displaying health indicators that

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5. Weiss (1987), p. 166.

are below Jordan's, could gain from examining the Jordanian experience. It is only through the commitment to equitable and adequate access to basic human needs, such as health and education that rapid and lasting change can be attained. A firm commitment on the part of governments to the intrinsic value of the human being is essential. This commitment needs to be reflected in an assertion of the right of all citizens to a decent life-style and living standards. Central to this assertion is the necessary belief in, and commitment to, the equal rights of women in a society.

A raised politicization and awareness among the population of the benefits of good health, and of the benefits of utilizing services provided by the state is essential for change to occur. Education is a crucial determining factor of this raised awareness.

This thesis has attempted to explore and examine a number of economic, political, and social factors which play a determining role for the health status of a population. Some conclusions regarding the effects of certain factors were reached, and some questions were raised. Hopefully, these will be regarded as a contribution to the body of knowledge surrounding the issue of what affects health. As such this information could be used in the formulation of future policies for Jordan, as well as for countries under similar conditions.

Much work, however, remains to be done. More single-country based, time-series research needs be carried out on other developing countries exhibiting rapid rates of health improvements in order to affirm our understanding of the mechanisms of health improvement. It is only through increasing our understanding of these mechanisms, that future policies could be designed to benefit the underprivileged.

In the case of Arab and Muslim societies, future research needs to be directed at examining the role of Arab and Muslim women in affecting change, especially as they function through a traditional cultural framework. Western feminism has, until recently, assumed that women of the developing world are oppressed by their cultures. They have called for intrinsic changes in the main fabric of culture in order for changes in the status and position of women to take place. The changes transpiring in the roles and status of Jordanian women, within the framework of an Arab and Islamic culture, acts to challenge these concepts. For this, intensive, culturally-sensitive, anthropological and sociological research, needs to be undertaken.

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