

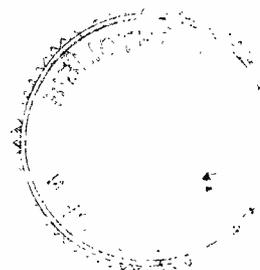


FORTIETH WORLD HEALTH ASSEMBLY

Provisional agenda item 29

HEALTH CONDITIONS OF THE ARAB POPULATION IN
THE OCCUPIED ARAB TERRITORIES, INCLUDING PALESTINE

At the request of the delegation of Israel, the Director-General has the honour to transmit to the Fortieth World Health Assembly, for its information, a report¹ by the Ministry of Health of Israel, and the accompanying letter.²



¹ Annex 2.

² Annex 1.

ANNEX 1

MISSION PERMANENTE D'ISRAEL
AUPRES DE L'OFFICE DES NATIONS UNIES
ET DES ORGANISATIONS INTERNATIONALES A GENEVE

Geneva, 13 April 1987

Dear Dr Mahler,

Enclosed please find a comprehensive report prepared by the Ministry of Health of Israel on health and health services in Judaea, Samaria and Gaza, 1986-1987.

I would appreciate it if the Report is circulated as an official document of the Fortieth World Health Assembly.

Yours sincerely,

(signed) Avraham Millo
Minister-Counsellor
Chargé d'affaires a.i.

Dr Halfdan Mahler
Director-General
World Health Organization
Avenue Appia
1211 Geneva 22

**HEALTH AND HEALTH
SERVICES IN JUDAEA,
SAMARIA AND GAZA
1986 – 1987**

**MINISTRY OF HEALTH
STATE OF ISRAEL**

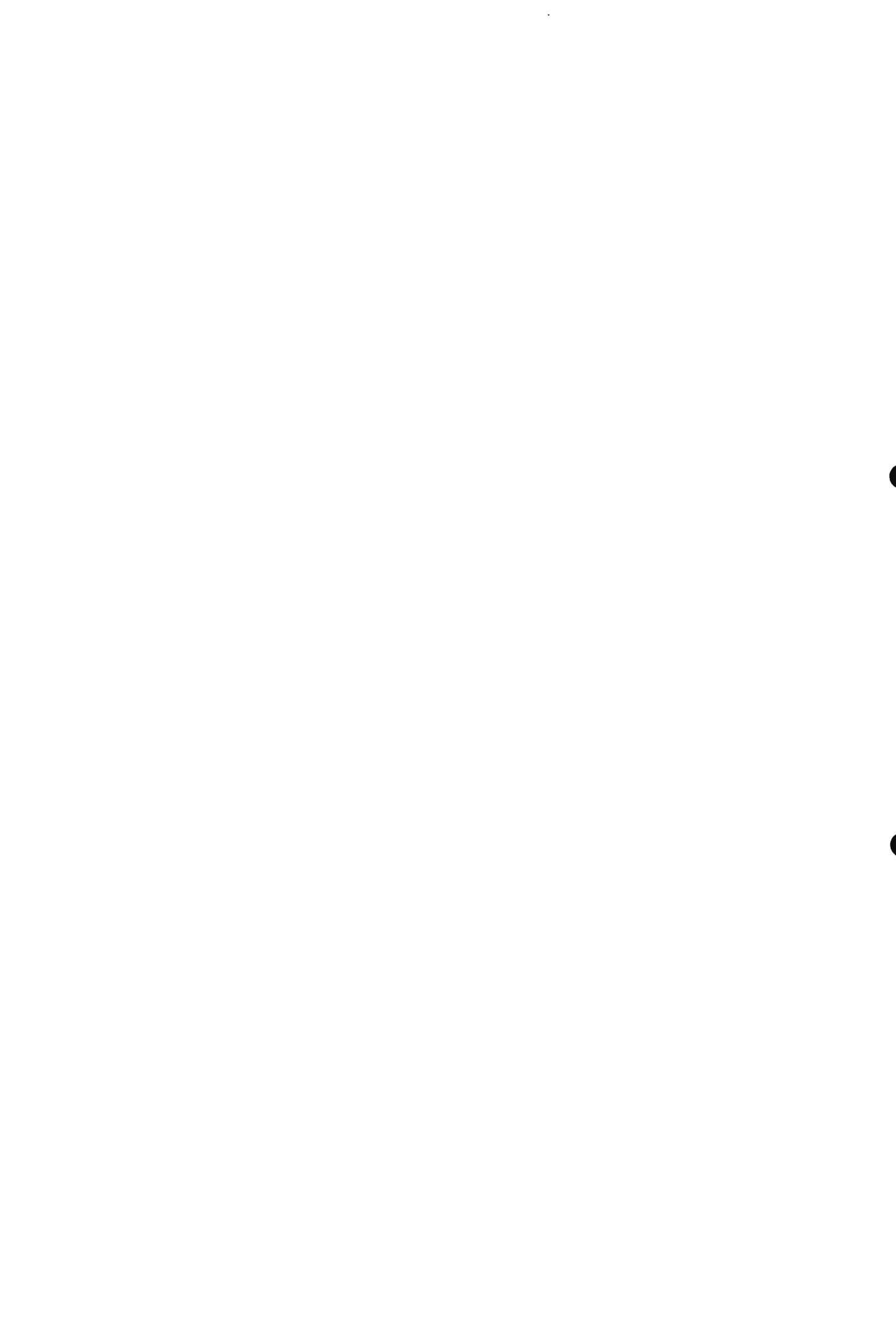
March 1987

Jerusalem



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PREFACE

This review records the development of health services and health conditions of the population of Judaea, Samaria and Gaza. It emphasizes the developments during the past year, but in the context of the ongoing process of change over the past 20 years.

Change in health status is the result of improved socioeconomic conditions, as well as continuing build-up of primary health care and sanitation at the local level, and hospital and specialty services at the regional level. These changes indicate improvement in the quality of life of the people of Judaea, Samaria and Gaza. This can be evaluated through objective measures of socioeconomic well-being, as well as by morbidity, mortality and other health indicators.

The local population is involved in the planning and administration of their own health services, and this contributes to the process. More remains to be done by government, but there is also a vital and growing role for local municipal, voluntary and charitable societies. International agencies have played an important role in the past few years in providing significant financial resources to aid in this development process.

The government of Israel is committed to and working toward improved standards of living in Judaea, Samaria and Gaza. Health services and health status are vital elements in achieving this. We intend to maintain and even intensify the process of upgrading health standards for the population, in keeping with the World Health Organization goals of Health for All by the Year 2000.

I wish to thank all those health professionals who take part in this process, Arab residents of Judaea, Samaria and Gaza, Israelis, and international agency staff. Their joint work is made more complex by the intense international interest in the area. It is rewarding to see the cooperation and mutual respect of health professionals working together in common cause – improving the health of the people. Health is a bridge between people, and it is my fervent wish that our mutual efforts in this direction will help bring peace and good will to our area.

March 1987
Jerusalem

Mrs. Shoshana Arbelli-Almozlino
Minister of Health

INTRODUCTION

Complete physical, mental and social well-being is an ideal to which the world health movement aspires. Member states of the World Health Organization have pledged to work toward attainment of a level of health that will permit all to lead a socially and economically healthy, productive life by the year 2000. To achieve these goals it is essential to focus upon specific health and socioeconomic objectives.

Central elements of social and health progress include full employment, fair wage and income scales, adequate housing and education, electrification, safe water supplies, garbage and sewage systems, maternal and child health care facilities, expanded immunization programs and primary health care as well as general and specialty hospital services. While this complex developmental process naturally takes time to implement, these services are becoming widely available throughout Judaea, Samaria and Gaza. Their positive effects on health status is evidence by reduced morbidity and mortality rates for the population.

Priority areas which have been central in the planning process include the following:

- 1) Development of mother and child health (MCH) and primary care services;
- 2) Encouraging birth/deliveries in hospitals or medical centers;
- 3) Expansion of immunization coverage and adding new vaccines (EPI);
- 4) Improved surveillance and control of infectious diseases;
- 5) Diarrhoeal disease control (including ORS);
- 6) Development of health manpower training programs;
- 7) Expansion of secondary and tertiary health services in local hospitals;
- 8) Food control;
- 9) Providing safe drinking water;
- 10) Development of sewage and solid waste collection and disposal systems;
- 11) Development of adequate reporting systems to provide data to monitor health status and to plan for future needs;
- 12) Development of health insurance;
- 13) Planning for continuing development and evaluation of health services and health conditions;
- 14) Stress on nutrition education and growth monitoring in maternal and child health care; and
- 15) Expanding the scope and content of primary health care (EPHC).

These priorities have been the basis of health planning for the development of the health services in Judaea, Samaria and Gaza. The report of the Joint Planning Committee on Health Services in Judaea and Samaria in 1985 provides the basic planning document for the 1985 – 1990 period. This report put greatest stress on the need to expand Primary Health Care, health manpower development, environmental health, and hospital services at the secondary and tertiary care levels.

Planning and adaptation are crucial to the development of health services. The process of development of health care in Judaea, Samaria and Gaza has been based on these principles.

I. HIGHLIGHTS

Table 1: HIGHLIGHTS – JUDAEA AND SAMARIA, 1968–1986
(Area: 5600 sq. km.)

Health Status Measures/Years	1968	1974	1980	1986
Population (000's)	583.1	663.7	724.3	834.0
Population density (per km)	104	119	129	149
GNP per capita (US\$)	170	621	1334	1519*
Birth rate (per 1,000 population)	44	46	44	40
Crude death rate (reported) (per 1,000 population)	4.8	5.3	5.4	5.1
Infant mortality rate (reported) (per 1,000 population)	34	31	28	25
Hospital deliveries (% of total deliveries)	14	30	40	56
Hospital beds (total general) (per 1,000 population)	1.5	1.4	1.4	1.2
Hospital utilization – discharges (per 1,000 population)	NA	68	88	88
Hospital days of care	NA	NA	344	296
Community clinics (governmental MCH and general medical)	113	149	211	289
Physicians in government service (per 10,000 population)	1.8	1.7	2.4	3.1
Physicians (government and non-government) (per 10,000 population)	NA	NA	6.2	7.0
Nurses and paramedical staff in government service (per 10,000 population)	5.6	9.0	11.0	11.8

Note: Data are corrected to the Central Bureau of Statistics, Statistical Abstract of Israel, 1986. Other data are as reported from Government Health Services, Judaea and Samaria, Statistical Department 1987 (rounded).

* 1983

**Fig. 1 JUDAEA AND SAMARIA - DISTRIBUTION OF
GOVERNMENT HEALTH SERVICES, 1988**

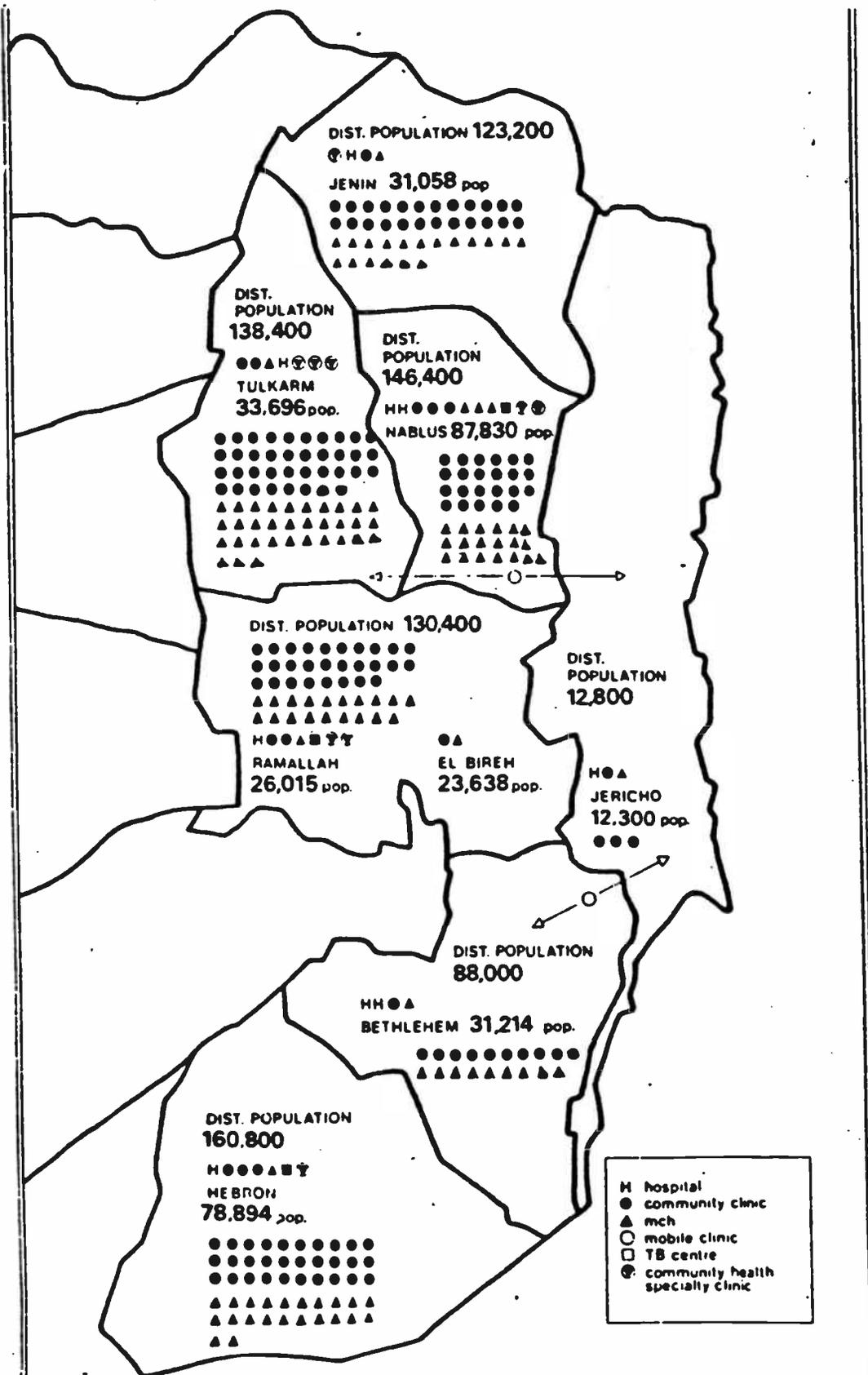
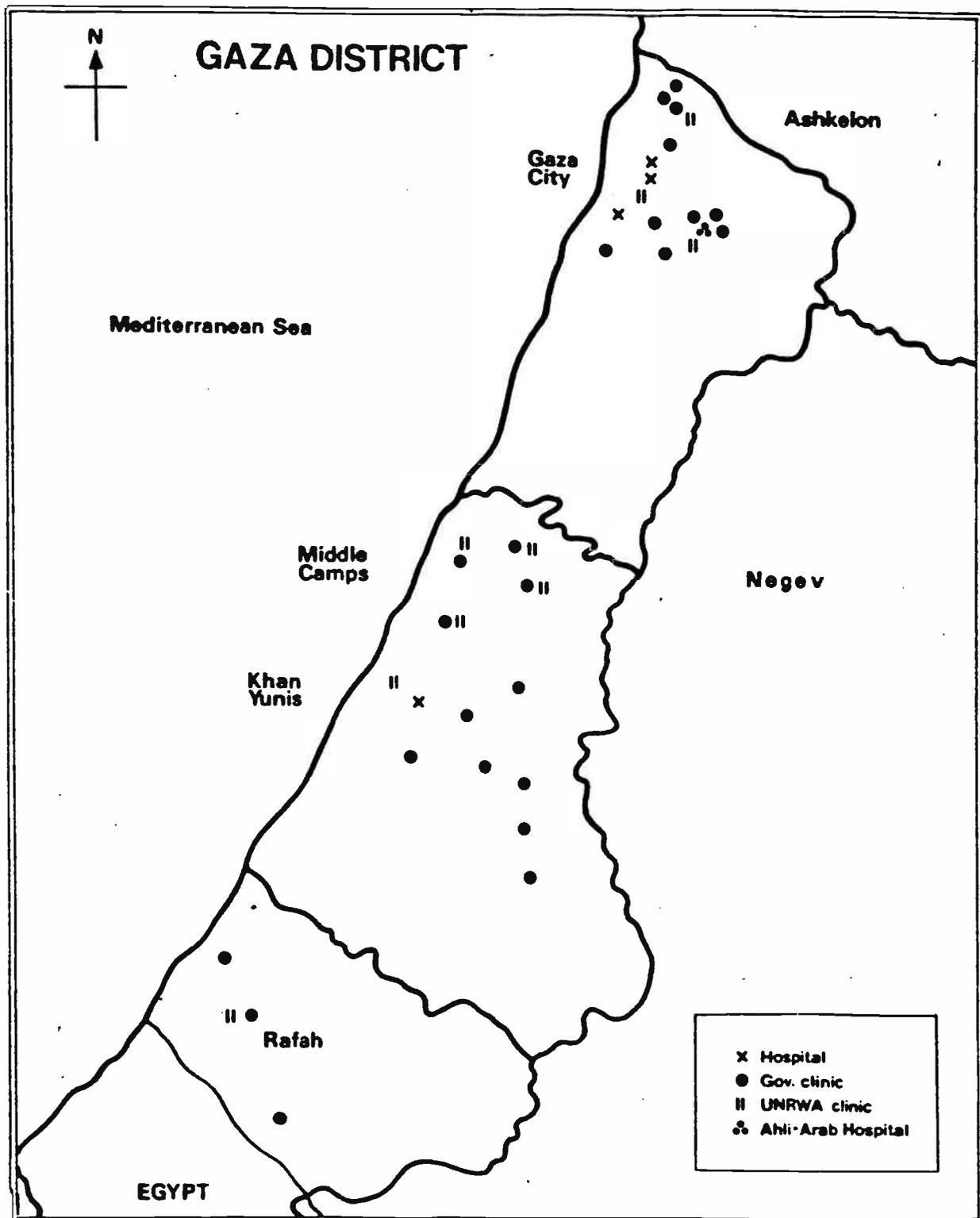


Table 2: HIGHLIGHTS – GAZA, 1968–1985
(Area 363 sq.km.)

Health Status Measures/Years	1968	1974	1980	1985
Population (000's).	356.8	414.0	456.5	525.5
Population Density (per km ²)	982	1140	1258	1448
GNP per capita (US\$)	104	605*	878	1223**
Birth rate (per 1,000 population)	43	50	49	48
Crude death rate (reported) (per 1,000 population)	8.7	6.5	6.0	5.5
Infant mortality rate (reported) (per 1,000 live births)	86	67	43	33
Hospital and maternity centre deliveries (% of total deliveries)	10	47	65	78
Hospital beds (total general) (per 1,000 population)	1.9	1.9	1.9	1.7
Hospital utilization – Discharges (per 1,000 population)	NA	95	99	90
Days of care (per 1,000 population)	NA	563	489	372
Community clinics (governmental MCH and general medical)	0	12	22	26
Physicians in govern- ment service (per 10,000 population)	2.7	2.9	5.1	5.0
Nurses and paramedi- cal staff in govern- ment service (per 10,000 population)	8.6	11.1	14.8	14.5

Note: Population data corrected to current estimates of Central Bureau of Statistics, Statistical Abstract of Israel, 1986. Other data from Health Department, Gaza, February 1987. *1976, **1983 (rounded).

Fig. 2: GAZA -DISTRIBUTION OF
GOVERNMENT HEALTH SERVICES, 1986



II. DEMOGRAPHY

Statistical and demographic data are essential for evaluating both the socioeconomic and health status of a given population. Despite traditional difficulties in introducing vital statistics reporting, much progress has been made in the collection of data for assessment, research and evaluation. The birth rates continue to be high: over 48 per thousand population in Gaza; it has declined in Judaea, Samaria from over 45 per thousand to 40 per thousand in 1986.*

Data are based on a 1967 Census of population in Judaea, Samaria and Gaza and an update registry for Gaza in 1981. The Central Bureau of Statistics of Israel in 1985 prepared population estimates derived from the empirical data and demographic modelling techniques. The population models are based on assumptions of infant death rates of 150/1000 live births prior to 1967; 100/1000 in the mid 1970's and 70/1000 in the early 1980's for Judaea, Samaria and Gaza together. Cumulative corrections up until 1981 result in an increase in population for Judaea and Samaria of approximately 24,500 (about 3.5%) and an increase in Gaza of approximately 17,300 (about 3.8%). Most of this increase is concentrated in the under 15 age group.

The estimated life expectancy in Judaea, Samaria and Gaza has increased substantially over the past two decades. In 1967, life expectancy at birth was estimated to be 48 years; in the mid 1970's, 55 years; and in the early 1980's, 62 years. Infant mortality (IMR) has decreased substantially in this period. Current IMR's are based on reported deaths. The Gaza IMR rate has declined from 86/1000 in 1968 to under 30 in 1986. This quite accurately describes the situation because of a well developed system of confirmation and followup for vital statistics. The IMR in Judaea and Samaria is more difficult to fix accurately because of the distribution of the population in some 450 villages and incomplete coverage in primary health care. The reported IMR for 1986 was 24.5/1000 for Judaea and Samaria.

Unreported deaths have, however, decreased significantly due to several factors: improved follow-up systems in the expanding network of primary care units (MCH centers and community clinics), direct visits by public health workers to villages without MCH centres and UNRWA supervision of refugee camp populations. Furthermore, increasing proportions of births are taking place in hospitals and medical centres (61% in Judaea and Samaria, 78% in Gaza in 1986).

Active follow-up of the newborns, coupled with well accepted immunization programs and extensive use of curative health services, have contributed to improved data. Government health and statistical information departments use the data based on actual reported events as the basis for published vital statistics.

One source of discrepancy between estimated and reported infant death figures arises from the difficulty in closely supervising traditional birth attendants (Dayas) in the villages. Field projects designed to improve the accuracy of reported infant births and deaths are being conducted by the health authorities to maximize and improve vital statistics.

More accessible health services with improved standards of family and community living in Judaea, Samaria and Gaza have led to a decrease in child mortality. Moreover, extensive programs instituted to reduce specific causes of death in young children, including nearly universal immunization coverage (EPI) and oral rehydration therapy programs (ORS), have contributed to the substantial lowering of child and infant mortality.

The demography of Judaea, Samaria and Gaza is strongly influenced by very high birth rates and high fertility rates. The result of these factors in conjunction with the stress on enhanced child care is a relatively young population with 45% under the age of 14, a demographic situation characteristic of developing countries.

Another factor in the demography of these districts is the traditional migration to seek employment opportunities elsewhere. A significant number of young adults emigrate temporarily in search of highly paid work in the Gulf States and other neighbouring countries. Because of high levels of education and technical training in Judaea, Samaria and Gaza, these workers are sought after by these countries which lack the trained manpower. Many of these young people benefit from the high salary scales and then return home with their savings. This migration has declined significantly in recent years due to the economic downturn of the oil industry in the Gulf countries, and many such workers are now returning to the area.

III. SOCIO ECONOMIC CONDITIONS

Social and economic conditions, major factors in the health of a population, have improved steadily in Judaea, Samaria and Gaza in the past 20 years. Chronic unemployment and underemployment prior to 1967 have been replaced by full employment (with about 98% of the labor force employed). This contrasts sharply with most of the industrial world, including Israel, where unemployment rates range from 5–12% of the work force. Full employment and steadily increasing real wage scales have resulted in an active cash economy which has increased local economic activity, employment potential and standards of living as well as the regional gross national product. The free flow of labour and goods to and from Judaea, Samaria and Gaza into Israel, Jordan and other neighbouring countries has contributed much to economic development of the area.

Large-scale technical training programs combined with modern agricultural equipment and techniques learned from Israeli agricultural experts have revolutionized agriculture, resulting in an expansion of output using less manual labor. This has increased the amount of manpower available to agriculture, the services sector, the building trades, and industry.

The per capita gross national product in Judaea and Samaria has increased from \$170 (US dollars) in 1968 to \$1,519 in 1983. The per capita GNP in Gaza has increased from \$104 in 1968 to \$1,223 in 1983. Agricultural production per capita has increased in both areas many fold as a result of improved education and application of agricultural technology. Food supplies have grown and agricultural export has stimulated the local economy.

Schooling has been universal at the primary school level for over a decade now, and is steadily increasing at the secondary school level. The educational system provides twelve years of free schooling; six years of compulsory elementary education, three years of compulsory junior high school and three years of non-compulsory high school. Schools in Judaea and Samaria now include over 278 thousand pupils in 8,125 classrooms staffed by over 7,300 teachers. There are now four university level academic institutions in Judaea and Samaria with nearly 10,000 students in various academic as well as professional programs such as nursing and teaching. Over 50,000 people in Judaea and Samaria – nearly one quarter of the work force – have graduated from vocational training. In Gaza, there are over 154 thousand pupils in schools containing 3,700 classrooms, and one university.*

Public water systems have developed water conservation and increased total water supplies. Urban centers and over 200 villages in Judaea and Samaria have been linked to regional water systems, providing indoor running water 24 hours a day. Road networks have been greatly improved and expanded, reaching nearly every village with paved roads. Electrification based on regional electrical networks has been extended to towns and many villages in Judaea and Samaria. Modern digital telephone exchanges and a major increase in telephones connected have also been established in recent years.

Construction in the private and public sectors in Gaza has nearly doubled from 1974 to 1984 in terms of residential building completions. The total number of buildings built in Judaea and Samaria increased by nearly two-thirds during the same period. New housing constructions are serviced by electrification, water and waste disposal systems. In addition, current housing units, including those in refugee camps, are being linked to these modern services.*

IV. MORBIDITY AND MORTALITY AND HEALTH STATUS INDICATORS

High incidence rates of infectious diseases are the hallmark of morbidity and mortality in societies with low levels of economic, social and health services development. As a result of the overall socioeconomic development and improved health services in Judaea, Samaria and Gaza, infectious diseases has become less prominent as a factor in the morbidity of the area. There is now more demand for prevention and care in chronic diseases and diseases related to increasingly affluent life style as disease patterns characteristic of developed countries are emerging.

*Central Bureau of Statistics-Statistical Abstract of Israel, 1986.

Other measures are also essential in the evaluation of health status, such as immunization rates, birth weight patterns, hospital admission rates, diagnostic data, growth patterns of children and other data related to the delivery of health care.* In many of these health status indicators, an increasing data base shows real improvements over the years.

Reducing infant and child mortality from diarrhoeal diseases and the immunizable diseases such as diphtheria, polio, pertussis, tetanus and measles has led to the identification of new target issues in child health. Respiratory infections, cold injury and nutrition related child morbidity have become the major focus of child health programs. Prevention takes on greater complexity in that more emphasis is needed on the education of the family on appropriate care of the infant child. In February 1987 screening of newborns for Phenylketonuria (PKU) and Hypothyroidism began in both areas along with treatment support for identified cases. Screening and special support for children at risk for poor nutrition status will also be expanded in 1987, along with high risk pregnancy screening and referral clinics.

Chronic disease care patterns also shift as standards of living rise so that coronary heart disease increases as in other middle and advanced developing countries, while rheumatic heart disease morbidity and mortality declines. These activities are part of a general expansion of the content of PHC and prevention and adaptation of the health system to meet the needs of the community. Development of new health activities requires particular emphasis in the areas of education about good health and health promotion, in keeping with the concepts of Health for All and PHC of the Alma Ata Declaration.

V. PRIMARY CARE AND PREVENTIVE SERVICES

The international health community has declared primary health care to be the key to health progress in developing areas. The definition of primary health care is the Alma Ata Concept including nutrition, safe drinking water, sanitation, immunization against the major infectious diseases, maternal and child health care, provision of essential drugs and health education. This approach has been used as the basis for the development of health services in Judaea, Samaria and Gaza over the past twenty years.

Maternal and Child Health

Maternal and child health has been one of the main priorities in developing the health care system. Experience in Israel, and in many other countries during their development stages has shown that emphasis on MCH has a high payoff in public health terms, especially in a population with very high fertility rates and a high proportion of young people. Health planning therefore has stressed prenatal care, hospital deliveries, improved perinatal care and expansion of the immunization program and its coverage, and growth monitoring. Prenatal care and high risk identification and care is now receiving a new stress.

The basis for expansion of the MCH program has been the distribution of, and access to, MCH services in Judaea and Samaria. A fivefold increase in the number of MCH centres, from 23 in 1968 to 126 in 1986, and an increase in general community clinics from 91 in 1968 to 163 in 1986 have resulted in improved access to services even for the smaller remote villages. In Gaza, 26 MCH centres have been established providing a centre in every village or neighbourhood, in addition to the 9 UNRWA centres providing PHC in the refugee camps.

Consequently, utilization of MCH services has increased. Prenatal care services are extensively utilized and include routine iron and folate supplementation. These services have influenced the rate of hospital and medical centre births. In Judaea and Samaria this rate has risen from 13.5% in 1968 to 30% in 1974, to 56.6% in 1986. In Gaza, hospital and medical centre delivery rate rose from less than 10% in 1967 to 47% in 1974, to 78% in 1986.

* World Health Organization (1981) Development of Indicators for Monitoring Progress Towards Health for All by the Year 2000, Geneva.

** World Health Organization, Health for All by the Year 2000 Publication Series Geneva, 1981.

Fig. 3: LIVE BIRTHS AND HOSPITAL DELIVERIES

JUDAEA & SAMARIA

1967-1986

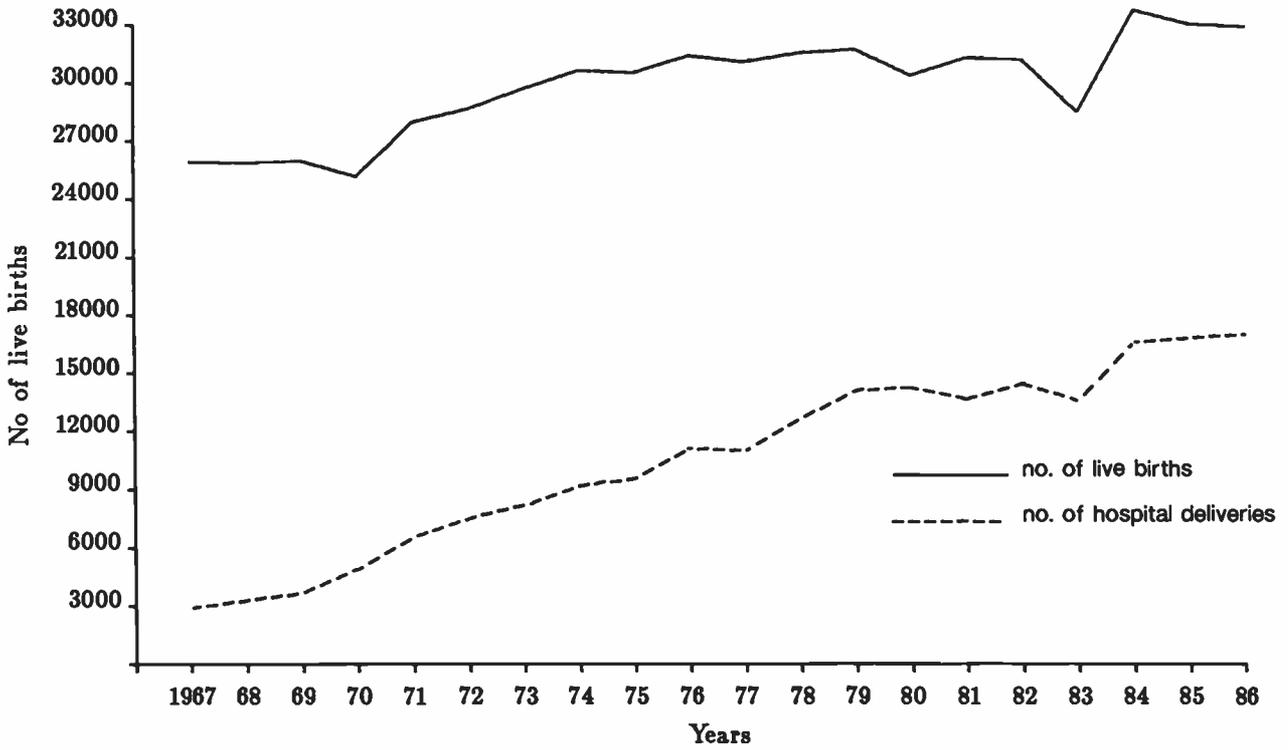
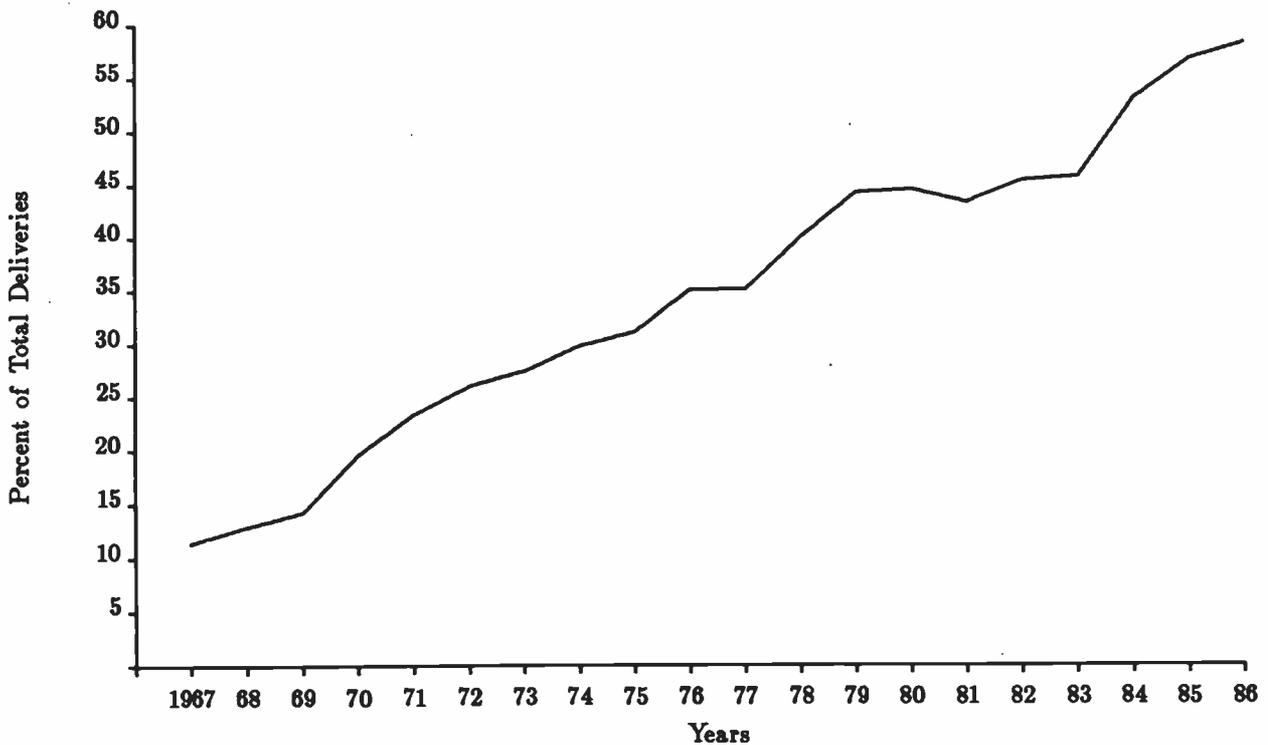


Fig. 4: HOSPITAL DELIVERIES OF TOTAL LIVE BIRTHS

JUDAEA & SAMARIA

1967-1986



In order to improve prenatal care for those women using traditional birth attendants, licensing, supervision and educational programs for the Dayas has been increased by the government health services, with support from WHO and UNICEF. During 1982, registered nurse supervisors for Dayas were appointed in all districts of Judaea, Samaria and Gaza. These supervisors monitor the work of the Dayas and have initiated educational programs for the Dayas. During 1986 and 1987, UNICEF assistance will enable increased Dayas supervision and education activities. Nutrition education for women during pregnancy is being expanded in order to improve fetal and infant development.

Pilot studies of growth patterns of infants have been carried out, along with a review of current infant feeding practices. A booklet "Guide to the New Mother" has been prepared by the government health service and is now being provided free to new mothers in hospital delivery rooms, MCH centres and village health rooms. A Guide for Nutrition of the Healthy Infant has recently been completed based on international standards, and circulated among medical and nursing staff in the PHC systems.

Perinatal care services are being improved by re-equipment of facilities and training programs for medical and nursing staffs. Birth weights are now routinely monitored for hospital deliveries, providing a valuable health status indicator. The percentage of newborns under 2500 grams at birth in both Judaea, Samaria, and Gaza is 7%, a level similar to that in many developed countries.

The current follow-up care of infants covers many basic aspects of health, including immunization, monitoring of physical growth and development, morbidity and prenatal health education. Monitoring infant and child development by regular measurement of height and weight-for-age and weight-for-height is being included in routine child care. These are important indicators of the overall nutritional status of the population and the well-being of individual children. Individual and group monitoring of child development is based on the current internationally accepted child growth standard, the U.S. National Centre for Health Statistics (NCHS). New child care records including these growth standards are being field tested and evaluated.

In addition to monitoring infant mortality reported to the public health systems in the areas, special analysis of infant deaths by primary cause and location of residence of the infant is now being added to routine outcome measure indicators. Respiratory disease deaths, perhaps associated with cold injury, have replaced diarrhoeal disease as the major cause of infant and child deaths. Staff orientation projects have begun to raise the consciousness of medical and nursing personnel to these conditions, particularly for the winter months.

Investigation of infant and child deaths has been expanded by the government public health services in Judaea and Samaria. Sero surveys to determine protective antibody levels among school children have been carried out as part of health services research. Research centres were established in Ramallah and Gaza during 1985/86, as WHO Collaborating Centres, with WHO and UNDP assistance to develop and expand research activities related to primary health care in the areas.

**Table 3: INFANT MORTALITY RATES – GAZA, 1969–1986
(Reported)**

Years	1969	1971	1975	1980	1985	1986*
Neonatal	25.7	25.9	21.5	15.0	14.5	14.9
Postneonatal	60.3	60.0	47.8	28.0	18.9	14.1
Total infant mortality	86.0	85.9	69.3	43.0	33.4	29.0*

Source: Health Services Research Centre, Gaza, March 1987

*Preliminary.

Expanded Program of Immunization (EPI)

The importance of EPI as an essential component of maternal and child health and primary health care has been strongly emphasized in WHO resolutions and in the Declaration of Alma Ata in September 1978. EPI is a central element in WHO strategy to achieve Health For All by the Year 2000. Immunization coverage of children has been included among the indicators which WHO uses to monitor the global success of that strategy.

Nearly universal coverage of the well established childhood immunization programs has been achieved in Judaea, Samaria and Gaza, and this compares favorably with countries having advanced preventive programs. Community acceptance and participation in these programs have been vital to their success. General public education regarding the vital role of immunization in child health has been emphasized and extensive contact has been established with the religious and lay leadership in the area.

The success of the EPI and the addition of new vaccines to the basic programs have resulted in reduced childhood mortality and morbidity. Diphtheria, pertussis, and polio are under control; tetanus is rapidly declining assisted by a WHO-supported expanded project to eliminate tetanus by an immunization program among women in the age of fertility, and among young adults. Although small outbreaks of measles still occur in the area, excellent progress is being made towards the control and future elimination of measles through widescale sustained immunization coverage. Immunization is carried out in maternal and child health centres and community clinics. In the small villages in Judaea and Samaria, mobile public health teams visit the villages once every six weeks to immunize the children. Public health teams also visit the primary schools regularly to immunize the children in the first and sixth grades. A rubella program has been established for girls at age 12 in Judaea and Samaria since 1981. A program of rubella vaccination including for newborns is now being developed with the introduction of Measles Mumps Rubella vaccine for 14-15 month old infants in both areas in 1987.

A major effort in BCG immunization has been carried out in Judaea, Samaria and Gaza. Children between ages 6 and 18 have been immunized in the schools. In Gaza, newborns are given BCG in their first month as part of routine immunization in the MCH centres. All children entering school at age 6 are Mantoux tested and, if found negative, are immunized with BCG.

These measures will have long term benefits in the prevention of tuberculosis. A 1982 review of the tuberculosis situation in Judaea and Samaria by a WHO consultant indicates that the area may now be considered low prevalence area for tuberculosis. Substantial progress in tuberculosis control was also noted in Gaza and suggested improvements in diagnostic techniques are being implemented.*

During 1983, a sero survey of antibody levels to polio, measles, rubella, and tetanus was carried out on a sample of school children aged 6 - 8 in urban and rural schools in each district of Judaea and Samaria. Protective antibody levels were present in over 90% of children for polio (types I, II and III), 90.6 for measles, 98% for tetanus and only 49% for rubella (used as a marker disease not yet included in the routine child immunization program). These findings indicate excellent levels of coverage for the immunization program. During 1986, a repeat serosurvey was carried out for school aged children to include polio, tetanus, measles, hepatitis A, hepatitis B and rubella in Judaea and Samaria. This showed polio antibodies (types I, II III) in over 98% of the sample of children aged 7, and over 98% rubella antibodies in girls aged 14. Measles antibodies in 7 year olds was 85% , tetanus only 60%, while tetanus antibodies in 14 year old girls was 90% (i.e. after the booster dose).

* Styblo, K. (1982) - Assignment report; Tuberculosis Control in Israel; 9- 21 January 1982 WHO- EM/TB/157, EM/10P/SPM/001/RB May 1982.

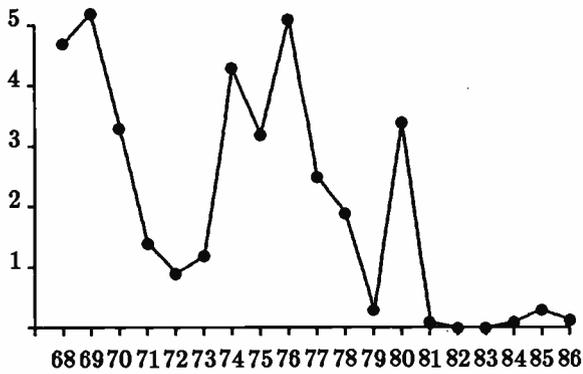
Fig. 5: SELECTED CHILDHOOD INFECTIOUS DISEASES

JUDAEA & SAMARIA

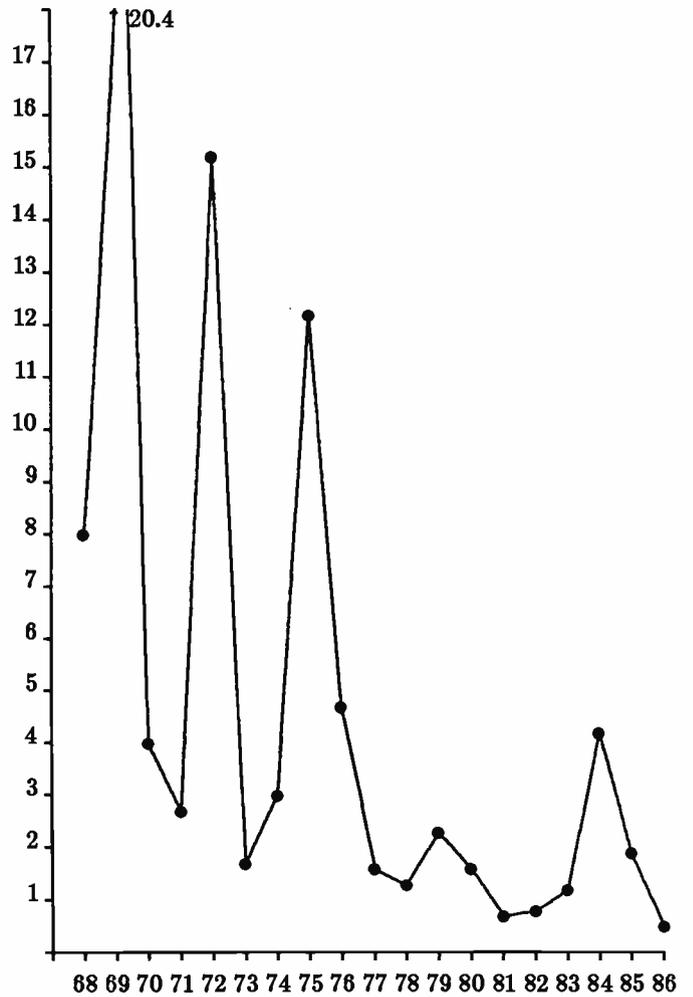
REPORTED CASES PER 100,000 POPULATION

1968-1986

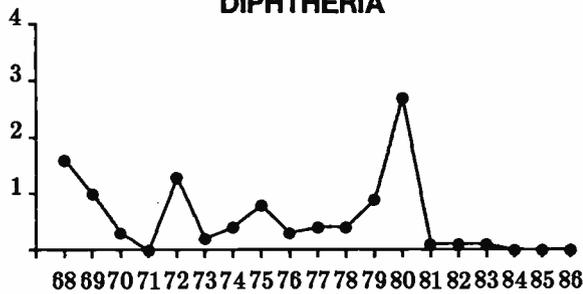
POLIO



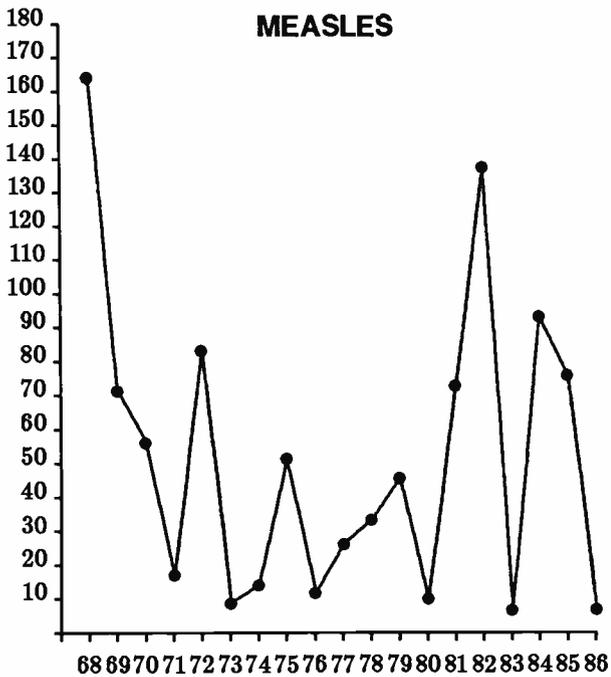
PERTUSSIS



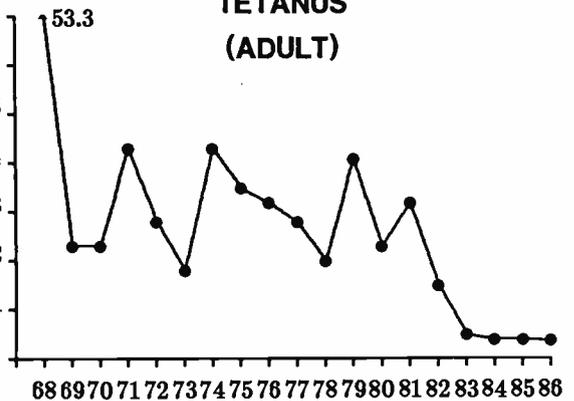
DIPHTHERIA



MEASLES



TETANUS (ADULT)



**Table 4: INCIDENCE RATES OF SELECTED REPORTED INFECTIOUS DISEASES – GAZA,
1968 to 1986
(Reported cases per 100,000 population)**

Disease/Year	1968	1970	1975	1980	1982	1984	1985	1986
Diphtheria	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Measles	471.2	604.6	136.7	0.7	329.3	13.0	73.4	7.2
Pertussis	55.9	30.2	11.0	1.4	10.2	52.1	14.4	–
Polio	14.3	12.5	4.3	2.9	0.2	0.0	0.0	0.2
Tetanus*	14.6	13.6	10.8	6.3	2.4	1.8	2.2	0.6

Note: * Includes tetanus neonatorum and adult tetanus cases.

Source: Health Services Research Centre, Gaza, Feb. 1987.

Table 5: CONFIRMED CASES OF POLIOMYELITIS – JUDAEA, SAMARIA, AND GAZA, 1972–1986

Years/Area	Judaea and Samaria	Gaza
1972 – 1976	99	224
1977 – 1981	57	48
1982 – 1986	4	4

Nutrition and Growth of Children.

The food balance sheets of Judaea, Samaria and Gaza indicate an adequate per capita energy availability which is within the Food and Agriculture Organization (FAO) and WHO recommended dietary allowance. This is considered by WHO to be the best indicator of total food availability. Total per capita energy in the food balance information was 2,554 calories for Gaza, and 2,857 for Judaea and Samaria in 1985.

Special attention is being given to the nutritional status of infants and young children. Nutritional surveillance of these groups is now an integral element of primary health care.* Birth weights are routinely recorded for children born in government and non-government hospitals in Judaea and Samaria; in 1985 6.1% were under 2,500 grams (i.e. LBW or low birth weight). A survey of birth weights in Gaza in 1986 showed a low birth weight rate of just under 6%.

Routine monitoring of infant growth patterns is receiving increased stress as a method of surveillance of the individual child, and as a method of monitoring the community of children. **During 1985, a major study of infant growth patterns was carried out in MCH centres in Judaea and Samaria. This showed better growth patterns for breast fed babies than for artificially fed babies. Urban growth patterns for breast fed babies were better than for artificially fed babies, and urban babies showed better growth patterns than rural ones. The findings show weight for age patterns similar to the NCHS international growth standard in the first six months and second year of life, but with some growth faltering in the second six months of life. This indicates the need for a strong education program on appropriate food supplementation in the second half of the first year of life. The group monitoring method was useful to raise staff consciousness of the vital importance of growth monitoring for the individual child. New individual child records are being tested and introduced into the government health service and the village health program, and further growth pattern studies are in progress.***

A new "Guide for the Nutrition of the Healthy Infant" has been prepared and is being distributed to medical, nursing and other staff in community health work. During 1985, a new "Guide to the Management of the Failure to Thrive Child" was prepared by a specialist committee for distribution in Gaza's health services, including governmental and UNRWA Community Clinics, and the government Children's Hospital. The new "Guide to the New Mother" issued in the Judaea and Samaria government health service place a great deal of stress on proper nutrition of the infant and young child. Several health education posters stressing breast feeding, routine well child and pregnancy care, and good nutrition for the infant have been prepared distributed to all MCH centres in the areas.

In 1986, strong emphasis is being placed on nutrition as the key to improve child health now that communicable disease control has been successfully established, and as the mothers of the area have developed confidence in the preventive health services.

Expanded Primary Health Care (EPHC)

In Judaea and Samaria, there are over 450 villages of which approximately half have populations of less than 1500 persons. These villages are visited by public health teams in order to register and immunize the infants and children. During 1985, a new approach to village health care in the area was initiated with a project in Hebron district to expand the primary care in the small villages. This includes prenatal care, well child care, community health surveillance and epidemiology. This project was developed by the government health service in cooperation with UNICEF.

* WHO (1981). Development of Indicators for Monitoring Progress Towards Health for All by the Year 2000. WHO, Geneva, p. 25.

** WHO (1985). Seventh General Programme of Work. WHO, Geneva. 90% or more of births with over 2,500 grams birth weight is indicative of good prenatal nutrition.

*** Tulchinsky TH, Acker C, El Malki K, Socolar R, and Reshef A (1985)

Use of growth charts as a simple epidemiological monitoring system of nutritional status of children. Bulletin of the World Health Organization 63 (6), 1137 - 1140.

A pilot phase involving four villages of between 500 and 1000 population was carried out. This includes eliciting community support; selection of a young woman high school graduate from the village to train as a village health worker (VHW); carrying out a six month VHW training program; developing new pregnancy and child care records; developing a VHW training manual; opening "health rooms" in the villages; and developing health education material including a "Guide to the New Mother", as well as health education posters.

Subsequently twenty other villages without on site health services were selected by the senior medical officer of Hebron district and his staff on the basis of need and village interest in the program. Young women were nominated by the village for the VHW program, and were selected based on high school education and personal aptitude. These VHW candidates began their six month didactic and practical training program in November 1985. While they are in training, health rooms were prepared in their villages, so they returned to the village fully functional upon completion of their training. In August 1986, these twenty new villages opened their health rooms. The third training course began in Oct. 1986 with 29 participants.

During 1986, this program reached a further 20 villages in Hebron district and expand the existing services in 4 larger village MCH Centres. The village health room is the centre for health activity in the village, including the visiting public health team which comes biweekly, the registration of newborns, pregnant women, health education, school health work, and community health surveillance. The VHW carries out household surveys, a village health map and regular home visiting programs especially to "high risk" families. Nutrition monitoring and education is a key part of their activity. The program will continue to expand in 1987, not only covering some 50 villages in Hebron, but also 10 villages in the Jericho area. A similar project is being prepared for the Nablus area, and a proposal to extend the EPHC project to all of the area is awaiting approval by the UNDP.

VI SECONDARY AND TERTIARY HEALTH SERVICES

Health care at the hospital and specialty service levels is clearly an essential element of a comprehensive health care program. Development of these services, however, must take place in the context of adequate development of primary health care, appropriate manpower supply, and available resources. Such specialized medical care must also be distributed in such a way that it is accessible to the population.

Hospital Services

The development of hospital services has involved the complete organizational and physical restructuring of existing facilities in order to raise the quality of services at the regional level. Infrastructure services such as laboratory, X-ray, pharmacy, supply, kitchen and laundry have been emphasized. In Judaea and Samaria, hospitals in all seven government districts have been reorganized and upgraded in the basic medical departments, as well as in the infrastructure and support services.

Continuing development of many specialized services in local hospitals is planned in keeping with the need of the region and the pace of specialized personnel training. For example, specialty services have been added to all government hospitals. These services include orthopedics, ear, nose and throat, coronary care, oncology, gastroenterology, renal dialysis, vascular surgery, pediatric surgery, endocrinology, neonatal care units and genetics. For those services currently beyond the scope of local facilities, patients are referred to Israeli teaching hospitals.

Changing morbidity and health needs, in particular, have necessitated redevelopment of some special hospitals. Tuberculosis hospitals, such as the Bureij Hospital, have reduced their bed capacity very substantially as a result of falling incidence rates and improved ambulatory care. Similarly, the number of long-term psychiatric beds have been reduced due to improved community mental health services and more active in-patient care. Government hospitals are improving their emergency care services both through improved equipment and ambulances, and through staff training.

Hospital Development

During 1985 and 1986, many projects in government hospitals in Judaea and Samaria have been completed. Large scale planning and building activities are under way to enlarge and improve the hospitals in the area.

Ramallah Hospital – During 1985, a number of new units were completed including a new 350 sq. metre X-ray department with four rooms for X-ray, fluoroscopy ultra sound; and a digital fluoroscopy/angiography unit, three new surgical theatres, a clinical and public health laboratory, a blood bank, an elevator, and central heating. By 1990, the total space of the hospital will expand from the present 5000 sq. m. to 10,700 sq. metres and bed capacity increase from 124 at present to 207. A new cardiac intensive care unit was also completed during 1986. A new surgical

recovery room, and a new emergency room will be completed by mid 1987. The new Open Heart Surgery Department began operation in early 1987, and a neurosurgical service is being developed.

New specialty services now being planned include a Cancer Diagnostic and Treatment Centre, Computerized Tomography and a Heart Institute. This hospital is becoming the major tertiary care center for Judaea and Samaria.

Hebron Hospital – During 1986, a new surgical suite will be completed including three new surgical theatres, a new surgical department, a new X-ray department, central sterile supply, intensive care and support service areas; a new X-ray department of two rooms and sector ultrasound is now being implemented. This hospital will expand from the present 3,100 sq. metres to 11,900 sq. metres and increase from 100 to 136 beds during the next few years.

Beit Jallah Hospital – Partial completion of the new hospital during 1985/86 allowed for opening of the emergency and outpatient department and X-ray department (3 rooms) including sector ultrasound. The remaining areas of the hospital will be opened in stages, expanding the hospital from 5,200 to 7,800 square metres, and the total bed capacity from 64 to 90 during the next few years.

Rafidia Hospital (Nablus) – A new master development plan is now complete which will result in an expansion of this hospital, from 5600 to 10600 square meters, with major renovation. An expanded X-ray department will be expanded along with the outpatient department pharmacy and administration wings. The bed capacity is being increased from 118 to 184 beds.

Shifa Hospital (Gaza) – During 1985, the expansion and renovation of the obstetrics and gynecology unit (Building 6) was completed and opened; the new 6 room X-ray department will started functioning in 1986. The structure for the main hospital wing (Building 8), is now erected and will be completed over the next several years, including a complete new surgical suite, intensive care, two new surgical departments, teaching rooms and other services. During 1987, a digital fluoroscopy/angiography units was added to the radiology unit and a Computerized Tomography during 1987/1988. A master plan for development to the year 2000 is being prepared.

Khan Younis – During 1985/86, the surgical theatre was completely refurbished to modern standards. The master plan for a completely new Khan Younis Hospital is now in advanced stages of development.

Infrastructure

Physical improvements in kitchens, laundries, elevators, PVC floor coverings, wall painting, electrical and mechanical services, water and gas supplies, gas distribution, telephone maintenance, security, and other infra structure programs have and are being carried out. Emergency care has improved through upgrading of emergency room facilities and staffing. Special services such as coronary care in intensive coronary care units and trauma emergency care in hospital surgical services are also available. Laboratories in regional hospitals in Ramallah and Nablus provide public health laboratory services. Regional hospitals have their own blood banks.

Each government hospital in Judaea and Samaria now has appointed a qualified engineer to be in charge of building and equipment maintenance. Preventive maintenance contracts with medical supply firms have been undertaken. Space is being increased from 15 to between 40 and 60 sq. metres per bed providing a real improvement in quality of hospital facilities and the extent of support service and the extent of outpatient and support services.

Master plans for all the major government hospitals have been prepared and staging of projects organized. Funding from government health service development funds provides the major element of funding, but very important financial contributions have been made by the UNDP and the Arab Medical Welfare Association to a number of the new projects. The pace of development depends on the availability of funds from government and other sources. Development projects are planned and implemented so as to cause as little disturbance as possible to the patients and staff of the hospitals, even though this sometimes slows the pace of development.

During 1987/88, new projects being proposed include development of cancer and heart diagnostical and treatment centres, and a Computerized Tomography unit in Ramallah Hospital, completion of the new Beit Jallah Hospital, completion of Building 8 – the major new surgical and medical building of Shifa Hospital, and advancement of the master plans for Hebron, Ramallah, Beit Jallah, Rafidia and Shifa Hospitals. Smaller scale projects are in process in other hospitals in the areas.

Hospital Planning

Hospital planning for both areas is based on utilization pattern including expansion of hospital deliveries, and a greater range of specialty services available locally. Much emphasis is being placed on strengthening of diagnostic and outpatient services, and greater participation of hospital doctors in providing care in community health and MCH centres. For a population with some 50% under the age of 15, current hospital utilization patterns will require some expansion in the hospital bed supply over the next five years, although the major emphasis must still be placed on preventive and ambulatory care. The expanding base of specialized services provided in local hospitals allows for more selective use of Israeli hospitals as backup tertiary care centres for those services not yet available locally.

The process of developing new and strengthened specialty services in local hospitals is linked to support service development, staff training and modern equipment. As a key example, new surgical suites will have the services of 25 young doctors from Judaea, Samaria and Gaza, who have now returned to their areas after completion of a two year training course in anesthesia in Israeli hospitals. New anesthesia equipment and gas supply systems have been installed in their home hospitals in order to allow them to upgrade anesthesia care to current modern standards.

Secondary level specialty services are now developed in the regional hospitals (Beit Jallah, Ramallah, Nablus and Hebron) Community Hospitals (Jenin, Tulkarem and Jericho) have the four basic services. The regional hospitals are now also developing tertiary care services with focus in Ramallah, Beit Jallah and Nablus Hospitals in Judaea and Samaria, and in Shifa and Nasser Children's Hospital in Gaza.

Master plans have now been developed for the major hospitals in Judaea Samaria including Ramallah, Rafidia, Beit Jallah and Hebron Hospitals, and for Shifa Hospital in Gaza. Master plans are now being developed for Khan Younis, the Children's Hospital in Gaza, and for Jenin and Tulkarem Hospitals in Judaea Samaria.

Mental Health

Current emphasis in the planning of mental health programs is on rehabilitative and out-patient care in the community as opposed to the historical emphasis on hospital custodial care. Similarly in-patient psychiatric facilities foster a more active therapeutic environment. Comprehensive treatment and follow-up in the community, thus, have become the cornerstone of long-term management of mental health problems.

As a result of this changing emphasis increased stress has been placed on developing ambulatory care mental health services, and social support services such as sheltered workshops. The mental health service in Gaza has developed rapidly over the past 8 years, including both in-patient and out-patient care.

The Bethlehem Mental Hospital has been reorganized and modernized with new out-patient services in Nablus, Hebron and Ramallah as well as in Bethlehem. A new wing in the Bethlehem Mental Hospital for chronic cases to replace a convalescent unit was recently completed and put into operation during 1986. The old unit will be converted to occupational therapy and other support services. A new master plan for further development of this hospital is being prepared.

Newly developed Child Development Centres are now operational in Ramallah, Hebron and Gaza through cooperation between UNICEF and the Social Services Department. A similar centre recently opened in Jenin. These centres provide a valuable diagnostic and therapeutic service for children with developmental abnormalities, both physical or mental. They receive referrals from MCH centres, voluntary agencies, private doctors and other sources. A widening range of mental health services are available in both areas, meeting the needs of an evolving society.

Problems of Special Groups

The prison system is being decentralized, so that prisoners are housed closer to their homes and families, increasing the potential for earlier discharge. All prisons have clinics and infirmaries, and medical staff has been assigned to meet prisoners needs. Specialized services are given on request as appropriate complicated cases are transferred to local or supraregional hospitals. The food and medical care provided meet current international standards. As part of the rehabilitation process, prisoners are encouraged to take part in manual crafts and training classes in other skills.

The elderly as a special group needing health care will demand more attention in the future as acute health care needs are better addressed and as long-term care needs come to the fore. The tradition of family care for the elderly may need additional help from ambulatory care, home care and other social support services, particularly as costly acute care services find difficulty coping with long-term care needs.

The health problems of the Beduins, particularly those who are still nomads, have centered around the difficulty of establishing contacts with the health system. Access to health care, however, has been improved through wider availability, due to expansion in the distribution of facilities. In this way considerable progress has been made with respect to integrating the Beduins into the health system. Settlement of Beduin families in permanent housing is a key factor for improved sanitary and living conditions, as well as for greater access to health services.

VII. MANPOWER AND TRAINING

Trained people are the key to the health infrastructure. Without appropriate trained manpower, other resources of health system are under utilized, or even wasted. Priority has been given to manpower training and in particular to development of local training programs for nursing and paramedical staff to meet the growing needs of community health services staffing.

Education Programs

Nursing schools and other health manpower training programs have been initiated in Judaea, Samaria and Gaza with entrance and curriculum standards and supervision provided by the Nursing Division of the Israeli Ministry of Health.

In Judaea and Samaria, the government health service operates the Ramallah School for Registered Nurses (Ibn Sina) which opened in 1971. It has, to date, graduated 141 registered nurses from the 3 year course. This program includes a strong element of community health nursing, with field work in hospitals, in the community and in vital statistics. Practical nurse training in government hospitals is now concentrated in Nablus and other practical nursing schools operated by private organizations such as St. Lukes and El Itihad. During the 1986/87 school year, the intake of new nursing students in the Ibn Sina program was increased from 15 to 30, and further expansion is being planned. Two university level nursing courses offering B.A. programs have now graduated several classes of nurses at El Bireh College and Bethlehem University. A new practical nurse training program has been started at Bethlehem Mental Hospital and a training center for nursing and paramedical staff is being planned.

In Gaza, 614 practical nurses have graduated from the Shifa hospital Nursing School, which opened in 1973 and expanded in 1975. The course lasts 18 months. The Gaza School of Registered Nurses, which opened in 1976, emphasizes community health nursing and has graduated 97 students; 65 students are currently enrolled in the 3 year program.

In-service education, staff conferences, weekly study days and visiting lectureships by Israeli and foreign professors all contribute to the improvement of standards in government health services. Referral and consultation with Israeli hospitals have also served to help upgrade standards, as have visits of specialists from WHO. There have been a number of publications on health services developments in Gaza and presentations at international congresses. The Gaza Medical Bulletin is now being reestablished in the Gaza Health Services Research Centre.

Recent developments in health manpower training include the following:

Training in Anesthesia: A two year course for 25 physicians from Judaea, Samaria and Gaza in 10 different Israeli hospitals was completed in late 1986. The doctors were selected through interviews and written examinations, and they successfully completed written and practical examinations at the two year specialty level for Israeli anesthetists. They participated in one full day per week of lectures and demonstrations at Beilinson Hospital, and return to their home departments in other Israeli hospitals for supervised practical anesthesia training for the remainder of the week. This project was funded by UNDP. New anesthetic equipment was purchased for the hospitals to which these anesthetist return on completion of their course. Orientation programs for the surgical staff for the introduction of modern physician anesthetist have also been carried out, and the newly qualified anesthetists have been integrated into their hospital surgical teams with immediate positive impact on the quality of services available locally.

Continuing Education in Internal Medicine: An 8 month continuing education program for 25 doctors from Judaea and Samaria hospitals, organized by the University of Tel Aviv, was completed in August 1986. This course includes basic medical sciences and clinical material; it was conducted one full day per week at Beilinson and other Tel Aviv hospitals as well as at Beit Jallah and Ramallah hospitals. This project was funded by the Government Health Services. A similar post grade program has now begun for other physicians from Judaea, Samaria at Hadasah Hospital Mt. Scopus, Jerusalem, one day per week.

Training in Various Medical Specialities: A two year course for 14 physicians from Judaea, Samaria and Gaza hospitals began in Beilinson Hospital in Israel in Nov. 1985. The specialties include internal medicine, pediatrics, obstetrics, pediatric surgery and pathology. The residents take full part in patient care and educational activities. The course is funded by the government health service.

Training of Sanitarians for Gaza: A course of 2500 hours of study for 25 persons from Gaza to become qualified sanitarians commenced in March 1985 and concluded in mid 1986. Participants included 4 veterinarians, 13 agricultural engineers and 8 others (minimum requirements high school graduation). The course was conducted in English at Assaf Harofe Hospital Sanitarian Training Centre (500 hours) and in Gaza (2000 hours qualification in the field). Successful students after written examinations receive a licence as a Professional Sanitarian. This course

was funded by the Government Health Service.

Training of Midwives for Gaza: A 9 month full time course for midwives began in 1985 for 12 qualified nurses from Gaza in Assaf Harofe Hospital. This course is conducted in English, and funded by the Government Health Service. The graduates of this program have now returned to the Gaza health service system.

Training of Nurses in Administration: An administration course for 25 senior nurses from Gaza is now underway at Ashkelon Hospital. This course is conducted two full days per week, and includes lectures and presentations by Israeli professors in a variety of administrative studies.

Intensive Care Nurses Training: A program for training nurses from Judea, Samaria for the periods of 3-6 months began at Beilinson Hospital in the spring of 1986. These nurses will staff the new ICU's and CCU's being developed at Ramallah, Rafidieh and Beit Jallah Hospitals.

Open Heart Surgery Staff Training: In 1986, staff from Ramallah Hospital undertook various training periods in Tel Hashomer Sheba Medical Centre, an Israeli teaching hospital, in order to prepare for the opening of the open heart surgery service at Ramallah Hospital in 1987. This service has been working successfully since February 1987.

A number of other training programs are in advanced stages of preparation and are slated to begin during 1987. These include:

- Radiologist training (2years) for 6 Judaea and Samaria physicians in Hadassah Hospital Ein Karem to begin during 1987.
- Radiology technician course for Judaea, Samaria and Gaza staff in Israeli hospitals, to begin during 1987.
- A continuing education program for 25 Gaza physicians at the Faculty of Medicine, Ben Gurion University in Beersheba and Soroka Hospital Beersheba in basic and clinical sciences.

Staffing

Staffing in government health services has increased very substantially over the years since 1968. In Gaza medical staffing in government health services increased from 27 to 50 per 100,000 population (Table 4).

In Judaea and Samaria government health service staffing increased from 18 to 31 per 100,000 population, while the total physician supply increased to 70 per 100,000. The supply of nursing and paramedical staff increased from 56 per 100,000 to 118 per 100,000 from 1968 to 1985. Nursing and other paramedical manpower staffing have also increased over the years. Nursing manpower in government service has more than doubled in both areas, and nursing staff per hospital bed ratios has also increased over the years. During 1986 over 100 positions were added to the Government Health Services in Judaea, Samaria.

Salary scales have advanced in recent years ahead of inflation rates due to increments beyond cost of living adjustments, with some further reduction in the gap between local and Israeli health personnel net salary rates. Nonetheless, salaries remain a problem in the Government Health Service especially as compared to private service.

VIII. ADMINISTRATION AND FINANCE

Health services have developed in scope and complexity in Judaea, Samaria and Gaza, so that many organizational and financial issues are involved. Government services in Judaea and Samaria constitute approximately 60% of total health services, while in Gaza they comprise 85% of all health services. Health insurance for government health services was introduced in the areas both as a method of improving access to health care through prepayment at the place of employment, but also as a supplementary financing system source for health care. In addition to government and health insurance as sources of funds, there is also an important participation of international agencies in providing funds to initiate new health care projects.

Health Insurance

Escalating costs of health services and community infrastructure is a problem that all countries are now facing. Health expenditures have likewise risen in Judaea, Samaria and Gaza, as expansion of services and programs continues. To counteract the inevitable burden this combination imposes on governments, many countries employ systems of national health insurance. In Judaea, Samaria and Gaza, voluntary health insurance plans were established during the 1970's, with participation rates varying from 32% in Judaea and Samaria (1986), to 75% in Gaza in 1985.

Health insurance premiums are charged for each family, irrespective of family size or pre-existing medical conditions. Workers in government and all employees working in Israel are automatically entered into the insurance plan. In addition, families receiving social assistance are enrolled in the plans free of charge.

The insurance plans provide free preventive and curative ambulatory services, governmental hospital care and referred cases in Israeli hospitals. It should also be stressed that many maternal care, and all child health care up to the age of 3, as well as cancer treatment are provided without charge, for all regardless of health insurance status.

Health Expenditures

In Judaea and Samaria, health expenditures by the government as percentages of the total government budget have increased dramatically in the past several years. In 1986, 21.1% of the total government regular budget was allocated to health and 22.5% of the development budget, which are increases from 17.2% and 14.3% respectively in 1985. The government health budget in Judaea and Samaria increased by 12% for the regular budget and 22% for the development budget in real terms from 1986/87 to 1987/88. Increased budgetary priority given to health in recent government budgets may be seen in the reality of completion of many new health projects and near completion of others. Gaza government budgets have allocated more than 30% of their total budgets to health for a number of years now.

Community and Voluntary Agencies

Extra budgetary funding from community, voluntary and charitable agencies, appropriately coordinated, is encouraged and provides important community services. This provides needed additional sources of funds for equipment, medical supplies and special projects in government health facilities, as well as fellowships for post-graduate training of medical personnel. These funds make an important contribution to the continuing buildup of an increasingly comprehensive, sophisticated and, thus, costly health care system.

Active and widespread community participation is instrumental in bringing about the rapid expansion of MCH and general clinic distribution in Judaea, Samaria and Gaza. For example, these governmental primary care services are housed in buildings provided by the local authorities. As such, improved services are the result of a process whereby the community may not only request a government service, but may actually take part in assuring that it reaches fruition.

Important health services are operated directly by voluntary and charitable agencies, both local and international. These include the Caritas Children's Hospital in Bethlehem, the Mount David Orthopedic Hospital in Bethlehem, the Terres des Hommes Child Nutrition Centre in Bethlehem, St. John's Ophthalmic Hospital in Jerusalem and others. These agencies provide important elements of the overall health services of Judaea and Samaria.

A number of hospital development programs have also been initiated and developed by the voluntary organizations of "Societies of Friends" with the approval of the government health authorities. This has enabled more rapid implementation of the plan to meet needed specialty and sub-specialty services development in the district hospitals of Judaea and Samaria. In Gaza, a local voluntary association called "Friends of the Sick", staffed by public figures and community leaders, has been established for the purpose of raising funds for hospital equipment and health education.

The Arab Medical Welfare Association has contributed to hospital development projects in Ramallah and other hospitals in Judaea and Samaria.

International Agencies

A variety of international agencies provide important project development funds for government and non-government health services in the areas. These agencies also allocate funds for social and economic development projects directly and indirectly linked to health conditions of the areas.

The United Nations Development Program (UNDP) in particular has provided large scale financial assistance to help foster development of health services. Between 1981 and 1983, the UNDP carried out projects totalling nearly \$10 million of a variety of programs in the health, education, manpower, development, community and social service infrastructures. Major sewerage collection and treatment systems funded and supervised by UNDP will be completed and operational in Gaza City in 1987. A further project in Jabaliya is now being started. UNDP staff are present locally and senior medical consultants frequently visit the areas to review equipment, facilities and training program needs both in government and non-government facilities.

Other agencies such as ANERA (American Near East Refugee Association) and CDF (Community Development Fund) have over the past three years funded a great variety of health related projects. ANERA projects include expansion and improvement of a center for mentally retarded children in Nablus, a degree course in nursing at El Bireh College Ramallah, equipping a laboratory, and laying sewer pipes in Gaza. CDF projects include sewage projects in El Bireh, Jabaliyah, Khan Yunis and Gaza; equipment for Caritas Women's Union; Red Crescent Societies clinics in Bethlehem, El Bireh and Gaza; laboratory and clinic equipment for charitable agency clinics in Ramallah and a grant toward a sewage treatment plant in Khan Yunis.

UNICEF has, with the aid of a grant of \$17 million from the government of West Germany, assisted health projects in the area during the period 1984-86 for ORS, breast feeding, Dayas education, child guidance centers and kindergartens. UNICEF in cooperation with the Social Services Departments, initiated Child Development Centres in Ramallah, Hebron and Gaza during 1985/1986, and helped with the Expanded Primary Health Care Project in Hebron and Dayas supervision projects.

The Catholic Relief Society (CRS) has funded clinics in a number of villages in Judaea and Samaria, and conducts health and nutrition education projects in some 100 villages in Judaea and Samaria. The Near East Council of Churches (NECC), and American Institute for the Middle East (A Mid East) are also active in the area. The United States Agency for International Development (AID) currently budgets over \$6 million for projects of American voluntary agencies in Judaea, Samaria and Gaza.

Between 1978 and 1982, a total of \$31 million was budgeted by the U.S. Congress for developments in health, education, cooperatives, electricity, water supplies, access roads and sewage systems. Other international agencies have provided major financial assistance for physical development of the Mt. David Orthopedic Hospital in Bethlehem and the Beit Jallah Hospital.

IX. PLANNING, EVALUATION AND FURTHER DEVELOPMENTS

Effective planning requires monitoring and evaluation as part of the process. This is achieved by a combination of joint planning activities and external consultants.

Health Planning

From its inception, the development of the health care system has been based on planning carried out with joint participation by both Israeli and local health authorities. Visiting committees and experts have also been helpful to health planning by providing objective and professional analyses related to specific health problems. Resources are limited but improvements in the health care system based on planning result in more effective use of scarce resources when based on objective criteria.

In 1983, a Joint Planning Committee for Health Services in Judaea and Samaria was appointed, consisting of senior local and Israeli health officials. Its purposes were to review the existing health situation, to define health needs, and to develop a health plan for the next 5 year period. The report of this committee was presented to the government in 1985. The Joint Committee report places major stress on environmental health, and primary health care needs of the population of Judaea and Samaria. Hospital planning for regional secondary level services, and for tertiary care services, in existing government and non government hospitals was considered with detailed projections to the year 1990. Universal health insurance was recommended with training, licensing and continuing education needs also stressed.

The report of the Joint Committee has been approved as the basic medium term planning document for health services in Judaea and Samaria to the year 1990 by the Civil Administration as well as by the Ministry of Health. Detailed implementation plans are being prepared by the government health department staff.

In Gaza, senior local government health personnel and Israeli health officials work jointly in developing a health care plan which stresses primary care, immunization, water supply, and provides for expanded hospital facilities at two major sites.

WHO Consultants

Over the years, a number of WHO staff have visited the area providing consultation in such areas as tuberculosis, diarrhoeal disease control, ORS, mental health and others. During 1985-86, a senior program consultant in family health at WHO in Geneva made a number of visits to the areas. He offered useful insights into the progress made in maternal and child health in Judaea, Samaria and Gaza, and made a number of constructive recommendations for future improvements in MCH in the areas. These included strengthening of nutrition prevention and treatment programs, utilizing new research methods, and introduction of family planning services based on medical needs.

A review of nutrition problems of children will be undertaken by a WHO consultant in June 1987 including visits to local hospitals and other care institutions followed by a series of seminars on this topic for local health personnel. A former director of the Nutrition Division of WHO will initiate this area of consultation during 1987.

Other External Consultants

During 1985 in particular, several consulting groups sponsored by local and international bodies visited the areas. The Arab Medical Welfare Association sponsored a number of visits by an experienced working group of health experts organized by the American Public Health Association (APHA). Initially, this group was asked to examine the need and feasibility of developing a new private tertiary care hospital for Judaea and Samaria. The APHA group report placed its emphasis on primary health care as the first priority in a developing area.

The United States Agency for International Development (AID) funded some health studies in the area. AID officials made working visits to the areas, as did officials of many international agencies including the UNDP, UNRWA, the International Red Cross, UNICEF, and others. During March 1986, UNRWA carried out an evaluation of its health services in Judaea, Samaria and Gaza by a visiting team of WHO officials. Another team of senior physicians from Georgetown university in Washington DC carried out an extensive survey of UNRWA health services. A report of this survey was published in the New England Journal Medicine in 1986.*

In July/August 1986 the International Committee of the Red Cross sent a delegate to review health services in Judaea, Samaria and Gaza. A Swiss psychiatrist carried out this survey, with special emphasis on primary health care in Hebron.

Current Program Development Areas.

Current stress is being placed on a number of areas requiring continued and further development. These include:

- ... nutrition education;
- ... expansion of primary health care;
- ... upgrading of hospital facilities, specialization and staffing;
- ... medical specialty training in Israeli hospitals;
- ... expansion of nursing training;
- ... postgraduate nursing education and specialization;
- ... continuing education for primary health care medical and nursing personnel – physiotherapy, occupational therapy, respiratory therapy, social work and others;
- ... expansion of health insurance coverage;
- ... increasing hospital deliveries;
- ... high risk pregnancy identification and special care;

These activities depend on increasing funding by the Civil Administration, and on expansion of international funding to increase the pace of improving the quality of life of the people of these areas.

* Lillienfeld LS, Rose JC, Corn N (1986) Special Report: UNRWA and the Health of Palestinian Refugees. New England Journal of Medicine 315, 9, 595 – 600.

X. RESEARCH IN HEALTH CARE

In 1984, it was agreed between the World Health Organization and the Israel Ministry of Health to establish three WHO Collaborating Centres to carry out research in primary health care and manpower development in Judaea, Samaria and Gaza. Established in 1985, the Ramallah Health Services Research Centre is staffed by government health department personnel with several additional staff provided by UNDP funding, which also provided important service facilities including computer, office equipment, vehicles and operational costs. During 1986, a similar centre was established in Gaza based on the health department's Epidemiology and Health Information Centre.

The Ramallah HSRC is under the direction of the senior medical officer for Ramallah Health District. The centre is staffed with two local physicians who have graduated from the Master of Public Health international course at Hadassah-Hebrew University School of Public Health. Other staff include a computer analyst statistician, a nurse, a statistician and administrative staff. The RHSRC has added an important new potential in health service development for Judaea and Samaria. It has played a vital role in studies of growth patterns of infants, in a sero survey among school children, and in investigation of all infants and childhood deaths reported in the area.

The Gaza HSRC is under the direction of a Gaza pediatrician who completed his Master of Public Health (MPH) degree at Hadassah - Hebrew University School of Public Health. The Gaza HSRC was previously established as the Health Information Unit in 1981, and has carried out a number of research projects which have been reported at international conferences or published in various medical journals. The centre is initiating a pilot project in computerization of child care records in MCH centres and other studies related to growth patterns of children, causes of death among children, cold injury, anemia of infancy, as well as an epidemiological survey of asthma.

A third WHO Collaborating Centre to carry out research and program development in health manpower has been established in Judaea and Samaria. This centre will focus on identifying health manpower needs, and education activities needed for the health service system. A Health Manpower Working Group has been appointed under the chairmanship of a senior local physician, director of the Bethlehem Mental Hospital and chief of the Hospital Division, Government Health Service. This Working Group will coordinate the development of health manpower policies, priorities and pilot programs, in keeping with the general direction of the Joint Planning Committee report.

Two of the staff of the Research Centres took part in a 3 week summer program in epidemiology research methods at Beersheba Faculty of Medicine in August 1986, and the directors of the two centres took part in 4 week courses in epidemiology at the Centre for Disease Control, Atlanta, Georgia and the University of Minnesota during 1986. The directors of all three WHO Collaborating centres have visited WHO headquarters in Geneva for extensive discussions with WHO technical staff, as well as the Director General.

A workshop in research methods for personnel associated with the three WHO Collaborating Centres took place in Jerusalem, in Dec 1986 with a second half to be held in June 1987. Twenty five persons took part in the workshop which was conducted by 5 local and international WHO consultants. Following the December workshop, all participants are taking part in research project in a variety of fields including health status of school children, utilization of antenatal care, use of Dayas, and coronary heart disease risk factor prevalence.

New research projects in population funded by the United Nations Fund for Population Activities (UNFPA) funded through WHO and UNDP are expected to begin during 1987 - 1988. These include expanded studies of infant mortality, factors in location of birth delivery, as well as knowledge attitudes and practices studies regarding spacing of pregnancy.

SUMMARY

Along with dramatic improvements in socioeconomic conditions, health services have expanded in quantity and quality in Judaea, Samaria and Gaza. A strong infrastructure in primary health care, hospital services and environmental health has been built.

Many new projects have been launched or completed in 1986/87. A firm planning base has been developed with full participation by local senior health professionals. Hospital developments are increasingly moving to secondary and tertiary level specialities. Manpower training is developing to meet basic and new specialty needs. Health service research programs are under way. Innovative projects in expanded primary health care and child development have been established.

A sense of dynamism has evolved in the health service system offering professional advancement for local health workers, and health care of steadily improved quality for the population.

During 1987 and 1988 important new programs will be completed and others initiated. Health insurance for the total population is a matter of high priority; increasing hospital deliveries another; expanding primary health care a third; raising new subspecialty departments a fourth.

Judaea Samaria.

The Report of the Joint Planning Committee on Health Services was completed in 1985 and has been accepted as the integrated health program and plan for action for the area to the year 1990. During 1986/87, major progress in health service development occurred in Judaea and Samaria, in the context of continuing improvement in socioeconomic and community development conditions.

A Health Services Research Centre was established and inaugurated in 1985 as a WHO Collaborating Centre. This centre initiated a number of research projects in primary health care of importance in monitoring health conditions in the area and to assist in future health program development.

Expanded Primary Health Care was inaugurated in 1985 as a pilot program in cooperation with UNICEF in small villages in the Hebron district. This is a pioneering project, to bring modern preventive health care to small rural villages, was expanded in 1986 to include over 50 villages in Hebron, and during 1987 will expand into Jericho and Nablus districts.

A number of important hospital projects were completed along with master plans for future development. Training programs for substantial numbers of physicians were launched in cooperation with Israeli teaching hospitals and UNDP. Ramallah Hospital is emerging as the main tertiary care hospital for the area. With the completion of important infrastructure services, this hospital is now moving into highly specialized services such as open heart surgery, radiotherapy, CT imaging, neurosurgery and others.

Both in primary care and hospital care, as well as in manpower development, important gains were made in Judaea and Samaria in 1986/87.

Gaza.

During 1985/86 new steps forward were achieved in Gaza health services. Shifa Hospital Building 6, the expanded obstetrics department, was completed and opened. The new radiology department was opened in early 1987, and a CT scan will be added later in 1987. The Khan Yunis Hospital renovation of the surgical suite was completed in 1987. Building 8 of Shifa Hospital, the new surgical and central services building for the hospital was partially opened in 1986, and will be completed over the next 1 1/2 - 2 years, with the addition of two new floors.

At the same time, primary care services continue to expand with the opening of the 26th community health centre in the area.

Training programs for Gaza specialists in anesthesia have been completed, and others in internal medicine, pediatrics, pathology, obstetrics, and public health are under way in Israeli teaching hospitals. The Gaza Health Services Research Centre opened in early 1986 as a WHO Collaborating Centre. It has established a firm base in health service and epidemiologic research to elucidate health service needs and strategies of planning for the future. These gains are part of a continuing process of advancement in health care for the people of Gaza. The process contributes to improving the standards of life for the people.

The process of development is complex and ongoing. There are major problems to overcome, financial limitation not the least of them. Fortunately, increasingly flexible and constructive international funding is helping very much to augment government investment in new health programs. This includes international agencies such as WHO, UNDP, UNRWA, UNICEF, AID, Terres des Hommes and others. It also includes many other agencies and local donors and societies who are interested in advancing health care for the people of the areas. This cooperation in working toward common goals of improvement in health care and living standards is encouraging not only to local health workers, and to government and non government health personnel, but also to the people themselves.
