United Nations Relief and Works Agency
For Palestine Refugees in the Near East (UNRWA)

ANNUAL REPORT OF THE DEPARTMENT OF HEALTH

2003

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacillus Calmette-Guerin
CIDA	Canadian International Development Agency
CDC	Centres for Disease Control & Prevention
DFID	Department for International Development
DOTS	Directly Observed Treatment Short-Course Strategy
DPT	Diphtheria, Pertussis and Tetanus
EC	European Community
ECHO	European Community Humanitarian Office
EGH	European Gaza Hospital
EMRO	Eastern Mediterranean Regional Office
EPI	Expanded Programme on Immunization
ESCWA	United Nations Economic and Social Commission for Eastern Asia
EU	European Union
Hib	Haemophylus influenzae stereotype b
HIV	Human Immuno-deficiency Virus
IDDs	Iodine Deficiency Disorders
IUDs	Intra-uterine Devices
FP	Family Planning
MCH	Maternal & Child Health
MMR	Measles, Mumps and Rubella
NCDs	Non-Communicable Diseases
NIDs	National Immunization Days
NGOs	Non-Governmental Organizations
NTPs	National TB Programmes
OPV	Oral Polio Vaccine
PA	Palestinian Authority
PIP	Peace Implementation Programme
PRCS	Palestinian Red Crescent Society
SAR	Syrian Arab Republic
SEHP	Special Environmental Health Programme
UNAIDS	United Nations Programme on AIDS
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UNFPA	United Nations Fund for Population Activities
UNRWA	United Nations Relief & Works Agency for Palestine Refugees in the Near East
UNSCO	United Nations Special Coordinator in the Occupied Territories
WHO	World Health Organization

MESSAGE FROM UNRWA's COMMISSIONER-GENERAL

The 2003 report of UNRWA's Department of Health describes the accomplishments of the Agency's health programme in its five fields of operation; Lebanon, Syria, Jordan, the West Bank, and the Gaza Strip.

With modest per capita allocations comparable to per capita health expenditure in low-income countries, the programme nevertheless attained results in women's and children's health and disease control in line with those achieved by middle-income countries.

The programme continued to refine its strategic approaches and pursue management reforms while simultaneously responding to an ongoing humanitarian crisis of an unprecedented scale in the occupied Palestinian territory, and while coping with the increased demand for health services from a growing refugee population.

UNRWA takes pride in its effective, long-term investment in the health of the Palestine refugee population and in its responses to special health needs as they emerge, despite the increasing operational difficulties and scarcity of human and financial resources. It is a credit to UNRWA that despite under-funding, health outcomes did not deteriorate as measured in a series of self-evaluations and operational research conducted by the Department of Health. This however, was done at the expense of a steady increase in workloads and overcrowding at UNRWA primary health care facilities.

It is readily apparent that the capacity of the Agency's health care system can not be stretched any further unless additional resources become available to the programme, without which UNRWA's achievements in this key sector could be compromised in the long run.

I wish to express my deep appreciation for the dedicated and high quality of work of UNRWA health staff, and in particular to staff of the Gaza Strip and the West Bank, who have spared no effort to serve their fellow refugees at considerable risk to themselves.

Peter Hansen

FOREWARD

This is the last annual report of the UNRWA Department of Health, to which I will contribute after completing 36 years of service with the Agency, of which 16 years on loan from the World Health Organization.

During this period the region was shaken by major events and violent conflicts which affected UNRWA's work in various ways. However, not only that UNRWA was able to respond to repeated emergencies but was also able to develop its health programme from a modest system to one that had regularly adapted its policies and strategies consistent with WHO concepts and principles and with best practices in public health.

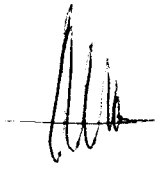
In spite of the scarce financial and human resources available to the programme, the Agency had traditionally achieved substantial gains from relatively modest expenditure by choosing effective and affordable interventions with notable impact on the health status of the Palestine refugee population.

Much of the credit in this success goes to the invaluable technical support of the World Health Organization, the strong partnership with the host authorities, the generous support of UNRWA traditional donors and the high values that the Palestine refugees give to education and health.

There are many challenges that still need to be addressed should additional resources become available to the Agency especially in the areas of mental and psychological health, adolescent health and physical rehabilitation. However, programme management needs to strike a balance between preserving the accomplishments of the past, responding to the challenges of the present while preparing the ground for shaping the future.

Acknowledgment is readily made of the encouragement and support of UNRWA Commissioner-Generals, the Regional Director of the World Health Organization, Eastern Mediterranean Region, and the former Directors of Health.

Special thanks go to the dedicated UNRWA health staff, be those with whom I worked in the early years or those who are still in the service.



Dr. F.S. Mousa
WHO Special Representative
& Director of Health, UNRWA

EXECUTIVE SUMMARY

The Annual Report of the Department of Health of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) for the year 2003 comprises a chapter on the demographic and epidemiological profile of the Palestine refugee population, a chapter on programme management, a chapter on the programme of emergency humanitarian assistance in the occupied Palestinian territory, and four chapters describing the progress achieved under core programme activities, namely medical care services, health protection and promotion, disease prevention and control and environmental health services. Each chapter starts with an introduction, followed by programme accomplishments during the year.

Demographic and epidemiological profile of the Palestine refugees - The chapter describes the demographic and epidemiological profile of the Palestine refugee population by the turn of the 20th century.

Over the last two decades fertility rates slowed down and infant and child mortality rates declined to levels significantly lower than the world average and almost one third of the average rate for countries of the Eastern Mediterranean Region. Infant and child mortality shifted towards the cause-of-death pattern observed in developed countries. Nonetheless, children below 18 years of age still constitute approximately 40 per cent of the total population. There are no gender disparities in the population structure and the aging index is higher than the EMR average.

Similar to the population of developing countries, the refugee population are living through the epidemiological transition characterized by the increase incidence of noncommunicable diseases which come on top of the persistent threat of communicable diseases. Problems of malnutrition and anaemia seem to have re-surged in the oPts and problems of micronutrient deficiencies are highly prevalent all over the Agency's area of operation. Likewise, there is the increased burden of physical disabilities and mental and psychological problems, especially among children of the oPts.

Programme management - The chapter outlines the organization structure of the health programme, the top priorities that the programme contemplated to achieve in order to pursue management reforms and enhance system performance.

It also provides information on the human and financial resources available to the programme, which remained far below the regional standards.

During 2003, expenditure on health was US $53 million with only 5 per cent on programme management. Overall budget allocations per registered refugee including medical care, environmental sanitation and food aid were US $ 14.6 million, far less than allocations on health by the host authorities. Efforts continued to be exerted to strengthen cooperation and partnerships with UN specialized organizations and the public health departments of the host authorities. Special emphasis was placed on enhancing the process of institutional capacity building through intensive in-service training, development of better information systems and development of technical guidelines and standard management protocols, while simultaneously responding to a humanitarian crisis of unprecedented scale in the occupied Palestinian territory.

Programme of emergency assistance in the occupied Palestinian territory The chapter describes the immediate and medium-term consequences of the Israeli measures implemented in Gaza Strip and the West Bank in response to the uprising

of the Palestinian people since September 2000. It also describes the devastating impact of these measures on the health, nutritional and environmental conditions of the population, the impact of the crisis on people and services, obstacles to humanitarian access including the immediate and medium-term consequences of constructing the separation wall in the West Bank and UNRWA's response through the programme of emergency humanitarian assistance supported by the international community.

Since October 2000, UNRWA launched six emergency appeals for humanitarian assistance at approximately USD 530 million and received confirmed pledges at approximately USD 311 million for emergency interventions including, inter-alia, employment generation to alleviate poverty, food aid, emergency medical care, post-injury physical rehabilitation, psychological support and shelter rehabilitation.

UNRWA hopes to receive adequate contributions to sustain this programme during year 2004, while simultaneously maintaining its regular programme activities and implementing developmental projects.

Medical care services - The chapter outlines the progress achieved during the year for improving health infrastructure as well as the achievements under the various sub-programme components.

During 2003, more than 8.0 million patient visits were paid to UNRWA clinics for medical consultations, 1.1 million support services, such as injections and dressings were delivered, more than 0.5 million dental consultations were made and more than 3.1 million laboratory tests were performed.

Of total allocations for health, allocations on medical care services accounted for approximately 72 per cent. Allocations for out-patient services represented approximately 46 per cent of the total budget for medical care services while allocations for hospital services accounted for 26 per cent. 57,860 patients were treated at contracted hospitals or benefited from the reimbursement hospitalization schemes. The new drug supply management system and a hospital management information system were developed.

The chapter also outlines the results of studies on the trends of utilization of medical supplies, productivity and efficiency of laboratory services and oral health services and the results of a study on antibacterial resistance.

Health protection and promotion - The chapter describes the progress achieved in year 2003.

The coverage of maternal and child health care services was sustained and a marked increase in the coverage of family planning services was achieved. Approximately 82,000 pregnant women received ante-natal care, 93.3 per cent of whom delivered in hospitals or at UNRWA maternities. More than 227,000 children below three years received preventive care including growth monitoring and immunization against vaccine-preventable diseases and 96,000 women benefited from the Agency's family planning services.

Special emphasis was placed on improving maternal health surveillance and staff development in order to enhance system performance, improve the quality of care and reduce adverse outcomes associated with complications of pregnancy and childbirth. A system was developed to ascertain the outcome of each registered pregnancy and a study on infant and child mortality was conducted in the five Fields of the Agency's area of operation, which revealed a decline in rates since the last study which was conducted in 1997.

Disease prevention & control - The chapter describes the efforts exerted in order to improve surveillance of communicable and noncommunicable diseases of public health importance, ensure compliance with standard management protocols and improve co-ordination with the public health authorities in the Agency's area of operations.

During 2003, complete immunization coverage against vaccine-preventable diseases was sustained, and zero incidence of poliomyelitis and neonatal tetanus was maintained. However, of concern was the decline in immunization coverage in several localities of the West Bank due to obstacles to humanitarian access to health facilities.

The chapter also outlines the results of the second pilot run of the new management health information system with respect to risk factors and assessment of the outcomes of the noncommunicable disease care programme in terms of compliance, control and complications.

Environmental health services - The chapter describes the progress achieved in the sub-sectors of water, sewerage and drainage and solid waste management through planning for and implementing developmental projects to improve camps' infrastructure, in particular, the progress achieved under the special environmental health programme in Gaza and the progress in implementation of funded projects in Lebanon and Syria Fields. By year 2003, approximately 98 per cent of camp shelters were connected to in-door water systems, 78 per cent were connected to underground sewerage schemes and 50 out of 58 camps were partially or fully served by UNRWA mechanized solid waste collection and disposal systems. However, the quantity and quality of water is still far below recommended international standards.

The report ends with a **Fact sheet** and an **annex**, which provides the post titles, names, telephones and e-mail addresses of senior health staff in Headquarters and the Fields.

I. DEMOGRAPHIC AND EPIDEMIOLOGICAL PROFILE OF THE PALESTINE REFUGEES

Several aspects of the demographic process in the Arab region are not often remarked upon collectively. Even if fertility rates were to fall rapidly, population growth will continue. Owing to the prevalence of high fertility rates in the recent past, a large percentage of the population in most of the countries is young. Previous high rates of reproduction give thrust to population growth because they produced a large number of women who are now of reproductive age.

ESCWA Report 2003

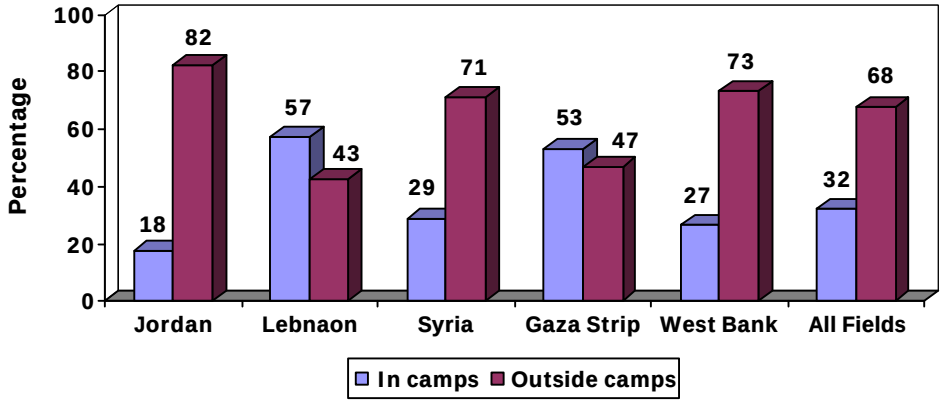
Demographic characteristics:

1. By the turn of the twentieth century, the Palestine refugees registered with UNRWA outnumbered 4.0 million, five times the approximately 800,000 persons who were internally displaced or took refuge in neighbouring Arab countries.

   By the end of 2003, the total number of Palestine refugees registered in the Agency's area of operation was 4,137,000; distributed as follows: Jordan 1,740,000, Lebanon 395,000, Syrian Arab Republic 414,000, Gaza Strip 923,000 and the West Bank 665,000.

   Approximately one third of the registered refugees live in 59 official camps and the remaining refugee populations live in unofficial camps, towns and villages side to side with country population. The distribution of camp refugee population varies from one Field to another with the highest proportion of 57 per cent in Lebanon and the lowest of 18 per cent in Jordan.

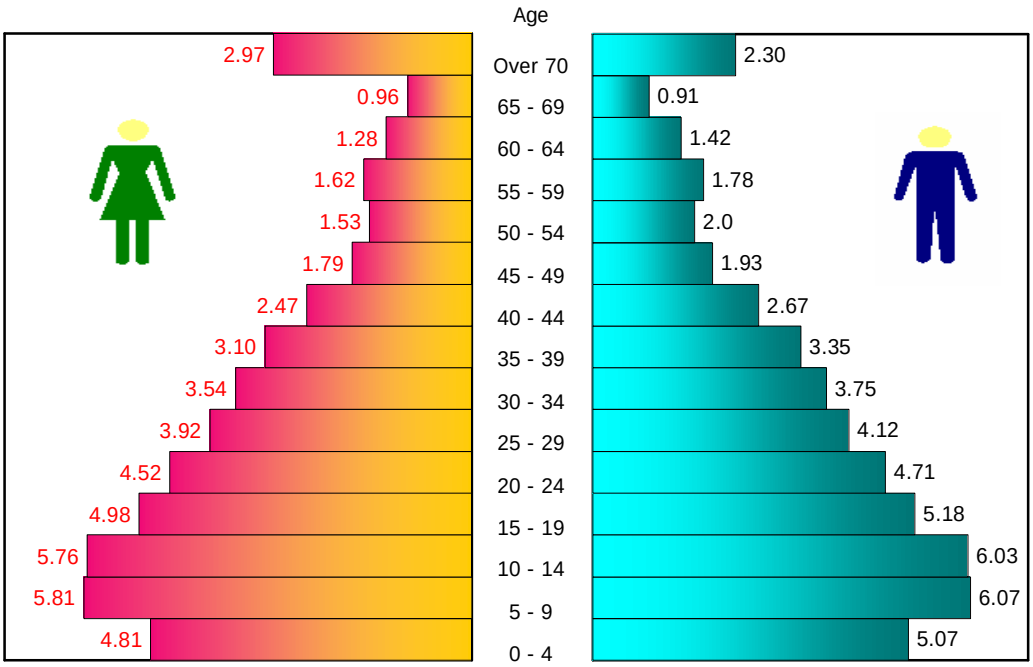
Figure 1, Distribution of the refugee population in and outside camps



There is no significant gender disparity in the population structure as males and females account for 50 per cent each of the general population. Owing to rapid population growth, the Palestine refugees have a young age structure with 39.8 per cent of the population below 18 years of age, 24.3 per cent are women of reproductive age and 9.8 per cent are elderly persons 60 years and above.

The aging index of the population (population aged 60 years and above over population below 15 years of age) is 29.3, compared to a world average of 33.4

Figure 2, Population Pyramid, 2003



2. In the last two decades, the Arab population grew at an average rate of 2.6 per cent per annum, in comparison to 1.5 per cent of the rest of the world. However, the rate of growth is declining and is expected to reach 2.1 per cent by 2015. Between 1980 and 2002, the occupied Palestinian territories had one of the highest growth rates of 3.8 per cent in the region.[(1)] Births per 1,000 for the total Arab population stood at an average of 29.5 compared to 39 births per 1,000 population in the occupied Palestinian territories.
Similar to the trend in Arab countries, the higher growth rates of above 3.5 per cent among the Palestine refugees had slowed down recently to approximately 2.3 per cent as a result of increased illiteracy rates, increased socio-economic difficulties, increased public awareness of the need for child spacing and wide use of modern contraceptive methods. However, this trend started to be reversed in the Gaza Strip since the beginning of the current humanitarian crisis in the fall of 2000.

3. Mortality decline during the last two decades in the Arab countries has been impressive. The infant mortality rates-defined as the number of children per 1,000 live births who die in the first 12 months of life-decreased significantly during the past two decades. In 1980-1985, the infant mortality rate (IMR) of the Arab Region was estimated at 74.7 per 1,000 live births and is projected to drop to 43.7 per 1,000 live births-in 2000-2005, which is lower than the world's average of 55.6 per 1,000 live births [(1)]. As a matter of fact, IMR in the occupied Palestinian territories declined to 27 per 1,000 live births in 1995 and to 23 per 1,000 live births in 2000. The average infant mortality rate for the Eastern Mediterranean Region was estimated at 66.5 in 2002.

[(1)] Population and Development: The Demographic profile of the Arab countries, ESCWA, 2003

4. According to a study conducted by UNRWA in 2003, using the preceding birth technique, the infant mortality rates among Palestine refugees were as follows:

Jordan	22.5	Per 1,000 live births
Lebanon	19.2	Per 1,000 live births
Syria	28.1	Per 1,000 live births
Gaza Strip	25.2	Per 1,000 live births
West Bank	15.3	Per 1,000 live births

The comparable rates in countries hosting refugees vary according to the source of information and were as follows:

	ESCWA 2000	**WHO/EMRO[1] 2002**
Jordan	27.0	22.0
Lebanon	20.0	26.0
Syria	27.0	18.0
Palestine	24.0	23.0

5. Similar to the declining trend in total fertility rates among the population of countries hosting the refugees, total fertility rates among the refugee population served by UNRWA dropped significantly between 1995 and 2003 as seen below:

Table 1, Total fertility rates, country and refugee population

Year	Jordan		Lebanon		Syria		Palestine		
	Country	Refugees	Country	Refugees	Country	Refugees	Country	Refugees	
								Gaza Strip	West Bank
1995	5.6	4.6	2.9	3.8	4.7	3.5	6.4	5.3	4.6
2000/2003	4.7	3.6	2.3	2.5	4.0	2.6	6.0	4.4	4.1

6. Practices harmful to women, such as female genital mutilation, are uncommon among the refugee population. However, the social, economic, and cultural context of women's and children's health remains underrated. Achieving further improvement in women's and children's health remains a major challenge that can not be solely addressed through health interventions as it is closely related to the progress attained in the areas of poverty alleviation, sustainable development and improvement of environmental conditions.

[1] Based on reported country data

Epidemiological profile:

1. Twice as many deaths from noncommunicable diseases, especially cardio vascular diseases, now occur in developing countries as in developed countries. The Palestine refugee population live through this epidemiological transition called the "double burden" that sees the arrival of the whole group of noncommunicable diseases with their shared risk factors on top of the persisting threat of communicable diseases.

2. Communicable diseases which still dominate the global health agenda namely HIV/AIDS, malaria and tuberculosis, do not represent a major threat to the Palestine refugee population. Malaria has been eradicated and the incidence of HIV/AIDS and tuberculosis is still very low.
   Vaccine-preventable diseases are well under control and communicable diseases targeted for eradication/elimination by the years 2005 to 2010 are problems of the past. No cases of poliomylities, neonatal tetanus, diphtheria, pertussis or syphilis have been reported since the last decade, nor there have been outbreaks of cholera or measles among the refugee population over the last few years.
   However, owing to poor environmental conditions, vehicle-borne and vector-borne diseases especially hepatitis, brucellosis, typhoid fevers and intestinal infestations are still endemic.

3. The prevalence of diabetes mellitus among refugee population served by UNRWA who are aged 40 years and over was 5.2 per cent in 2002 and the prevalence of hypertension was 7.9 per cent. However, these rates relate to the persons treated at UNRWA primary health care facilities and do not reflect the disease burden among the registered refugee population.
   This might be partly due to the fact that UNRWA's intervention strategy is based on the risk approach and not population-based and partly because more than two thirds of all patients treated at UNRWA primary health care facilities for noncommunicable diseases are women, not because these diseases are more prevalent among women, but because the majority of users of UNRWA health services are women and children. This means that there is a missed opportunity for detecting these diseases among adult males who do not use UNRWA facilities as frequently as women.
   In evidence, studies conducted in the countries of the Agency's area of operation, suggest higher prevalence rates. In a study conducted by the Ministry of Health, Jordan in collaboration with the United States Agency for International Development (USAID) and Centres for Disease Control & Prevention Atlanta, (CDC), it was found that 22 per cent of the population 18 years and above suffer from hypertension and 20 per cent of populations aged 50-64 years suffer from diabetes. There were no gender disparities in the prevalence of these diseases.

4. This epidemiological transition towards high morbidity, disability and mortality from noncommunicable diseases will continue to have serious implications on the future patterns of health expenditure because it costs UNRWA, on the average, US 9.9 to provide full immunization services to a child all through the life cycle, whereas it costs the Agency approximately USD 32 per annum in cost of medicines to treat a patient with diabetes at its primary health care facilities, let alone costs associated with laboratory investigations and hospital treatment of the complications of such diseases. For years to come, the main challenge

to UNRWA would be to promote and protect refugees' health through population-based interventions that focus on reduction of the main risk factors shared by all noncommunicable diseases. However, this goal can not be solely achieved by health interventions as it requires development of a multidisciplinary strategy within the Agency and development of appropriate programmes for raising public awareness by the host authorities through enrichment of the school curriculum and promotion of primary prevention through mass media campaigns.

5. There are no reliable statistics on the prevalence of cancers among the Palestine refugees as the majority of cases are treated at public or private sector services and do not come to the attention of UNRWA care-providers. Among those who are known to UNRWA or receive some sort of assistance from the Agency, there is adequate evidence on the increased incidence of malignant neoplasms especially leukemia, cancers of the lung, breast and cervix.

6. Studies conducted by UNRWA in collaboration with WHO during the last decade, revealed that protein-energy malnutrition, which used to be the leading cause of child morbidity and mortality was eliminated. However, nutritional assessments undertaken recently in the occupied Palestinian territories suggest that both acute and chronic malnutrition are re-surging among children below 5 years. The prevalence of iron deficiency anaemia, continued to be high among pre-school children and women of reproductive age. According to John Hopkins/Care International nutritional assessment, 2002 over 44 per cent of children 6-59 months of age and 52.8 per cent of women in the Gaza Strip suffer from anaemia compared to 43.8 per cent of children and 43.9 per cent of women in the West Bank.

7. Studies conducted in the occupied Palestinian territory by the U.S and Swedish Save the Children, indicated that the psychological well being of Palestinian children is under significant strain due to the omnipresence of violence in their surroundings and the resulting pervasive feeling of danger. Almost half of the children (48 per cent) have personally experienced violence owing to the ongoing conflict or have witnessed an incident of such violence befalling on immediate family member. Nine of ten parents report symptomatic traumatic behaviour amongst their children, ranging from nightmares and bedwetting, to increased aggressiveness and hyperactivity, as well as a decrease in attention span and concentration capacity[(1)].

8. Apart from the high prevalence of iron deficiency anaemia, women and children's health of the Palestine refugees compare well with the standards achieved by more developed countries in the Region because of UNRWA's heavy investment in maternal and child health care. The majority of mothers seek health care for their newborn infants within one month after delivery, up to three years of age. However, more than 50 per cent of pregnant women still seek antenatal care after the first trimester and approximately one third of pregnant women who receive antenatal care at UNRWA clinics suffer from one or more risk factors, which could affect the outcomes of pregnancy and childbirth.

[(1)] Psychological Assessment of Palestinian children, Save the Children – US and Secretariat of the Plan of Action for Children in collaboration with Save the Children-Sweden, 2003

9. In addition to the steady decline in infant, child and maternal mortality, the refugee population have shifted towards the cause-of-death pattern observed in developed countries. Here conditions arising in the perinatal period, including birth asphyxia, birth trauma, low birth weight and birth defects, have replaced infectious diseases as the leading cause of death. While it is encouraging to note that infections are no more among the leading causes of infant and maternal deaths, the new cause-of-death pattern represent a more serious challenge to the health care system as these causes are more difficult to prevent.

   In addition to good quality of antenatal, postnatal and family planning services, prevention of neonatal and maternal deaths require heavy investment in pre-marital counselling and public education as well as high quality of intrapartum and neonatal care in hospitals, where the Agency has little control.

UNRWA health services:

1. Since 1950, under the terms of an agreement with UNRWA, the World Health Organization has provided technical supervision of the Agency's health programme through the sustained support of the Eastern Mediterranean Regional Office and by assigning to UNRWA Headquarters, on non-reimbursable factors, WHO staff members.

2. UNRWA health programme places special emphasis on implementing effective preventive/promotive primary health activities comprising integrated maternal and child health and family planning services and integrated control of communicable and noncommunicable diseases. UNRWA has a leading experience in the region with regard to integration of such programmes within its primary health care activities.
   Unlike the public sector approach to health in most countries of the Region, which places more emphasis on secondary and tertiary care, UNRWA's emphasis on integrated primary health care services and capacity building, made it possible to achieve substantial gains from relatively modest expenditures.
   According to the World Bank[(1)], 1997; UNRWA strategy and approach to health delivery has been efficient and could provide a basis to the development of sustainable Palestinian health system. In a cultural and epidemiological situation similar to that of non-refugees, certain aspects of the UNRWA system e.g. treatment protocols and material resources management could be easily adopted and adapted to the government sector. These observations remain valid.

3. Gender equality and equity does not constitute a problem because the programme provides equal opportunities for access of boys and girls to basic health services including growth monitoring, school health, health education and medical care.
   In addition to the special focus placed on integrated maternal and child health, two thirds of patients receiving integrated noncommunicable disease care at UNRWA primary health care facilities are women.

(1) West Bank and Gaza Medium-Term Development Strategy and Public Financing Priorities for the Health Sector.

4. Through its network of primary health care facilities, the Agency had maintained complete immunization coverage of children and women and continued to provide assistance for women during delivery. During 2003, above 99 per cent immunization coverage was sustained, 88.6 per cent of women delivered in hospitals, and 97.6 per cent were attended by trained personnel at birth. According to a study conducted in 2000, modern contraceptive use among women of reproductive age using UNRWA facilities had increased to 49.9 per cent Agency-wide and was as high as 65 per cent in each of Lebanon & Syria.

   An effective programme, based on WHO recommended strategy, is implemented for prevention and control of iron deficiency anaemia among women and children. The WHO Directly Observed-treatment, Short Course Strategy (DOTS) for control of tuberculosis is implemented in close cooperation with the national tuberculosis programmes of the host countries. Likewise, the Agency maintains close collaborative links with the National AIDS programmes

5. Several projects to ensure environmental sustainability in refugee camps are underway in Gaza Strip and Lebanon, where the conditions of water and sanitation are very poor, and similar projects are underway in two camps in Syria and one camp in Jordan. UNRWA also has medium-term plans for upgrading camp infrastructure of environmental health projects in Gaza Strip, the West Bank and Lebanon as part of the Agency's contribution to sustainable development, should funding be made available.

6. Food aid in the form of monthly dry rations is provided to the nutritionally vulnerable groups including pregnant women and nursing mothers. The programme is entirely dependant on in-kind contributions. The wheat flour, which is one of the major commodities, is fortified with iron and folate.

7. A programme of psychological counselling and well being was implemented in Gaza Strip and the West Bank within the framework of the Agency's programme of emergency humanitarian assistance to the occupied Palestinian territory. However, the human and financial resources available to the programme are limited and there is need to integrate this programme within the Agency's regular programme activities in order to ensure its future sustainability, and possibly, expand it to other Fields.

8. In addition to the need for integrating a community-based mental health service within its programme, there remains major challenges that the Agency has not been able to address due to the scarce recourses available to the programme, including integrating the treatment of sexually transmitted infections, adolescent health and screening for cancers of the breast and cervix into reproductive health services.

9. The refugee population are not passive recipients of UNRWA assistance, but active participants in the cost of health care. Consistent with UN charter on human rights and public sector policies in the Agency's area of operation, fees are not charged for primary care, to ensure full access to the range of preventive services. However, refugees participate towards the cost of hospitalization, advanced diagnostic procedures, prosthetic devices and provide labour force for implementation of self-help camp improvements.

II. PROGRAMME MANAGEMENT

Health information can be used for at least four distinct but related purposes: Strategic decision-making, programme implementation or management, monitoring of outcomes or achievements, and evaluation of what works and what does not.

World Health Report, 2003

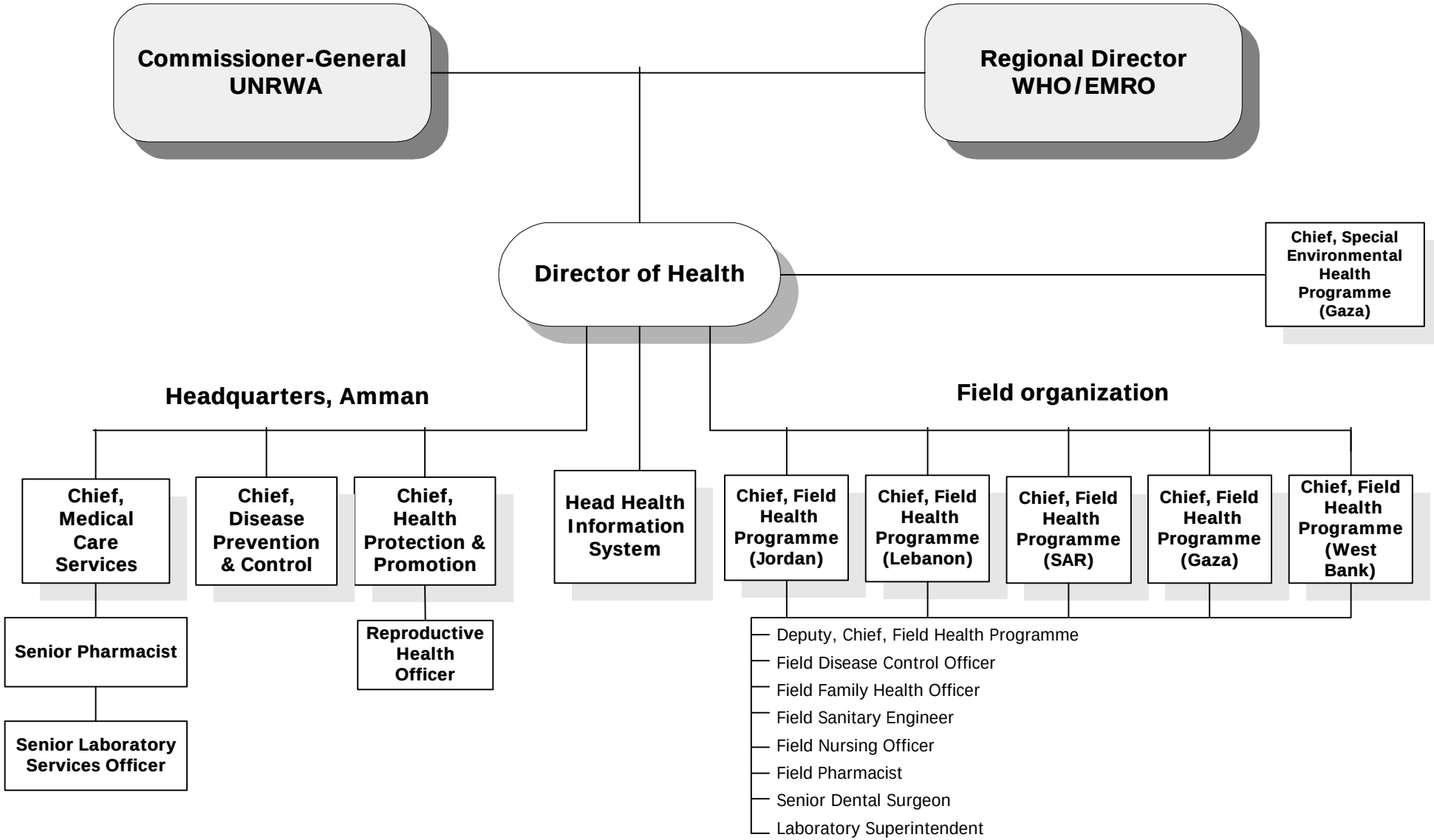
Introduction:

1. The Department of Health at Headquarters, Amman comprises the Director of Health, who is seconded from the World Health Organization to UNRWA on non-reimbursable loan basis, Head Health Information System and three Chiefs, of Division who are directly responsible to the Director for the planning, development, technical supervision and evaluation of the Agency's health programme.
   The WHO Special Representative and Director of Health reports to the Commissioner-General, UNRWA on administrative and policy matters and to the Regional Director, WHO/EMRO on technical matters.

2. In each of the five Fields of the Agency's area of operations, i.e., Jordan, West Bank, Gaza Strip, Lebanon, and the Syrian Arab Republic, the Department is headed by the Chief, Field Health Programme who reports directly to the Field Director for Administrative purposes and to the Director of Health on technical matters. The Chief, Field Health Programme is assisted by his Deputy, Field Disease Control Officer, Field Family Health Officer, Field Nursing Officer, Field Sanitary Engineer, Field Pharmacist, Laboratory Superintendent and Senior Dental Surgeon (See organizational chart). In addition, the Chief, Special Environmental Health Programme in Gaza seeks policy guidance from the Director of Health regarding the strategic orientation of the programme and co-ordination of technical assistance to other Fields.

3. Technical direction of the various components of the health programme is provided through a set of technical instruction series (guidelines), manuals and management protocols which are periodically revised and updated consistent with the basic principles and concepts of the World Health Organization, approved Agency policies and best practices in public health.
   Implementation of the technical instructions and quality assurance is monitored through systematic assessment of outcomes based on measurable indicators and is fostered through regular visits of Headquarters staff to the Fields.
   Changes to standing policies, development of plans of action and establishment of targets to achieve them are normally decided upon through periodic meetings of the Chiefs, Field Health Programme with Headquarters senior staff and through Divisional meetings of staff of the technical units in Headquarters and the Fields.

ORGANIZATIONAL CHART - HEALTH DEPARTMENT (2003)



4. The main priorities addressed by the programme during the year were focused on staff development, improving management information system, developing the capacity of the health care systems in the areas of self-evaluation and research and fostering the management reforms that were started in prior years.

Programme accomplishments

1. General

1.1 During 2003, special emphasis was placed on staff development, through in-service training, and development of appropriate management health information systems to improve surveillance, monitoring and response. These initiatives comprised completion of the design of management information systems with respect to the medical supply operation and hospital services.
In addition to the system, which is in place to measure the productivity of laboratory services, a similar system was developed to measure the productivity of oral health services.

1.2 The work on development of an appropriate management health information system that improves surveillance, monitoring, evaluation and response in two major programme areas namely, maternal health services and noncommunicable disease care were completed during 2003.
Initially pursued in collaboration with the Centres for Disease Control & Prevention, Atlanta the system was adapted in the light of in-house experience gained from two pilot runs implemented in a number of primary health care facilities in the five Fields of the Agency's area of operation.
With funding made available for procurement of computers, and other related equipment, plans are underway to expand the system to all large and medium size primary health care facilities during 2004.
The system will be re-oriented towards use of information technology for linking outcomes of care to major risk factors as measured by sets of selected indicators. Plans are also underway to develop the skills and capabilities of staff at the service delivery level on use of information technology. When fully implemented, the system could serve as a model example in the region.

1.3 Supervisory checklists were developed to assess compliance with technical guidelines and defined standards at the service delivery level.
A comprehensive centre-by-centre assessment was carried out in all Fields to identify the pattern of patient flow, pattern of deployment of human resources to the various health centre activities and the adequacy of physical space, general and medical equipment.
The objective of this assessment was to facilitate the process of identifying the medium-term development needs and make the necessary adjustments that would help to make optimal utilization of the available resources and increase efficiency and cost-effectiveness.

1.4 The post descriptions for all posts at the managerial and operational levels were revised and up-dated and a revised norm for sanitation labourer posts was established, with view of containing the recurrent labour-intensive costs as a result of introducing mechanized equipment and implementing integrated solid waste management systems inside camps and from camps to final disposal sites.

1.5 During 2003, the following technical meetings of UNRWA senior health managers in Headquarters and the Fields were held:-

- Deputy Chiefs, Field Health Programme & Field Pharmacists Meeting, Amman, 27-30 January 2003.
- Field Disease Control Officers Meeting, Amman, 3-6 February 2003.
- Drug Management System Workshop, Amman, 26-27 May 2003.
- Chiefs, Field Health Programme Meeting, Amman, 8-11 June 2003.
- Management Health Information System Workshop, maternal health component, Amman, 18-19 August 2003.
- Management Health Information System, noncommunicable disease component, Amman,14-15 September 2003.
- Meeting of Laboratory Superintendents, Damascus, 2-3 December.

2. Human resources:

2.1 3,642 professional, administrative support and other staff provided comprehensive health services to the registered Palestine refugee population utilizing UNRWA services in Jordan, Lebanon, the Syrian Arab Republic, Gaza Strip and the West Bank. The services comprised medical care, both preventive and curative, environmental health services in camps and food aid to nutritionally vulnerable groups.

The staffing table of the Department of Health as at end of 2003 is shown below:

Table 1, Health Staff as at end of December 2003

	HQ	Jordan	West Bank	Gaza Strip	Leban.	Syria	Total
Medical care							
Doctors	4	89	61	88	50	50	342
Dental Surgeons	0	22	13	14	17	14	80
Pharmacists	1	2	2	2	2	2	11
Admin/Support Staff	7	70	63	70	38	41	289
Nurses	0	220	202	242	115	118	897
Paramedical staff	1	96	90	112	60	65	424
Labour category	0	73	67	111	53	64	368
Sub-Total	13	572	498	639	335	354	2 411
Environmental Health							
Admin/Support Staff	0	33	28	75	26	12	174
Labour Category	0	297	184	288	191	98	1 058
Sub-Total	0	330	2127	363	217	107	1 229
International Staff	2	0	0	0	0	0	2
Grand Total	**15**	**902**	**710**	**1 002**	**552**	**461**	**3 642**

2.2 In spite of establishing additional posts to reduce heavy workloads at the service delivery level, the staff/population ratios remained very low compared with the host authorities.

In order to reduce the adverse consequences of heavy workloads, special emphasis was placed on enhancing the knowledge, skills and capabilities of professional staff through in-service training. In total 7,657 man/days of training were provided of which 2,468 were for medical personnel, 2,405 for nursing personnel and 2,784 for other categories in the five Fields of the Agency's area of operation.

The training covered major programme activities including maternal and child health, disease control, rational prescribing of medicines, laboratory techniques and oral health.

The breakdown of training activities, both in-service and on-the-job, by Field are outlined in table 3 below:

Table 3, Breakdown of man/days training by Field and staff category

Field	Medical	Nursing	Other	Total
Jordan	295	156	98	549
West Bank	289	408	46	743
Gaza	831	933	2 262	4 026
Lebanon	480	242	356	1 078
Syria	573	666	22	1 261
All Fields	**2 468**	**2 405**	**2 784**	**7 657**

2.3 Consistent with the United Nations Millennium Development Goals, issues relating to gender mainstreaming including providing equal opportunities for employment of women, received special attention. The percentage of women professionals employed in the programme are shown in table 4 below.

These figures relate to staff in charge of service delivery at the primary level and neither includes managerial staff nor staff of the UNRWA run hospital in Qalqilia, West Bank. In addition, almost all nursing staff employed are women.

Table 4, Percentage of women professionals employed

Category	Percentage of females					
	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Specialists	10.5	20	35.7	18.8	75.0	28.4
Medical Officers	10.4	8.1	18.6	22.2	28.2	16.6
Dental Surgeons	9.1	7.7	35.7	18.5	35.7	20.3
Pharmacists	0.0	50	0	50.0	0	20.0
Asst. Pharmacists	27.3	55.2	50.0	20.0	31.3	36.3
Lab. Technicians	36.1	50	58.3	15.0	53.3	44.4

2.4 Owing to the fact that employment conditions in the local market had become more competitive than those of UNRWA, especially with regard to professional staff in the senior managerial category, great difficulties were encountered in recruitment and retention of adequately qualified staff, both at headquarters and the Fields. This had placed additional burden on programme management at a time when the programme is confronted with new challenges and pursuing a series of management reforms to improve efficiency and cost effectiveness.
In evidence, out of the seven senior professional posts at Headquarters, three were still vacant by the end of 2003, two of which for more than two years. In addition to the need to improve the pay of this category of scarce human resources, plans need to be considered for sponsoring the post-graduate training of professional staff in order to enhance career development and meet future replacement needs in close co-ordination with local universities.

3. Financial resources:

3.1 The approved 2003 health budget under the regular programme was established at USD 60,662 million which represents USD 14.6 per registered refugees. Total expenditure amounted to USD 53 million and expenditure by registered refugee was USD 12.8.
Even if a more conservative approach is adopted in estimation of per capita budget and expenditure based on population served rather than total registered refugees, the annual per capita allocations will still be lower than USD 20 per capita per year and actual expenditure by user will be approximately USD 17 Agency-wide.

3.2 According to WHO analysis of the finances of health care systems[(1)] world-wide (see data below), UNRWA's annual health spending compare with the very low-income country ranks, whereas programme achievements place it closer to those of middle-income countries.

Country rank	Annual per capita income in US $	Annual health spending in US $
High-income	>8,000	1,000 – 4,000
Middle-income	1,000 – 8,000	75 – 550
Low-income	<1,000	2 – 50
UNRWA	--	12.8 per refugee 17.3 per user

3.3 Table 5 shows the breakdown of 2003 budget and expenditure, both cash and in-kind, under the regular programme. The apparent differences between budget and expenditure figures were due to several factors including difficulties encountered in recruitment of staff, low going rate of expenditure on hospital services in Gaza Field because of problems of access to the only Agency contracted hospital in Gaza town, under-estimation of the value of in-kind contributions especially for the expanded programme on immunization and over-estimation of the budget for food aid.

(1) World Health Report, 2003

Table 5, Breakdown of budget & expenditure by sub-programme, 2003 (Thousand USD)

Programme	Budget	Expenditure	Percentage expenditure from approved budget
Programme Management	**3 064**	**3026**	**98.7**
Medical Care Services			
(a) Laboratory services	2 041	1938	94.9
(b) Out-patient services	21 373	19 864	92.9
(c) Maternal & child health	2 518	2 395	95.1
(d) Disease prevention & control	4 532	3 436	75.8
(e) Physical rehabilitation	684	606	88.5
(f) Oral health	2 033	1 938	95.3
(g) School health	443	423	95.4
(h) Hospital services	10 062	9 861	98
Sub-total	**43 686**	**40 461**	**92.6**
Environmental Health			
(a) Sewerage & Drainage	124	114	91.9
(b) Solid waste management	8 320	6 460	77.6
(c) Water supply	609	438	71.9
(d) Special Environmental Health Programme, Gaza	452	8	1.7
Sub-total	**9 505**	**7020**	**73.8**
Supplementary Feeding	**4 407**	**2576**	**58.5**
Grand total	**60 662**	**53083**	**87.5**

3.4 The 2004-2005 results-based budget was prepared in accord with the United Nations System-wide format at a total of USD 126,817,000 representing a 6 per cent increase in allocations for health over the 2002-2003 approved budget and 17.8 per cent of the total Agency budget for the biennium.

The budget allocations for health per registered refugee per annum varied significantly from one Field to another depending on local circumstances, dollar equivalent of staff salaries and access of refugees to the services of other care providers or otherwise. The highest per capita allocations per year were for Lebanon, namely USD 34.3 and the lowest for Jordan, namely USD 7.3.

These allocations were established at USD 19.1 per refugee per year for Gaza, 19.2 for the West Bank and 14.3 for Syria Field. The Agency-wide average

allocations per registered refugee per year under the regular 2004-2005 approved budget were USD 15.3 for the full range of medical care services, environmental health services in camps and food aid to vulnerable groups.

3.5 The breakdown of 2004-2005 regular budget by sub-programme, both cash and in-kind, is shown in table 6.
The major share of the approved budget was allocated to medical care services, namely 74 per cent. Allocations for programme management did not exceed 5 per cent of the total regular budget. In addition, the project budget for the health programme was approximately USD 13 million.

Table 6, Breakdown of 2004-2005 health regular budget (Thousand USD)

Programme	Budget 2004	Budget 2005	Total
Programme Management	**3 177**	**3 210**	**6 387**
Medical Care Services			
(a) Laboratory services	2 141	2 194	4 335
(b) Out-patient services	21 177	21 966	43 142
(c) Maternal & child health	2 713	2 788	5 501
(d) Disease prevention & control	4 856	5 057	9 912
(e) Physical rehabilitation	800	806	1 606
(f) Oral health	2 099	2 144	4 243
(g) School health	495	512	1 007
(h) Hospital services	12 105	12 105	24 209
Sub-total medical Care Services	46 386	47 572	93 955
Environmental Health			
(a) Sewerage & Drainage	128	128	256
(b) Solid waste management	7 821	9 300	17 121
(c) Water supply	631	723	1 354
(d) Special Environmental Health Programme, Gaza	274	443	717
Sub-total Environmental health	8 854	10 594	19 448
Supplementary Feeding	3 422	3 605	7 027
Grand Total	**61 837**	**64 980**	**126 817**

4. Emergency preparedness and response:

4.1 In response to the ongoing humanitarian crisis in the occupied Palestinian territory, the Agency launched two 6-monthly emergency appeals during 2003 to sustain its programme of emergency assistance at USD 196.6 million, of which USD 9 million were for immediate health interventions mainly in cost of additional medical supplies, emergency hospitalization and cost of mobile medical teams in the West Bank. The Agency also launched an emergency

appeal to sustain the programme in 2004 at USD 193.5 million. Further details on the humanitarian and health conditions in the occupied Palestinian territory and UNRWA's response are provided in chapter III of this report.

4.2 Consistent with the overall emergency preparedness plan of the UN system before the war on Iraq, the Agency prepared a contingency plan to face possible consequences of the war on any of its Fields. Fortunately, none of the Fields was seriously affected by the war and its aftermath.

5. External cooperation and partnerships:

5.1 Since 1950, under the terms of an agreement with UNRWA, the World Health Organization has provided technical supervision of the Agency's health care programme through the sustained support of the Eastern Mediterranean Regional Office and the cooperation of staff from WHO Headquarters as well as by assigning to UNRWA Headquarters, on non-reimbursable loan, WHO staff members, including the Agency's Director of Health. WHO/EMRO also continued to cover the salaries and related expenses of Chiefs, Division at UNRWA Headquarters.

5.2 The Agency maintained close collaborative links with other United Nations organizations especially UNICEF.
Co-operation with UNICEF was focused on relevant aspects of the Integrated Management of Childhood Illnesses (IMCI).
UNICEF continued to provide vaccine and cold-chain supplies for the six major vaccine-preventable diseases in Lebanon and Syria.
In addition, collaborative links were maintained between UNRWA and UNICEF country offices in Jordan and Syria for coordination of health promotional activities, staff development and provision of medical equipment/supplies.

UNRWA also maintained a system for exchange of information on compatible areas of work with UNFPA and UNAIDS.

5.3 UNRWA had historically maintained close working relationships with the public health departments of the host authorities. UNRWA senior health staff in Gaza Strip and the West Bank enjoy membership in all technical committees established by the Ministry of Health of the Palestinian Authority to review practical aspects of health policy and to co-ordinate action in the health sector. UNRWA also participaed in the work of national committees on nutrition and food for formulation of policies and strategies on food security and micronutritients. Meantime the Ministry of Health in Jordan provided UNRWA with its requirements of contraceptives and vaccines used in the expanded programme on immunization. The Ministry of Health, Syria continued to meet UNRWA's requirements of vaccines that are not programmed by UNICEF such as hepatitis-B and haemophilus influenzae type b (Hib) vaccines. The Ministry of Health of the Palestinian Authority provided all vaccines included in the expanded programme on immunization in Gaza Strip and the West Bank as in-kind contribution to UNRWA. In each of Jordan, Lebanon and Syria the Ministries of Health met UNRWA's requirements of anti-tuberculosis drugs and provided advanced laboratory facilities for surveillance of vaccine-preventable diseases and HIV/AIDS.

5.4 The Health Department maintained and further developed its cooperatin with the United States Agency for International Development (USAID) especially the USAID/MARAM project in Gaza Strip and the West Bank.
Also the longstanding cooperation with the Palestinian Red Crescent Society (PRCS) was further enhanced especially in Lebanon where the Agency had maintained the arrangement for treatment of refugee patients at the five PRCS hospitals.

5.5 During the year, the Director of Helath and senior staff of the Department of Health participated in the following meetings/conference of the World Health Organization:-

- 111th session of the WHO/Executive Board, Geneva, from 16-18 January.

- National Food and Nutrition Policy, WHO Amman, from 22-23 January.

- Meeting of Programme Managers of Communicable Disease Surveillance and Response, Cairo, 29 April to 1 May.

- 2nd Sub-Regional Meeting for Development of National STD, Assessment Monitoring & Control Plans, Cairo, from 26-29 May.

- 20th Inter-country Meeting of National Managers of the Expanded Programme on Immunizaiton, Damascus, from 30 June to 0 July.

- Inter-country Meeting on Measles Elimination, WHO, Tunisa, from 1-5 September.

- 50th Session of the WHO Regional Committee for the Eastern Mediterranean, Cairo from 24 September to 2 October.

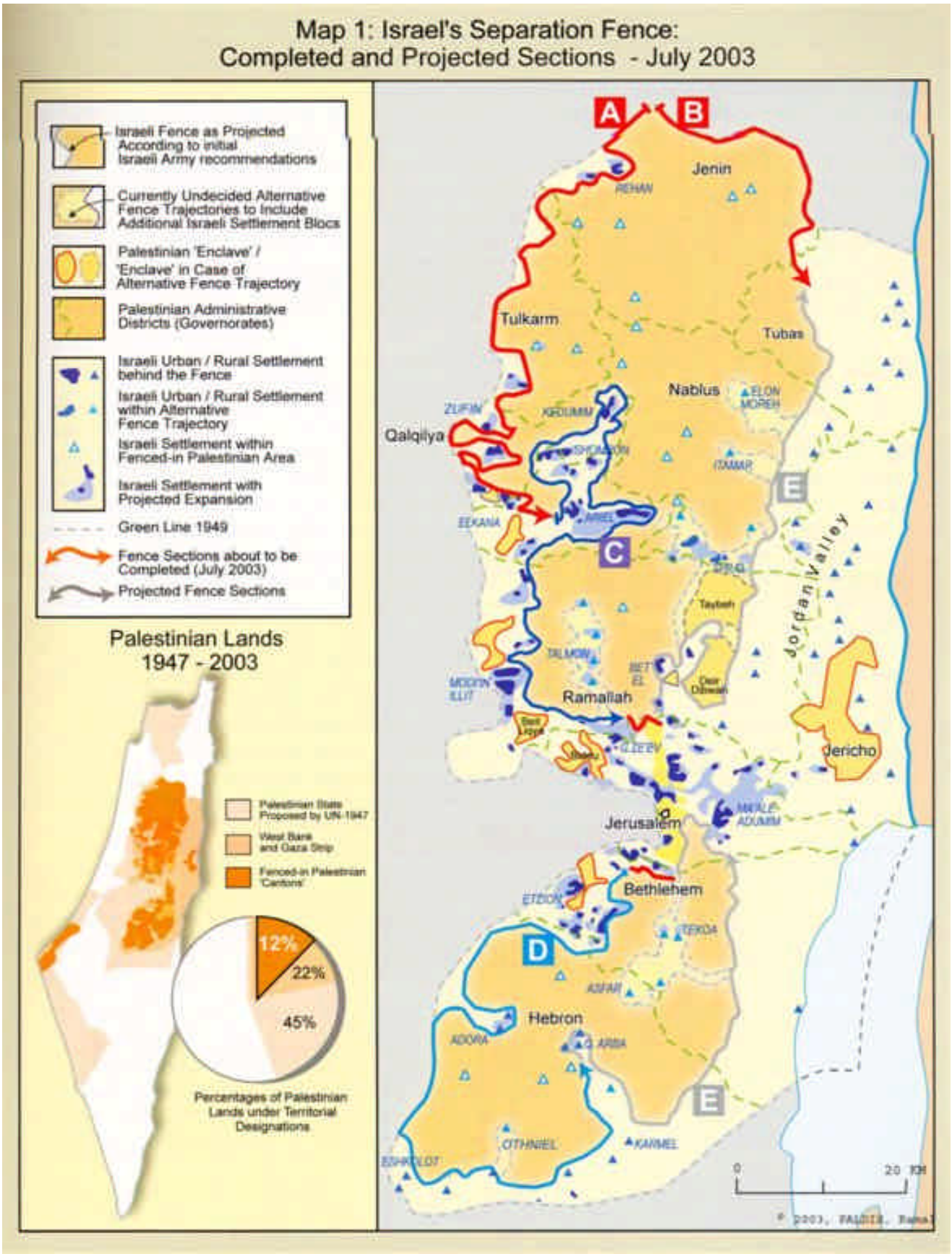
- International Day for Solidarity with the Palestinian Peopole, Cairo, 1st December.

- Regional Consultative Meeting on Promoting Reprodcutive & Sexual Health in EMR, Beirut, from 7-11 December.

- Inter-country Workshop on Immunization Safety, Cairo, 13-17 December.

- Regional Consultation Meeting on Health & Behaviour, Cairo, from 15-18 December.

Map 1: Israel's Separation Fence: Completed and Projected Sections - July 2003



This is how children access schools and services in the West Bank
(Courtesy HDIP)

III. PROGRAMME OF EMERGENCY HUMANITARIAN ASSISTANCE IN THE OCCUPIED PALESTINIAN TERRITORY

> Since September 2000, the cycle of violence and destruction affecting the occupied Palestinian territory remains unbroken. The suffering goes beyond the cold statistics one hears and the learned explanation of analysis. It concerns individual human beings, often wholly bereft of any relation to the ongoing battle raging around them, women, children, even the elderly.
>
> Peter Hansen, UNRWA Commissioner-General

Health conditions:

1. For the third year running, the humanitarian crisis in the occupied Palestinian territory continued to affect every aspect of the day-to-day life of the population. The state of unrest and violence, wide-scale unemployment and obstacles to humanitarian access led to increased poverty rates and deterioration of the health and nutritional conditions of the population in general, and refugees in particular.
   In violent conflicts, women and children are normally the most affected. The Palestinian child rights organization Defense for Children International/Palestine section (DCI/PS) had documented the death of over 500 Palestinian children under the age of 18 years. These deaths were the result of measures implemented in the West Bank including East Jerusalem and the Gaza Strip since September 2000. DCI/PS reported that an estimated 10,000 children were wounded during the period. The majority of these children were killed and injured while going about normal daily activities, such as going to school, playing, shopping, or simply being in their homes.

2. A January 2003 report, CARE International noted that chronic malnutrition among children under five has reached emergency rates and over 40 per cent of children in that age group were anaemic. Anaemia rates among women were even higher reaching approximately 53 per cent in the Gaza Strip.
   The UN Special Rapporteur on the Right to Food, confirmed these trends in October 2003 report. Consequently, over 50 percent of Palestinians are largely dependant on food aid.

   The Food Security Assessment, West Bank and Gaza Strip conducted by the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the World Food Programme (WFP) which was sponsored by the European Commission and the United States Agency for International development (USAID)[1] concluded that access and affordability are limited due to physical reasons (restrictions on movements) or economic reasons (high unemployment, depletion of resources, exhaustion of coping strategies and

(1) Executive Report, Food Security Assessment, WBGS, 2003

strained social support networks. Approximately 40 per cent of the population of West Bank and Gaza Strip are food insecure and a further 30 per cent are under threat of being food insecure should current conditions persist. The study also concluded that food aid accounts for a large and rising share of the diet and that despite increased access to food aid, adequate food supplies are not reaching all households and diets are of low quality in terms of vitamin and mineral content. The study also concluded that although the flow of humanitarian and development assistance from national and international bodies is substantial, it is far below the amount needed to ensure food security for all. Most assistance now is aimed at preventing people becoming more insecure. The main problem is that many do not have the money to buy food even when it is available and a large share of households have shifted to lower cost foods that provide a less nutrious diet. The reductions in quantity and quality of food consumed means that access to a nutrious diet has been seriously affected.

3. Since September 2000, Palestinian children have lived an environment of continuous violence and uncertainly, which has led to a high rate of post-traumatic stress disorder (PTSD) symptoms.
An April 2003 survey by the Gaza Community Mental health Programme, found that 33 per cent of children surveyed require psychological intervention and 49 per cent suffered from a moderate level of PTSD.

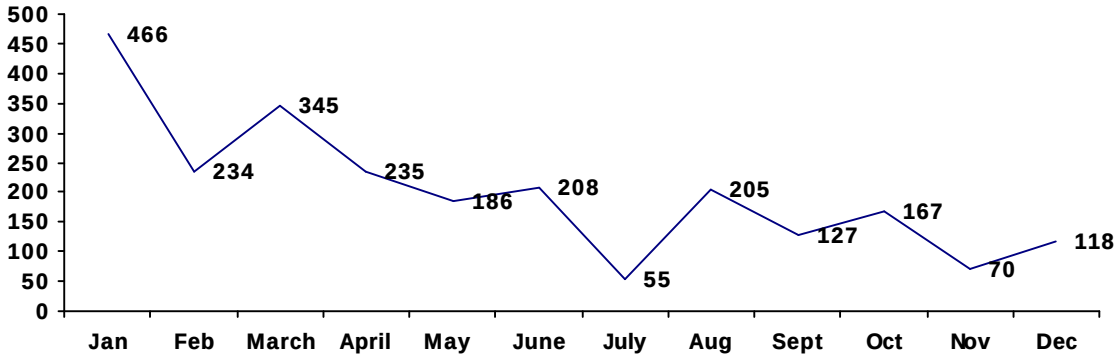
A March 2003 Save the Children Sweeden and United Kingdom study noted that parents report that their children under five exhibit disturbing behavioral symptoms, including increased violence and aggression, lack of concentration, failure to eat properly and maintain good hygienic, bed-wetting and nightmares.
According to a July 2003 joint study by Save the Children US and the Secretariat of the National Plan of Action for Palestinian Children, 90 per cent of parents reported that their children exhibit similar traumatic stress-related symptoms.
With children constituting 40 per cent of the Palestinian population of the occupied territory, the impact of the ongoing humanitarian crisis is cause for grave concern about the future.

4. A major reason of concern in the West Bank was the decline in immunization coverage of infants below 12 months of age with primary series in certain localities falling to levels below the sustained coverage of over 95 per cent. The main drop was reported from Hebron town, Dahrieh, Ein Arik, and Doura. Likewise there was a drop in booster immunizations from Jerusalem health centre, Hebron town, Dahrieh and Doura.
Although not dramatic, the sudden decline in immunization coverage for the second year running for a programme which maintained close to full coverage over several years is a cause for concern. When there are isolated pockets of unimmunized children in localities which were under prolonged curfews, in remote villages and border areas, this might result in future disease outbreaks, the place and time of which can not be predicted because of accumulation of susceptibles. Even more serious, is the risk of cross-border outbreaks, especially, measles and possibly poliomyelitis.
In evidence, an outbreak of mumps started early December 2003 in Askar camp, Nablus area which spread to the nearby Balata camp and adjacent

localities. Until the time of preparation of this report, the outbreak did not subside and had thus far affected 328 children, of whom 62.7 per cent were 6-15 years of age, 63.7 per cent males and 36.3 per cent females respectively. 31 per cent were not previously immunized.

5. In total, there were 2416 man/days lost by UNRWA health personnel in the West Bank during 2003 due to closures, curfews and restrictions imposed on staff movements (see figure 1 below). Restrictions on movement of staff were more serious during the first quarter of the year and started to be eased effective May, nonetheless never removed.

Figure 1, Man/days lost in the West Bank, UNRWA health centres & Qalqilia Hospital - 2003



Coupled with the breakdown in the lines of direction/supervision and disruption of staff training and development activities, the loss of man/days, which comes on top of the sustained increase in demand for UNRWA medical services, started to affect service quality especially in the West Bank.

6. Throughout 2003, the government of Israel continued the planning and construction of what has been variously called a “security fence”, “separation barrier or wall”. The completed sections, consisting of concrete walls, electronic fences, patrol roads, ditches and trenches, stretches for 180 kilometers. The first phase was completed in July 2003 and is already impacting over 66 towns, villages, and refugee camps in the Qalqlia, Tulkarm and Jenin governorates.
Approximately 200,000 people are already affected to some degree by the first phase, having lost land, water and agricultural resources in the construction of the barrier, and experienced problems in accessing essential services. This figure includes 17,931 refugee families, or 88,284 individuals, representing over 40 per cent of the affected group. Particularly affected are 13,639 Palestinians in 15 communities completely isolated between the barrier and the Green Line, including 623 refugee families or 3,228 individuals.
Because of the creation of ‘depth barriers’ and the winding nature of the security barrier itself, additional enclaves have been, or may be, created to the east of the barrier. Fifteen communities will be affected, numbering approximately 139,121 Palestinians, including 15,356 refugee families, or 75,238 individuals. One such enclave is Qalqilia town, where access is only possible through one gate to the east, severely affected refugees who rely on the UNRWA hospital and three Agency schools. Plans to enclose Tulkarm and

its immediate hinterland between a concrete wall to the west and a 10 kilometer-long 'depth barrier' to the east will have a similarly negative impact on the approximately 7,210 refugee families who reside in Tulkarm and its two refugee camps.
Thousands of Palestinians have left Qalqilia since the start of the intifada, because of the impact of the closure on social and economic life.

According to the UN Office for the Coordination of Humanitarian Affairs (OCHA), completion of the barrier will result in approximately 15 per cent of West Bank land being isolated between the barrier and the Green Line (excluding East Jerusalem and the Jordan Valley section). In total, some 274,000 Palestinians living in 122 communities will be isolated between the barrier and the Green Line or in fenced-in enclaves. An additional estimated 400,000 Palestinians will be obliged to pass through access gates to reach land, workplaces and services. In addition to constraints on Agency facilities and services located in theses areas, the barrier will increase access problems for refugees entering and leaving the enclaves, and for UNRWA outreach mobile clinics and distribution teams who may require special entry permits to pass through the gates to conduct the Agency's regular and emergency programmes within these enclaves. Already, UNRWA medical and distribution teams have been denied access to affected villages in the Qalqilia and Tulkarm areas.

Of particular concern is the situation in Jerusalem, where the Agency's operations, are already constrained due to the special permits required for West Bank resident employees and beneficiaries accessing the Field Office and the eight Agency facilities in Jerusalem, and the Augusta Victoria Hospital. In the northern Jerusalem area, approximately 15,000 refugees in Qalandia Camp, Kfar Aqab and Rafat, including 5,000 Jerusalem ID holders, are already outside the 'Jerusalem Envelope'. The southern completed section of the Envelope already effectively cuts off the Bethlehem urban area and its three refugee camps from Jerusalem, affecting a total of 45,000 refugees. The barrier will also exclude over 10,000 refugees in Shufat Camp, with negative consequences for UNRWA and municipal services. Those holding Jerusalem Identity Card left outside the 'Jerusalem Envelope' may have to move to within the municipality proper, because of potential access problems and through their fear of losing their Jerusalem identity cards.[(1)]

UNRWA is particularly concerned about the impact the barrier will have on the Agency's ability to continue to provide essential humanitarian services to registered refugees and other persons in need throughout the Wet Bank. Refugees constitute a particularly vulnerable group amid the general population and, when the barrier is completed, are likely to face a further sharp decline in living standards and increased dependency on outside humanitarian aid.

7. Prior to the current crisis, UNRWA's hospital in Qalqilia provided care to a large number of refugees throughout the northern areas of the West Bank and the bed occupancy rate was 67.5 per cent.
As a result of restrictions on movements, including curfews and closures and more recently the construction of the Separation Wall around the city, this rate has fallen to only 43.5 per cent.

[(1)] UNRWA Emergency Appeal, 2004

The number of patients from outside the city who are now treated in the hospital has declined from 38.6 per cent to only 16.7 per cent.
Similarly, the number of surgical procedures performed has fallen from an average of 1154 to 305 a year.

There are also major concerns that completion of the process of construction of the Separation Wall around Jerusalem, will result in similar problems due to inability of patients requiring emergency care to have access to non-governmental hospitals in East Jerusalem including Makassed, Augusta Victoria ant St. John's hospitals. Likewise women and children in several localities of the West Bank who used to have access to UNRWA maternal and child health services, might not be able to obtain these services.

8. According to the statistics released by the Palestinian Red Crescent Society, a total of 2,636 fatalities and 24,363 injuries were reported among the Palestinian population of the West Bank and Gaza Strip during the period 29 September 2000 – 31 December 2003.
Israeli sources reported that 909 Israeli's were killed and 6,077 were injured during this period. The number of Palestinian deaths resulting from Israeli actions in the past two years, in proportional terms, compare to the death of about a quarter of a million in the U.S.[(1)]
In addition to the human loss, many of the injuries end with permanent disabilities that require complex reconstructive surgery and tertiary care not readily available in local hospitals.

According to UNRWA statistics, a total of 121 children in UNRWA schools were killed and 1,532 were injured in Gaza Strip and the West Bank since the beginning of the current crisis, all below the age of 15 years and all wholly bereft of any relation to the ongoing battle raging around them. They were exposed while at home, on their way to school or while in class rooms.

9. In August 2003, a WHO survey revealed that more than 50 per cent of survey respondents had to change health care provider facility, and that in 90 per cent of these cases the change was due to restriction of access. Health link reported that since September 2000, there have been more than 254 incidents of attacks on medical personnel, of which 15 medical staff have been killed while carrying out their duty.

10. Water quality surveys undertaken in July 2003 indicate that 69 per cent of samples failed the WHO water standard for the oPt. New wells built by USAID, which may have helped alleviate the water shortage in Gaza, were recently destroyed in an Israeli military incursion. Construction of the northern section of the separation barrier itself has brought the destruction of 35,000 meters of domestic and agricultural water pipes.

<u>UNRWA's emergency response</u>:

1. Since the beginning of the humanitarian crisis in the fall of 2000, the Agency launched a series of appeals to implement a comprehensive programme of emergency humanitarian assistance which comprised inter-alia, emergency

(1) Arab Human Development Report 2003

employment generation, emergency food aid, emergency shelter repair and reconstruction and emergency medical care.
Funds requested through these appeals and confirmed pledges, both cash and in-kind, during the period October 2000 – December 2003, are shown below:

Table1 , Emergency appeals funding status (USD million)

	2000/2001 Appeals	2002 Appeal	2003 Appeal	Total
Amount requested	160.3	172.9	196.6	529.8
Confirmed pledges	133.1	94.6	83.3	311

In addition, the Agency launched an emergency appeal to sustain its programme of emergency assistance in 2004 at $ 193.5 million.

2. By the end of 2003, UNRWA had only received 48 per cent of its total requirements as set out in its 2003 emergency appeals. The Agency was again forced to reprogramme its response towards food aid, direct employment and cash assistance. Lack of funds meant cancellation or severe curtailment of programmes in education, health and shelter rehabilitation.

3. Consistent with its approach of dealing with the emergency within a developmental outlook, and in recognition of the fact that poverty is a cause and consequence of ill-health, a central component of UNRWA's response to poverty stemming from the current crisis, was emergency employment creation. Since UNRWA launched its emergency programme of assistance in late 2000, close to 4 million work days have been generated under the direct higher programme.

4. In response to escalating food insecurity among the refugee population of the oPt, the Agency distributed more than 3.4 million food parcels since the first emergency appeal was launched in late 2000. Food aid was rendered to more than 200,000 families in Gaza Strip and the West Bank representing approximately two thirds of the refugee population and one third of the total population of the occupied Palestinian territory. Assistance to non-refugees will be provided in close coordination with the WFP and the Palestinian Authority.

5. As a result of health-related needs arising out of the ongoing crisis, the Agency continued to employ additional staff, both in Gaza Strip and the West Bank, to assist in maintaining regular services and meeting the additional demand on medical services including doctors, nurses and paramedical staff.
There were five emergency mobile teams operating in the West Bank, two serving villages in Nablus area, two serving villages around Hebron and the fifth in the vicinity of Jerusalem.
Additional emergency medical supplies were made available and assistance was provided towards settlement of the hospitalization bills for patients who were in need for emergency care and could not reach hospitals with which UNRWA has contracts.

6. In order to mitigate the growing distress of the Palestinian people, UNRWA maintained its multi-disciplinary programme of psychological counseling and

support in Gaza Strip and the West Bank. Seven consultants in the field of psychological health conducted 13 workshops for 234 employees of UNRWA in the West Bank including doctors, nurses, social workers, teachers and school counselors

Counsellors conducted 784 group guidance sessions to 6,152 beneficiaries in Gaza Strip and 4,261 sessions to 36,106 beneficiaries in the West Bank. These activities were complemented by group guidance sessions provided by teaching staff and social workers.

7. Meantime works were in progress for reconstruction of Jenin camp, major parts of which were reduced to rubble during an Israeli military operation in March 2002, including rehabilitation of water and sewage networks and roads. Contracts for the road, water, storm water drainage and sewerage networks were signed in September 2003. Work on the storm water drainage network, a water trunk line and roads were 30 per cent complete by mid January 2004. Work on the main wastewater trunk line began in November, almost two months behind schedule because pipes could not be manufactured due to IDF operations.

Meantime, a rapid assessment of the needs for emergency repairs in other camps of the West Bank was carried out by a WHO consultant/sanitary engineer.

8. In October 2003, UNRWA completed an assessment of the impact of current humanitarian crisis in the occupied Palestinian territory on people and services. The report covered humanitarian and economic conditions, health conditions, casualties, food and nutrition, mental and psychological problems and housing and environmental conditions. The report also provided a vision of the way forward to meet medium and long-term development needs and challenges, should the conditions become ripe to move from conflict to recovery and development.

IV. MEDICAL CARE SERVICES

Real progress in health depends vitally on stronger health systems based on primary health care. No uniform, universally applicable definition of primary health care exists. In high income and middle income countries, primary health care is mainly understood to be the first level of care. In low income countries, it is seen more as a system-wide strategy.

World Health Report – 2003

Introduction:

1. In spite of the steady increase in cost of medical care services in the region due to inflation and major advances in medical technology, nevertheless, the Agency's medical care programme remained one of the most cost-effective systems in the region. With an average per capita budget allocations of not more than $ 8.8 per registered refugee per year for curative medical care services, the Agency was able to provide comprehensive medical care to the Palestine refugee population comprising out-patient medical care, dental care, physical rehabilitation and other support services including laboratory and radiology services, provision of medical supplies and hospital services.

2. 2003 budget allocations for medical care services, both preventive and curative, were USD 43.6 million Agency-wide, which represented 72 per cent of the total allocations from the regular budget for the health programme including environmental health, food aid and programme management. Agency wide, the per capita allocations for medical care services, both preventive and curative, were USD 10.5 in 2003. These allocations varied significantly from one Field to another, depending on the level of access of refugees to public sector services and health insurance schemes or otherwise. The highest allocations of USD 22.3 per registered refugee per year were for Lebanon and the lowest of USD 4.6 were for Jordan. The rate was USD 14.5 for the West Bank and USD 12.9 each for Gaza Strip and Syria. However, in all Fields these allocations were far below the level of allocations from the ministries of health of the host authorities. Even if these estimate were calculated on the basis of population served rather than registered population, they remain very modest by regional or international standards.

3. Consistent with the universal declaration on human rights and the longstanding public sector policies, fees are not levied by UNRWA for primary health care services in order to ensure access of the population to basic services. However, refugees are required to participate in the cost of secondary and tertiary care services which are outsourced at private or non-governmental hospitals. They also contribute towards the cost of specialized medical investigations that can not be provided at UNRWA primary health care facilities and towards the cost of prosthetic devices such as eye-glasses and hearing aids.

4. Table 1 below provides information on UNRWA resource allocations compared to the host authorities.

Table 1, Comparative resource indicators, UNRWA and host authorities

Indicators	Jordan		Lebanon		Syria		Palestine		
	Country	UNRWA	Country	UNRWA	Country	UNRWA	MOH	West Bank	Gaza
- No. primary health facilities per 100,000 population	24	1.4	69	6.4	21	5.7	29	5.3	1.9
- No. doctors per 100,000 population	220	5.2	281	13.1	146	12.0	84	10.0	9.85
- No. dentists per 100,000 population	45	1.2	105	4.1	85	3.2	8	2.0	1.5
- No. nurses per 100,000 population	280	12.9	300	28.7	197	29.3	141	32.4	27.1
- Per capita allocations for medical care US $	45	4.6	45.9	22	18.6	12.8	26.9	14.7	12.8

The above statistics show the wide gap in resource allocations between UNRWA and host authorities.
It should however, be readily acknowledged that this comparative analysis is only indicative and does not compare like-with-like because data on public sector allocations cover the three levels of health care, namely primary, secondary and tertiary care, whereas, UNRWA data covers mainly allocations for primary health care and very selective use of secondary care

5. There has been a great deal of controversy over the size of population actually served by UNRWA based on results obtained from sample surveys conducted by local and international research organizations. Most of the confusion over the results of such surveys was due to drawing conclusions on utilization trends based on respondents' perceptions and mixing up 'UNRWA' with 'refugees' or 'camps'.
UNRWA maintains records of each refugee family that receives care at its primary health care facilities. Estimates of the population served based on number of family files available at UNRWA health facilities as at end of 2003 were as follows:-

Table 2, Population served at UNRWA primary health care facilities

Field	Registered population	Population served	Percentage
Jordan	1,740,000	1,110,782	63.8
Lebanon	395,000	257,734	65.2
Syria	414,000	353,669	85.4
Gaza Strip	923,000	721,536	78.1
West Bank	665,000	465,486	69.9
Total	4,137,000	2,909,206	70.3

As can be noticed from the above statistics, there are significant variations in the proportional size of the population served between one Field and another, which are due to several factors including the pattern of distribution of UNRWA health care facilities in and outside camps, the degree of access of refugees to public, private and NGO services and the undocumented movement of the registered refugees within and outside the Agency's area of operations.

In addition, there are few thousands of unregistered Palestine refugees in Lebanon who have been exceptionally granted access to UNRWA services because they live in extreme poverty and there are other extended families of displaced refugees who are on the records of the Departments of Palestinian Affairs in Jordan and receive services from UNRWA. There are also non-refugees who seek care at UNRWA facilities because of difficulties in access to the services of other care providers owing to prolonged closures and restrictions of movements in the oPts. The number of actual users is therefore approximately 3.2 million.

Programme accomplishments:

1. General:

1.1 During 2003, special emphasis was placed on introducing systems to improve monitoring and evaluation processes with the ultimate objective of improving management of the various programme components. These systems included development of a hospital management information system, a drug supply management information system and a cancer registry.
New technical instructions (guidelines) were promulgated to streamline the provision of oral health services and supervisory checklists were developed to ensure compliance with established standards regarding pharmacy operations at the central and service delivery levels.

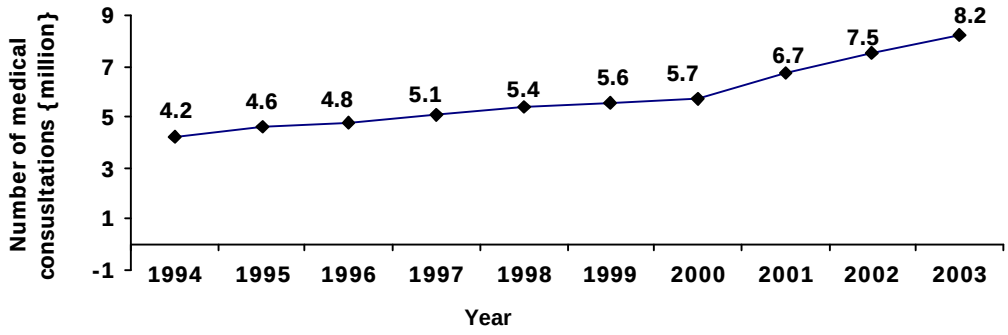
1.2 The periodic self-evaluations conducted each year to assess the trends in utilization of medical supplies and productivity of laboratory services, were undertaken based on data available in 2003. In addition, standards were established to assess the oral health services and a study was undertaken in December in all Fields to assess productivity and efficiency of services.

1.3 The meeting of Deputy, Chiefs, Field Health Programme and Field Pharmacists and the meeting of Laboratory Superintendents were held in January and December respectively. The meeting reviewed progress achieved and problems encountered and developed planned activities to address the various aspects of the programme.

2. Out-patient care:

2.1 Utilisation of general clinics, Agency-wide in 2003 increased by 9.3 percent over 2002, with the highest rate of approximately 15 per cent in Jordan. This increase was mainly due to improved accessibility owing to conversion of three primary health care facilities providing preventive care to women and children only to comprehensive centres providing the full range of preventive and curative services as well as to change of the weekly schedule of work of health centres in the Jordan valley clinics from part-time to full time after construction of new facilities.

Figure 1, Trend in utilization of out-patient services



The ratio of repeat to first visits for medical consultations was 3.2, Agency-wide compared to an average of 3.0 visits in 2002. The highest ratio above the mean was in Lebanon, 3.7 and the lowest was in Gaza, namely 2.9. (see table 3).

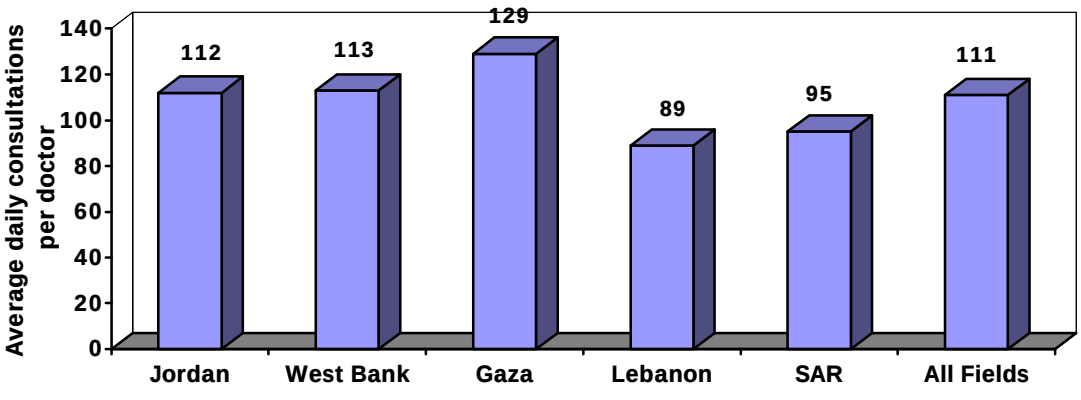
Table 3, Utilization of out-patient services, 2002

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Registered refugees	1 740 000	665 000	923 000	395 000	414 000	4 137 000
a) Medical consultations:						
First visits	479 899	304 314	724 435	184 952	251 940	1 945 540
Repeat visits	1 553 724	1 050 742	2 110 669	680 047	770 512	6 165 694
Ratio repeat to first visits	3.2	3.5	2.9	3.7	3.1	3.2
Sub-total	**2 033 623**	**1 355 056**	**2 835 104**	**864 999**	**1 022 452**	**8 111 234**
b) Other services:						
Injections	41 621	81 577	480 009	30 398	46 402	680 007
Dressings	92 356	80 398	197 579	37 295	19 755	427 383
Sub-total	**133 977**	**161 975**	**677 588**	**67 693**	**66 157**	**1 107 390**
Grand Total (a) & (b)	**2 167 600**	**1 517 031**	**3 512 692**	**932 692**	**1 088 609**	**9 218 624**
Workload per medical officer	112	113	129	89	95	111

2.3 In spite of establishment of additional posts, both under the regular and emergency programmes, the workloads at UNRWA health centres continued to be high with an Agency-wide average of 111 consultations per medical officer per day compared to an average of 99 in 2003. Similar to previous years, the highest workload was reported from Gaza strip and the West Bank, 129 and 113 respectively. The lowest workload of 89 was reported from Lebanon. The workloads in Jordan were close to the Agency-wide average.

This steady increase in the average daily workload of medical officers was mainly due to the increased demand on UNRWA medical care services owing to the generalized socio-economic hardship and the consequences of the ongoing humanitarian crisis in the occupied Palestinian territories. These heavy workloads continued to be reason for concern with regard to maintaining the quality of services.

Figure 2, Average daily workloads, per doctor



2.4 Projects for rehabilitation and upgrading of primary health care facilities during 2003, comprised the following improvements:

(a) In Jordan, works were completed for construction and equipment of new health centres to replace the unsatisfactory rented premises in Mashare' and Kraymeh, Jordan valley.
Also works were completed for expansion of Nuzha and Baqa'a mother and child health centres, which were converted into comprehensive health centres providing the full range of preventive and curative medical care services.

(b) In Lebanon, works were completed for construction of a new health centre in Ein-el-Hilweh camp and replacement of Beddawi health centre.
Also works were completed for expansion/renovation of Beirut polyclinic, Saida polyclinic, Nahr-el-Bared and Nabatieh health centres.

(c) In Gaza, works were completed for major renovation of Nuseirat and Gaza Town health centres and arrangements were underway for taking over a new health care facility constructed by the Norwegian government in Rafah area.

(d) In the West Bank, works were completed for construction of new health centre premises to replace the old unsatisfactory premises in Askar and Kalandia camps. Also works were completed for expansion/renovation of Hebron and Qalqilia health centres.

3. In-patient (hospital care):

3.1 The Agency continued to provide assistance towards essential hospital services either by contracting beds at non-governmental and private hospitals or through partial reimbursement of costs incurred by refugees on their treatment at non-governmental or governmental hospitals. In addition, services were provided by the UNRWA run hospital in Qalqilia, West Bank.

Data on utilization of hospital services in 2003 is outlined in Table 4 below:-

Table 4, Utilization of hospital services, 2003

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
General hospitals						
Patients admitted	14 747	15 968	3 148	17 330	6 667	57 860
Bed days utilized	35 534	41 955	11 942	41 059	11 217	141 707
Average stay in days	2.4	2.6	3.8	2.4	1.7	2.4

3.2 Overall, there has been a 9.5 percent increase in number of patients, who benefited from the Agency-assisted hospitalization schemes in 2003 with the highest rate of increase of 11.8 per cent in Jordan. The increase in Jordan was due to the increased demand on UNRWA services owing to the increase in cost of

services at government hospitals whereas, the low utilization in Gaza was mainly due to inadequate provision of subsidized beds, obstacles to humanitarian access to the only contracted hospital in Gaza town and use of hospitals run by the Ministry of Health of the Palestinian Authority with no feedback received from the later.

Table 5, In-patient care, UNRWA facilities

	Qalqilia hospital, West Bank	Maternity units, Gaza
• Number of beds[1]	43	60
• Persons admitted	3 915	3 569
• Bed days utilized	8 098	4 524
• Average daily bed occupancy (%)	41.9	20.7
• Average stay in days	2.1	1.3

3.3 Analysis of age distribution of patients admitted to hospitals during 2003 revealed that 57 per cent of hospitalized patients were 15-44 years of age, 23.4 per cent were 45 years and above whereas, children below 14 years of age constituted 19.6 per cent of all hospitalized patients (see table 6).

Table 6, Proportional age distribution of patients admitted to hospitals – 2003

Field	No. of patients admitted	Age group (years)				All age groups
		0-4 %	5-14 %	15-44 %	45+ %	
Jordan	14 747	13.4	6.1	71.5	9.0	100
West Bank[2]	11 238	10.9	5.7	61.9	21.5	100
Gaza	6 701	1.0	4.0	72.2	22.8	100
Lebanon	17 626	18.0	13.0	39.3	29.7	100
SAR	6 703	10.2	5.4	63.3	21.1	100
Total	57 015	12.5	7.9	58.7	20.9	100

3.4 More than two thirds of hospitalized patients were women and one third were men. This pattern of more women hospitalized was noticed in all Fields with the highest proportion of approximately 80 per cent in Jordan and the lowest of 54 per cent in Lebanon. The main reason for the relatively high rate in Jordan is that assistance towards hospitalization expenses incurred by refugees is mainly provided for delivery of high risk pregnancies and emergency conditions, but not for other conditions.

(1) The bed capacity in Qalqilia hospital increased to 63 effective July 2003

(2) Including statistics from Qalqilia hospital

Table 7, Distribution of hospitalized patients by gender

Field	No. of patients admitted	Sex	
		Male %	Female %
Jordan	14 747	20.2	79.8
West Bank	11 238	28.7	71.3
Gaza	6 701	22.7	77.3
Lebanon	17 626	46.2	53.8
SAR	6 703	40.3	59.7
Total	57 015	32.6	67.4

3.5 Analysis of data on hospitalized patients by type of management and morbidity profile reveal that 33.4 per cent of patients, Agency-wide were admitted for surgical conditions, 32.5 per cent for internal medicine and 34.1 per cent were for deliveries, both vaginal and by caesarean section (see table 8).
Statistics show that almost three quarters of patients admitted in Syria were for surgical interventions and 59 per cent of cases admitted in Lebanon were for internal medicine. These major variations are much influenced by budget allocations available to each Field and referral practices.
Unlike the trend in other Fields, Syria reported a higher c-section ratio than normal deliveries, whereas Gaza reported a very low c-section rate. The high c-section rate in Syria called for corrective action to prevent adverse outcomes of such procedure, when not adequately indicated. The low rate from Gaza is due to lack of feedback from hospitals on the actual number of deliveries and type of delivery. It does not therefore reflect the actual rate.

Table 8, Proportional distribution of hospitalized patients by condition

Field	No. of patient admitted	Surgical %	Internal medicine %	Deliveries %		
				Vaginal	Caesarean	Total
Jordan	14 747	24.6	20.1	44.0	11.3	55.3
West Bank	11 238	28.5	35.1	29.6	6.7	36.3
Gaza	6 701	30.0	14.6	55.3	0.1	55.4
Lebanon	17 626	30.2	59.0	7.5	3.3	10.8
SAR	6 703	73.2	3.9	6.3	16.6	22.9
Total	57 015	33.4	32.5	26.8	7.3	34.1

3.6 The morbidity profile of hospitalized patients according to the International Classification of Diseases reveals that 39.2 per cent of admissions were for pregnancy, childbirth and puerperium, 14.6 per cent were for diseases of the digestive system, 8.7 per cent for diseases of the respiratory system, 7.4 per cent for diseases of the circulatory system and 4.3 per cent for injury, poisoning and other consequences of external causes. The morbidity profile of patients varied significantly from one Field to another, which is much influenced by referral practices and level of Agency assistance provided to refugees in each Field.

Table 9, Proportional distribution of hospitalized patients by morbidity condition 2003

Morbidity condition	Jordan	West Bank	Gaza	Lebanon	SAR	Total
Certain infectious and parasitic diseases	0.7	0.7	0.2	1.6	0.0	0.8
Neoplasms	0.1	0.4	0.9	2.8	4.2	1.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0.4	1.6	0.3	3.7	0.2	1.6
Endocrine, nutritional and metabolic diseases	1.4	1.8	3.6	1.9	2.1	2.0
Mental and behavioural disorders	0.0	0.2	0.0	0.1	0.0	0.0
Diseases of the nervous system	0.6	1.2	0.3	2.2	2.7	1.4
Diseases of eye and adnexae	1.4	0.1	0.0	2.1	9.9	2.2
Diseases of ear and mastoid process	0.3	0.2	0.0	1.2	2.4	0.8
Diseases of the circulatory system	4.3	12.0	4.4	10.8	0.7	7.4
Diseases of the respiratory system	6.1	6.1	1.7	17.4	3.3	8.8
Diseases of the digestive system	9.4	11.7	13.8	16.7	26.1	14.6
Diseases of the skin and subcutaneous tissue	0.8	0.8	7.0	2.3	1.0	2.0
Diseases of the genitourinary system	4.5	5.9	8.9	5.8	8.1	6.1
Pregnancy, childbirth and the puerperium	61.2	46.6	55.4	14. 6	27.2	39.2
Certain conditions originating in the perinatal period	3.3	4.0	0.0	2.0	1.9	2.5
Congenital malformations, deformations and chromosomal abnormalities	0.3	1.0	0.00	0.2	0.1	0.3
Injury, poisoning and cerain other consequences of external causes	2.2	2.8	0.1	10.4	0.0	4.3
Grand total	**100**	**100**	**100**	**100**	**100**	**100**

3.7 Works for construction and equipment of a paediatric ward, emergency ward, nursing dormitory as well as for remodelling and upgrading of the general ward, maternity ward and catering services in the UNRWA run hospital in Qalqilia, West Bank were completed with a generous contribution from the government of Spain. Also a central gaz station was installed, with a contribution from USAID/MARAM. These improvements increased the bed capacity of the hospital from 43 to 63 beds effective July 2003. However, while these improvements aimed at upgrading the standards of care and facilities and improve access to hospital services in north areas of the West Bank, the restrictions on movement, including construction of the separation wall, resulted in drop in the average daily bed occupancy. In order to preserve the investment achieved through capital projects for upgrading the

hospital, arrangements were made to direct patients, normally treated at contracted hospitals, to the UNRWA run Qalqilia hospital.

3.8 Additional funds were made available to Jordan, Lebanon and Syria Fields in order to meet the increase in demand and increase in cost of hospital services. Further increases were approved in the 2004-2005 biennium budget for Lebanon Field in order to increase the Agency assistance and reduce patient participation towards the cost of specialized hospital care, open heart surgery and treatment of unregistered Palestine refugees, who are on the official records of the host authority.

4. Oral health:

4.1 Analysis of data on utilization of dental services revealed an overall increase of 6.5 per cent in dental consultations Agency-wide over 2002 excluding screening activities. This increase was mainly due to establishment of additional dental clinics, which improved access to the service. (see table 10 and figure 3).
As can be noticed, the highest daily workloads were reported from Gaza whereas, the workloads in other Fields were more or less within the Agency-wide average.

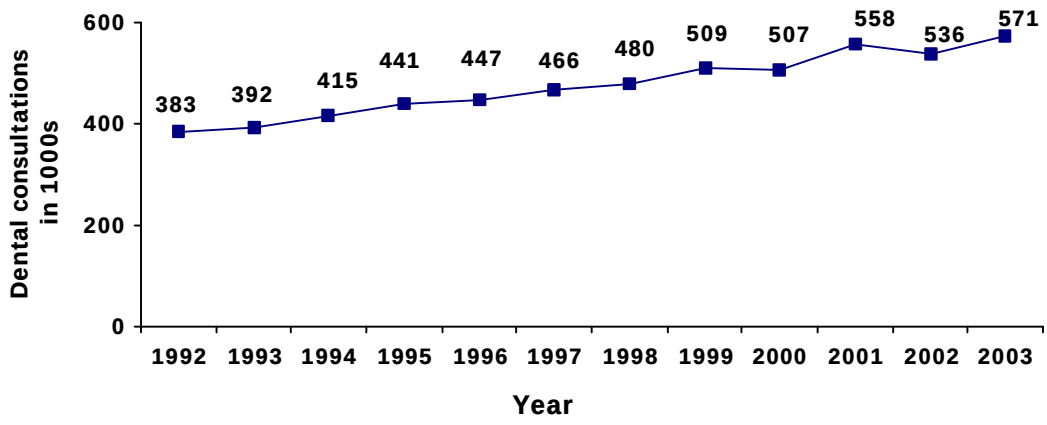
Table 10, Dental services, 2003

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Registered Refugees	1 740 000	665 000	923 000	395 000	414 000	4 137 000
Dental consultations	154 806	92137	156 875	94 043	72 814	570 675
Dental screening	43 926	16 307	84 313	20 416	36 519	201 481
Workload per dental surgeon per day*	27	20	38	21	20	25

*Excluding screening activities

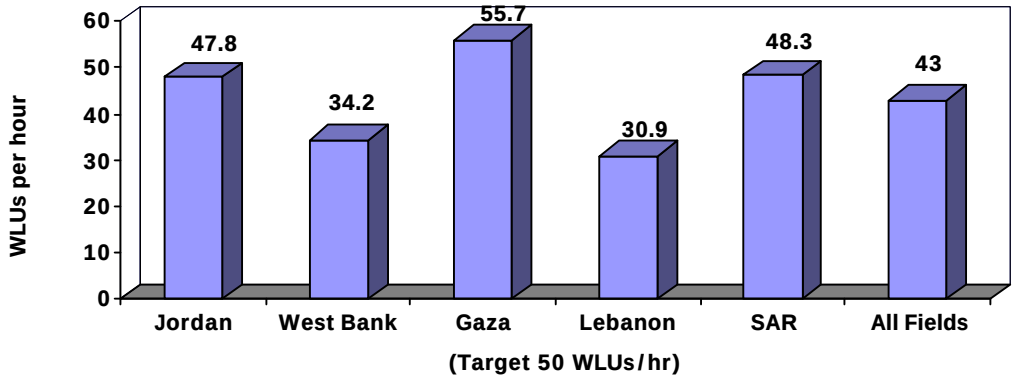
4.2 Plans for expansion and upgrading of oral health services comprised establishment of two additional dental clinics, one each in Lebanon, and Syria. Also four health centres in Lebanon were provided with additional dental units to improve service standards and 14 old dental units were replaced in Jordan Field.

Figure 3, Trend in utilization of dental services



4.3 A study conducted in the five Fields of the Agency's area of operation to assess productivity and efficiency of oral health services revealed that Gaza was the only Field which achieved productivity outcomes above the target of 50 workload units per hour, that Syria and Jordan were close to the target, whereas Lebanon and the West Bank were far below the target (See figure 4).

Figure 4, Productivity trends of oral health services



However, these rates do not relate to major differences in workloads only but also to the range of services provided. The high rates in Gaza are much influenced by failure to provide restorative treatments and the low rates in Lebanon are due to the need to re-organize services in a manner which would ensure optimal use of the resources that are readily available. Necessary measurements are underway to rectify these practices and maximize cost-effectiveness.

4.4 Studies on the prevalence of decayed, missing and filled teeth were conducted among school children in Jordan and Syria. The results of these studies revealed that the number of decayed, missing and filled teeth as measured by the DMF index were as follows:

Table 11, Number of decayed, missing and filled (DMF) teeth among school children

Field	DMF index			
	12 years old		15 years old	
	Males	Females	Males	Females
Syria	1.8	2.1	2.3	2.9
Jordan	1.2	1.1	1.9	2.6

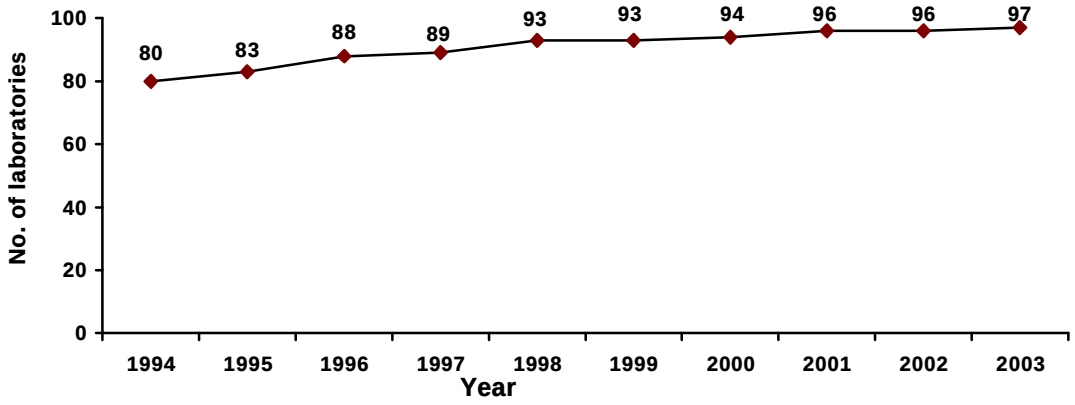
It is worthmentioning that in his assignment report, 1986, Chief, Oral Health, WHO/HQs recommended that the mean number of Decayed, Missing and Filled permanent teeth (DMFT) should not exceed 3 at 12 years or 4.5 at 15 years.

5. Laboratory services:

5.1 In line with the established policy of integrating laboratory services within the Agency's primary health care activities and in order to meet the increasing demand on basic laboratory services in Syria, a new clinical laboratory was established at

Al-Husainieh health centre. This increased the number of laboratories Agency-wide to 97. Figure 5 below shows the number of laboratories in the five Fields during the period from 1994 to 2003.

Figure 5, No. of laboratories integrated within UNRWA health facilities

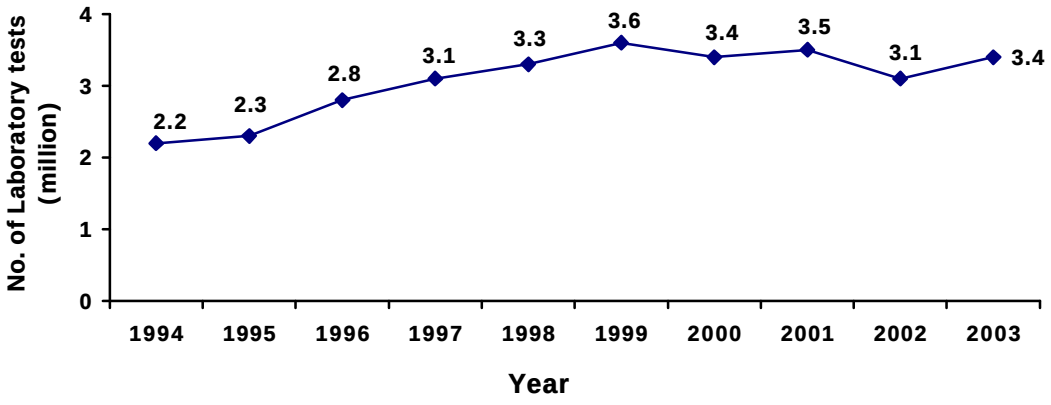


5.2 The basic laboratory support (blood glucose, blood haemoglobin and urine tests by the rapid dip-stick technique) was made available to all primary health care facilities where no laboratories exist. All needed equipment were secured and nursing staff were trained to perform these basic tests. Plans are underway to make bacteriological service available at area level in all five Fields by the year 2005.

5.3 Utilization of laboratory services increased by 8 per cent Agency-wide in 2003 compared with 2002. The increase was 7.3 per cent in Jordan, 16.1 per cent in the West Bank, 8 per cent in Gaza Strip, 1.9 per cent in Lebanon and 4.1 per cent in Syria. The major increase was observed in the West Bank and Gaza Fields, which is commensurate with the increased demand on UNRWA services due to the prevailing conditions in the occupied territory.

Figure 6 below shows the trend in utilization of services during the period 1994-2003.

Figure 6, Trend in utilization of laboratory services



5.4 A comparative study of workloads and cost-benefit analysis of laboratory services was carried out on the basis of the 2003 statistical data. The analysis revealed

that the productivity target of 50 units/hour was almost achieved in all Fields with the highest rate of 76.6 units/hour reported from Gaza Strip.

Table 12, Actual productivity of laboratory services by Field, 2001-2003 (Target 50 workload units/hour)

Year	Jordan	West Bank	Gaza	Lebanon	SAR	Average
2001	43.3	48.7	66.3	58.4	60	55.3
2002	50.8	47.2	72.3	55	47.1	53
2003	54.2	58.4	76.6	49	47.9	58.7

The major decrease in productivity was observed in Syria and Lebanon Fields, mainly due to recruitment of additional laboratory technicians who are assigned to localities where workloads are not high.

The cost of the Agency's laboratory services continued to be much lower than the official market rates. The non-staff cost per 100 workload units Agency-wide was US $3.4. It varied from $4.6 in Jordan, to $3.8 in the West Bank and Lebanon, 3.4 in Syria and $2.4 in Gaza. UNRWA's experience in integrating laboratory services remains very cost-effective compared to outsourcing of services.

5.5 In order to maximize efficiency and increase productivity of laboratory services, arrangements were made to standardize and upgrade essential laboratory equipment according to lists established in priority order as well as in accord to the targets set for the 2004-2005 biennium programme budget.

Also automated equipment were introduced in Gaza strip and the West Bank and will soon be made available in the other Fields. Modern reagent kits were introduced to aid in the early detection of certain diseases and early registration of pregnant women for antenatal care.
The specifications of consumable laboratory supplies were reviewed and updated consistent with the recent improvements that were introduced to increase efficiency and improve the quality of services.

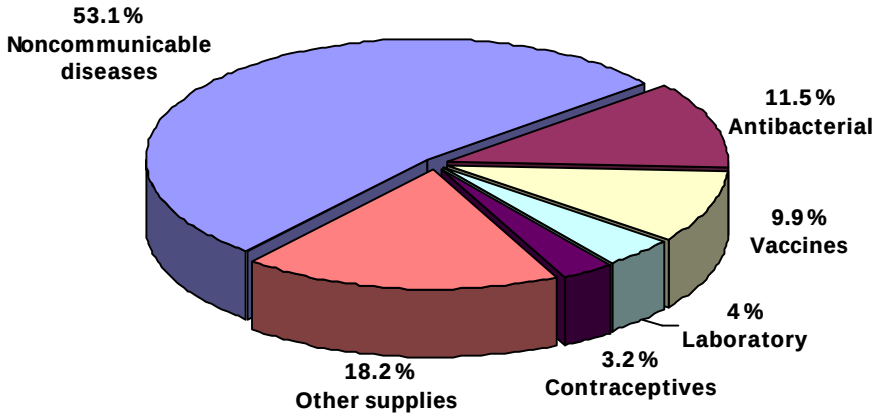
5.6 In response to the call of the WHO Eastern Mediterranean Regional Office for the countries of the Region to include antimicrobial resistance monitoring activities in their national plans, an antimicrobial resistance study was conducted Agency-wide during the period June to December 2003.
The study aimed at evaluating the pattern of resistance among the most commonly isolated organisms at UNRWA laboratories, updating the UNRWA list of essential drugs and reviewing the antibacterial therapy section in the UNRWA Drug Formulary.

5.7 Analysis of data collected from all UNRWA laboratories in 2003 revealed that out of 101,728 stool examinations performed, 21,889 were positive for intestinal parasites i.e. 21.5 per cent. The most commonly prevalent intestinal parasites with positive findings were: 48.8 per cent entamoeba histolytica, 31 per cent giardia lamblia, and 7.5 per cent ascaris lumricoides.

6. Medical supplies:

6.1 Total expenditure on medical supplies from all funds (regular cash budget, in-kind contributions and emergency appeals) in 2003 was USD 12.46 million which represents an increase of 18 per cent over the rate of expenditure in 2002. More than two thirds of total expenditure on medical supplies was on disease prevention and control activities including prevention and control of communicable and noncommunicable diseases (see figure 7).
Expenditure on management of noncommunicable diseases accounted for 53.12 per cent of total expenditure, with a significant increase over the 2002 expenditure. This increase was due to increase in number of patients and introduction of more expensive medicines of higher efficacy. This trend is likely to continue, and possibly escalate, in future years due to the increased burden of noncommunicable diseases, especially cardio vascular diseases and diabetes.

Figure 7, Breakdown of expenditure on various groups of medicines



6.2 Analysis of the findings of the laboratory survey on antimicrobial resistance, which was conducted in the five Fields of the Agency's area of operation revealed very high rates of resistance to the commonly used antibacterial drugs.
This is a matter of grave concern to programme management owing to the financial and operational consequences of having to replace these items by new generations of antibiotics, at significantly higher cost. Besides, new forms of resistance could easily develop as long as indiscriminate prescribing practices remain the norm in public and private sectors.

6.3 The following in-kind contributions of medical supplies were donated in 2003:

a) The Ministry of Health of the Palestinian Authority, contribution to Gaza and West Bank Fields amounted to about USD 811,626 (USD 688,894 for Gaza and 122,732 for the West Bank).

b) The Ministry of Health, Jordan contribution to Jordan Field amounted to about USD 576,775 in the form of vaccines and contraceptive supplies.

c) The Ministry of Health, SAR contribution to UNRWA, SAR amounted to about USD 59,124 in the form of vaccines.

d) The Ministry of Health, Lebanon contribution to UNRWA, Lebanon amounted to about USD 14,520 in the form of vaccines.

e) UNICEF contribution to UNRWA amounted to USD 221,897 (USD 174,043 for SAR, USD 24,106 for Jordan, USD 22,721 for Lebanon and USD 1,027 for Gaza) mainly in the form of vaccines and/or disposable syringes, needles and capacity building activities.

f) Direct Relief International contribution to Lebanon Field amounted to about USD 349,945 in the form of medicines, disposables and wound management products.

g) The Islamic American Relief Agency contribution to the West Bank Field amounted to about USD 10,000 in the form of miscellaneous surgical supplies.

h) UNFPA contribution to the West Bank Field amounted to about USD 8,963 in the form of contraceptive supplies.

i) ANERA contribution to the West Bank Field amounted to about USD 352 in the form of contraceptive supplies.

In addition, ECHO contributed € 1,495,837 in cash for procurement of medicines to Jordan, Lebanon and Syria Fields.

V. HEALTH PROTECTION AND PROMOTION

> For every child born today to have a good chance of a long and healthy life, there are minimum requirements which every health care system should meet equitably. These are: access to quality services for acute and chronic health needs; effective health promotion and disease prevention services; and appropriate responses to new threats as they emerge.
>
> The World Health Report, 2003

Introduction:

1. UNRWA's health protection and promotion programme represents an integral part of the Agency's primary health care activities. The programme offers comprehensive maternal health care to women in reproductive age including family planning services, infant and child health care, school health services, and nutritional surveillance.
   The strategic approach of the programme is based on full integration of services and continuity of pre-natal, natal and post-natal care, family planning services and infant and child health care.
   A proactive system of risk assessment, surveillance and management is used with the main objective of providing preventive care to the majority of pregnant women whose condition is normal with special care to those identified as at risk, throughout the course of pregnancy and during the post-partum period.

2. With children below 18 years of age and women of childbearing age representing approximately two thirds of the Palestine refugee, population UNRWA's investment in women's and children's health proved to be cost-effective.
   Infant mortality rates dropped from approximately 160 deaths per thousand live births in the 1960s to levels that are below the world average. Vaccine-preventable diseases are well under control. Access to good quality maternal health care services, including skilled attendants at birth, had greatly contributed to the reduction of maternal and infant mortality. Harmful practices such as female genital mutilation are uncommon in the refugee community.
   Following integration of family planning services within the Agency's primary health care activities since 1995, the total fertility rate dropped from 4.7 to 3.5, the mean age at marriage increased from 19.2 years to 19.7, the prevalence of modern contraceptive methods increased from 32.1 per cent to 49.9 per cent, and percentage of women with birth intervals of less than two years decreased from 47.3 per cent in 1995 to 33.7 per cent in 2003.

3. In spite of the notable improvements in the health status of the refugee population, the social, economic and cultural context of women's and children's health remains underrated. Attaining further improvement in women's and children's health remains a major challenge that can not be solely addressed through health interventions as it is closely related to the progress attained in the areas of poverty alleviation, protection against abuse and violence, sustainable development and improvement of environmental health conditions.

Objectives:

The ultimate goal of the programme is to improve the general health and quality of life of the vulnerable population groups by focusing on preventive and promotional care to women and children.

The specific objectives of the programme are:-

1. To reduce pregnancy-related morbidity and mortality from preventable causes by regular monitoring of women registered at maternal and child health clinics, with special attention to identification and management of at-risk women, sustaining optimal immunization coverage of women of reproductive age, as well as by providing assistance towards safe delivery.

2. To reduce infant and early child morbidity and mortality through regular growth monitoring and protective immunizations of children registered at maternal and child health clinics as early as possible after birth up to three years of age as well as by early detection and management of morbidity conditions.

3. To reduce maternal, peri-natal and infant morbidity and mortality by offering family planning services to refugee women of reproductive age, with special emphasis on child-spacing by providing modern contraceptive methods to avoid too early, too late, too frequent and too close pregnancies.

4. To protect, preserve and promote the health status of school children, by booster immunization, detecting and treating morbidity conditions amenable to management, maintaining healthy environment in schools and promoting healthy life practices.

5. To prevent nutritional deficiencies among the most vulnerable population groups by providing food safety nets in the form of dry rations beginning in the fifth month of pregnancy until one year after delivery and prevent micronutrient deficiencies by providing iron supplementation to pregnant women and children 6-24 months of age.

Programme accomplishments:

1. General:

1.1 The 8th Field Family Health Officers' meeting was held in December 2002, to review the progress achieved in implementation of the approved plan of activity and develop an annual plan of activities for the year 2003. The 2003 plan included a series of action-oriented activities, capacity building activities and a plan for expansion of the management health information system, and a system of periodic monitoring and self evaluation of performance/outcomes based on measurable targets set for the biennium 2002-2003. Several quality measures were adopted to facilitate the implementation of the plan of activities, with special emphasis on appropriate training, structured supervision, monitoring, evaluation and operational research including a study on infant and early child mortality.

1.2 The technical instruction on maternal health and family planning were reviewed with the objectives of refining the responsibilities of the different staff categories and updating the technical aspects. The draft of the technical instructions including; the amendments introduced, the rationale for change and ways to ensure proper and immediate implementation was shared with the Fields and the feedback was incorporated in the final documents. The instruction will be implemented early 2004 after ensuring that staff are well acquainted with its contents through initial workshop followed by periodic competency assessment of all medical and senior nursing personnel based on the standard KAP questionnaire relevant to the approved intervention strategies.

1.3 Health educational materials on the various programme components represent an integral part of the Agency's health education/health promotion activities. The annual Fields' requirement of these materials were reproduced and distributed to all Fields. In total 653,000 copies of 8 educational pamphlets were reproduced during the year and 260,000 copies of 3 additional pamphlets will be reproduced early 2004.

1.4 A standardized training plan covering both in-service and on-the-job training was implemented to enhance the process of institutional capacity building at the service delivery level. Table (1) below shows number and category of staff trained.

Table 1, Family health training activities, 2003

Training subjects	Training by staff category		
	Medical	Nursing	Total staff
• Standards of care, antenatal/post-natal services.	96	234	330
• Newly introduced injectables contraceptive	155	305	460
• Orientation of newly recruited staff on family health activities.	32	44	76
• Management of growth retarded children, examination of newborn infants and nutritional counselling.	105	105	210
• Management health information system (MHIS).	81	105	186
• Training of data collection teams on Infant & Child mortality Study.	67	111	178
• Reporting on growth retarded children	97	135	232
• School health activities	60	6	66
• IUD insertion	18	15	33

1.5 As part of the self-evaluation process, all health centres in all Fields were assessed, through the family health programme review. The main objective of this exercise was to identify, the health centre-specific strengths and weaknesses and address them through the problem-solving approach. A standardized tool was

developed to compare findings within and between Fields. A team of supervisors conducted the comprehensive review of programme implementation at the health centre level in a participatory approach whereby health centre staff were part of the team who conducted the assessment. Corrective measures were taken to address areas that need further improvement at health centre level as well as at Field level. This exercise will be conducted annually to monitor progress.

1.6 Dr. Atrash, CDC consultant undertook a mission during the period 15-23 December 2003 with the following objectives:

a) Discuss with senior programme mangers at Headquarters, Amman ways and means to strengthen maternal health surveillance and advice on the appropriate intervention strategies to reduce peri-natal and neo-natal mortality, which currently contributes to about two thirds of infant mortality among Palestine refugees served by UNRWA.

b) Provide technical advice on the appropriate methodologies for screening and early detection of hearing impairments among newborn infants and children.

c) Discuss with senior programme managers proposals for future research on peri-natal mortality.

The consultant concluded that:

a) UNRWA has made significant progress in health information system over the past 10 years and UNRWA is able to measure and study maternal and infant deaths and has gone far beyond measuring rates and monitoring changes over time.

b) The most significant accomplishment is the change in the ways UNRWA providers at all levels look at data and information and use them as tools of management.

c) The maternal mortality surveillance system is well established and institutionalized in all Fields and infant mortality has been well documented and steps are underway to go beyond surveys, surveillance and epidemiology into in-depth death reviews leading to targeted interventions.

d) The consultant suggested that UNRWA may wish to consider addressing the following areas in future:
   i. Reorientation of the MHIS into computerized individual patient records.
   ii. Conducting an in-depth inquiry on infants' deaths similar to the maternal mortality confidential inquiry.
   iii. Introduction of folic acid during the preconception period to prevent birth defects.
   iv. Screening for child disabilities among children 2-3 years of age.
   v. Screening of newborn infants for early detection of hearing impairments.

2. Management health information system:

2.1 Implementation of the maternal health and family planning module of the Management Health Information System (MHIS) Project started in April 2003.The

main objective is to decentralize programme management and improve surveillance, monitoring and response at the service delivery level and enhance the problem-solving capacity of staff.

By mid 2003, the MHIS Project was expanded to 38 health centres. Accordingly, the staff in the selected health centres were oriented on the project objectives and were trained on recording and compilation of data on the standardized tally sheets.

In August 2003, an inter-Filed planning and evaluation workshop was conducted in which the results of the second pilot trial were evaluated, the data collection sheets were revised, the key indicators were selected and the plan of action for future expansion of the system was developed.

Early in 2004, additional 20 health centres will start implementing the MHIS bringing the total to 58 health centres Agency-wide with the ultimate objective of expanding the project to the 86 large and medium size health centres in all Fields. Plans are underway to equip 76 health centres with computers in addition to the 10 health centres that are already equipped with computers.

2.2 The results of data collected from the 38 health centres through the MHIS as measured by the selected maternal health indicators, are outlined below:

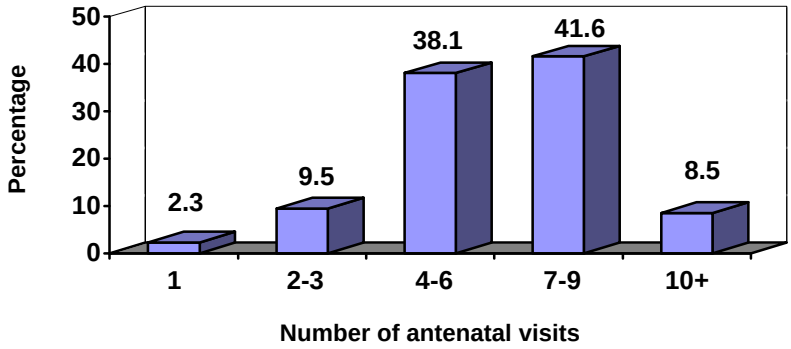
a) No. of antenatal visits:

A key objective of the maternal health care programme has been to ensure that women present for antenatal care early in pregnancy in order to allow ample time for risk identification and management and meet the WHO recommended standard of 4 visits or more during the antenatal period.
The percentage of pregnant women who paid 4 visits to UNRWA maternal health services, is 88.2 per cent Agency-wide as shown in table 2 and figure 1 below. It was highest in Lebanon 94.6 per cent, followed by Gaza (91.2 per cent), Syria (88.4 per cent), Jordan (86 per cent) and was lowest in the West Bank (74.5 per cent). The average antenatal visits ranged from 5.8 in Syria to 7.4 in Gaza giving an Agency-wide average of 6.7 visits.

Table 2, Proportional distribution of pregnant women according to number of ante-natal visits

No. of Antenatal visits	Jordan	West Bank	Gaza	Lebanon	SAR	All Fields
	%	%	%	%	%	
1	3.2	5.6	1.1	1.9	2.1	2.3
2-3	10.0	19.9	7.7	3.6	9.5	9.5
4-6	41.3	43.5	36.1	23.9	44.3	38.1
7-9	36.4	27.7	45.6	56.0	39.8	41.6
10	9.2	3.2	9.5	14.7	4.3	8.5
Total	**100**	**100**	**100**	**100**	**100**	**100**

Figure 1, Proportion of pregnant women according to the number of antenatal visits



b) Proportion of pregnant women who registered during 1st trimester:

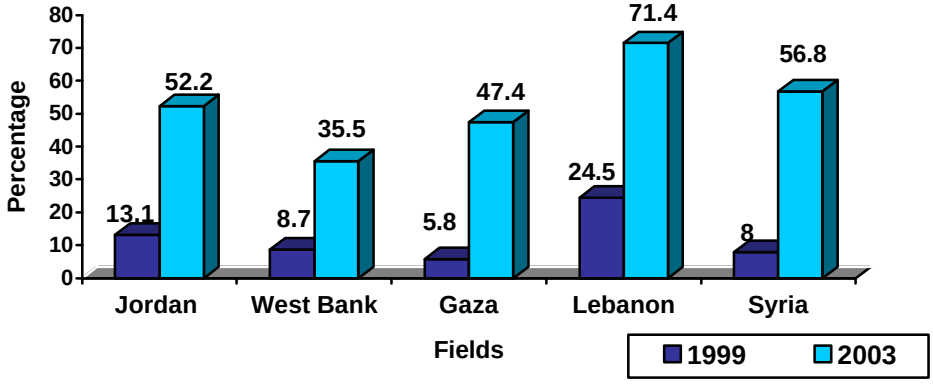
It can be seen from table 3 below that 49.7 per cent of pregnant women Agency-wide registered during the 1st trimester, while 47.6 per cent registered during the 2nd trimester and 2.7 per cent only registered during the 3rd trimester.

Table 3, Maternal health indicators, 2003

Indicator	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Distribution of pregnant women according to time of registration (%):						
During 1st trimester	52.2	35.5	47.4	71.4	56.8	49.7
During 2nd trimester	44.7	59.2	50.8	26.2	39.9	47.6
During 3rd trimester	3.1	5.1	1.7	2.4	3.3	2.7
Percentage of pregnant women who paid 4 visits	86	74.5	91.2	94.6	88.4	88.2
Average No. of antenatal visits	6.1	6.6	7.4	7.2	5.8	6.7
Percentage of pregnant women delivered by trained personnel	99.3	99.6	99.9	100	97.5	99.5
Overall discontinuation rate among family planning users (%)	6.9	3.7	6.0	5.4	6.0	5.6

Figure 2 below, shows that the proportion of women who registered during the first trimester increased substantially in all Fields from 1999 to 2003.

Figure 2, Proportion of pregnant women who registered during the 1st trimester (1999-2003)



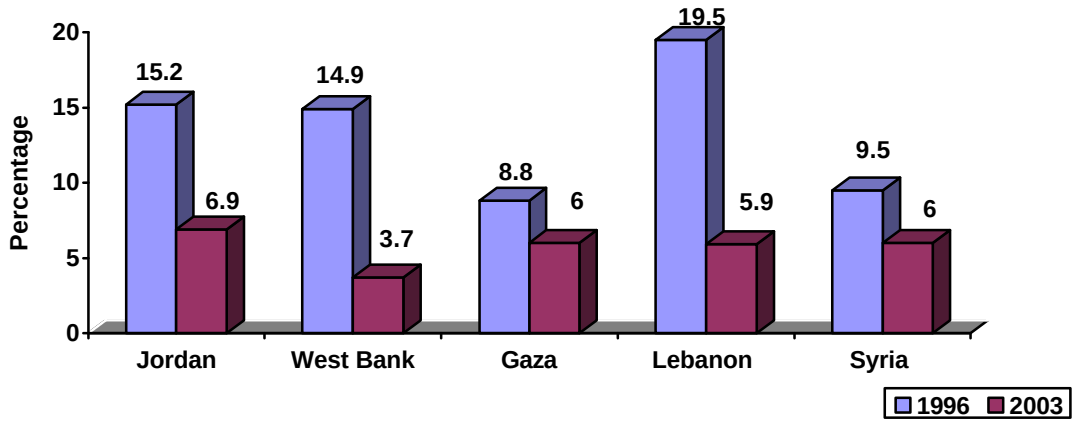
c) Percentage of women who delivered by trained personnel:

As shown in table 3 above, the percentage of women who delivered by trained personnel Agency-wide was 99.5 with slight variations between Fields. This rate was 100 per cent in Lebanon, 99.9 per cent in Gaza, 99.6 per cent in the West Bank, 99.3 per cent in Jordan and 97.5 per cent in Syria. Data obtained from the routine system revealed that 2.4 per cent of women deliver at home. This indicates that the majority of women who deliver at home are attended by trained personnel.

d) Discontinuation of modern contraceptives:

Discontinuation rate of modern contraceptives ranged from 3.7 per cent in the West Bank to 6.9 per cent in Jordan. In 1996, a study was conducted to assess the discontinuation of modern contraceptives short after integration of family planning services within the Agency's maternal health programme. Figure 3 below demonstrates the accomplishment achieved as measured by the drop in discontinuation rates.

Figure, 3 Discontinuation rates of modern contraceptives (1996-2003)



3. Antenatal care

3.1 During 2003, UNRWA primary health care facilities cared for 82,018 pregnant women who accounted for approximately 68.1 per cent of all expected pregnancies among the refugee population based on the crude birth rates published by the Host Authorities. There was a steady increase in the number of pregnant women who registered for antenatal care from 70,282 in 2000, to 78,985 in 2002 to 82,018 in 2003. The highest coverage rates were in Gaza and Syria Fields and the lowest were in Jordan and Lebanon Fields. The high coverage rates could be largely attributed to the special efforts exerted in order to encourage early registration for pre-natal care whereas, the low rates are mainly due to over-estimation of denominators because of the disparity between UNRWA registration statistics and actual users of the Agency services in Jordan and Lebanon.

In general, if coverage rates were calculated on the basis of actual users of UNRWA health services rather than on the basis of registered refugees, the coverage rates will be optimal in all Fields.

Table 4, Coverage of UNRWA's ante-natal Care, 2003

	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Registered refugees	1,740,000	665,000	923,000	395,000	414,000	4,137,000
Expected No. of pregnancies	50,465	18,627	32,755	9,074	9,518	120,439
Newly registered pregnant women	24,906	12,144	31,701	4,548	8,719	82,018
Coverage rate	**49.4**	**65.2**	**96.8**	**50.1**	**91.6**	**68.1**

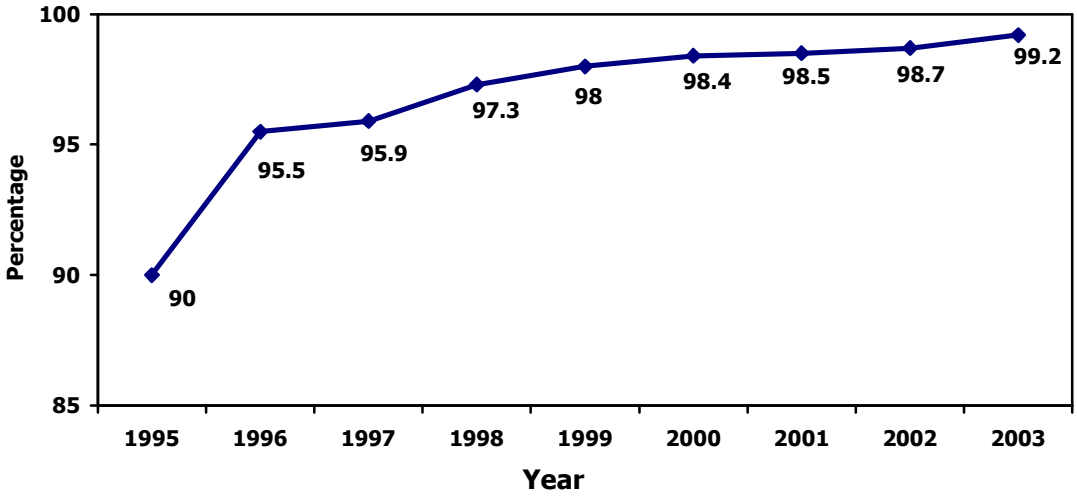
3.2 According to UNRWA risk scoring system, 11.9 per cent of pregnant women were in the high-risk category and 21.7 per cent were alert (at moderate risk). This meant that one third of pregnant women under supervision needed special attention and care, including assistance during delivery. The rates varied from one Field to another as shown in table 5 with the highest high-risk rate of 13.7 per cent in Gaza Strip and the lowest rate of 8.0 per cent in Syria.

Table 5, Proportional distribution of pregnant women according to risk status, 2003

Field	Risk Status		
	High	Alert	Low
Jordan	10.8	21.7	67.5
West Bank	12.7	19.6	67.7
Gaza	13.7	21.8	64.5
Lebanon	9.7	24.1	66.2
Syria	8.0	23.7	68.3
All Fields	**11.9**	**21.7**	**66.4**

3.3 Similar to previous years, a rapid assessment was carried out to assess the level of protection of pregnant women against tetanus based on current and past immunization record. The assessment revealed that optimal immunization coverage continued to be maintained and that 99.2 per cent of pregnant women could be considered as protected according to the current criteria.

Figure 4, Pregnant women protected against tetanus



4. Intra-partum care:

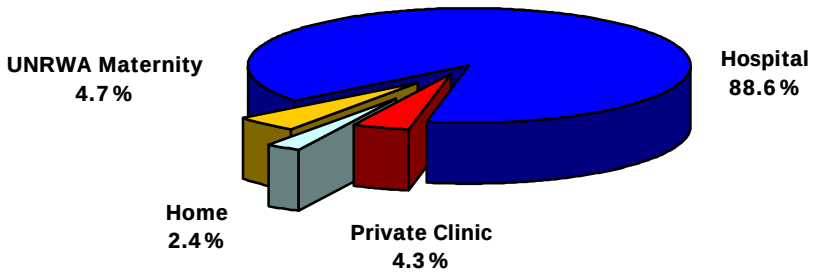
4.1 UNRWA subsidises the hospital delivery of pregnant women classified as high-risk either by referral to contracted hospitals or through reimbursement of cost. In addition, there are 6 maternity units integrated within the health centres in Gaza Field where only women without any identified risk factor are assisted by trained personnel during delivery. These units are supported by a system of emergency transportation in case of complications.

4.2 As shown in table 6 and figure 5 below, 88.6 per cent of the reported deliveries, Agency-wide during 2003 took place in hospitals compared to 85.4 percent in 2002. Deliveries at UNRWA maternity units, dropped from 15.2 per cent in 2002 to 12.2 per cent in 2003. This drop was mainly due to the tangible increase in the rate of hospital deliveries from 72.4 per cent in 2002 to 78.2 per cent in 2003.

Table 6, Proportional distribution of deliveries according to place, 2003

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Total No. of reported deliveries	**22 962**	**9 867**	**28 440**	**4 054**	**7 795**	**73 118**
Distribution of deliveries according to place (%):						
(i) At home	1.5	3.0	0.3	2.6	11.6	2.4
(ii) At camp maternity	0.0	0.0	12.2	0.0	0.0	4.7
(iii) In hospital	98.3	96.0	78.2	96.1	84.3	88.6
(iv) At private clinics	0.2	0.9	9.3	1.3	4.1	4.3

Figure 5, Distribution of deliveries according to place, 2003



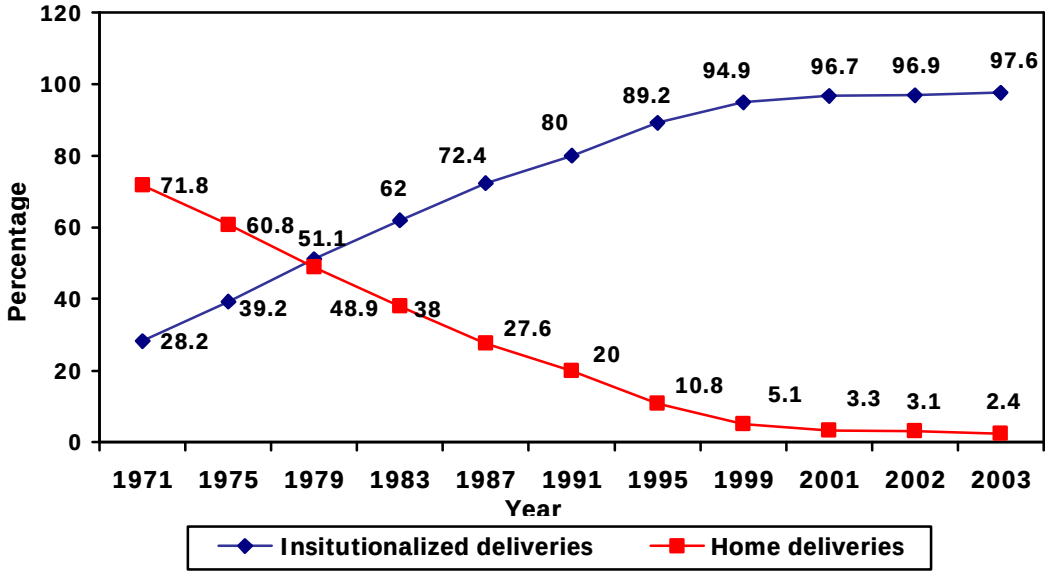
It can be seen from table 6 above that the highest rate of home deliveries was in Syria. It should be noted however, that the percentage of home deliveries in that Field had dropped from 15.4 per cent in 2000 to 11.6 per cent in 2003 and that a substantial proportion of home deliveries were attended by trained personnel.

In general as shown in figure 6 below, 97.6 per cent of deliveries Agency-wide were institutionalized deliveries including hospitals, maternity units and private clinics. The percentage of home deliveries continued to show a decreasing trend over the last three decades as shown in figure 6 below.

However, as shown earlier, data collected through the new management health information system indicate that, the percentage of deliveries attended by trained

personnel was optimal in all Fields and it was 97.5 per cent in Syria with 2.5 per cent only delivered by TBAs.

Figure 6, Trends of home and institutionalized deliveries



4.3 The total number of pregnant women who were expected to deliver during 2003 Agency-wide was 78,838. Active surveillance of the outcome of pregnancy of those women indicated that 74,201 delivered (93.4 per cent) and 3,150 aborted (4 per cent). The outcome of 1,487 (1.9 per cent) only who received ante-natal care at UNRWA primary health care facilities remained unreported or unknown as shown in Table 7 below. While in 2002, the outcome of 2.8 per cent of deliveries was either unknown or unreported. The highest percentage of unknown outcomes was in the West Bank namely 7.8 per cent compared to 9 per cent during 2002. This high percentage of unknown outcomes could be attributed to inadequate feedback due to curfews and restrictions imposed on movement of clients and staff.

Table 7, Outcome of pregnancy, 2003

Field	No. of expected deliveries during 2003	Known outcome						Unknown outcome	
		Deliveries		Abortions		Total		No.	%
		No.	%	No.	%	No.	%		
Jordan	24 668	23 567	95.5	1033	4.2	24 600	99.7	68	0.3
West Bank	11 287	10 340	89.6	292	2.6	10 632	92.2	655	7.8
Gaza	30 189	28 440	93.4	1264	4.2	29 704	98.4	485	1.6
Lebanon	4 408	4 059	91.5	281	6.4	4 369	98.5	68	1.5
Syria	8 286	7 795	94.0	280	3.4	8 081	97.5	211	2.5
All Fields	**78 838**	**74 201**	**93.4**	**3150**	**4.0**	**77 924**	**98.1**	**1 487**	**1.9**

4.4 Analysis of data obtained through the new hospital management information system indicated that caesarean section rate among women assisted through UNRWA hospitalization schemes varied widely from one Field to another. Table 8 shows that the CS rate was highest in Syria (72.5 per cent) and lowest in Gaza (0.2 per cent). These rates however, relate to women in the high risk category not all reported deliveries. The low CS rate in Gaza is due to lack of feedback from hospitals while the high rate of CS rate in Syria mainly reflects the medical practice in contracted hospitals. To address this issue, the University Hospital which has a reputation of low CS rate was contracted beginning 2004.

Table 8, UNRWA-assisted hospital deliveries of women in the high-risk category, 2003

Field	Total deliveries	Vaginal deliveries		Caesarean section	
		No.	%	No.	%
Jordan	8161	6492	79.5	1669	20.5
West Bank	4085	3330	81.5	755	18.5
Gaza	3714	3705	99.8	9	0.2
Lebanon	1907	1320	69.2	587	30.8
SAR	1539	423	27.5	1116	72.5
Total	19406	15270	78.7	4136	21.3

4.5 The prevalence of diabetes mellitus during pregnancy in 2003 was established at 1.6 per cent, Agency-wide. As shown in table 9 below, the prevalence rate varied from 2.5 per cent in Syria to 1.1 per cent in Gaza which indicates that it is still below the expected rate of 3 per cent. Further efforts need to be exerted in order to improve detection rate. Further analysis of data revealed that 33.1 per cent of women with diabetes during pregnancy were with pre-existing diabetes, 34.9 per cent had gestational diabetes and recovered after delivery, 15.5 per cent were diagnosed during pregnancy and did not recover after delivery, while 16.5 per cent were still pregnant at end of 2003.

Table 9, Prevalence of diabetes and hypertension during pregnancy, 2003

Prevalence rate	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Diabetes during pregnancy (%)	2.1	1.4	1.1	1.8	2.5	1.6
Hypertension during pregnancy (%)	7.3	3.0	7.4	4.9	5.8	6.4

4.6 The prevalence of hypertension during pregnancy including pre-existing and pregnancy-induced was 6.4 per cent with wide variations between Fields as shown in table 8 above. The incidence of pregnancy-induced hypertension increased from 2.7 per cent in 2001 to 3.0 per cent in 2002 to 4.2 per cent in 2003 which indicates an improved detection rate. 48.4 per cent of hypertension cases were pregnancy-induced and recovered after delivery, 20.7 per cent of women had pre-existing hypertension, 19.8 per cent were identified during pregnancy and the condition persisted after delivery while 11.1 per cent were still pregnant at year end.

5. Post-natal care:

UNRWA's post-natal care services require that thorough medical investigation and examination be carried out both with respect to the mother and the newborn infant either at UNRWA primary health care facilities or at home, whichever is more accessible and convenient to the families.

Table 10, Post-natal care coverage, 2003

Field	No. of deliveries	No. women who received care	Coverage of Post-natal care (%)
Jordan	23 635	21 236	89.8
West Bank	10 995	8 562	77.9
Gaza	28 925	27 768	96.0
Lebanon	4 270	4100	96.0
Syria	8 006	7 315	91.4
All Fields	**75 831**	**68 981**	**91.0**

Table 10 above indicates that, a total of 68,981 women received post-natal care during the year representing 91.0 per cent coverage rate of expected pregnancies, Agency-wide with the highest rates of 96.0 per cent in Lebanon and Gaza Fields and the lowest rate of 77.9 per cent in the West Bank which represents further reduction from the 2002 coverage rate of 80.6 per cent. This low coverage could be attributed to the continued restriction of movements due to the prevailing emergency situation.

6. Family planning services:

6.1 A total of 21,295 family planning acceptors were enrolled in the programme during the year. The total number of continuing users of modern contraceptive methods was 95,892 surpassing the contemplated target of 85,000 users by the end of the biennium 2002-2003.

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Table 11, Family planning services, 2003

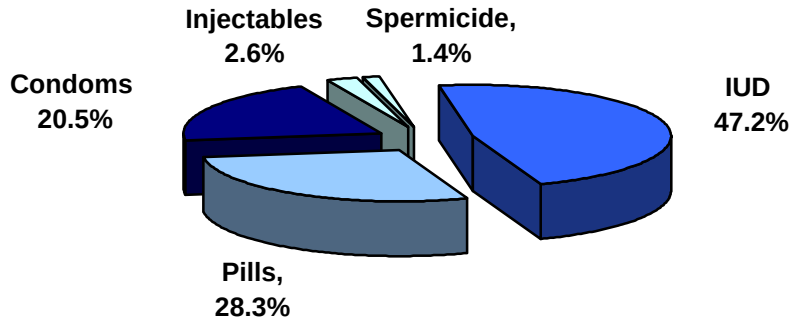
	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
No. of new FP acceptors during the year	7 961	3 064	5 338	1 796	3 136	21 295
Total No. of continuing users at year end	24 776	15 240	29 540	10 053	16 283	95 892
Distribution of FP users according to method:						
(i) IUD	46.4 %	49.7 %	54.5 %	30.7 %	32.0 %	47.2 %
(ii) Pills	29.4 %	30.3 %	23.1 %	32.0 %	42.9 %	28.3 %
(iii) Condoms	18.7 %	16.5 %t	19.2 %	34.4 %	20.6 %	20.5 %
(iv) Spermicides	1.9 %	1.1 %t	1.1 %	1.0 %	1.6 %t	1.4 %
(v) Injectables	3.7 %	2.4 %	2.0 %	1.7 %t	2.9 %	2.6 %

It is worthmentioning that the number of new family planning acceptors in Gaza dropped from 6,091 in 2001 to 5,842 in 2002 to 5,338 acceptors in 2003. Likewise, the number of continuing users dropped from 30,466 in 2001 to 29,540 in 2003

which could be attributed to the increased desire among refugee population to have more children which is not unexpected under conflict situations associated with high fatality toll. There was a minimal increase in the number of continuing users in the West Bank, whereas, there was an annual increase of approximately 10 per cent in other Fields.

6.2 Distribution of family planning acceptors according to the contraceptive method used is shown in table 11 above and figure 7 below. It can be noticed that IUD continued to be the preferred method followed by pills except in Lebanon, where the preferred method was the condom.

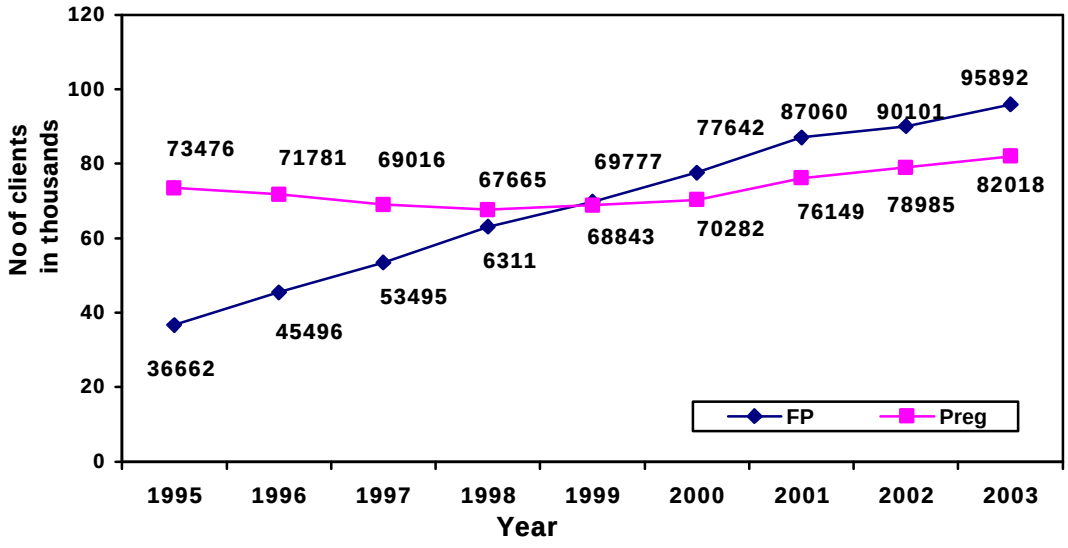
Figure 7, Contraceptive method mix, Agency-wide, 2003



In order to expand the freedom of choice of modern contraceptive methods, the injectable hormonal contraceptive was introduced in all Fields and supplies were received during 2003. Staff involved in the provision of FP services received the appropriate training for introducing the new method. Accordingly, 2.6 per cent were using injectable contraceptives.

6.3 The tangible success of the family planning programme is demonstrated in figure 8 below. It shows steady increase in number of family planning acceptors over the number of pregnant women cared for, since the integration of family planning services into the Agency's maternal and child health care services in 1995.

Figure 8, Correlation between number of pregnant women and FP acceptors (1995- 2003)



During the last 4 years, the number of pregnant women has increased from 70,282 in 2000 to 82,018 in 2003. This increase was associated with a steady increase in the total family planning acceptors which could be attributed to the improved coverage of antenatal care.

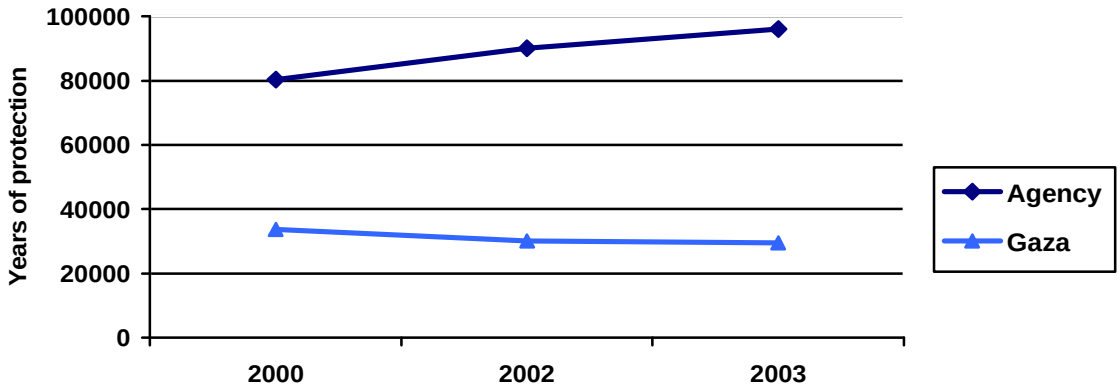
6.4 Couple-Years of Protection (CYP) is an output indicator used to estimate the number of clients (or couples) the dispensed contraceptives protected in a year. Contraceptives dispensed during 2003 through the Agency's family planning services provided 96,049 CYP with variations between Fields as shown in table 12 below.
The table also shows that, the CYP provided during 2003, declined in Gaza Strip compared to pre-crisis level whereas, it increased in Jordan, Lebanon, Syria and the West Bank.

Table 12, Couple years of protection provided through the Agency's family planning programme, 2003

Couple Years of protection (CYP)	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
During 2000	12 261	11 179	33 685	7 865	15 395	80 385
During 2002	20 801	11 450	30 043	11 442	18 236	89 973
During 2003	23 654	14 956	29 559	12 608	16 172	96 049

These significant variations between Gaza Strip and the other Fields as presented in figure 9 below could be due to a possible change in reproductive health practices in the Gaza Strip due to the current crisis.

Figure 9, Couple years of protection Agency-wide and Gaza Field, 2003

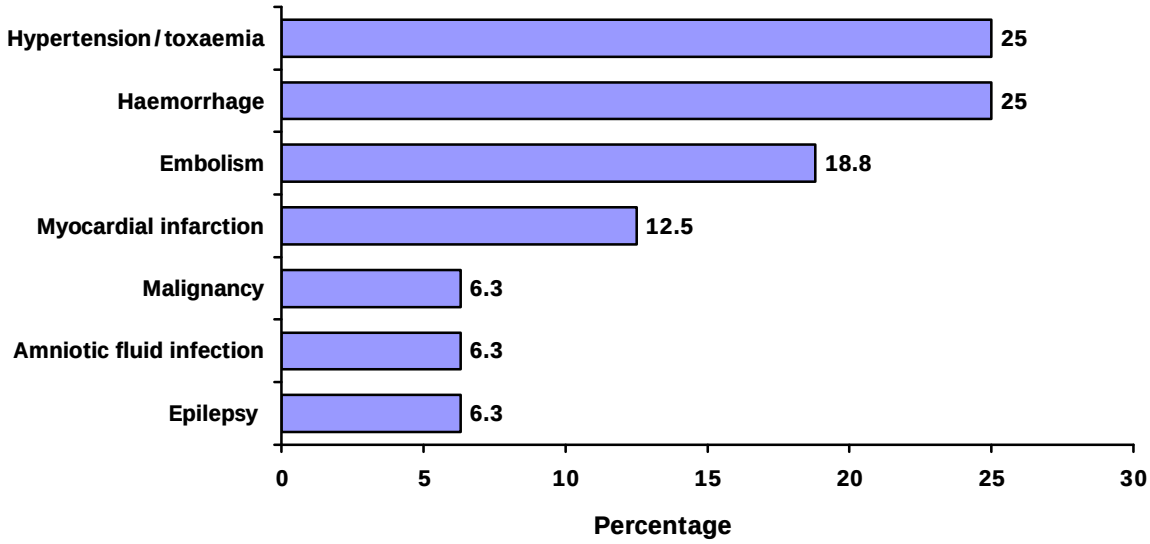


7. Surveillance of maternal mortality:

During 2003, a total of 16 maternal deaths were reported from the five Fields giving a maternal mortality ratio of 21.8 per 100,000 live births. 4 deaths were reported from Jordan, 5 from Gaza Strip, 4 from the West Bank, 3 from Syria, but none from Lebanon.

9 maternal deaths out of the 16 were due to preventable causes including 4 cases of toxaemia/hypertension (25.0 per cent), 4 cases of haemorrhage (25.0 per cent), and one case of chorioamioninitis leading to septic shock (6.3 per cent). It is worthmentioning that during 2002 no maternal deaths due to toxaemia were reported.

Figure 10, Causes of maternal deaths, 2003



The main direct causes of reported maternal deaths were; hypertension/toxaemia (25.0 per cent), haemorrhage (25.0 per cent), pulmonary embolism (18.8 per cent). Myocardial infarction accounted for 12.5 per cent of deaths whereas 18.8 per cent were due to associated diseases such as; malignancy, epilepsy and amniotic fluid leakage. It is worth mentioning that 2 out of the 3 maternal deaths due to bleeding were from the West Bank while maternal deaths due to hypertension/pre-eclampsia were 2 each from Jordan and Gaza Fields.

8. Infant and child health:

8.1 During 2003, a total 227,842 infants and children below 36 months of age received preventive care at UNRWA primary health care facilities including thorough medical examination, growth monitoring, immunization against vaccine-preventable diseases and identification of children with special needs. These activities were supported by health education and counselling of mothers on appropriate feeding practices and baby care.

8.2 During the first year of life, mothers normally take special care in registering their newborn infants for preventive care because they are concerned about their growth and development and are keen to provide them with the full range of primary immunization series. The attendance becomes less regular during the second and third years of life because children would have received all primary and booster series of immunization early during the second year and because the intervals between scheduled visits become longer and the health condition of the child would have stabilized.

Table 13, Infant and child health care, 2003

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Registered Refugees	1 740 000	665 000	923 000	395 000	414 000	4 137 000
Estimated No. of surviving infants *	49 299	18 329	31 903	8 904	9 242	117 696
Infants below 1 year registered	28 829	10 898	27 911	8 304	8 373	80 315
Coverage of infants (percentage)	**58.5**	**59.5**	**87.5**	**48.3**	**90.6**	**68.2**
% regular attendance	82	89	100	100	88	91
Children 1-<2 years registered	27 454	10 797	25 541	5 244	8 059	76 095
% regular attendance	75	82	60	94	88	73
Children 2-<3 years registered	26 029	10 678	23 538	4 126	7 061	71 432
% regular attendance	40	68	41	84	75	50
Children 0-3 years under supervision	**82 312**	**32 373**	**76 990**	**12 674**	**23 493**	**227 842**

* No. of surviving infants = Population X crude birth rate X (1-IMR)

8.3 Attendance during the first year of life was estimated at 91 per cent of all infants registered, Agency-wide with the highest rate of 100 per cent in Lebanon Field. The attendance rates were 73 per cent during the second year and 50 per cent during the third year of life.
Service coverage rates were estimated as the number of infants below 12 months of age registered for care as a percentage of the expected number of surviving infants based on the best estimates of crude birth rates as published by the Host Authorities.

The coverage rate in 2001 was 60.5 per cent, it increased to 62.3 percent in 2002 and reached 68.2 per cent in 2003 with the highest rate of 90.6 per cent in Syria and the lowest in Lebanon (48.3 per cent) as shown in table 12 above. This low coverage might be due to the difference between the de facto and de jure population statistics.
The low coverage in the West Bank could be attributed to the high crude birth rate reported this year by the Palestinian Authority resulting in over estimation of the number of surviving infants as well as obstacles to humanitarian access. In Jordan Field, the low coverage rate could be attributed to the availability of other health care providers and the low number of UNRWA facilities with several un-served communities outside camps.

However, if the rates were calculated on the basis of population served rather than as a percentage of the total registered population, the coverage rates will be optimal in all Fields.

8.4 During 2003, the immunization coverage was optimal for infants below 12 months of age for all EPI antigens Agency-wide. The rates were; 99.9 per cent for BCG, 99.5 per cent for each of OPV and DPT, 99.1 per cent for Measles and 99.5 per cent for Hepatitis B. Likewise, the immunization coverage rate for booster doses was optimal namely, 96.4 per cent for OPV, 96.4 per cent for DPT and 96.10 per cent for MMR. (For more details, please refer to table 1, chapter 5 of this report).

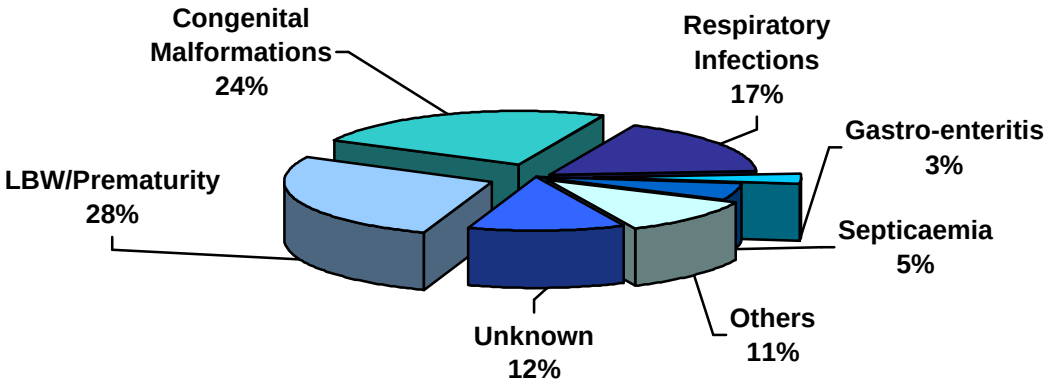
Analysis of the West Bank data by health centre indicate that although the overall immunization coverage was optimal, nevertheless, of concern was the low coverage of immunization in certain localities of Hebron area. In Hebron Town health centre the coverage rate of all vaccines for infants one year of age was 84.8 per cent, while in Doura health centre it was 87.5 per cent. The booster immunization was lowest at 80 per cent in Doura and Dahrieh health centres, followed by Hebron Town health centre 88.2 per cent and 89 per cent in Jerusalem health centre. If continued, this trend might generate pockets of un-immunized children which may lead to disease outbreaks at any point in time.

9. Surveillance of infant and child mortality:

9.1 Analysis of data collected through routine reporting revealed that the pattern of infant mortality remained largely unchanged from that which prevailed during the last few years.

The leading causes of reported infant mortality in 2003 were low birth weight and prematurity (28 per cent), congenital malformations (24 per cent) and acute respiratory infections (17 per cent) as shown in figure 11 below. The cause of death in 11 per cent of reported cases could not be ascertained.

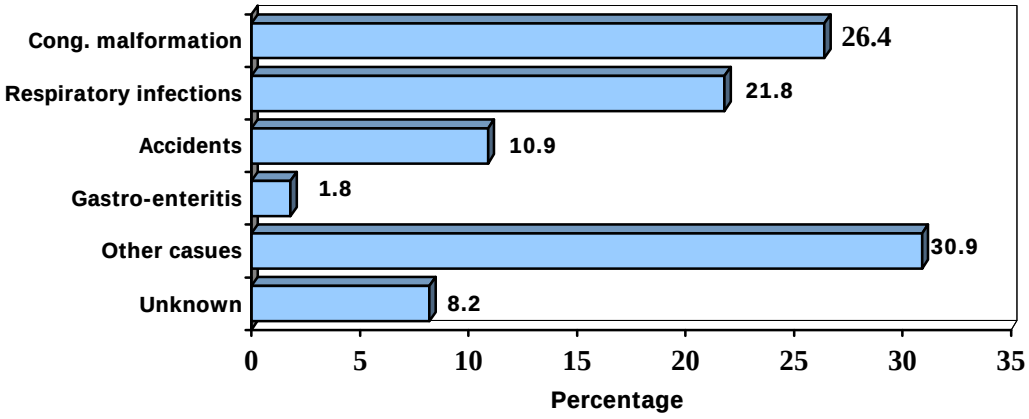
Figure 11, Leading causes of infant mortality in 2003



Further analysis of data showed that 57.4 per cent of reported infant deaths were during the neonatal period, the majority of whom were due to prematurity. Mortalities due to congenital malformations were more likely to occur during the post-neonatal period while mortalities due to respiratory infections were equally distributed between the neonatal and post-neonatal periods.
Consistent with the universally accepted pattern, infant mortality was higher among males than females, 55 and 45 per cent respectively. This pattern was observed in all Fields.

9.2 As can be noticed from figure 12 below, respiratory infections ranked first among the leading causes of child mortality (21.8 per cent) followed by congenital malformations (19.1 per cent) while accidents ranked third at 10.9 per cent and heart diseases accounted for 7.3 per cent of child mortality. Among children 2-3 years of age, 70 per cent of child deaths took place during the second year of life, while 30 per cent took place during the third year. It is worth mentioning that two of the reported child deaths during 2003 were due to gastroenteritis. Therefore, more efforts should be exerted to address respiratory infections, accidents and gastro-enteritis as preventable causes of child mortality. Similar to infant mortality, child mortality was higher among males than females namely 58.2 and 41.8 per cent respectively.

Figure 12, Leading causes of child moratlity, (1-3 years), 2003



10. Infant and child mortality study:

10.1 In 2003 an Agency-wide study on infant and child mortality was conducted as a follow-up to the baseline study conducted in 1997. The objectives of the two studies, the baseline and the follow-up, were to estimate infant mortality rate (IMR) and child mortality rate (CMR) and assess the mortality pattern among Palestine refugees using UNRWA maternal and child health services in the five Fields of operation. In the two studies some factors that might affect infant and child mortality rates such as; parity, mother's age, mother's education and sex of child/infant were studied. In addition, in the 2003 study, the reasons of child and infant mortality were studied as well.

In the baseline study however, due to problems encountered in compilation of data collected from the West Bank, the analysis could not be completed for that Field.

10.2 The modified Preceding Birth Technique, which estimates early childhood mortality, was adopted. This technique is designed to estimate early child mortality from service delivery points and gives good precision in situations where the coverage of child health care services is very high, a condition which is readily met through the high rate of early registration of newly born infants at UNRWA maternal and child health centers especially during the first six weeks post-delivery.

10.3 Data of the follow-up study was collected from March through October 2003. All 122 primary health care facilities, in and outside camps, run by UNRWA in Jordan, Gaza, Lebanon, Syria and the West Bank were included in the study.
The study included a total of 16,691 women with more than one child, who attended the Agency's primary health care facilities to register their newborn babies in Jordan (n = 4279), Gaza (n = 4225), Lebanon (n =2162), Syria (n = 2744) and the West Bank (3,281) participated in the study. The sample size was selected to provide 95 per cent confidence interval.

10.4 Results of the two studies have shown that early childhood mortality per 1000 live births dropped between 1997 and 2003 as shown below:

Table 14, Early child mortality rate per 1,000 live births (1997-2003)

	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
1997	35	-	36	37	32	35
2003	25.1	17.6	28.3	20.2	30.5	24.4

These rates are more or less consistent with the findings of other studies carried out in the host countries.
The reference periods for these rates were October 2000 for Lebanon, December 2000 for SAR, February 2001 for Jordan, March 2001 for the West Bank and May 2001 for Gaza Strip.

10.5 As shown in table 15, infant mortality declined in all Fields from the 1997 baseline study with varying degrees.

Table 15, Infant mortality rate per 1,000 live births (1997-2003)

	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
1997	32	-	33	35	29	32
2003	22.5	15.3	25.2	19.2	28.1	22

Likewise, neonatal mortality rate has also declined in all Fields except in Syria where it increased from 20 deaths per 1000 live births to 23.

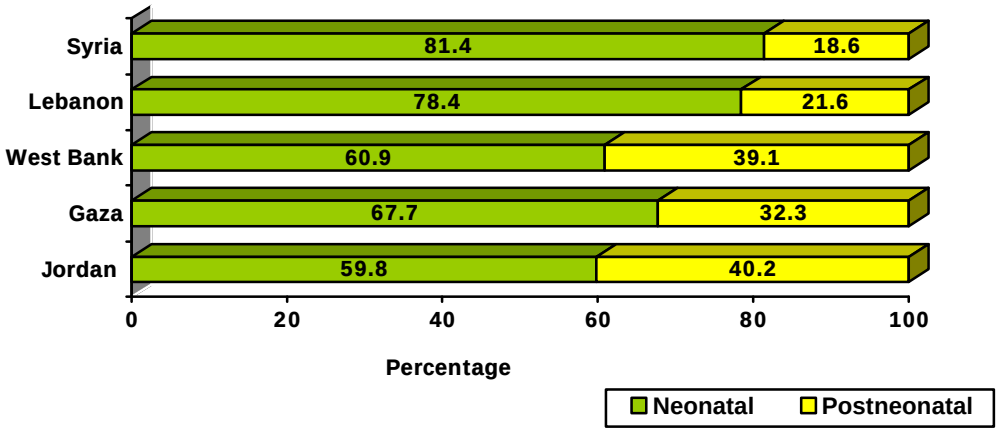
Table 16, Neonatal mortality rate per 1,000 live births (1997-2003)

	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
1997	22	--	20	26	20	21
2003	13.5	9.3	17.1	15.0	22.9	15.3

On the other hand, the highest decline in neonatal mortality was in Lebanon where it dropped from 26 deaths per 1000 live births to 15. Factors which contributed to this reduction could include; contracting only with hospitals that have neonatal care facilities, in addition to the high prevalence of modern contraceptive use and increase in the birth interval. Jordan Field has also demonstrated a significant decline in neonatal mortality from 22 deaths per 1000 live births to 14. Likewise, the neonatal mortality in Gaza Field declined from 20 deaths per 1000 live births to 17. Although, the West Bank Field had the lowest neonatal mortality, changes could not be tracked as no baseline data is available.

10.6 Neonatal mortality constituted approximately 59.8 per cent of infant deaths in Jordan, 67.7 per cent in Gaza, 60.9 per cent in the West Bank, 78.4 per cent in Lebanon, and 81.4 per cent in Syria.

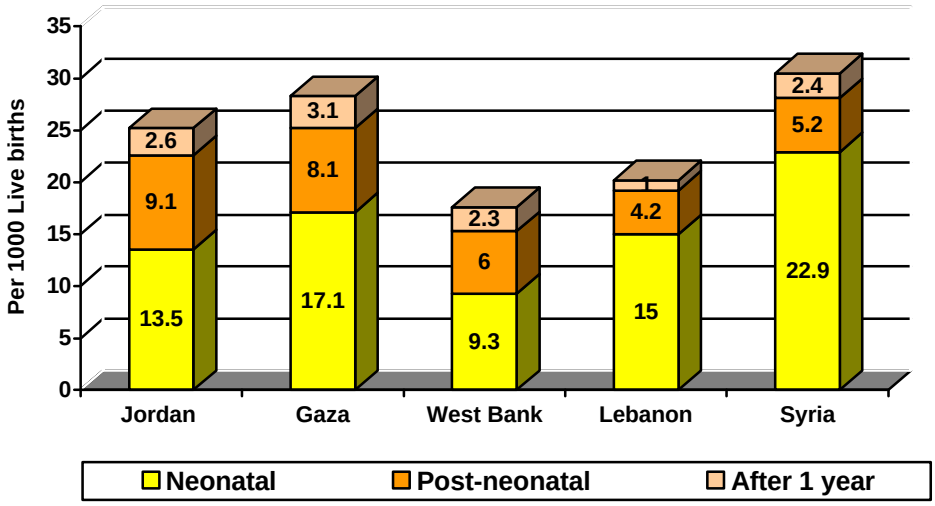
Figure 13, Proportion of neonatal and post-neonatal mortality, 2003



49.8 per cent of the proceeding children were females and 50.2 per cent were males which is consistent with the findings of the 1997 and testifies for the high quality of data.

10.7 The post-neo-natal mortality rate refers to deaths among infants after the first month of life and before completing their first year. In the 1997 baseline study, the post-neonatal mortality rate was highest in Gaza namely, 13 per1000 live births, followed by Jordan 10 per1000 live births, followed by Lebanon and Syria Fields with a rate of 9 per 1000 live births. While in the 2003 study, the post neonatal mortality rate has declined in all Fields. It was highest in Jordan (9.1 per 1000 live births), followed by Gaza (8.1 per1000 live births), followed by the West Bank 6 per 1000 live births, followed by Syria Field with a rate of 5.2 per1000 live births and was lowest in Lebanon with a rate of 4.1 per1000 live births. Figure 14 below demonstrates the rates of 2003 study.

Figure 14, Infant and child mortality rates, 2003



10.8 After one year of age, child mortality rate was lowest in Lebanon Field and it also demonstrated the highest decline during the reference period. Child mortality

rates in Syria and Jordan Fields have also demonstrated a considerable decline from 3 deaths per 1000 live births to 2.4 and 2.6 respectively while in Gaza this rate increased from 3 to 3.2 deaths per 1000 live births.

10.9 Further analysis of the results revealed that early child mortality rate was highest among young mothers aged below 20 years. The overall early child mortality rate was significantly associated with parity. Furthermore, infants of mothers with parity 7 and above were at a higher risk of death regardless of their age. Agency-wide, the highest mortality rate was among mothers with 7 children or more at 37 per 1000 live births compared to 17 per 1000 among mothers with 1-2 parity.

10.10 The sex of the child was significantly associated with the probability of early child mortality as the overall death rate among males during the first two years of life is higher than that among females with a difference of 5-8 deaths per 1000 live births.

10.11 The main causes of infant mortality were almost the same in all Fields namely; prematurity/LBW, congenital malformation and respiratory causes. It is well recognized that these causes are interrelated as a low birth weight/premature infant might die of respiratory infection and heart diseases are mostly congenital.
The main causes of child mortality were congenital malformations, respiratory infections and accidents.

11. School health:

11.1 During the school year 2003/2004, a total of 491,978 children were enrolled in UNRWA schools, of whom 50,290 were new entrants who received thorough medical examination and follow-up. The immunization coverage during the first semester was 84.8 per cent for DT/Td Agency-wide ranging from 99.9 per cent in Jordan to 99.8 per cent in Lebanon, 98.9 per cent in Syria, 75.1 per cent in Gaza and 60 per cent in the West Bank.

The main morbidity conditions detected among new entrants were: dental caries 23.6 per cent, vision defects 3.8 per cent, squint 1.3 per cent, physical disabilities 0.2 per cent with the highest rate of 0.9 per cent in Syria where there is a special programme for comprehensive screening for disability conditions and children with special needs. These children were assisted according to their conditions and available resources.
In the absence of an Agency-wide mechanism to detect hearing impairments, it was not possible to assess the prevalence rate. Subject to availability of resources, UNRWA contemplates to introduce programmes for early detection and management of disabilities especially hearing impairments.

11.2 55,956 students enrolled in the first preparatory classes were screened for morbidity conditions during the year. Dental caries ranked the highest at 28.7 per cent followed by vision defects 9.0 per cent and thyroid enlargement 0.2 per cent while it was 1.9 in 2002. It is worth mentioning that iodized salt was introduced in all host countries few years ago which is expected to contribute to the reduction of iodine deficiency disorders, however, this needs special research to assess the impact of this intervention.

11.3 In accordance with WHO recommendations and in order to improve the health status of school children, UNRWA made arrangements for implementation of a programme for de-worming of school children at its schools in all Fields using a single dose of a wide-spectrum anti-helminthic for 3 successive years. During 2003, the programme of de-worming was implemented in all Fields. The response rate was very high where approximately 96per cent of students took the tablets. In addition, a health awareness campaign accompanied the distribution of the medicine. The Fields are at different stages of implementation of this programme where Jordan, Gaza and Lebanon are in the first year and Syria and the West Bank are in the second year of implementation.

11.4 Adolescents are an important segment of the population. Their knowledge of health especially reproductive health affects their attitude and practice. A study will be conducted during 2004 to assess their reproductive health knowledge. The study questionnaire was developed and refined during December 2003. Based on the results, the knowledge gap needs to be addressed through appropriate educational materials.

11.5 The Ministry of Education in collaboration with the Ministry of Health, Jordan introduced a programme for provision of multivitamins to all school children in government and UNRWA schools.

11.6 The self-learning material on prevention of HIV/AIDS and tobacco use, were revised, reproduced and distributed to the target groups including preparatory school children and adolescents in the vocational training centres and science faculties. Approximately 85,000 copies of the booklet "Facts about tobacco" and 60,000 copies of the booklet "Facts about AIDS" where reproduced during 2003 to be distributed to school children.

12. Nutrition:

12.1 During 2002, more than 95,000 pregnant women and nursing mothers of those who received preventive heath care and supervision at UNRWA primary health care facilities benefited from the Agency's food aid programme. Entirely funded through in-kind contributions, the programme aims at meeting the additional physiological and nutritional needs of women in reproductive age and preventing nutritional deficiencies associated with high fertility and short birth intervals.

12.2 During 2003, the wheat flour distributed by the Agency in the context of its regular and emergency food aid programmes was fortified with iron and folate. In addition, UNRWA had joined efforts with WHO to encourage the Host Authorities in Syria, Lebanon and the Palestinian Authority to introduce programmes for iron fortification of bread. This measure was implemented country-wide in Jordan. UNRWA is also a partner in the national efforts pursued by the Host Authority in Jordan and the Palestinian Authority for development of appropriate nutrition and food strategies in collaboration with the World Health Organization and USAID/MARAM Project.

12.3 The prevalence of iron deficiency anaemia continued to be high among women of reproductive age in all Fields, but much so in Gaza Strip and the West Bank as assessed by a USAID sponsored nutritional survey and UNRWA's rapid assessments. The USAID nutrition survey has shown that 4.5 per cent of women in

the oPts were malnourished (BMI<18.5). The programme for prevention and treatment of anaemia among pregnant women and children was maintained through periodic haemoglobin testing and prophylactic supplementation with iron and folates. The quality of supplies was improved.

Different strategies were implemented to combat iron deficiency anaemia including; medicinal supplementation to pregnant women and children 6-24 months of age, fortification of flour, de-worming of school children and family planning services. A study is planned during 2004 to assess the impact of these strategies on the prevalence among pregnant women, nursing mothers and children. In addition, and in order to break the cycle of anaemia among women in reproductive age, the prevalence of anaemia among school girls will be assessed during 2004 and appropriate interventions will be considered in the light of the findings. The prevalence of anaemia among school boys will also be assessed, as a control group, to detect gender disparity, if any.

12.4 Efforts are being made to strengthen nutritional surveillance with special emphasis on management of infants and children suffering from growth retardation. Special emphasis in this respect is being placed on promoting breast-feeding and counselling mothers on infant and child nutrition including the appropriate use of food supplements. In order to improve detection and management of children with growth retardation, several activities were implemented including the introduction of the new reporting format, staff training on identifying such children and physical checking of child health records to pick up missed cases. In addition, concerned medical officers and nursing staff were trained on nutritional counselling and provision of iron preparations to children as prophylactic and treatment measure.

12.5 The 2003 data indicate that the rates of growth retardation in some Fields were very close to the expected results while in others underreporting is still an issue especially in the West Bank and Gaza Fields as shown in table 17 below.

Table 17, Prevalence of growth retardation among children 0-3 years of age, 2003

Field	Growth Failure/retardation among 0-3 children		
	Incidence	Prevalence at year end, 2003	Recovery rate (%)
Jordan	3.3	1.9	72.5
West Bank	1.7	1.2	59.2
Gaza	1.5	3.0	30.6
Lebanon	3,4	2.9	58.8
Syria	3.3	3.2	43.0
All Fields	**2.5**	**2.3**	**53.7**

Considering that data is gender disaggregated, there was no gender disparity except in two Fields namely Syria and Lebanon. In Syria the female to male ratio was 1.3:1 while it was 2:1 in Lebanon Field. Gender disparity in the two Fields will be studied to assess the underlying reasons and ways and means to reduce it.

12.6 A study was conducted by USAID/MARAM Project in the oPts to assess the prevalence of vitamins A and E deficiency among children aged 12-59 months in collaboration with the central laboratory of JUST University in Jordan. The results showed that the prevalence of vitamin A deficiency was 21.5 per cent and the

prevalence of vitamin E deficiency was 18.5 per cent.

12.7 In 2002, a study was conducted by Al Quds Nutrition and Health Research Institute, John Hopkins University and Care International. The objective of the study was assessment of the nutritional status in Gaza Strip and the West Bank under the prevailing situation. The target population were mothers and children from West Bank and Gaza Strip.

Table 18, Prevalence of acute and chronic malnutrition, children ages 6-59 months in oPts, 2002-2003

Fields	N	Global Acute Malnutrition (Weight/Height)		Global Chronic Malnutrition (Height/Age)	
		N , - 2Z	% < - 2Z	N < -2Z	% < -2Z
2002 study					
West Bank	416	18	4.3	33	7.9
Gaza	520	69	13.3	91	17.5
Total	936	87	9.3	124	13.2
2003 study					
West Bank	1767	54	3.1	163	9.2
Gaza	1322	52	3.9	168	12.7
Total	**3089**	**106**	**3.4**	**331**	**10.7**

The results of the study showed that the prevalence of acute and chronic malnutrition were 9.3 per cent and 13.2 per cent respectively. In 2003, the study was repeated to assess the nutritional status after a year. The results of the follow-up study showed that acute malnutrition dropped to 3.4 per cent and chronic malnutrition dropped to 10.7 per cent as shown in table 16 below. This improvement, as interpreted by the researchers, was attributed to the impact of the emergency food aid programme largely covered by UNRWA.

13. Mental health:

13.1 Mental disorders account for nearly 12 per cent of the global burden of disease. People with mental disorders face stigma and discrimination in all parts of the world. Developing countries are likely to see a disproportionately large increase in the burden attributable to mental disorders in the coming decades. The burden of mental disorders is maximal in young adults, the most productive section of the population.

13.2 A study conducted by the Gaza Community Mental Health Programme on the prevalence of post-trauma stress disorders (PTSD) among children 10-19 years of age revealed that 32.7 per cent have suffered from acute level of PTSD which needed psychological intervention, 49.2 per cent suffered from moderate PTSD symptoms, 15.6 per cent of the children suffered from low level of PTSD and 2.5 per cent had no symptoms. In addition, the study indicated significant difference between boys and girls in the acute level of PTSD whereby 57.9 per cent of girls developed the symptoms, the percentage among the boys was 42.1 per cent (P-value 0.01). It also indicated that children who are living in camps suffer more than children who are living in towns (84.1 per cent and 15.8 per cent respectively). These findings are alarming.

13.3 In its VIth report on Palestinian Perceptions of their Living Conditions during the Second Intifada, IUED observed that 46 per cent of parents who responded to the questionnaire detected aggressive behaviour among their children, 38 per cent noticed bad school results, 27 per cent reported bed wetting while 39 per cent stated that their children suffered from nightmares. The study also revealed that more refugee children (53 per cent) than non-refugees (41 per cent) children began to behave aggressively.

In general 38 per cent of the respondents said that shooting was the main influence, 34 per cent stated that it was violence on TV, 7 per cent cited confinement at home and 11 per cent specified that it was the arrest and beating of relatives and neighbours.

It is worth noting that 70 per cent of refugees and non-refugees stated that they had not received any psychological support for their children, which is not surprising given the large-scale prevalence of psychological disorders and the modest resources that are readily available to address the problem.

13.4 Save the Children – US and the Secretariat of the National Plan of Action for Palestinian Children (NPA) in collaboration with Save the Children-Sweden conducted an assessment of the state of well being of Palestinian children in the oPts. The assessment was funded by the United States Agency for International Development (USAID). UNRWA school counsellors participated in conducting the focus groups and supervision of Fieldwork. The study was designed primarily to gain insight into how the children themselves view their situation, and to provide them with an open forum in which to speak. The report was published in July 2003. Following are summary of the results:

- The majority of sampled children (93 per cent) reported not feeling safe and exposed to attack. They fear not only for themselves but also for their family and friends.
- Almost half of the children (48 per cent) have personally experienced violence owing to the ongoing Israeli-Palestinian conflict or have witnessed an incident of such violence befalling an immediate family member.
- One out of five children (21 per cent) has had to move out of their homes, temporarily or permanently, overwhelmingly for conflict related reasons. Children in Gaza were generally more affected than children in the West Bank. Children in urban and refugee camp settings were also more affected than children in rural areas.
- More than half of the children (52 per cent), especially the somewhat older children in the sample (59 per cent), felt that their parents can no longer fully meet their needs for care and protection. This feeling is further compromised by the fact that the caregivers – parents and teachers mainly – themselves are stressed and frustrated, having therefore less emotional and mental energy to provide the necessary psychosocial support to their children.
- However, parents are well aware of the interaction and dialogue with their children, as (65 per cent) of parents reported significant interaction with their children through dialogue and a smaller group (12 per cent) reported some interaction, the number of parents who do not (23 per cent), remains significant. Also striking is the extent to which parents seem unaware of the fact that they are key role models for their children. This likely reflects their own decreasing levels of confidence and their lack of empowerment.

- Nine out of ten parents reported symptomatic traumatic behaviour amongst their children, ranging from nightmares and bedwetting, to increased aggressiveness and hyperactivity, as well as a decrease in attention span and concentration capacity. A minority of parents (approximately 5-8 per cent) reported that their children have become fixated on thoughts of death and revenge.
- The majority of Palestinian children (70 per cent) continue to feel that they can improve their own lives by developing academically first and foremost, but also personally and socially. By the same token, a majority (71 per cent) of Palestinian children continue to channel their energy into "positive, constructive and non-violent activities.
- Resilience is also evident in the central role that schooling continues to play in the lives of Palestinian children. Although parents and teachers report that they are alarmed about decreases in students' attention spans and rising absenteeism, the participants themselves clearly continue to value their education.

  Ninety-six percent (96 per cent) see it as their main means to improve their situation, both presently and in the future. As such, they also view education as one of their main means of peaceful resistance against the occupation.

- The study results indicated that "In addition to focusing on schooling, Palestinian children generally continue to engage in activities that are constructive and positive in nature. This included helping their families, becoming pre-active players/helpers in their community, or participating in peaceful demonstrations that avoid confrontations with Israeli soldiers or checkpoints. Thus, while the majority of children consider it important to "actively resist the Israeli occupation", most (71 per cent) focus on peaceful, non-violent ways to this end. A smaller group (21 per cent) tends more towards withdrawal, blocking out the conflict around them by keeping themselves busy at home, or by focusing on protecting themselves from danger. Only a minority of children (7 per cent) focus on violent means of resistance, believing they need to be fearless and aiming to become soldiers/martyrs in the future".
- Nearly all Palestinian teachers interviewed (90 per cent) suggested that student achievement improved also and identified a number of strategies that they rely on to this end. When they gave them more time to express emotions and thoughts in the classroom, when children were allowed to carry out physical exercises and art, and when they were allowed to confront and deal with their emotions in the context of classroom activities.

13.5 In recognition of the heavy burden of mental and psychological disorders to which the refugees are exposed, the Agency had for long contemplated to integrate mental health services within its primary health care activities. However, owing to funding shortfalls and other competing priorities, this challenge could not be addressed.

In response to the current humanitarian crisis and in order to meet the psychological needs of the Palestinian community, UNRWA established a psychological counselling and support programme which is a multi-disciplinary preventive activity. The programme is focused on the provision of a range of services aimed at promoting the development of constructive coping mechanisms for refugees in crisis situations and preventing long-term psychological

consequences. This includes programmes targeting schools, health centres, social services and community-based centres.

School-based programmes initially focus on teaching staff, assisting them to develop coping mechanisms to enable them to support themselves and the children whom they serve. Group counselling is provided to every class that has been affected by violence with individual sessions offered to children who require special attention.

In addition, the programme offers a range of services to adults. This includes group-counselling sessions aimed at a range of different target groups and individual counselling where necessary.

13.6 A national mental health plan was developed by the Ministry of Health of the Palestinian Authority in collaboration with the World Health Organization and other stakeholders. The plan aims at enhancing the institutional capacity building of the health care system to deal with the burden of mental and psychological problems of the population with special emphasis on training of health personnel to detect and manage mental disorders and upgrade the mental health institutions at the primary, secondary and tertiary levels.

14. Gender mainstreaming:

Gender is a crosscutting issue to all programme activities. Therefore, for the last two years this issue has been addressed through different activities. During the 8th and 9th Field Family Health Officers' meetings, the concepts of gender was introduced to the participants, including; gender as a social construct and types of socialization processes; the personal dimensions of gender; the difference between gender-disaggregated and sex-disaggregated data; conceptual boundaries of gender-based violence; difference between gender equity and gender equality; women's empowerment.

In addition the FFHOs were oriented on the concept of gender analysis with its five key elements which can serve as a systematic guide for assuring a gender perspective in data. During 2004, all health staff at all levels will be oriented on these concepts.

In addition, several data has been collected and analyzed as a gender disaggregated data such as infant and child mortality rates and growth retardation among children. Furthermore, the two studies which will be conducted during 2004 namely; prevalence of anaemia among school children and assessment of adolescent reproductive health knowledge will be gender-oriented.

VI. DISEASE PREVENTION AND CONTROL

Today, the burden of death and disability in developing countries caused by non-communicable diseases, particularly cardiovascular conditions, overweighs that imposed by longstanding communicable diseases.

The World Health Report, 2003

Introduction:

1. UNRWA has a leading experience in the region with regard to integrating disease prevention and control activities, both of communicable and noncommunicable diseases, within its primary health care activities.
   Since several years, the Agency had formulated guidelines, norms, standards and other policy related measures that are consistent with the objectives, concepts, and principles of the World Health Organization, which is now in the process of developing a global strategy on diet, physical activity and health in order to assist member states develop an integrated approach for prevention of noncommunicable diseases.

2. Communicable diseases which still dominate the global health agenda, namely HIV/AIDS, malaria and tuberculosis do not represent a major threat to the Palestine refugee population. Malaria has been eradicated and the incidence of HIV/AIDS and tuberculosis is still very low. Vaccine-preventable diseases are well under control with no cases of poliomyelitis, neonatal tetanus, pertussis or diphtheria reported over the last decade. However, other communicable diseases such as hepatitis, typhoid fevers and intestinal infestations, are still highly prevalent and there is the risk of re-surging and newly emerging communicable diseases, which started to represent a threat to global health.

3. According to WHO, noncommunicable diseases accounted for almost 60 per cent of the 56.5 million deaths in 2001 and 47 per cent of the global burden of disease. The burden of mortality, morbidity and disability attributable to noncommunicable diseases now weighs heaviest in developing countries, where those affected are on average younger than in the developing world.
   For all countries, current evidence suggests that the underlying determinants of noncommunicable diseases are largely the same. Those include increased consumption of energy-dense, nutrient-poor foods that are high in fat, sugar and salt, reduced levels of physical activity at home, at work and for recreation and transport and tobacco use.
   The refugee population are not exempt from this epidemiological transition called the “double burden” of noncommunicable diseases which comes on top of the persisting threat of communicable diseases.

Programme accomplishments:

Control of communicable diseases:

1. General:

1.1 To address the challenges described above, special emphasis was placed on staff development and capacity building as means to enhance the skills and capabilities of staff and improve performance.
During 2003, a total of 1,965 man /days of training were provided to staff at the service delivery level.

1.2 The annual meeting of Field Disease Control Officers was held in Amman during the period 3-6 February 2003 to review progress achieved in implementation of the approved plan of activities and develop a new plan with special emphasis on strengthening disease surveillance, staff training and development and building partnerships with the national public health programmes.

1.3 UNRWA remained committed to implementation of the WHO/UNICEF/CDC targets for eradication of poliomyelitis, elimination of neonatal tetanus, reduction of mortality from measles by half world-wide by 2005, and had implemented the WHO directly observed treatment, short course strategy for control of tuberculosis "DOTS all over". In all these activities, UNRWA was ahead the target of 2005 and had maintained close collaboration and partnerships with the ministries of health of the host authorities, including the National AIDS Programmes (NAPs) and the National TB Programmes (NTPs). It maintained close collaborative links with the public health authorities for surveillance of communicable diseases including vaccine-preventable diseases. The Agency immunization policies were streamlined with the national policies and UNRWA participated in all national immunization days (NIDs).

1.4 During 2003, UNRWA participated in two national immunization campaigns against poliomyelitis organized by the ministry of health, Lebanon in collaboration with UNICEF. The first campaign was in spring 2003 whereby 28,451 Palestine refugee children below 5 years were immunized in May and 26,087 were immunized in June. The second campaign was carried out in autumn whereby 23,655 children were immunized in October and 25,219 children were immunized in December.
In Syria, the ministry of health organized two national campaigns, one in the spring and another in autumn. The spring campaign targeted children below 5 years for poliomyelitis and children 1-5 years for measles, mumps and rubella (MMR). 19,695 and 12,873 refugee children were vaccinated for polio and MMR respectively during this round.
The second campaign was organized in October and December 2003 and targeted children below 5 years for polio and children who missed their routine immunizations for all other vaccines including BCG, Hepatitis B, MMR, measles, DPT and the Quadruple vaccine. A total of 17,997 refugee children were vaccinated in the October round and 20,488 children were vaccinated in the December round.

1.5 UNICEF continued to meet UNRWA's requirements of the main six antigens for prevention of childhood illnesses both in Lebanon and Syria, including poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles. The

Ministry of Health in Jordan and the Ministry of Health of the Palestinian Authority continued to meet UNRWA's requirements of all vaccines used in the expanded programme on immunization including the newly introduced vaccines in Jordan, and all vaccines in Gaza Strip and the West Bank. Haemophilus influenzae type b (Hib) vaccine was introduced in combination with DPT in Syria Field during the second half of 2001. Likewise, Jordan introduced Hib vaccine within its Expanded Programme on Immunization since the beginning of 2001. In 2003, it was supplied as pentavalunt vaccine (Hib+HBV+DPT). These vaccines continued to be supplied as in kind contribution by ministries of health in Syria and Jordan.

1.6 The noncommunicable disease component of the new management health information system was further developed with the aim of making it more user-friendly and focus on measuring programme outcomes. Further improvements of the system are envisaged during 2004 where the main health centres will be provided with computers to facilitate use of data for epidemiological applications.

2. Vaccine-preventable diseases:

Expanded programme on immunization

2.1 Similar to previous years, coverage of the expanded programme on immunization among children below 2 years was measured through the rapid assessment technique. The assessment revealed that the contemplated target of sustaining above 95 per cent immunization coverage was attained in all Fields, both for primary series and booster immunizations, except a decline in coverage of booster immunizations in the West Bank (see table 1).

Table 1, Coverage of the Expanded Programme on Immunization, 2003 based on the rapid assessment technique

Vaccine	Field					
	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
1. Coverage rates as percentage of infants 12 months of age* (sample size=6636)						
(i) Poliomyelitis (OPV)	99.5	98.2	100.0	100.0	99.7	99.5
(ii) Triple (DPT)	99.4	98.2	100.0	100.0	99.7	99.5
(iii) BCG	100.0	99.5	100.0	100.0	99.7	99.9
(iv) Measles	98.8	96.9	99.9	99.7	99.5	99.1
(v) Hepatitis B	99.4	98.1	100.0	100.0	99.7	99.5
(vi) Hib	99.4	0.0	0.0	0.0	99.7	99.5
(vii) All vaccines	98.8	96.8	99.9	99.7	99.5	99.1
2. Coverage rates as percentage of children 18 months old for MMR and booster doses of OPV and DPT (sample size=5958)**						
(i) MMR	92.9	94.2	99.8	99.6	99.2	96.1
(ii) Poliomyelitis (OPV)	92.8	96.2	99.8	99.6	99.2	96.4
(iii) Triple (DPT)	92.8	96.8	99.6	99.6	99.2	96.4

Note: Hib vaccine is used in Jordan and SAR only

* Infants born during November 2003 ** Children born during May 2002

The decline in immunization coverage both for primary series and booster immunizations in several localities of the West Bank below the contemplated target is a reason for concern especially in Hebron and Nablus areas, which were most affected by curfews, closures and military incursions. (see para 4, Chapter III).

Incidence trends

2.2 Analysis of incidence trends of vaccine-preventable diseases in 2003 per 100,000 population revealed that there was a decline in the incidence of measles from 0.8 in 2002 to 0.7 in 2003 and a decline in the incidence of mumps from 27.1 to 11.2, decline in the incidence of rubella form 0.4 to 0.3 per 100,000 population, and a decline in the incidence of meningococcal meningitis form 0.12 in 2002 to 0.07 in 2003 (see table 2).
There was an increase in the incidence of smear positive tuberculosis from 0.9 per 100,000 population to 1.5. This increase might be due to improved case-detection activities mainly in Syria, whereas the West Bank continued to report zero incidence of tuberculosis, which suggests that further efforts need to be exerted in order to strengthen disease surveillance and improve case-detection activities.
Meantime, no cases of poliomyelitis, acute flaccid paralysis, pertussis, diphtheria and neonatal tetanus were reported during the year.

Tuberculosis control

2.3 Detection activities of tuberculosis improved significantly during 2003, where 114 cases of various forms were newly diagnosed compared with only 65 cases in 2002. Of concern was the significant reporting on the number of smear-positive relapse TB patients, while no cases in this category were notified during 2001 and 2002. This might raise the issue of the emergence of drug resistant. The detection rate of pulmonary smear-positive cases increased in 2003. The main increase was reported from Syria Field as can be noticed from table 3, West Bank Field continued to report zero incidence for the last three years in succession.

The coordination between the national TB programmes and the Agency contributed to the increase in the detection rate of pulmonary smear-positive cases among TB suspects**.** The cure rate of pulmonary smear-positive cases was 100 per cent, which is above the target set by WHO. No deaths were reported among TB patients during 2003.

Table 3, The directly observed treatment short course strategy for control of tuberculosis,programme indicators

	Jordan	West Bank	Gaza	Lebanon	Syria
Case detection rate	12.6	0	10.8	25.2	82.1
per cent smear +ve of TB suspects	0.4	0	0	0.8	5.6
Smear conversion at 3 months	90.0	N/A	100	81.8	97.1
Cure rate of new smear +ve	100	N/A	100	100	100
Death rate of new smear +ve	0	N/A	0	0	0

Table 2, Incidence rates of communicable diseases among registered refugees in 2003 (Per 100,000 population)

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Registered Refugees as at 31.12.2003	**1 740 000**	**665 000**	**923 000**	**395 000**	**414 000**	**4 137 000**
Brucellosis	0.7	1.2	0.0	2.8	152.0	16.0
Watery diarrhoea (0-3years) (10 per cent of the population)	8 140	16 774	16 391	13 086	21 534	13 184
Bloody diarrhoea	188.3	406	977.4	248.6	526.8	438.9
Viral Hepatitis	21.3	19.7	39.0	7.4	57.0	27.2
HIV/AIDS	0	0	0	0.3	0.2	0
Leishmaniasis	0	0	0	0	7.7	0.8
Malaria*	0	0	0	0.3	0.0	0.02
Measles	1.6	0	0	0.5	0.5	0.7
Meningitis – viral	1.6	2.3	1.1	0	0	1.3
Meningitis – bacterial	0.1	0.8	0.5	0	0	0.3
Gonorrhoea	0.3	0	0	0	0.2	0.1
Mumps	18.1	3.6	6.9	5.6	8.9	11.2
Rubella	0.5	0	0	0.3	0.2	0.3
Tuberculosis, smear positive	0.6	0	0.4	1.5	9.4	1.5
Tuberculosis, smear negative	0.1	0	0	2.3	1	0.4
Tuberculosis, extra pulmonary	0.5	0	0.4	1.8	4.6	0.9
Typhoid fever	0.2	0.3	3.7	0.0	11.6	2.1

* Imported case

Note : No cases of Ankylostomiasis, Acute flaccid paralysis, Schistosomiasis, Cholera, Leprosy, Plague, Rabies, Relapsing Fever (endemic/louse borne), Tetanus, Pertussis or Syphilis were reported

Studies on immunization services and injection safety

2.4 USAID in collaboration with UNICEF sponsored two consultancies in the occupied Palestinian territory during summer and autumn 203, one on injection safety and another on immunization services.

The survey report on injection safety recommended that UNRWA infection control guidelines be adapted and adopted at the national level and that an integrated master management system should be developed for disposal of medical waste.

The survey report on immunization services concluded that the greatest challenge facing the immunization services is how to overcome the effects caused by fragmentation of the services between UNRWA and the Palestinian Authority, whereby UNRWA serves refugees and the PA serves non-refugees although both follow a unified immunization policy. The report also made recommendations for improving the quality and efficiency of services with special emphasis on better data management and building a modified cold storage system.

3. Other communicable diseases

Unlike the trend of zero incidence in 2002, there has been one case of imported malaria among an adult refugee, who used to work in Africa and two cases of confirmed HIV/AIDS, one from Lebanon and another form the Syrian Arab Republic (see table 2), the later being the first ever reported case among a Palestine refugee in that Field since the start of the pandemic.

Likewise, there was an increase in the incidence of bloody diarrhoea from 418 per 100,000 population in 2002 to 439 in 2003. There was also an increase in the incidence of viral hepatitis, (all types), from 21.9 in 2002 to 27.2 in 2003 and an increase in the incidence of brucellosis from 13 to 16 per 100,000 in 2003.

This increase in the incidence of communicable diseases, other than vaccine-preventable diseases, affirms the fact that there is still a long way to go in the fight against communicable diseases that survived the twentieth century, both through public education, improved surveillance and improvement of the environmental health conditions. All these efforts have to go hand-in-hand with the national plans implemented by the public health authorities of the host authorities.

Control of noncommunicable diseases (NCDs):-

1. **The burden of noncommunicable diseases:**

1.1 Countries hosting the Palestine refugees are passing through a demographic and epidemiological transition, which is characterized by increased morbidity and mortality from noncommunicable diseases, particularly cardiovascular diseases, diabetes, cancer, and chronic respiratory conditions. The gap between the disease burden and the capacity of the system to detect and manage new cohorts of patients suffering from noncommunicable diseases such as diabetes, and cardiovascular diseases is widening year after another. It is estimated that the prevalence of diabetes and hypertension might be as high as 25 per cent among the adult population in the countries of the region. However, several studies conducted recently showed that the prevalence of

diabetes mellitus was 12.0 per cent in urban and 9.8 per cent in rural Palestinian population aged 30-65 years in the West Bank and Gaza Strip.

1.2 Patients suffering from diabetes and hypertension who are under supervision in UNRWA clinics represent 5.2 per cent and 7.9 per cent respectively of the refugee population aged 40 years and above.
This represents a main challenge to the health care system, not only in terms of bridging the gap between the expected prevalence rates and the current detection rates, but also in terms of providing the necessary resources to mange these diseases and prevent their undesirable outcomes ahead the need to meet the high cost of treating their complications/disabling sequelae.
Special attention also needs to be focused on promoting healthy life-styles and reducing exposure to major risk factors associated with diabetes mellitus and hypertension and the development of their complications, especially cardiovascular complications including smoking, unhealthy diet, physical inactivity and obesity. Developing the capacity of the health care system to provide effective counselling on prevention and control of these risk factors remains the mainstay for reducing the incidence of these diseases.

1.3 A population-based cross-sectional survey conducted by Abdul-Rahim HF et al, showed that the prevalence of obesity (BMI $\geq$ 30) was 36.8 per cent and 18.1 per cent in rural Palestinian women and men respectively, compared with 49.1 per cent and 30.6 per cent in urban women and men respectively. BMI was positively associated with age in both women and men with urban residence in women. BMI was negatively associated with smoking and physical activity in men and with educational level in women.

1.4 WHO (2002) estimates that after 15 years of diabetes, 2 per cent of people become blind, while about 10 per cent develop severe visual handicap. Heart disease accounts for approximately 5 per cent of all deaths among people with diabetes in industrialized countries. Diabetic neuropathy affects up to 50 per cent of people with diabetes.

The World Health Report, 2002 shows that hypertension alone causes about 50 per cent of cardiovascular disease (CVD) world-wide and cholesterol causes about one-third. Inactive lifestyle and tobacco use and low fruit and vegetable intake account for 20 per cent each. Overall, approximately 75 per cent of CV diseases can be attributed to the above established risks. This burden is equally shared by men and women.

In total, 10-30 per cent of adults in almost all countries suffer from high blood pressure. World-wide, high BP is estimated to cause 7.1 million deaths annually: 13 per cent of the total.

High cholesterol is estimated to cause 18 per cent of global cerebro-vascular disease (mostly non-fatal events) and 56 per cent of global ischaemic heart disease (IHD). Overall this amounts to 4.4 million deaths (7.9 per cent of total). BMI increases among middle-aged and elderly people who are at greatest risk of health complications. Approximately 58 per cent of diabetes mellitus globally, 21 per cent of IHD and 8-42 per cent of certain cancers were attributed to BMI above 21.

Overall physical inactivity was estimated to cause about 1.9 million deaths. Moreover, it is estimated to cause, globally, about 10-16 per cent of cases of each of breast cancer, colon and rectal cancers and diabetes mellitus, and about 22 per cent of ischaemic hart disease.

World-wide, it is estimated that tobacco causes about 8.8 per cent of deaths (4.9 million). The attributable fractions for tobacco were about 12 per cent for vascular disease, 66 per cent for trachea, bronchus and lung cancers and 38 per cent for chronic respiratory disease.
In conclusion, more than 50 per cent of deaths and disability from heart disease and strokes can be cut by a combination of simple actions to reduce the above risk factors.

1.5 According to a study conducted by the ministry of health, the prevalence of hypertension among persons aged 25 years and above in Jordan was 32 per cent, and diabetes affected more than 10 per cent of adults. Analysis of death certificates in Jordan revealed that cardiovascular diseases were confirmed as the leading cause of death, responsible for more than 50 per cent of all deaths. Diabetes was found to be the cause of death in more than 5 per cent; however, underestimated. Jordan morbidity survey (1996) showed that 85 per cent of hypertensives were overweight or obese and 89 per cent of hypertensives were uncontrolled.
In a study conducted by the Ministry of Health in Jordan in collaboration with USAID and CDC revealed that the prevalence rate of diabetes mellitus was 0.7 per cent among the population aged 16-34 years rising up to 20 per cent among population 35-50 years and that the prevalence of hypertension among that age group was 44 per cent.
All above data suggests that the disease burden among Palestine refugees is most probably much higher than the ability of the Agency's health care system to detect cases and that a certain proportion of the refugee population below the age of 40 years might have the disease but remain undetected because the current Agency strategy is not population-based but rather targets the adult population who are at high risk.

2. **NCD Patients under supervision in 2003:**

2.1 Integrated control of noncommunicable diseases continued to be offered as an integral part of the Agency's primary health care activities with special emphasis on hypertension and diabetes mellitus.
Special care for cardiovascular diseases, was provided by specialists who visit health centres according to weekly rotating schedule, examine and advise on the management of patients referred to them, on fixed appointments, by health centre medical officers.

2.2 By the end of 2003, a total of 112,195 patients received special care for noncommunicable disease compared to a total of 104,742 at the end of 2002, which represents an overall increase of 7.0 per cent in the patient load, Agency-wide. Of those patients 24,067 (21.46 per cent) were suffering form diabetes mellitus (types I and II), 52,777 (47.03 per cent) were suffering from hypertension and 35,351 (31.51 per cent) were suffering from both diseases (see table 3).

Table 3, Distribution of NCD patients by type of disease – 2003

Field	Type 1 Diabetes %	Type 2 Diabetes %	Total Diabetes %	Hypertension %	DM&HTN %	All Types %
Jordan	2.4	15.4	17.8	45.0	37.2	31.6
West Bank	2.7	20.6	23.4	43.5	33.1	15.3
Gaza	2.2	26.5	28.7	45.8	25.5	26
Lebanon	1.1	12.2	13.3	55.0	31.7	13.7
Syria	2.0	20.1	22.1	50.2	27.7	13.4
All Fields	**2.2**	**19.29**	**21.46**	**47.03**	**31.5**	**100**

2.3 As shown in table 4 below, 0.7 per cent of all patients under supervision, Agency-wide were under 20 years of age and 8.1 per cent were 20-39 years of age. The majority of patients, namely 91.2 per cent were 40 years and above.

Table 4, Age distribution of NCD patients – 2003

Field	< 20 years %	20-39 years %	40-59 years %	> 60 years %	Total %
Jordan	0.9	7.6	49.2	42.3	31.6
West Bank	0.6	6.7	46.5	46.2	15.2
Gaza	1.0	10.6	48.9	39.5	26.1
Lebanon	0.4	8.1	41.6	49.8	13.7
Syria	0.5	5.7	42.6	51.2	13.4
All Fields	**0.7**	**8.1**	**46.8**	**44.4**	**100**

This pattern was more or less consistent in all Fields with the highest rate of patients below 40 years of age in Gaza, namely 11.6 per cent and the lowest in Syria, namely 6.2 per cent. However, the age distribution of patients under supervision at UNRWA primary health care facilities, does not necessarily reflect the actual burden of noncommunicable diseases among the refugee population because the Agency strategy is focused on screening of hypertension among clinic attendants aged 40 years and above, and screening of target groups who are at high risk of diabetes mellitus. Short of having the means to embark on mass screening of the general population, this selective approach in screening of at risk groups does not capture all cases that might be affected in the refugee community at an earlier age.

As outlined above, studies conducted in the region suggest that the prevalence of noncommunicable diseases, especially hypertension is much higher than the rates reported among Palestine refugees served by UNRWA.

2.4 Table No. 5 below shows the distribution of patients by Field and gender. Notwithstanding that men are more exposed to the risk of noncommunicable diseases especially cardiovascular diseases, nevertheless, 65.5 per cent of patients receiving special care at UNRWA primary health care facilities, Agency-wide are females and 34.5 per cent are males. This pattern was more or less consistent in all Fields. Similar to the age distribution of patients, the gender distribution of patients does not necessarily reflect the actual epidemiological profile among the refugee population but rather the attendance pattern to UNRWA primary health care facilities, where the majority of attendants are women and children. Men who are normally at higher risk, especially from cardiovascular diseases, do not use UNRWA services as frequently as women. This means that a considerable proportion of men, who might be suffering from noncommunicable diseases are not detected by UNRWA and would only seek care, when they develop complications that require in-depth investigation and management.

Table 5, Distribution of NCD patients by gender – 2003

Field	Jordan %	West Bank %	Gaza %	Lebanon %	Syria %	All Fields %
Male	33.9	34.6	32.1	36.4	38.5	34.5
Female	66.1	65.4	67.9	63.6	61.5	65.5
Total	**31.6**	**15.2**	**26.1**	**13.7**	**13.4**	**100**

2.5 A total of 2529 deaths among patients suffering from noncommunicable diseases were reported during 2003, representing a death rate of approximately 61 per 100,000 population.

However, this rate does not necessarily represent the actual mortality pattern of patients because approximately 10 per cent of the patients registered did not attend for regular care and monitoring during 2003. It is not unexpected that a considerable number of those patients could have developed permanent disabilities or died without being reported. This calls for more active surveillance of non-attendants to ascertain their survival or otherwise.
As shown in table 6, the death rate was higher among patients suffering form both diabetes and hypertension i.e. 38.5 per cent and was lowest among patients suffering form diabetes mellitus 23.6 per cent (both types).

Table 6, Deaths among NCD patients – 2003

Field	Diabetes Mellitus			Hypertension	DM&HTN	All NCDs
	Type 1 %	Type 2 %	Total DM %	%	%	%
Jordan	18.8	16.0	16.1	22.2	32.5	25.6
West Bank	18.8	13.1	13.4	14.1	15.7	14.6
Gaza	31.3	50.9	49.8	24.1	17.7	27.7
Lebanon	9.4	10.1	10.1	24	18.7	18.7
Syria	21.9	9.9	10.6	15.6	15.4	14.3
All Fields	**1.3**	**22.3**	**23.6**	**35.7**	**38.5**	**100**

The death rate was higher in Gaza Strip i.e 27.7 per cent of all deaths, Agency-wide and lowest in Syria 14.3 per cent. This might be partly due to better reporting/surveillance. In evidence, a follow-up study on 780 patients who did not attend to UNRWA special care clinics in 2003 in Lebanon Field revealed that 22 per cent of non-attendants were dead and 8 per cent suffered from major disabilities.

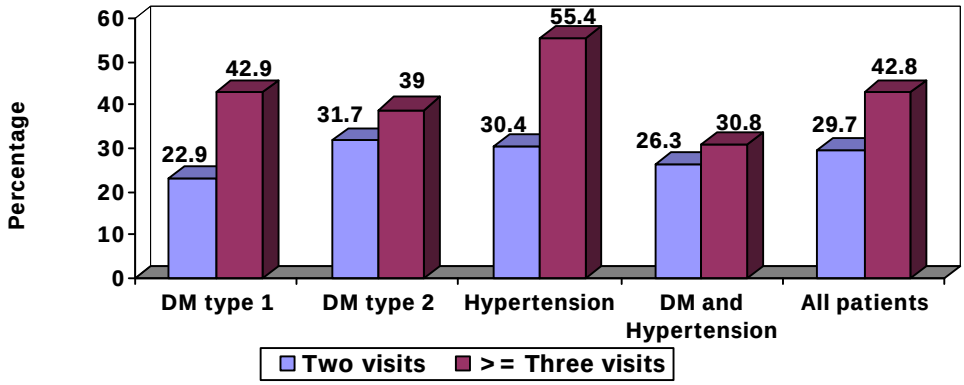
3. NCD management health information system:

3.1 The management health information system which was developed over the last two years and tested through two trial runs, was further refined during an evaluation and planning workshop conducted in Amman during September 2003 with participation of staff from Headquarters and the Fields. The main objective of the system is to establish linkages between the major risk factors for noncommunicable diseases and outcomes of care in terms of complications (disability) and control. During the workshop the information module was simplified with the aim of measuring outcomes of care based on a selected list of indicators, without placing unnecessary demands on staff at the service delivery level.

3.2 Analysis of data collected through the management health information system revealed the following:-

- The overall acceptable disease control rate was 35.0 per cent. Similar to the results of the NCD survey that was conducted in March 2003, Jordan Field reported a significantly lower acceptable control rate than the other Fields; where the condition of only 11.9 per cent of NCD patients was controlled. The West Bank, Gaza and Syria Fields showed rates close to 40 per cent, while Lebanon Field's acceptable control rate was 58.4 per cent.
  Acceptable control rate among type 1 diabetics was 35.9 per cent, Agency-wide. Among type 2 diabetics, 32. 7 per cent had acceptable control. The highest acceptable control rate was for hypertension patients: i.e. 41.2 per cent, whereas, the lowest acceptable control rate was for patients with both diseases.
  The acceptable control rate for patients who visited the NCD clinic regularly was significantly higher than those who visited the clinic on less regular basis, 42.8 per cent and 29.7 per cent respectively.

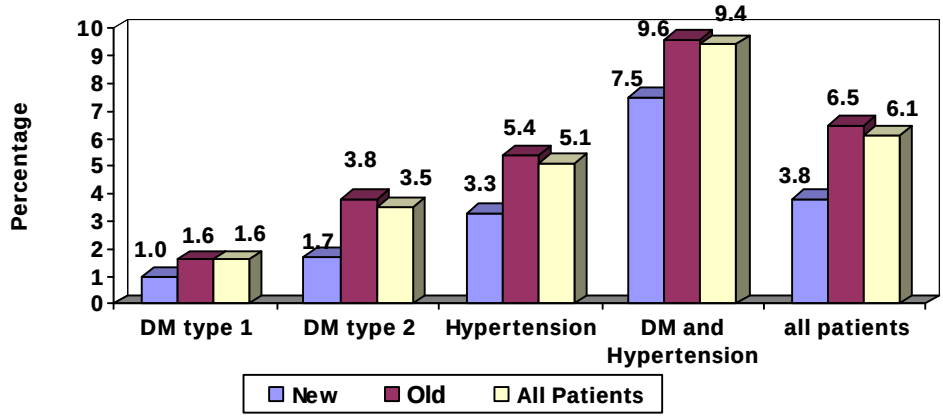
Figure 1, Acceptable control rates among NCD patients classified by disease category and attendance pattern



- The prevalence of early complications among all NCD patients was 21.6 per cent. Around one-third of patients with both diseases had early complications. Early complications were less prevalent among the other disease categories and as low as 14.1 per cent and 15.1 per cent among patients with type 1 diabetes and patients with hypertension respectively.

- Only 6.1 per cent of all NCD patients had late complications, Agency-wide. The prevalence of late complications among old registered patients was close to double that among newly registered patients, Agency-wide. The highest prevalence of late complications was reported among patients with both diseases 9.4 per cent. Late complications were more prevalent among hypertensive patients than diabetic patients, probably due to the higher probability of development of cardiovascular accident among hypertensive patients.

Figure 2, Prevalence rates of late complications classified by disease category



The prevalence of late complications was highest among patients with both diseases and was almost double that of hypertension patients and three-fold that of patients with diabetes. As expected, late complications were more prevalent among patients with poor control than patients with acceptable control, except in Jordan Field.

- As shown in figure 3 and table 7 cerebovascular accidents constituted over one-half of the late complications and myocardial infraction over one-third.

Figure 3, Breakdown of organ-specific late complication rates among NCD patients

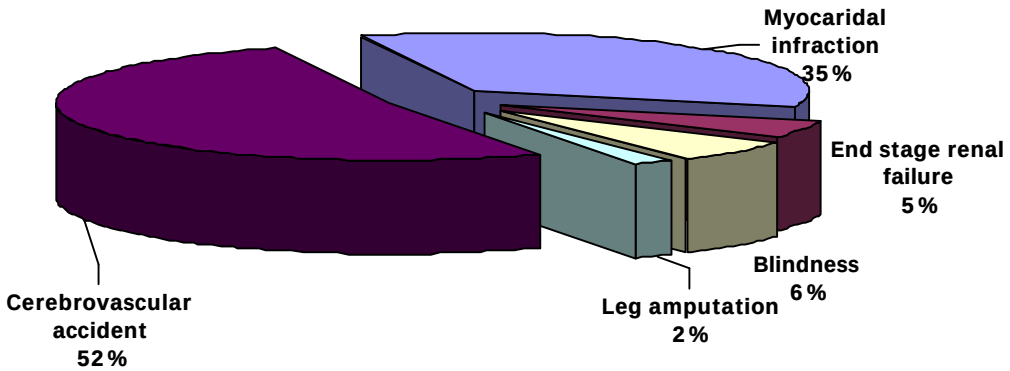


Table 7, Prevalence rates of organ-specific late complications by disease category

Disease category	Blindness	End-stage Renal failure	Myocardia infraction	Cerebro-vascular accident	Above ankle amputation	All complications
Diabetes Mellitus	0.40	0.17	1.40	1.49	0.28	3.44
Hypertension	0.20	0.31	1.97	2.94	0.02	5.21
DM & Hypertension	0.68	0.42	3.36	5.45	0.29	9.87
All NCDs	0.40	0.32	2.29	3.41	0.16	6.29

3.3 The main lessons learned from implementation of the second trial run of the new management health information system is that assessment of programme performance is much dependent on completeness of the individual patient records, that much is still desired in developing the skills and capabilities of medical personnel in management of noncommunicable diseases and that more attention needs to be given to patient education because no amount of pharmaceutical treatment could prevent poor control and development of complications without adherence to healthy behaviour including weight reduction, smoking cessation, proper diet and physical activity. Plans are underway to provide the main health centres with computer equipment and train staff at the service delivery level on use of information technology for analysis and interpretation of data in order to improve surveillance, monitoring and response and to ultimately improve the quality of care.

4. <u>Other noncommunicable diseases</u>:

There are reasons to believe that the prevalence of malignant neoplasms is on the increase among the Palestine refugee population, due to behavioural and environmental factors including high rates of smoking at an early age and increased rates of pollution. However, cancer surveillance is very weak because of lack of screening programmes and modest Agency assistance towards the cost of management of these cases. Most of cancer cases are normally treated at government hospitals/cancer centres and do not come to the attention of UNRWA.

Analysis of data available to UNRWA as at end of 2003 revealed that cancers of the breast and the lung where the leading causes of morbidity and mortality among all cancer patients each representing 15.6 per cent of cases reported from Lebanon, Syria and the West Bank. Lymphoma, multiple meyloma and leukaemia together represented 16.7 per cent of all reported cases.

These findings reinforce the need for sustaining and further development of the targeted health educational programme on prevention of tobacco use (currently implemented in all UNRWA schools, technical and vocational training centres) as well as the importance of establishing targeted screening activities for early detection of cancers among women especially cancers of the breast and the cervix.

VII. ENVIRONMENTAL HEALTH

The Middle East is a meeting point of many escalating environmental threats. This is particularly the case in the Occupied Palestinian Territories. Long-term environmental degradation has occurred over recent decades. In an already densely populated area, there are additional problems of scarcity of water resources and land, rapid population growth, a long-lasting refugee situation, climate change, desertification, and land degradation.

United Nations Environment Programme
Desk study 2003

Introduction:

1. Environmental health services were provided to approximately 1.3 million Palestine refugees residing in 58 official camps in the five Fields of the Agency's area of operations. The services comprised sewage disposal, management of storm water runoff, provision of safe drinking water, collection and disposal of refuse and control of insect and rodent infestation. Historically, the host authorities in Jordan and the Syrian Arab Republic made major contributions towards upgrading camps infrastructure of water, waste water and other public facilities. With the exception of two camps each in Jordan and the Syrian Arab Republic, all other camps were connected to municipal water and sewerage systems.

2. UNRWA's contribution to sustainable development in refugee camps, which began with the expanded programme of assistance (EPA) in 1989 and the peace implementation programme (PIP) in 1994. This developmental approach was further enhanced by establishment of the Special Environmental Health Programme in Gaza in 1993. The programme played a key role in carrying out camp-by-camp need assessments, preparation of detailed feasibility studies, identification of projects and preparation of detailed technical designs for construction of sewerage and drainage systems in refugee camps and nearby municipal areas.
   The programme has also assisted in review of feasibility studies and technical designs for developmental projects in the refugee camps in Lebanon, Syrian Arab Republic and the West Bank. This approach continued unabated during 2003 especially in Gaza Strip and Lebanon, where the conditions are very poor and funding was made available to implement the projects which were ready to move.

3. The repeated military incursions into refugee camps in Gaza Strip and the West Bank since the fall of 2000, caused serious damages to water and sewerage networks and placed additional challenges on the Agency in terms of rehabilitation of these systems.
   The Agency had therefore, to seek funding to address these immediate needs while simultaneously seeking funding to address the medium and long-term development needs.

Rapid assessment of the immediate needs for rehabilitation of camp infrastructure of water and sewerage networks in refugee camps of the West Bank, estimated the cost of these repairs at USD 2.2 million and the cost of rehabilitation of roads at approximately USD 900,000. Meantime, the progress in implementation of funded projects in Gaza Strip slowed down as a result of the prevailing conditions.

Programme accomplishments:

1. **Gaza Strip**

1.1. The progress in implementation of developmental projects to improve camp infrastructure was as follows:

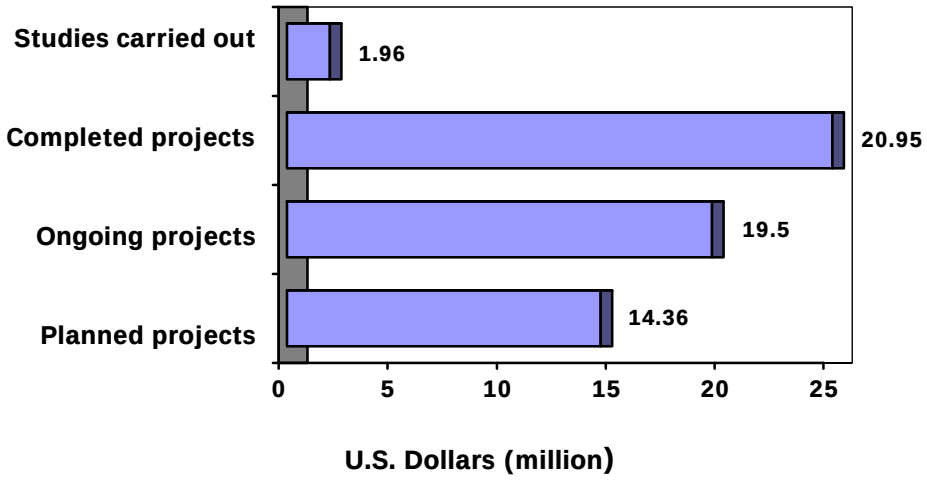
Project	Starting date	Expected completion date
- Construction of a new water well in Jabalia camp	August 2003	February 2004
- Construction of sewerage and drainage systems at Der El-Balah, Phase II, stage A	March 2003	January 2004
- Construction of sewerage and drainage systems at Der El-Balah, Phase II, stage B	March 2003	March 2004
- Construction of sewerage and drainage systems at Der El-Balah, Phase II, stage C	March 2003	January 2004
- Construction of gravity main interceptor in Der El-Balah, Stage II.	April 2003	January 2004

1.2. In addition, works were either completed or still in progress on the following projects for improving camp infrastructure:

- Pavement of roads and pathways in Jabalia, Beach, Rafah, Bureij and Nuseirat camps.
- Construction of infrastructure for the re-housing projects in Khan Younis camp and Tal El-Sultan, Rafah area.
- Construction of electricity systems for the re-housing projects in Khan Younis and Der El-Balah.
- Development of infrastructure at Canada area in Tal El-Sultan, Rafah.
- Replacement of corroded water pipes in Beach camp.

1.3. Total investment in developmental projects implemented through the Special Environmental Health Programme, Gaza since its inception in 1993 is shown in figure 1 below.

Figure 1 - Cost of projects and studies, Special Environmental Health Programme, Gaza



2. **In Lebanon**

2.1. The progress of works with respect to the EC funded projects for improving water, sewerage and drainage systems in five refugee camps was as follows:

Project	Expected completion date
- Beddawi camp (North)	June 2005
- Rashidieh camp (Tyre)	October 2004
- Wavel camp (Beqa')	April 2004
- Mia Mia camp (Saida)	September 2004
- Burj el-Shemali	July 2005

The technical supervision contract for these projects started in July 2003 and will continue until July 2005.

2.2. In addition, ECHO has hired a consultant who undertook a feasibility study, technical design and cost-estimates for rehabilitation of the water supply system in Nahr El-Bared camp (North).

2.3 A total of 271 small-scale self-help camp improvement projects were implemented comprising pavement of pathways and in-door water and sewerage connections. The Agency provided the construction material and technical supervision whereas, the refugee community provided the labour force.

3. **In Syria**

The detailed terms of reference and tender documents are still under review with respect to the EC funded projects for construction of two water networks

in Khan Eshieh and Khan Dannoun camps and construction of an internal sewerage system in Khan Eshieh camp within the framework of the partnership and funding agreement concluded between the Host Authority, UNRWA and the Commission of the European Community, which was signed in December 2002.

4. **In Jordan**

Approximately 55 per cent of house connections to the internal sewerage system in Suf camp which was constructed by the concerned municipality were completed.

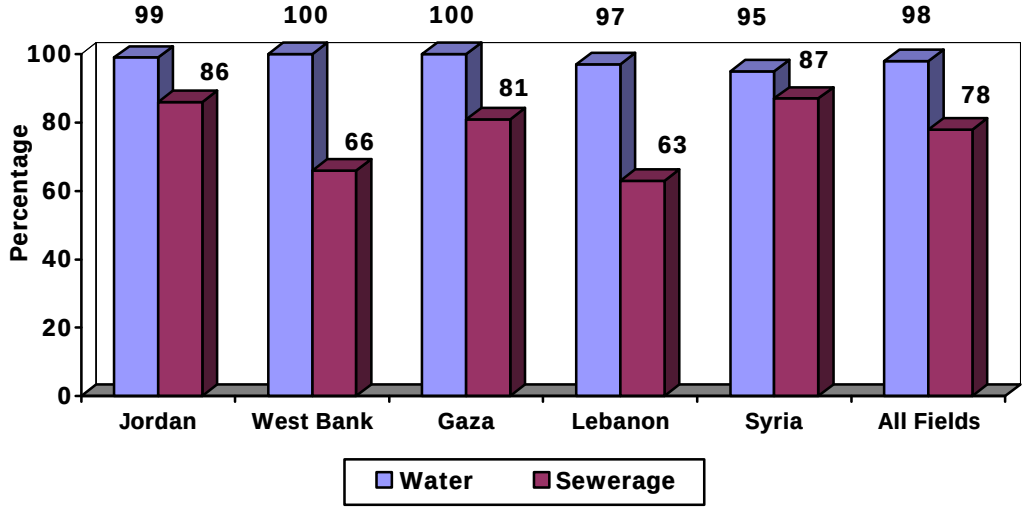
5. **In the West Bank**

The World Health Organization, Eastern Mediterranean Regional Office (WHO/EMRO) provided the services of a short-term consultant, sanitary engineer to assist in assessing the damages to water, sewerage and drainage networks in Jenin camp as a result of the Israeli military incursions as well as to advise on the technical options and develop detailed technical designs for rehabilitating these systems. Upon completion of this phase of the mission, the services of the consultant were extended to advise on rehabilitation of roads and supervise works in progress for camp reconstruction in collaboration with the DFID project management team and to advise on the immediate needs for rehabilitation of water and sewerage systems in other camps of the West Bank.

6. **Indoor connections to camp water and sewerage systems**

The percentage of refugee shelters with in-door connections to water and sewerage systems during 2003 are shown in figure 2 below:

Figure 2 - Percentage of camp shelters with indoor connections to water and sewerage systems



Overall there was an increase of 2 per cent in the number of shelters connected to internal sewerage systems Agency-wide. The major contribution to this increase was due to construction of a sewerage system in Suf camp, Jordan which brought the coverage rate in Jordan almost to the same level of

camps in the Syrian Arab Republic whereas, Lebanon and West Bank camps remained the least advantaged with less than two thirds of shelters connected to underground sewerage systems most of which are old and require rehabilitation or replacement.
In Gaza, all shelters in refugee camps, except Khan Younis, are connected to sewerage systems as no system exists for that particular camp.

In spite of the optimal rates of indoor water connections, the quantity and quality of water supply do not meet international standards, especially in Gaza Strip, where water consumption for domestic and agricultural use exceeds 3.5 times the rate of replenishment from natural resources, where more than 50% of the water resources are controlled by Israeli settlements and where water available for the Palestinian population has high levels of salinity.

7. **Self-help camp improvements**

More than 180,000 M^2 of pathways were constructed in camps of Gaza Strip and 176,800 M^2 in the West Bank through the emergency employment generation programme. Also 2,750 M^2 and pathways were constructed in Jordan camps through a joint development project between UNRWA and the host authority and 5,000 M^2 were constructed in Lebanon camps through the UNRWA-assisted camp improvement schemes.

Environmental health services

Field	Jordan	West Bank	Gaza	Lebanon	Syria	All Fields
Demographic data						
Registered refugees as at end of 2003	1 740 000	665 000	923 000	395 000	414 000	4 137 000
Camp population	308 000	180 000	485 000	224 000	121 000	1 318 000
No. of camps	10	19	8	12	9	58
Percentage of camp population to total registered refugees	18	27	53	57	29	32
Water supply						
Percentage of shelters connected to water networks	99	100.0	100	96.7	95	98.3
Sewerage and drainage						
(i) No. of camps partially or fully connected to sewerage networks	9	11	7	9	9	45
(ii) Percentage of shelters connected to sewerage networks	86.3	66.3	81	62.7	86.6	78.2
Solid waste management						
(A) Collection	10	13	8	12	7	50
(i) No. of camps partially or fully served by UNRWA mechanized systems						
(ii) No. of camps served by Municipalities	0	5	0	0	2	7
(iii) No. of camps served through contractual arrangements	0	1	0	0	0	1
(B) Disposal						
(i) Municipal dumping sites accessible to UNRWA	10	18	8	9	9	54
(ii) Open landfills	0	1	0	3	0	4

Notes: (a) In all these services, it is not uncommon that camp populations are served by more than one source/system.

(b) All camp shelters Agency-wide are served by private latrines connected to local cesspits or proper sewerage schemes.

FACT SHEET, 2003

	Jordan	Lebanon	Syria	W.Bank	Gaza	Agency-wide
A- DEMOGRAPHIC INDICATORS						
- Registered refugee population in thousands	1,740	395	414	665	923	4,137
- Percentage of camp population to total registered refugees	18	57	29	27	53	32
- Percentage of refugees to total country/district population	32.8	12.3	2.6	30.2	73.1	15.0
- Growth rate of registered refugees (%) [1]	2.5	1.4	2	4	3.3	2.8
- Total fertility rate [2]	3.6	2.6	2.5	4.1	4.4	3.5
- Percentage of children below 18 years of age	37.4	31.8	37.1	39.9	48.7	39.8
- Percentage of women of reproductive age (15-49 Years)	25.1	26.4	25.8	23.5	21.9	24.3
- Percentage of population 40 years and above	25.5	31.5	27.1	26.6	20.4	25.3
- Aging index	33.5	45.4	32.8	30.6	17.4	29.3
B- UNRWA's HEALTH INFRASTRUCTURE						
Primary health care (PHC) facilities :						
a- Inside official camps	13	13	14	17	11	68
b- Outside camps	10	12	9	17	6	54
Total :	23	25	23	34	17	122
c- Ratio of primary health care facilities per 100,000 population	1.4	6.4	5.7	5.3	1.9	2.9
Services integrated within PHC facilities :						
a- Laboratories	23	15	20	25	14	97
b- Dental clinics						
· Stationed units	20	17	13	20	11	81
· Mobile units	3	0	1	1	3	8
C- Family planning	23	25	23	34	17	122
d- Special care for non-communicable diseases	21	25	23	34	14	117
e- Specialists	9	10	6	7	14	46
f- Radiology facilities	1	4	0	6	5	16
g- Physiotherapy clinics	1	0	0	6	6	13
h- Maternity units	0	0	0	0	6	6
i- Hospitals[3]	0	0	0	1	0	1

1- Rates are based on UNRWA "Registration Statistics" not demographic data.

2- UNRWA study, 2000

3- Only one hospital run by UNRWA in Qalqilia, otherwise hospital care is provided through contractual arrangements or reimubursement of costs.

	Jordan	Lebanon	Syria	W.Bank	Gaza	Agency-wide
C- BUDGETARY AND HUMAN RESOURCE INDICATORS						
- Health personnel per 10,000 registered refugees						
· Doctors	0.5	1.3	1.2	0.9	1.0	0.8
· Dental surgeons	0.1	0.4	0.3	0.2	0.2	0.2
· Nurses	1.3	2.9	2.9	3	2.6	2.2
- Annual budget allocations on health per registered refugee US $	6.7	23.7	11.9	20.5	19.5	14.0
- Total allocations on health as percentage from approved regular budget	15.3	20.7	21.2	25.1	18.9	17.7
- Average expenditure on pharmaceuticals per out-patient medical consultation US$	1.5	1.6	1.4	1.7	1.5	1.5
D- HEALTH STATUS INDICATORS						
- Neonatal mortality rate per 1000 live births (1)	13.5	15	22.9	9.3	17.1	15.3
- Infant mortality rate per 1000 live births by gender (1)						
- Boys	23.6	18	33.1	15.7	26.6	
- Girls	20.8	20.3	22.5	14.8	22.8	
- Infant mortality rate per 1000 live births (1)	22.5	19.2	28.1	15.3	25.2	22
- Early child mortality rate (below 3 years) per 1000 live births(1)	25.1	20.2	30.5	17.6	28.3	24.4
- Percentage of women married by the age of 18 years (1)	25.4	31.6	22.7	31.2	36.3	30.2
- Mean birth interval (months) (1)	36.2	43.0	42.3	35.1	33.0	37.1
- Percenteage of women with birth intervals < 24 months (1)	31.9	25	25.8	32.7	34.7	30.9
- Prevalence of modern contracepives among women of reproductive age utilizing UNRWA MCH services (2)	48.6	64.7	65.4	41.9	36.5	49.9
- Mean marital age (women) (2)	20.3	19.7	20.5	19.5	18.9	19.7
- Percentage of infants breastfed for at least one month (3)	75.9	87.2	78.3	87.1	65.0	78.9
- Prevalence of exclusive breast feeding up to 4 months (3)	24.0	30.2	40.3	34.5	33.3	32.7
- Prevalence of anaemia among children < 3 years of age(4)	35.9	29.6	28.0	49.7	74.9	-
- Prevalence of anaemia among pregnant women(4)	32.1	28.6	27.0	35.5	44.7	-
- Percentage of pregnancies at high or relative risk	32.5	33..8	31.7	32.3	35.5	33.6
- Prevalence of diabetes among population served, 40 years and above (%)	4	5.1	6.2	5.1	7.4	5.2
- Prevalence of hypertension among population served, 40 years and above (%)	6.2	9.9	10.1	7.1	10	7.9
- No. of cases of communicable diseases reported						
· Pulmonary TB smear positive	11	6	39	0	4	60
· Measles	27	2	2	0	0	31
· Rubella	9	1	1	0	0	11
· Malaria	0	1	0	0	0	1
· HIV/AIDS	0	1	1	0	0	2

1- UNRWA study, 2003

2- UNRWA study, 2000

3- UNRWA study, 2001

4- UNRWA study 1999 except Gaza Field which was conducted by CDC, Atlanta

5- No cases of diphtheria,pertussis, neonatal tetanus or poliomyelitis were reported during the year.

	Jordan	Lebanon	Syria	W.Bank	Gaza	Agency-wide
E- INDICATORS OF COVERAGE WITH PRIMARY HEALTH CARE						
- Percentage of pregnant women who received antenatal care	49.4	50.1	91.6	65.2	96.8	68.1
- Percentage of pregnant women who paid at least four * ante-natal visits to UNRWA MCH Clinics	86	94.6	88.4	74.5	91.2	88.2
-Average No. of antenatal visits	6.1	7.2	5.8	6.6	7.4	6.7
- Proportion of pregnant women registered during * the first trimester	52.2	71.4	56.8	35.5	47.4	49.7
- Percentage of pregnant women protected against tetanus	99.3	97	99.7	98.5	99.7	99.2
- Percentage of pregnant women delivered by trained personnel *	99.3	100	97.5	99.6	99.9	99.5
- Percentage of deliveries in health institutions	98.5	97.4	88.4	97	99.7	97.6
- Percentage of pregnant women who received postnatal care	89.8	96.0	91.4	77.9	96	91
- Percentage of surviving infants who received regular care and monitoring	58.5	48.3	90.6	59.5	87.5	68.2
- Percentage of infants registered within one month after birth	79.7	96.5	91.4	64.2	99.3	85.7
- Percentage of infants 12 months old fully immunized	98.8	99.7	99.5	96.8	99.9	99.1
- Percentage of children 18 months old received all booster doses of EPI vaccines	92.8	99.6	99.2	94.2	99.6	96.1
- Percentage of camp shelters with access to safe water	99	96.7	95	100	100	98.3
- Percentage of camp shelters with access to sewerage facilities	86.3	62.7	86.6	66.3	81	78.2
- Number of camps served by UNRWA mechanized refuse collection and disposal equipment	10	12	7	13	8	50
F- PERFORMANCE INDICATORS						
- Average daily medical consultations per doctor	112	89	95	113	129	111
- Average daily consultations per dental surgeon	27	21	20	20	38	25
- Actual laboratory productivity rate compared to the target of 50 workload units /hour	54.2	49	47.9	58.4	76.6	58.7
- Actual productivity of dental services compared to the target of 50 workload units per hours	47.8	30.9	48.3	34.2	55.7	43
- Average stay (days) among hospitalized patients	2.4	2.4	1.7	2.6	3.8	2.4
- Average daily bed occupancy (%)						
· Qalqilia hospital	0	0	0	41.9	0	41.9
· Maternity units	0	0	0	0	20.7	20.7

* Data obtained through the manegment health information system , 2003

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