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

ANNUAL REPORT

OF THE

DEPARTMENT OF HEALTH

2006

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Foreword

I have the pleasure to present the Annual Report of the Health Programme for 2006, which summarizes the progresses and achievements in all Fields and the emergency humanitarian assistance in Gaza, West Bank, and Lebanon.

The health sector in Palestine has witnessed a series of tragic events that have resulted in deterioration of the national health services in Gaza, West Bank and a high level of mortality and disability, and ultimately deterioration in the health status of many. At the same time, demand for health care has significantly increased during the year.

Throughout the ongoing humanitarian crisis, UNRWA has made great efforts to sustain the regular health services and to respond to the increased health needs of the Palestinian people.

The Agency provided emergency assistance over and above its regular health services for 4.3 million registered Palestine refugees in the five Fields of operation (Lebanon, Syria, Jordan, West Bank and Gaza Strip), handling 8.8 million medical consultations through its 127 health facilities, and with its 443 medical doctors. UNRWA granted access to hospital care to 75,000 refugees. Thus, raising provision of those services respectively by 4.8% and by 8.4% compared to previous year.

Special emphasis continued to be placed on refining strategies to combat health problems and make the health system delivery more efficient, address unmet needs and improve quality care with available resources.

There are many challenges that still need to be addressed, but additional resources are limited, especially in the areas of mental health, adolescent health, and hospital care. UNRWA's health department has stepped up fund raising activities to fill these gaps.

We are proud that UNRWA's health programme remains one of the most cost-effective and efficient system in the region despite the increasing operational difficulties and scarcity of financial resources.

This progress could not be made without the sustained support of the Eastern Mediterranean Regional Office of the World Health Organization, the close cooperation with the Ministries of Health of the Host Governments and the Palestinian Authority and the encouragement and financial support of the international community.

I would like to take this opportunity to thank all UNRWA dedicated field staff, without whom the progress and achievements in primary health care and sustainable development of the refugee community would not have been possible.

Dr Guido Sabatinelli
WHO Special Representative and Director of Health UNRWA

Message from UNRWA Commissioner-General and Director WHO Eastern Mediterranean Region

2006 was a year of unexpected challenges for UNRWA. Hostilities in Lebanon precipitated a complex emergency that placed extra demand on UNRWA programmes, particularly its health services, which were extended to anyone in need within the wider population: twenty-five health clinics were open to all with 600 health-care workers in attendance. In the occupied Palestinian territory, living conditions deteriorated rapidly over the course of the year as the de facto sanctions regime, which cut off the flow of funds to the Palestinian Authority, brought socio-economic to new lows. Public services providing health, water, sanitation and energy were severely disrupted, and the severe stress on Palestinian society continued into 2007. The Agency has found it difficult to meet increasing demands, including on its health services.

As the present report details, UNRWA's health programme was able to sustain, and in some areas improve, core programme activities in its five fields of operation despite the considerable challenges and budgetary constraints. In addition, the health programme was able to undertake a series of self-evaluations, develop a management information system, and further invest in capacity building.

The Agency's health programme is an example of how a properly managed health care system can provide effective care with modest expenditure. However, the capacity of the Agency's health programme is stretched to its limits, and improvements in care were made by an unsustainable increase in staff time and patient load at UNRWA primary health care facilities.

We wish to express our sincere appreciation for the dedicated and high-quality work of UNRWA health staff and to the donors and partners that make our work possible.

Karen Koning AbuZayd

UNRWA Commissioner-General

Dr. H. Gezairy,

Regional Director, WHO/EMRO

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 2006 is composed of seven chapters: the first presents the demographic and epidemiological profile of the Palestine refugee population; the second the programme management; the third the programme of emergency humanitarian assistance in the occupied Palestinian territory and Lebanon; and the four remaining chapters describe the achievements under core programme activities, namely medical care services, health protection and promotion, disease prevention and control and environmental health. Each chapter starts with programme objectives followed by a brief description of programme activities and a full account of the progress made during the year.

UNRWA provides comprehensive health services to the registered Palestine refugees in Jordan, Lebanon, Syrian Arab Republic, Gaza Strip, and the West Bank through a network of 127 primary health care facilities and one hospital, as well as outsourced secondary care at governmental and nongovernmental hospitals. Environmental health services are also provided in camps. Expenditure for all these services in the year 2006 was USD 73 million.

Demographic and epidemiological profile of the refugee population By the end of 2006, the total number of Palestine refugees registered with UNRWA was 4.4 million. More than 1.7 millions (39.1%) of these are currently in the occupied Palestinian territory of Gaza Strip and the West Bank, while the remaining 2.7 millions were registered in Jordan, Lebanon and the Syrian Arab Republic. Only 29.8% of the total registered refugees live in camps. The refugee population is young: 38.8% are below 18 years of age, and 25% are women in reproductive age. The increase in registered population was 2.3%.

The epidemiological profile of the refugee population is characterized by high morbidity, disability, and mortality from noncommunicable diseases such as diabetes mellitus and cardiovascular diseases, which add to the incidence of communicable diseases that survived the 20th century. The prevalence of psychosocial disorders and micronutrients deficiencies among children and women of childbearing age is high, especially in the occupied Palestinian territory.

The chapter on **Programme management** provides information on the organizational structure of the health programme; the human and financial resources allocated to the programme; and describe the progress made towards development of human resources for health, development of the information system and the results of self-evaluations to assess system performance. The chapter also provides information on external cooperation and partnerships with the Host Authorities, United Nations organizations, and nongovernmental organizations (NGOs). In 2006, the health programme employed about 4,200 staff of various professional and support categories. The average expenditure pro capita was less than 20 USD per user, all inclusive of medical care, food aid and environmental sanitation indicating a very cost-effective system compared to international standards.

Emergency and humanitarian assistance in the occupied Palestinian territory and Lebanon describes the impact of the humanitarian crisis in the occupied Palestinian territory on the socio-economic, health and nutritional conditions of the population as well as the impact of war in Lebanon, which started in July 2006. The Agency provided emergency interventions comprising food aid, cash and in-kind assistance, employment generation, emergency medical care, and reconstruction and repair of conflict-damaged infrastructure. However, the emergency health programme, additional medical supplies were made available to meet the increased demand on medical care services and a programme for psychological counselling and support was implemented in Gaza Strip, West Bank, and Lebanon. Arrangements were made to serve population affected by access problems in the West Bank including maintaining the services of five mobile medical teams, and expanding the hospitalization schemes.

Medical care services gives the achievements in upgrading and expanding health infrastructure of primary care facilities, the trends in utilization of diagnostic and curative medical care services including out-patient care, hospital care, oral health, laboratory services and pharmaceutical operations. During 2006, UNRWA health personnel performed 8.8 million medical consultations and more than 683,000 dental consultations. Workloads continued to be exceptionally high with an Agency-wide average of 95 consultations per doctor. In addition, more than 75,000 patients were assisted through UNRWA hospitalization schemes.

Health protection & promotion describes the achievements under the various programme components including child health care, expanded maternal health and family planning services, surveillance of infant, child and maternal mortality, school health services, nutrition and psychosocial support. During 2006, UNRWA provided antenatal care to approximately 92,000 pregnant women representing 73.4% of the expected pregnancies among registered refugee population, and provided family planning services to more than 116,000 women and regular care and growth monitoring to approximately 250,000 children below 3 years of age.

Disease prevention & control provides information on incidence and trends of communicable diseases, immunization coverage, disease outbreaks, and immunization campaigns implemented jointly with the Ministries of Health and UNICEF. Zero incidence of poliomyelitis and neonatal tetanus was maintained and immunization coverage was close to 100%. No outbreaks were reported from any field. UNRWA also participated in a national immunization campaign against Polio in Lebanon and Jordan in collaboration with the Ministries of Health and UNICEF. More than 150 000 patients, with about two-thirds women, suffering from diabetes and/or hypertension received regular monitoring and care.

Environmental health services describes the achievements in the sub-programmes of water supply, sewerage and drainage and solid waste management implementing projects to improve camps infrastructure. By the end of the year, 99.8% of shelters in camps Agency-wide were connected to municipal water networks, 46 camps served by underground sewerage systems and 44 camps served by UNRWA mechanized refuse collection and disposal equipment. However, the conditions of water and sanitation remain particularly poor in the refugee camps located in Gaza Strip and Lebanon.

The Annual Report ends with Fact Sheets that provide detailed demographic and health indicators and data on UNRWA's health infrastructure, budget, human resource as well as performance indicators.

1 Demographic and epidemiological profile of Palestine refugees

The way in which the restriction of movement regime and the humanitarian sanctions have engendered dire impacts dramatically affecting the entire Palestinian population, and their consequences on civilians' legal entitlements, has been an issue of great influence on the Palestinian economy and human rights; particularly the right to development and a whole set of other economic, social and cultural rights

UN High Commissioner for Human Rights 3 December 2006

1.1 Demographic characteristics

1 By the end of 2006, the total number of Palestine refugees registered in the Agency's area of operation according to UNRWA registration statistics was 4,448,429, which represents an overall increase of 2.3% over the 2005 registered population, Agency-wide. The registered population was distributed as follows: Jordan 1,858,362, Lebanon 408,438, Syria 442,363, Gaza Strip 1,016,964, and the West Bank 722,302.

Approximately one third of the registered refugees live in 58 official camps and the remaining population lives in unofficial camps, towns, and villages side to side with host country population. The distribution of camp refugee population varies significantly from one Field to another, with the highest rates in Lebanon and Gaza Strip and the lowest in Jordan. (See figure 1 below):

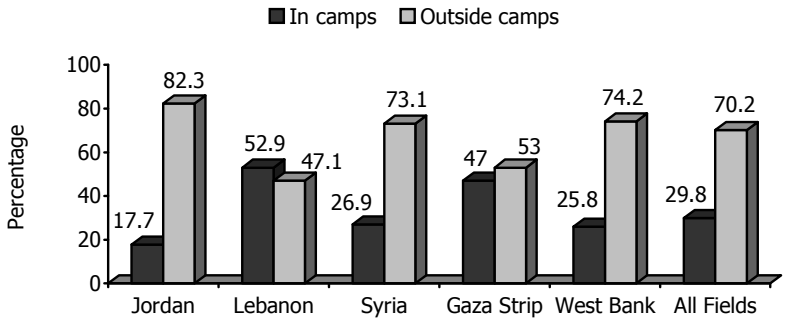


Figure 1, Distribution of the refugee population in and outside camps

The registered refugees who were internally displaced or took refuge in neighbouring Arab countries had increased by more than six times since 1948. However, the overall camp population, who traditionally had higher fertility rates, showed a slow growth over the last decade, which is inconsistent with real growth rates among the general refugee population, mainly because of migration of refugees owing to high population density in camps coupled with expansion limitation.

Growth rates continued to be high in Gaza Strip and the West Bank. According to the, Palestinian Central Bureau of Statistics (PCBS), the population in the West Bank and Gaza Strip has reached more than 3.8 million. The population density in Palestine is considered high in general, but especially high in Gaza Strip, which is considered as the highest populated area on earth with 1.38 million people living on an area of 365 sq. km. The population density in the West Bank is 411 persons/sq.km and in Gaza Strip is 3780 persons/sq.km.

2 UNRWA registration statistics are the main source of data on the registered Palestine refugees in the Agency's area of operation. However, as the statistics are based on voluntary registration, they are incomplete. In particular, for the two extremes of age, which makes it difficult to assess crude birth and death rates? All rates and indices had therefore, to be calculated based on country data, assuming that the refugee population have, more or less, birth and death patterns similar to the population of the host countries.

Furthermore, the Agency does not have the means to validate or update information on the actual places of residence of the registered refugee population, both in and outside camps or within and outside the Agency's area of operations because UNRWA registration statistics are based on de-jure not de-facto statistics.

This presented an additional difficulty for estimation of denominators regarding access, coverage, and utilization of services. It is contemplated that the IUED study conducted during 2005 and to be published in 2007 will provide interim data on the demographic profile of the refugee population until the Palestine Refugee Records Project (PRRP) is completed.

However, it can be said that the demographic profile of the registered Palestine refugees is that of a young population with children below 18 years of age constituting 38.8% of the total population, Agency-wide. This rate is as high as 47.6% in Gaza Strip. Distribution of the population by age group as at end of 2006 according to UNRWA registration statistics was as follows:

Children below 18 years	38.8%
Adolescents 10-19 years	22.1%
Youth (15-24 years)	19.6%
Women of reproductive age 15-49 years	25.0%
Adults above 40 years	26.2%

As shown in the table, children below 18 years of age and women of reproductive age constitute about 64.0% of the total refugee population.

3 Total fertility rates among the refugee population showed a significant decline over the last two decades. According to an UNRWA study (2005), total fertility rate, was 3.2, Agency-wide with the highest rates of 4.6 and 3.3 in Gaza Strip and Jordan respectively whereas, the lowest rates of 2.3 and 2.4 where in Lebanon and Syria respectively (see figure 2).

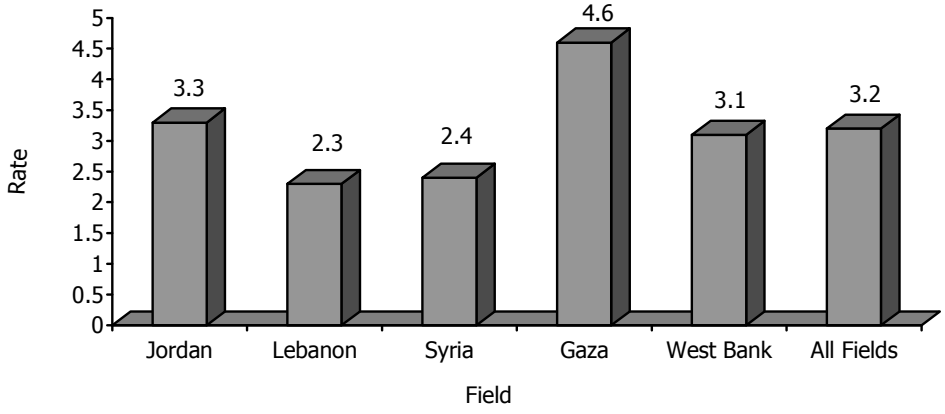


Figure 2, Total fertility rates by field

4 Average family size

According to the previously mentioned study in 2005, the average family size Agency-wide dropped from 5.85 members in 1995 to 5.26 in 2005 and decreased in all Fields. As shown in Table 1, the largest family size of 5.77 was in the West Bank and 5.75 in Gaza and the smallest of 4.74 was in Syria Field. In Jordan, average family size dropped from 5.89 members in 1995 to 5.07 members in 2005. In Lebanon, average family size dropped from 5.33 in 1995 to 4.93 members. In Syria, it dropped from 5.30 members to 4.74 members during the same period. In the West Bank, average family size dropped from 5.79 members in 1995 to 5.77 in 2005 while in Gaza there was a drop from 6.04 members in 1995 to 5.75 in 2005.

Table 1, Average family size by Field, 1995, and 2005

Field	Family Size	
	1995	2005
Jordan	5.89	5.07
Lebanon	5.33	4.93
Syria	5.30	4.74
Gaza	6.04	5.75
West Bank	5.79	5.77
All Fields	**5.85**	**5.26**

5 Similar to host country populations, infant and child mortality rates showed a significant decline over the last two decades. According to an UNRWA study conducted in 2003 and released in 2004, infant mortality rates were 22.5 deaths per 1,000 live births in Jordan, 19.2 in Lebanon, 28.1 in Syria, 25.2 in Gaza Strip and 15.3 in the West Bank.

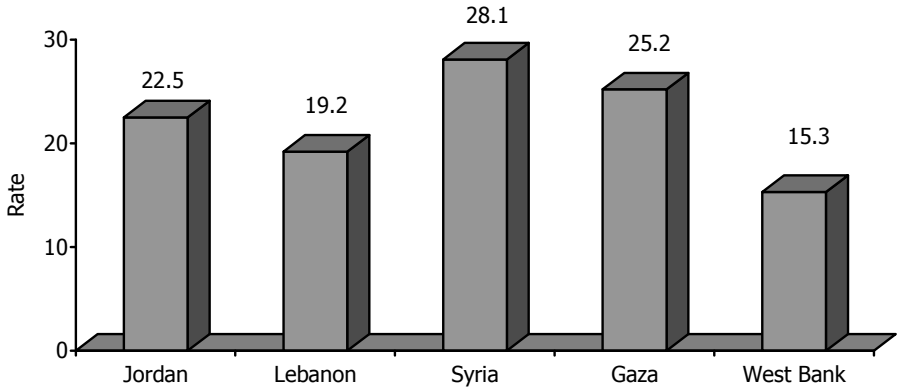


Figure 4, Infant mortality rates by field

Considering that more than two-thirds of infant mortality among Palestine refugees take place during the neonatal period, one of the main reasons which could explain the relatively lower IMR in Lebanon and the West Bank is the availability of intensive neonatal care units at UNRWA contracted hospitals, which contribute to survival of very low-birth weight and premature newborns.

6 The favourable changes in fertility rates, the decline in infant and child mortality rates, the increased life expectancy, increased poverty and unemployment rates will most likely result in higher dependency ratio (measured as children below 15 years and elderly above 65) among the Palestine refugee population in future years.

According to available data from the Relief & Social Services Department at end of 2006, the dependency ratio reached 69.5% in Jordan, 76.1% in the West Bank, 97.3% in Gaza Strip, 57.6% in Lebanon and 69.1% in Syria. These percentages are more or less similar to the data for 2005, as this ratio does not obviously change over a period of one year.

7 There are no gender disparities among the refugee population, as males and females account, more or less, for 50% each of the general population. An identical pattern is noticed among children enrolled in UNRWA schools as well as among children under supervision in the Agency's primary health care facilities.

Furthermore, practices harmful to women, such as female genital mutilation, are uncommon among the refugee population.

1.2 Epidemiological profile

1 Similar to the morbidity profile prevailing nowadays in developing countries, the refugee population is passing through an epidemiological transition characterized by increased morbidity, disability, and mortality from noncommunicable diseases such as cardiovascular diseases, diabetes mellitus, and cancers. Increased life expectancy, progressive urbanization and changes in nutritional habits and life-styles, all contribute to the occurrence of these diseases.

Vaccine-preventable diseases are well under control. No cases of poliomyelitis or tetanus neonatorum were reported among the refugee population for the last ten years. Communicable diseases, which still dominate the global health agenda, have been eradicated (malaria) or are of low endemicity (tuberculosis and HIV/AIDS).

However, other communicable diseases especially those associated with poor environmental health conditions are still highly prevalent such as viral hepatitis, enteric fevers and intestinal infestations. The double burden of diseases continues to be a major challenge for the health care system.

2 Based on the number of noncommunicable disease patients who were under supervision at UNRWA primary health care facilities during 2006, the prevalence rate of diabetes mellitus among those who attended health centres with age≥ 40 years (served population) was 8.8%. The prevalence of hypertension was 13.4%. Studies among the population of the host countries reveal higher rates. This suggests that the need to detect and manage these diseases, before having to deal with their complications and disabling effects, will continue to be a major challenge in future years.

3 Studies conducted by UNRWA and other research institutions reveal that micronutrient deficiencies especially iron deficiency anaemia among preschool children, women of reproductive age and school children as well as vitamin-A deficiency, represent major problems that had persisted over the last few decades in spite of the interventions to combat them (for details, see chapter V of this report).

4 Likewise, studies conducted in the oPt and Lebanon, reveal that post-trauma stress disorders and other psychological and behavioural problems are widely spread among the population, especially children and youth. The Agency's medium term plan (2005-2009), places special emphasis on developing system-wide strategies to address psychosocial wellbeing among at risk groups, especially children and youth.

1.3 Implications on UNRWA services

1 The demographic and epidemiological profile of the registered refugee population and the pattern of their distribution in and outside camp as well as the distribution of UNRWA's network of primary health care facilities, all have major implications on access to/and utilization of health services. There has always been a wrong perception that, because UNRWA facilities are more accessible to camp population, the Agency services reach mainly camp population. In fact, UNRWA primary health care facilities in camps have wider catchments areas that go beyond official camp boundaries.

However, refugees living in urban or rural areas, where UNRWA facilities are beyond reach, have no option but to benefit from public sector services, where possible, or use services of other providers including the NGO and private sectors. In 2006 a new health centre was established in the south of Jordan, namely in Aqaba'a city where more than 10,000 Palestine refugees will benefit from UNRWA health services.

In addition, UNRWA health services are focused on primary health care with very selective use of secondary and tertiary medical care services, which also affect the pattern of utilization of the services of the various care providers. Owing to these factors, not all registered refugees have access to UNRWA services and actually use them.

According to clinic records calculated with higher precision, through the newly introduced electronic family file system in all health centres, which improved the accuracy in calculation of the served population, the number of refugees who have access to UNRWA primary health care services, both preventive and curative, during the year 2006 was calculated at 3.23 million i.e., 73.0% of the total registered population. As family files controlled duplication, the percentage of served population dropped in some Fields from the previous year.

Table 2, Proportion of the served population from total registered refugees

Field	Registered population	Served population	Percentage
Jordan	1 858 362	1 339 082	72%
Lebanon	408 438	244 971	60%
Syria	442 363	341 328	77%
Gaza Strip	1 016 964	817 515	80%
West Bank	722 302	487 155	67%
All Fields	**4 448 429**	**3 230 051**	**73%**

The highest utilization rate was in Gaza Strip, and the lowest was in Lebanon.

2 Another important observation that has been confirmed by various independent research studies, is that although UNRWA has a modest network of primary health care facilities compared to the public and NGO sectors, its contribution to primary health care especially maternal and child health and family planning is the highest, when measured as a percentage from health care provided by all public, NGO and private sectors. This is due to refugees' satisfaction with the quality of care provided by the Agency. As a matter of fact, the study which was conducted in 12 refugee camps in Lebanon revealed that 83.3% of the surveyed population considered UNRWA as the preferred provider for treatment of acute conditions, 93.8% for family planning services, 94.5% for antenatal care, 95.8% for post-natal care, 92.9% for child care, 98.6% for vaccinations, 94.6% for hospitalization and 67.3% for treatment of chronic illnesses.

Likewise, a study conducted by the USAID/MARAM funded project in Gaza Strip and the West Bank revealed that although UNRWA had the lowest number of primary health care facilities, its accomplishments in the areas of maternal and child health and family planning services ranked high as measured by coverage and quality indicators.

3 As noted earlier, increased rates of poverty, unemployment and dependency, and increased morbidity from noncommunicable diseases will have major implications on the pattern of the Agency's health expenditure in future years. The Agency has thus far been able to achieve good results in health with modest human and financial resources, because of its emphasis on preventive primary health care. The inevitable response to the growing challenge of increased disability and mortality from noncommunicable diseases and increased hospitalization costs may threaten the Agency's achievements in primary health care, if no additional resources could be made available to the programme.

The Agency has either to spend more on essential medicines that help reduce mortality from cardiovascular diseases or meet the high cost of life-saving heart surgery at hospitals. Both options would involve additional expenditure and would draw on the Agency's scarce resources.

4 The fact that the Palestine refugees are generally young with two-thirds of the population are children and women of reproductive age, testifies for the appropriateness of the Agency's strategic approach of focusing its interventions on maternal and child health services. However, the Agency cannot stand away from addressing priority unmet health needs of women and children such as physical disabilities, mental and psychological well being, early detection and management of cancers, as well as prevention and treatment of micronutrient deficiencies, where a major share of the effort will fall on the health care system and will require mobilization of additional human and financial resources that could not so far be made available.

Health centre dispensary

Oral health services at primary health care level

2 Programme management

Beyond the influence of characteristics inherent in the population being served and in the heath workers themselves, the performance of workers is strongly influenced by conditions related to their job, the support they receive and the nature of their workplace.

WHO Medium-term strategic plan 2008-2013

2.1 Objective

To oversee all aspects relevant to planning, direction, supervision and evaluation of UNRWA's health programme in accordance with WHO policies, concepts, and strategic approaches.

2.2 Organisational structure

1 The Department of Health at Headquarters, Amman comprises the WHO Special Representative and Director of Health and his Deputy, who are seconded from the World Health Organization to UNRWA on non-reimbursable loan basis. The Headquarters team also comprises two Chiefs Division, Head Health Information System, Senior Pharmacist, Senior Laboratory Services Officer, and Reproductive Health Officer.

The 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, Lebanon, Syria, Gaza Strip, and the West Bank, 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 for 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, Field Laboratory Services Officer and Senior Dental Surgeon. In addition, the Chief, Special Environmental Health Programme in Gaza receives 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, and management protocols, which are periodically revised and updated in accordance with the basic principles and concepts of the World Health Organization, approved Agency policies, and best practices in public health.

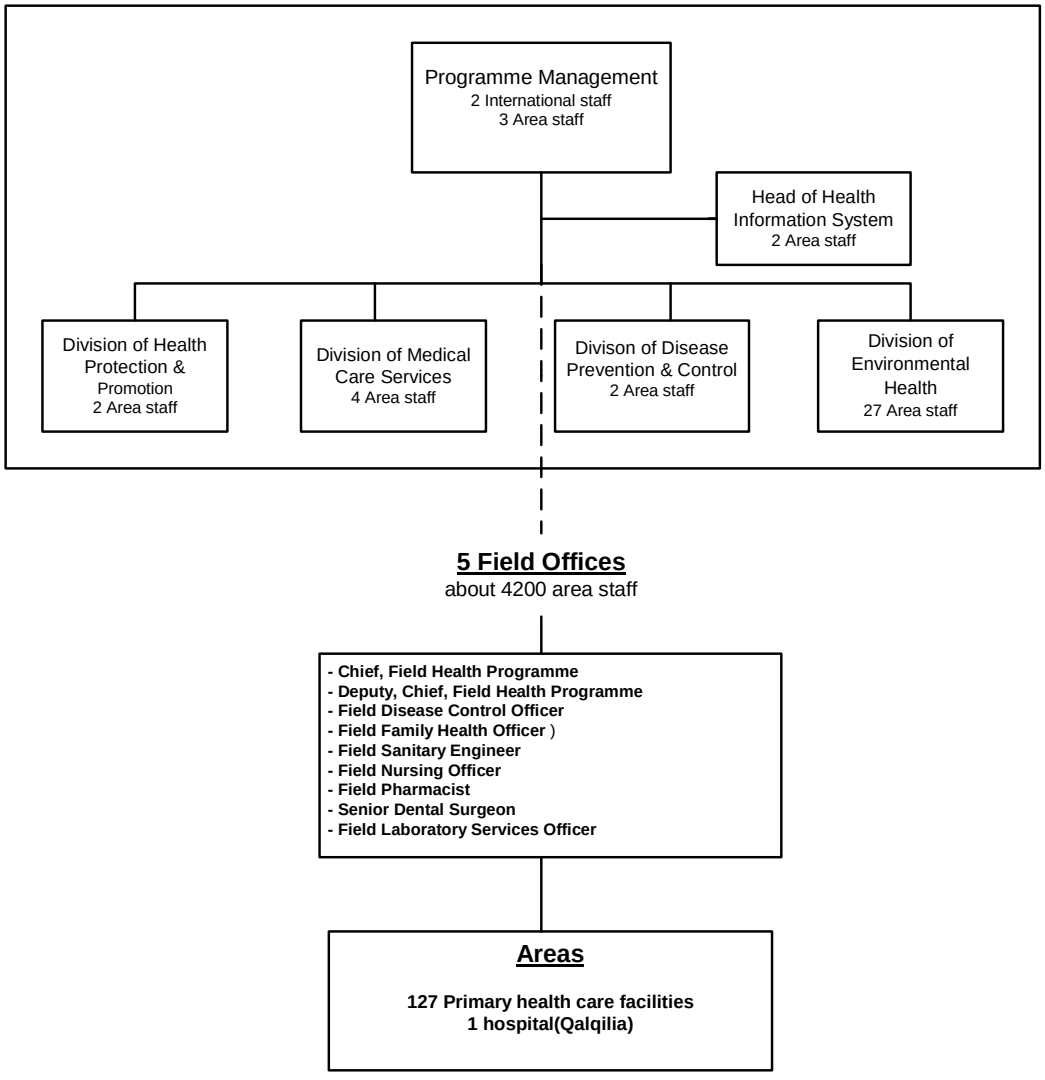
Implementation of the technical instructions, guidelines and management protocols is monitored through systematic assessment of outcomes based on measurable indicators and is fostered through regular visits of Headquarters staff to the Fields.

Changes to standing policies, development of plans of action and establishment of targets to achieve them are usually 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.

4 The functions of the various Divisions in Headquarters and the Fields comprise the following:

- Division of Health Protection & Promotion, expanded maternal health and family planning and child health services, school health, nutritional surveillance and food safety, and mental health.
- Division of Medical Care Services, outpatient medical care, pharmaceutical services, laboratory services, oral health services, physical rehabilitation, hospital services, and other support services e.g. radiology.
- Division of Disease Prevention & Control, integrated control of communicable and noncommunicable diseases.
- Special Environmental Health Programme, project design, surveying, project implementation, and environmental sanitation.

Health Programme Organization Chart



2.3 Human resources

1 During 2006, 4189 professional, administrative, support and other staff provided comprehensive health services to the registered Palestine refugee population utilizing UNRWA services in Jordan, Lebanon, Syria, Gaza Strip and the West Bank. The services comprised preventive and curative medical care, environmental health services in camps and supplementary feeding to nutritionally vulnerable groups.

Table 1, Health staff as at end of December 2006

AREA STAFF	HQ	Jordan	Lebanon	Syria	Gaza	WB[1]	Total
Medical care services							
Doctors[2]	4	110	50	55	146	78	**443**
Pharmacists	1	2	2	2	2	3	**12**
Dental Surgeons	0	31	19	19	35	17	**121**
Nurses	0	269	122	134	293	248	**1066**
Paramedical[3]	1	132	61	72	130	109	**505**
Admin/support staff	8	92	48	47	99	67	**361**
Labour category	0	102	59	67	128	69	**425**
Sub-total	**14**	**738**	**361**	**396**	**833**	**591**	**2 933**
Environmental health services							
Engineers	0	1	1	1	20	1	**24**
Admin/support staff	0	27	15	9	45	17	**113**
Labour Category	0	298	196	100	341	183	**1118**
Sub-total	**0**	**329**	**214**	**108**	**405**	**208**	**1255**
INTERNATIONAL	1	0	0	0	0	0	**1**
Grand total	**15**	**1067**	**575**	**504**	**1238**	**799**	**4189**

[1] *Including staff of Qalqilia hospital*
[2] *Including senior managerial staff, specialists and school medical officers*
[3] *Including laboratory technicians, Asst. pharmacists, X-Ray technicians and dental hygienists*

2 The staff/population ratios continued to be very low compared to national and regional standards, even if calculated based on served population, not the total registered refugees.

*Table 2, Staff/population ratios, per 100,000 population Host Countries and UNRWA**

Indicators	Jordan		Lebanon		Syria		oPt	
	Country	UNRWA	Country	UNRWA	Country	UNRWA	PA	UNRWA
Physicians	236	6	236	12	144	12	97	13
Nurses	294	14	132	30	190	30	160	31

[*] *Demographic and health indicators for countries of the Eastern Mediterranean, WHO/EMRO*

Coupled with high utilization rates, the low staff and population ratios continued to be reasons for heavy workloads at UNRWA primary health care facilities. One of the major objectives of the medium term plan is to reduce excessive workloads by recruiting additional staff and improving access to basic health services through expansion and upgrading of primary heath care facilities as means to improve the quality and outcomes of care. However, achieving these objectives will be much dependent on the level of income to the Agency's budget during future years.

3 Major problems continued to be encountered in recruitment and retention of competent staff, both at the managerial and professional levels, because the Agency's working conditions have become no more competitive and because no career planning system was in place during the past ten years owing to discontinuation of external support for the Agency's post-graduate fellowship programme.

In addition, the cumulative effects of under-budgeting and under-funding over many years have generated a state of imbalance between the ever-growing needs and demands of the refugee communities and the resources that could possibly be mobilized by the Agency to address the problem of heavy workloads at its primary health care facilities.

In spite of the tireless efforts to upgrade the skills and capabilities of staff through in-service training, it is becoming increasingly difficult to preserve the sustainable investment achieved in primary health care unless additional resources become available to the programme because health systems cannot function effectively without well-trained and adequately paid staff.

2.4 Financial resources

1 The approved 2006 health budget under the regular programme was established at USD 90,644 million that represents USD (20.4) per registered refugee. Total expenditure amounted to USD 73,769 million and expenditure per registered refugee was USD (16.6).

Even if a more conservative approach was adopted in estimation of the per capita budget and expenditure based on the number of population actually served by the Agency (approximately 3.2 million) rather than total registered refugees (4.4 million), the annual per capita allocations is still lower than USD 20 per capita per year, Agency-wide, far below USD 30-50 per capita that WHO recommends to spend in the public sector for provision of basic health services.

2 Expenditure on supplies (mainly medicines) was USD 15.2 million and services (mainly hospital services) were USD 13.5 million. Table 3, below shows the 2006 budget allocations and expenditure for health by sub-programmes.

Table 3, Breakdown of budget & expenditure by sub-programme, 2006 (thousand USD)

Programme	Approved Budget**	Allotted Budget	Expenditure	% from allotted budget
Programme Management	4160	3344	3044	90.5%
Medical Care Services				
Laboratory services	3277	2734	2541	92.4%
Out-patient services	31 759	27 441	26 213	93.4%
Maternal & child health	3131	3033	3026	99.8%
Disease prevention & control	6333	6228	5627	98.6%
Physical rehabilitation	994	842	830	98.6%
Oral health	3495	2803	2482	88.4%
School health	567	568	553	97.4%
Hospital services	16 576	13 833	13 543	97.9%
Psychosocial Support	1915	1036	1027	98.9%
Sub-total	**68 047**	**58 518**	**55 842**	**95.4%**
Environmental Health				
Sewerage & drainage	1791	103	102	99.0%
Solid waste management	11 066	11 364	11 311	99.5%
Water supply	924	809	775	95.8%

Programme	Approved Budget**	Allotted Budget	Expenditure	% from allotted budget
Special Environmental Health Programme, Gaza	690	484	446	92.1%
Sub-total	**14 471**	**12 760**	**12 634**	99.0%
Supplementary feeding	3966	3074	2249	73.2%
Grand total	**90 644**	**78 046**	**73 769**	**94.9%**

** Including staff costs for the maternal & child health and disease control sub-programmes.*
*** At beginning of biennium 2006-2007. Austerity measured led to subsequent budget freezing*

3 The Agency has been traditionally able to provide cost-effective health services to the Palestine refugees because of its emphasis on primary health care, with very selective use of hospital services. Allocations for hospital services in 2006 represented 18.3% only of the total health budget. This percentage would probably increase in the future because of the increase of morbidity of chronic non-communicable diseases, often associated with major complications, and because of rapid advances in medical technology leading to substantial increases in cost of hospital services.

This will represent a major challenge to the Agency's health programme, which has to strive to preserve its notable achievements in primary health care while attempting to cope with increased hospitalization costs.

4 Differently than UNRWA, public health expenditure in the host countries is higher on secondary and tertiary care than in primary health care. This explains the wide disparity between UNRWA allocations for health and public health expenditures by the host authorities as seen below:

*Comparative per capita expenditure on health from government sources and UNRWA (US $)**

Jordan	Lebanon	Syria	Palestinian Authority	UNRWA
80	168	28	39	16.6

** Demographic and health indicators by countries of WHO EMRO*

5 Financial allocations vary significantly from one Field to another depending on the ease of access of the registered refugee population to UNRWA health services and the degree of utilization of the services of other care providers.

Following is data on the Agency's per capita allocations in USD for health under the 2006 regular budget:

Jordan	Lebanon	Syria	Gaza Strip	West Bank	All Fields
9.5	36.9	18.6	27.0	29.5	20.4

As can be noticed, Syria is the only Field where the per capita allocations for health correspond to the Agency-wide average whereas Lebanon is far above all other Fields owing to the heavy investment in secondary and tertiary care because refugees have no access to public sector health services and can not afford the cost of treatment at private sector facilities.

2.5 Progress in 2006

Major progress was made during the year in improving programme management including data collection and analysis, institutional capacity building, revision of technical guidelines and intervention strategies, evaluation of system performance and outcomes.

2.5.1 Technical direction

One technical instruction was introduced during 2006 on training of newly recruited staff.

2.5.2 Information systems

As every year, the standard data collection and reporting formats on outpatient medical care, maternal and child health care and laboratory services were revised, new reports were amended as the case for STDs and NCDS, other new reports were introduced as the report on radiology services and disability among children.

The management health information system (MHIS) was expanded to all 127 health centres. Most of health centres were provided with computers but in some of the small health centres and health points where computers are not available, data are collected on paper forms and then entered on computers at either area or Field levels.

The data obtained from maternal health and family planning module of the MHIS were analyzed at Field and HQ (Amman) levels and discussed during the Field Family Health Officers meeting held at HQ. The non- communicable disease module was also analyzed and indicators were evaluated early 2007, during the FDCOs' meeting.

Electronic family file system is well established in all health centres and Fields. It was evaluated by the Head, Health Information System in Four Fields (except Gaza). This new electronic file proved to be a useful tool for better evaluation and more accurate estimation of population served besides the ability of the system to detect the duplications by both, name and ration card number, which resulted in reduction of workload.

2.5.3 Geographic Information System

By the end 2006 the Health Department introduced Geographic Information System (GIS) at Headquarters' level. The GIS software was installed in two computers and staff trained on the basics of GIS at WHO EMRO, Cairo. Furthermore, the Assistant Statistician completed training by the end of 2006 on GIS and building the geo database. This new system will provide a framework for managing a broad range of challenges in public health, mainly:

- Assessing health services availability and accessibility
- Mapping health events and identifying disease clusters.
- Real-time disease surveillance.
- Stratifying risk factors and identifying population at risk.
- Monitoring and resource mobilization in relation to the needs.

In addition, a system for monitoring crisis indicators is maintained to assess changes in the humanitarian and health conditions in the occupied Palestinian territory and evaluate the impact of the Agency's emergency interventions including psychosocial programme.

2.5.4 Staff development

1 Special emphasis continued to be placed on upgrading the skills and capabilities of the various professional categories on implementation of the approved intervention strategies, technical guidelines and procedure manuals and a system was developed to assess the impact of in-service training on staff knowledge, attitudes, and practices.

During the year, 5445 staff/days in-service training were implemented in the five Fields at an average of 4 training days per medical officer and 2 training days per nurse.

Table 4, Breakdown of staff/days training by Field and staff category

Field	Medical	Nursing	Other	Total
Jordan	614	134	430	1178
Lebanon	263	324	474	1061
Syria	168	130	128	426
Gaza	609	1308	201	2118
West Bank	307	283	72	662
All Fields	**1961**	**2179**	**1305**	**5445**

The training covered all programme components including; management, maternal and child health and family planning, control of communicable and noncommunicable diseases, basic laboratory techniques and rational prescribing of medicines.

2 In addition to in-service training activities, the Agency supported post-graduate training in public health of 13 staff, and 5 basic midwifery training course at local universities as outlined in table 5 below:

Table 5, Basic and post-graduate training

Field	Category	No	Course	Start Date	Duration	Sponsor
Jordan	Senior Medical Officer	1	Master Degree Public health	Sept. 2005	2 years	Own expense
	Senior Medical Officer	1	Master Degree Public health	Sept. 2006	2 years	Own expense
Gaza	Medical Officer	4	Master Degree Public Health	Sept. 2005	3 years	Partially UNRWA
	Medical Officer	1	Master Degree Public Health	Sept. 2005	3 years	Own expense
	Medical Officer	1	Master Degree Public Health	Sept. 2006	3 years	Own expense
	Senior Staff Nurse	1	Master Degree Public Health	Sept. 2005	3 years	Partially UNRWA
	Senior Staff Nurse	1	Master Degree Public Health	Sept. 2005	3 years	Own expense
West Bank	Medical Officer	2	Master Degree Public Health	Sept. 2003	4 years	UNRWA
	Medical Officer	1	Master Degree Public Health	Sept. 2005	3 years	UNRWA
	Midwife	5	Basic Midwifery	March 2003	3 years	UNRWA

2.5.5 Planning for health development

Major efforts were exerted during the year to develop action plans that address the immediate needs of the refugee population and respond to programme priorities while considering long-term development needs. These efforts addressed the following:

- Development of yearly planned activities for each programme component including family health, disease prevention and control, medical care and programme management. These plans were prepared during meetings of programme managers from Headquarters and the Fields conducted during 2006. These meetings comprised the following:
- Field Disease Control Officers' meeting, from 20 to 26 February.
- Field Pharmacist meeting, from 21 to 22 November
- Field Laboratory Services Officers' meeting, from 28 to 29 November
- Chiefs & Deputy Chiefs, Field Health Programme meeting, from 4-6 December.
- Year-end reviews revealed that all planned activities with respect to each programme area were implemented on target in all Fields.
- Finalization of the results-based programme budget for the biennium 2006-2007 with special emphasis on improving access to and quality of health services, addressing the double burden of communicable and noncommunicable diseases, adjusting the imbalance in resource allocations between Fields, enhancing capacity building, improving camp infrastructure of environmental health facilities and addressing unmet priority needs including mental and psychological health, child disabilities and early detection of cancers.

2.5.6 Research and evaluation

Special emphasis was placed on assessment of the health status of the refugee population as well as on assessment of system performance and outcomes.

a Internal/Self-assessments

The following major analytical reviews/self-assessment were undertaken during the reporting period:

- Assessment of utilization trends and productivity of medical care services at the primary level including laboratory services, oral health services and the medical supply operations,
- Comprehensive programme review focused on assessing compliance with the defined standards for provision of maternal and child health services.
- Cost analysis, trends, and utilization of non-communicable diseases medical supplies.
- A rapid assessment was carried out to assess immunization coverage.
- Prescribing practices of anti-bacterial medicines.
- Non-attendance among patients with non-communicable diseases.
- Analysis of NCD programme 2003-2005
- KAP study on HIV/AIDS UN policy for UNRWA HQ Staff.

Comprehensive health centre assessments were carried out in all Fields to assess the physical condition of health premises, equipment, staffing, and patterns of patient flow, with the main objective of assessing needs and priorities for re-organization and improvement of services at the primary level.

Health services research to assess the health status of Palestine refugees comprised conducting one study on the prevalence of anaemia among pregnant women and children 6-36 months in the West Bank and Gaza Fields.

Details on the finding of this self-evaluation and health services research is provided under the relevant section of this report.

b External assessment

A comprehensive household survey was conducted during 2005 by the University of Geneva's Graduate Institute of Development Studies (IUED) to assess the health status, demographic and socio-economic conditions of the Palestine refugee population living in the five Fields of UNRWA operation. The results of this survey are expected to be published in 2007.

2.6 External cooperation and partnerships

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 and Deputy Director of Health. WHO/EMRO also continued to cover the salaries and related expenses of Chiefs, Division at UNRWA Headquarters. WHO also assured participation of senior Agency programme managers in regional technical meetings, conferences, and workshops and supplied the Agency with technical publications and periodicals issued by the organization. The collaborative links between UNRWA Headquarters and WHO office in Jerusalem were strengthened and arrangements were made to facilitate access of UNRWA Headquarters to the WHO/EMRO intranet.

The Agency's health programme 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 meet Lebanon and Syria Fields requirements of vaccines and cold-chain supplies for the six major vaccine-preventable diseases.

In addition, collaborative links were maintained between UNRWA and UNICEF country offices, for implementing national immunization campaigns including a mass Polio immunization campaign for children 0-5 years of age in Lebanon. The cooperation with UNICEF was further enhanced to cover future collaboration in promoting the concepts and principles of the Convention on the Rights of the Child (CRC) and psychosocial support.

UNRWA also maintained a system for exchange of information on compatible areas of work with UNFPA and UNAIDS. UNFPA contributed to UNRWA in the West Bank Field in the form of contraceptives and medical equipment.

2 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 participated in the work of national committees on nutrition and food for formulation of policies and strategies on food security and micronutritients. 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. 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. 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.

In cooperation with Ministry of Health Jordan two rounds of Polio immunization campaigns were conducted for children 0-5 years in the Jordan Valley during 2006.

3 The Agency's Health Programme maintained and further developed its cooperation with the United States Agency for International Development (USAID) in Gaza Strip and the West Bank.

In addition, the longstanding cooperation with the Palestinian Red Crescent Society (PRCS) was further enhanced especially in Lebanon where the Agency had maintained contractual arrangements for treatment of refugee patients at the five PRCS hospitals. Cooperation was also maintained with local universities especially the American University of Beirut and Birzeit University, for development of human resources for health.

4 During the year, the Director of Health, his Deputy and other senior staff of the Department of Health participated in the following meetings/conferences of the World Health Organization and other stakeholders:

- 116th Session of the Executive Board of the World Health Organization, *Geneva*, *23-28 January.*
- 21st Meeting of the Regional Directors with WHO Representatives and Regional Office staff, *Cairo, 6-10 February*
- WHO and UNRWA meeting on Psychosocial/Mental Health, Amman, 28-29 February.
- 23rd Inter-Country Meeting of National Managers of the Expanded Programme on Immunization, *Cairo, 15-18 May.*
- 2nd Annual Regional Training course on the Management of Public Health risks in disasters for the Eastern Mediterranean, *Cairo, 4-15 June.*
- The Sixteenth Inter-Country Meeting of National AIDS Programme Managers, *Amman, 27-29 June*.
- 5th Meeting of the Regional Advisory Panel on the Impact of Drugs (Rapid), *Cairo, 4-6 July.*
- Capacity Development Workshop for Policy Makers on the health system Development, *Alexandria, Egypt, 30 July – 2 August.*
- Inter-Country Meeting on the Global Tobacco Surveillance System "Data to Action", *Cairo, 8-10 August.*
- 11th Meeting of the National Tuberculosis Programme Managers in the Eastern Mediterranean Region, *Cairo, 4-6 September.*
- 53rd Session of the Regional Committee for the Eastern Mediterranean meeting, *Isfahan, Islamic Republic of Iran, from 9-12 September.*
- EMRO Training "Reproductive Health Operational Research, Cairo, 18-24 November.
- Inter-country Meeting on Measles Elimination, *Amman, 27-29 November.*

3 Emergency humanitarian assistance in Lebanon and the occupied Palestinian territories

Everyone has the right to a standard of living adequate for ensuring the health and well-being of himself and of his family, especially at the level of food, clothing, housing and medical care.

Article 25.1 of the Universal Declaration of Human Rights

The year 2006 brought a major war in Lebanon and an alarming deterioration of the humanitarian and health conditions of the oPt population, prompting UNWRA to intervene in both cases by either creating or expanding the emergency programme. While the war in Lebanon has resolved, many challenges are still overwhelming the recovery process. In the occupied Palestinian territories, unrelenting political tensions, on-going socio-economic crisis and continuous restriction of movements through checkpoints and separation wall resulted in soaring of unemployment and poverty rates. Therefore, UNRWA faced an increased demand on its emergency relief services, with the situation expected to worsen in the oPt during 2007.

3.1 Emergency in Lebanon

The war between Lebanon and Israel started on 12 July and ended on 14 August 2006. Almost the entire Lebanese territory was targeted by all kinds of conventional weapons.

As of August 24, 2006 1,184 people were killed and 4,059 were wounded. More than 900,000 people were displaced from Southern Lebanon, Beqa Valley and Southern Beirut suburbs. About two thirds have returned soon after the end of the conflict, while the rest was forced to slow the return because of damage to property and presence of unexploded ordnances. Around 220,000 persons left the country mostly to Syria.

3.1.1 Damage to infrastructure

The Israel Defence Force (IDF) military operation has caused enormous damage to residential areas and to key civilian infrastructure, such as power plants, seaports, fuel depots, and hospitals and health centres, which were destroyed. Seventy-two bridges and virtually all road networks have been systematically shattered leaving entire communities in the South inaccessible. This profound damage to traffic arteries has posed tremendous challenges to Government institutions and humanitarian agencies, particularly in remote areas of the South. The presence of unexploded ordnances scattered all over still represents a major threat to the population[1].

3.1.2 Impact on the Palestine refugees

Although, the Palestine refugee camps were generally spared from direct bombing, three camps, Rashidieh, Burj el-Shemali and Ein el-Hilweh, were sporadically targeted while Wavel camp was hit by shrapnel resulted from attacks to the neighbouring

[1] Lebanon Crisis: Services Availability Assessment. Ministry of Public Health Lebanon and World Health Organization. August 2006

Baalbeck. At least 10 refugees were reportedly killed and more than 20 were injured, four of which seriously. Refugees living in towns and villages among Lebanese population were affected largely similar to the Lebanese. Needed support was provided to the displaced, such as food, water and sanitation, and medical supplies including hospitalization when required.

3.2 UNRWA'S response

UNRWA provided food and non-food assistance directly to around 60,000 people during the conflict. Food aid contained sugar, rice, several varieties of pulses, whole milk and cooking oil. In total UNRWA shipped 478 metric tones of food during the conflict.

UNRWA opened its schools to accommodate the influx of IDPs, regardless their refugee status. Around 4,200 persons were provided with shelter, food and non-food items, water and sanitation and medical care. UNRWA doctors visited the schools daily, sanitation labourers collected the refuse and water was ensured in adequate quantities around the clock. The Agency also supplied around 6,500 kitchen kits, 9,200 hygiene kits, and household items such as bedding for 9,500 people.

3.2.1 Coordination with MoPH, UN organizations and NGOs

The response of the international community to the Israeli aggression against the Lebanese civilians was immediate. More than one hundred international NGOs and UN organizations participated to the relief operations immediately after the start of the war. Local NGOs – partners of international NGOs – operated all over Lebanon. Clusters for health and for water and sanitation, led respectively by WHO and UNICEF, were quickly organized to ensure proper coordination of efforts, which was achieved after the first two weeks. UNRWA coordination and collaboration with WHO was very strong since the beginning.

The Minister of Public Health assured –and maintained - that all Palestine refugees with war injuries would be treated in hospital at the expenses of the MoPH. Throughout the crisis UNRWA kept strong ties and coordination with communities, government authorities, municipalities and international and national relief agencies and continues to do so in 2007 for the recovery of the affected areas.

3.2.2 Access to health care services

With few exceptions, UNRWA network of 25 health centres continued to operate throughout the war. However, many of the staff could not reach their original duty stations and were therefore asked to report to the health centre nearest to their residence. Vacant posts were immediately filled on contract basis to keep operations running. Nabatieh health centre and the health points of Ghazieh, Ansarieh, Shabriha and Qasmieh did not operate after the first week of the war because their staff could not access the area.

Fortunately, few weeks before the start of war, a three-month stock of medical supplies had been sent to nearly all health centres and points, with the exception of Rashidieh health centre where supplies were due on July 14th. To keep the centre running, small stock of supplies was moved from Buss and B/Shemali health centres under very hazardous conditions. Once WFP started moving convoys to South Lebanon on the 23rd of July the proper stock was finally sent to Rashidieh. Vaccines were also sent through the WFP convoys to all clinics.

Kidney dialysis for refugees in Lebanon is usually provided free of charge by the Palestinian Red Crescent Society (PRCS) centres in Hamshari Hospital in Saida and in Rashidieh camp in Balsam area. As neither centre was accessible from outside the area, patients residing in Beirut and Tripoli had to be referred to Makassed Hospital and to Al-Islami Hospital, respectively. Since MoPH did not agree to cover the cost of the dialyses, UNRWA had to use part of the emergency funds to do so. Negotiations with both hospitals ensured discounted price of 66 USD per session from the 90 USD usually paid by the MoPH.

Surveillance of communicable disease was strengthened and no outbreaks were reported. Recovery efforts started immediately after the cessation of military operations when the Director of UNRWA Operations in Lebanon formed an interdepartmental team to assess damages and needs in Tyre area. Results of the assessment were used for the flash and early recovery appeals.

3.2.3 Environmental Health

Given the level of destruction of water plants and infrastructure, there was great focus of environmental health and sanitary intervention. A team of four engineers and three sanitation supervisors was formed in Saida area to report and intervene on all emerging needs.

Maintaining adequate water supply at a time when fuel for generators was scarce and electricity from municipality not guaranteed has been the biggest challenge during the war and immediately after it. Palestinian gatherings next to Tyre Town and on the coastal road between Tyre and Saida suffered extreme water supply problems. Although these gatherings do no fall under normal Environmental Health Division activities, ad hoc interventions were directed at supporting the refugees in these areas, such as the provision of generator spare parts in Qasmieh gathering, and supply of fuel to operate the water plants in the three main gathering along the cost.

A great deal of coordination and collaboration with NGOs and UN Agencies was set in place to ensure swift support to camps in which water supply was either drastically reduced by the municipality or was not in adequate quantity due to the increased number of displaced accommodated at UNRWA schools.

3.3 Emergency in the occupied Palestinian territories

3.3.1 Situation overview

Since the start of the *Intifada* in 2000, the social and economic turmoil has translated into a poverty-stricken oPt population, over half of which are currently receiving some kind of humanitarian assistance. Based on Palestinian Central Bureau of Statistics (PCBS) data, a recent survey by UNRWA show that unemployment and deep poverty rates are twice as high compared to pre-*intifada* figures. According to World Bank figures, more than 50% of Palestinians in the oPt are living under the poverty line. Unemployment rate is 34% with the rate at 44% in the Gaza strip. During times of comprehensive closure, the unemployment rate rises up to 55%. Per capita income dropped by 40% compared to level prior to the Intifada.

Since the election victory of Hammas in early 2006 the political environment has deteriorated even further, resulting in a significant hardening of Israeli and wider international policy in relation to the occupied Palestinian territories (oPt) and in a general withdrawal of international support to the Palestinian Authorities (PA).

The international sanctions and Israel's decision of suspending VAT and custom revenues have prevented the PA to pay wages to government employees, resulting in a serious loss of income for West Bank and Gaza, respectively for 18.5% and 41% of the workforce. Considering households are of 6 to 7.5, the loss of income is for more than 520,000 people in West Bank[2] and 523,000 in Gaza.[3] As refugees are more dependent on public sector employment (UNRWA estimates a 31.7% refugees compared to 20% of non-refugees) the impact of unpaid salaries is larger.

3.3.2 Restriction of movement

Restriction on freedom of movement is part of daily life for the population of the Occupied Territories. Restrictions take various forms: checkpoints in the middle of the road, submitting people and their property to strict controls and humiliations, heaps of earth blocking access to roads, trenches encircling villages, curfews of variable duration and "military zones" to which all access are forbidden. The internal closure, enforced through the placement of at least 540 permanent military checkpoints (a 12% increase since the start of 2006[4]) and supplemented by an increasing number of randomly erected temporary road blocks and physical barriers, divide the West Bank into 300 clusters and the Gaza strip into 4.

In the West Bank the continuous fragmentation of land by the separation wall has resulted in even more severe restriction of movements of goods and people. Figures provided by OCHA in October 2006 reveal that only 20% of the Barrier runs along the Green Line and an estimated 60,500 Palestinians living in 42 towns and villages will be completely encircled by the wall. Additional 124,300 people in 28 villages will be located on the east side of the barrier, but surrounded by it on three sides, and controlled on the fourth side by an associated obstacle.

Passage into East Jerusalem is especially problematic with one quarter of its 230 000 inhabitants living east of the Wall. Only four entry points into the city are currently available for West Bank Palestinians carrying appropriate permits. The restriction of movement imposed by the closure system in general, and the separation wall in particular, has had significant impacts on UNRWA's ability to provide humanitarian and health assistance to the refugee community in the West Bank.

3.3.3 Health status under emergency

The fiscal consequences of 2006 political developments in oPt have had an impact on the Ministry of Health's budget, and consequently on the delivery of health services and programmes. For instance, it affected its capacity of maintaining a stock of pharmaceuticals and consumables and of paying salaries to their staff, which resulted in a prolonged health workers strike across the West Bank.

Poverty is one of the most important determinants of health and invariably leads to general malnourishment, micronutrient deficiencies, stunting in children, increased mortality and morbidity of high-risk groups, and weakened population immunity. In addition, increased poverty prevents those who suffer from noncommunicable diseases, such as diabetes and hypertension, from purchasing medications and continuing their treatment, with consequent negative outcome.

Mental disorders continue to be of major concern in the occupied Palestinian territory.

[2] Prolonged Crisis in the Occupied Palestinian Territories: Recent Socio-Economic Impacts in the West Bank. UNRWA, November 2006

[3] Prolonged Crisis in the Occupied Palestinian Territories: Recent Socio-Economic Impacts in Gaza. UNRWA, November 2006

[4] OCHA 2006

3.4 UNRWA'S response

3.4.1 UNRWA health services

In the West Bank 37 primary health facilities, 23 Health Centres and 14 Health Points are currently serving approximately 720 000 registered refugees, 26% of which reside in camps.

Seventeen of the 23 health centres are situated inside the camps while six are in villages or towns with large population of refugees. All of the 14 health points are located outside the camps.

The ratio of PHC facilities/100,000 registered refugee is 5.3 and the number of doctors/ 100,000 individuals is 9.8, an improvement from 2005, but still far below international standards.

3.4.2 Emergency funding

In the West Bank the emergency appeal launched in 2006 resulted in a total of 1,370,000 USD for the health programme and it was allocated as follows: Mobile Clinics: 755,000, Major Health Centres: 273,194, Emergency Employment: 31,508, Health Teams for Beit Surik, E.Arik/Beit Our & Fara: 91,536, Qalqilia Locum Specialists: 12,800, and Hospitalisation: 150,000.

In Gaza, the appeal resulted in 1,319,000 USD and it was entirely allocated to medical supplies and equipment.

3.4.3 Accessibility to health services

Patients, staff members, and medical supplies have been severely affected by access restrictions; however, UNRWA has, despite the situation, managed to operate according to its standards by recruiting more personnel, establishing mobile clinics or by opening new clinic. For instance, a new UNRWA clinic was established in the village of Beit Surik, north-west of Jerusalem, in 2006. Prior to the construction of the separation wall, the 30,000 inhabitants of this area reported to the health centre in Jerusalem Old City, which was not accessible any longer.

3.4.4 Emergency employment

Additional staff was recruited under the Job Creation Programme (JCP) in order to meet the increased demand on the Agency's medical care services, or to replace staff that were unable to reach their duty stations due to restrictions imposed on movement of vehicles and personnel. Recruitment under JCP and training programme are short time for three or six months respectively. Table 1 show the number of recruitments.

Table 1: Job Creation Program and Training Program in the oPt

Field	Doctors	Medical personnel	Administrative	Support
West Bank	19	97	26	107
Gaza JCP	24	76	70	70
Gaza TP	43	165	113	N/A

3.4.5 Mobile health teams

Mobile Health Teams, composed of medical officer, practical nurse, laboratory technician, assistant pharmacist, and driver have operated in the West Bank since February 2003. Objective of these teams is to meet the additional burden on the health system and mostly to facilitate access to health services in locations affected by closures, checkpoints, and the separation wall. The teams offer a full range of essential medical services including immunisation, control of communicable and non-communicable diseases, and first-aid treatment for conflict-related injuries, all of which is provided in spaces made available by communities or even in the street if nothing else is found.

During 2006 five mobile teams operated in the West Bank, attending to patients in 135 localities in the areas of Bethlehem (19 localities), Hebron (25), Jenin (29), Nablus (25), and Jerusalem (37). Most of the locations were visited once per month, while others followed a rotation schedule, with certain villages visited more frequently because more affected and deprived of health services than others. As the teams travelled through the West Bank they often discovered additional rural villages whose inhabitants had restricted access to health care facilities and were therefore in need of basic health services. This has added to the already stretched schedule of the medical teams, currently working six days a week.

In total, there were 1447 visits to localities and a total of 134 190 consultations, an average of 2,237 per month per team. A total of 755,000 USD were spent for the mobile teams in 2006, distributed as shown in table 2.

Table 2. Distribution of funding for the mobile teams (cost in USD)

Medical Supplies	Staff	Capital Expenditures	Medical Equipment	Running Costs & Visibility	Total USD
272 500	216 300	210 500	37 500	12 944	755 000

3.4.6 Road blocks

During 2006 the Mobile Health Teams incurred into a total of 36 different constraints on the road, with an average of 1 hour and 35 minutes wait per incident. If considering all mobile health teams together, the total waiting time at checkpoints was 48 hours and 31 minutes, representing an estimated work loss of a week and a half.

Nablus team was particularly affected by access restrictions imposed by the IDF. This team usually visits numerous remote villages in Nablus area and often needs to pass through the exceptionally severe checkpoints of Hamra, Huwwarah, and Beit Iba. On 6 occasions, the team was denied access altogether. During a number of the delays the team had to wait up to six hours before being allowed to pass.

In the majority of cases, "*no reason*" was quoted as cause for delay or denial of access, while in 14 occasions incidents were due to closure. Nablus and Jenin mobile teams were subjected to search in five instances.

3.4.7 Palestinian women giving birth at Israeli checkpoints

The United Nations High Commissioner for Human Rights addressed in 2005 the issue of Palestinian pregnant women giving birth at Israeli checkpoints owing to denial of access by Israel to hospitals, with a view to ending this inhumane Israeli practice,

and to report thereon to the General Assembly at its sixtieth session and the Commission at its sixty-second session.

According to statistics provided by UNRWA in 2005, in the Gaza strip, out of eight pregnant women transported to hospital, one woman gave birth inside the Palestinian Red Crescent Society (PRCS) ambulance while waiting at a checkpoint. Another woman, suffering from problems in her six-month pregnancy, aborted inside the ambulance, as she was held up for one hour at a check point before being allowed to proceed. In general, delays ranged from 1 to 21/2 hours and increased in case of evacuation of emergency cases from closed areas such as Seafa or Mahata; such patients, in facts, were brought by a first ambulance to the checkpoints, and then transferred to a second ambulance on the other side. It was reported that prior coordination with the Israeli Defence Forces (IDF) was necessary when these transfers occurred after crossing hours.

Whereas the situation in 2006 has improved at least in the number of deliveries at checkpoints, i.e.: 2 in the West Bank and none in Gaza, Palestinian women still report great fear of not being able to reach a hospital in time to give birth. The problem is more acute in rural areas, especially for those women who live in villages cut off by checkpoints from the cities where hospitals are located. Driving to a hospital could take several hours, even if the distance is only a few kilometres. Such journeys may be impracticable at night, during curfews or when there are military incursions. In 2005, the Palestinian Ministry of Health registered an increase of 7.9% in home deliveries in the West Bank (against 0.5% in the Gaza Strip), indicating that Palestinian women preferred to give birth at home, without taking the risk of being subjected to potentially hazardous delays at checkpoints. This trend is likely to have continued in 2006.

3.4.8 Loss of staff working days

Amongst UNRWA employees, 385 health staff were either denied access or delayed in about 100 incidents during 2006. The total man-days lost were 374, causing a loss of 91 000 USD to the Agency. Compared to the early years of the *Intifada*, these figures represent a significant improvement. By contrast, during 2004 and 2005 the days lost were 369 and 349, respectively.

3.4.9 Hospital care

The only hospital run by UNRWA in the five fields is in Qalqilia.

Secondary and tertiary care is otherwise provided through contracted hospitals. Currently there are four hospitals in Jerusalem, one in Ramallah, two in Nablus area and three in Hebron area, which are under contract with UNRWA.

Access is not completely free of charge as in the case of primary health care. UNRWA reimburses the hospital for 75% of the cost of secondary care and for 70% of the cost of tertiary care. Only in the 5% of the refugee population deemed "special hardship cases" for their socio-economic status, the reimbursement is 95% of the hospital fee.

Patients must be referred from UNRWA clinics to be admitted to contracted hospitals, except in emergency, when patients are allowed to be "self-referred".

In 2006 a total of 17,572 people were referred for secondary and tertiary care, a marked increase from 14,559 in 2005 and 12,856 in 2004. Reimbursement to contracted hospitals amounted to a total cost of $300 000.

Qalqilia hospital

Qalqilia hospital has been severely affected by the recent emergency situation. Recognised as a high quality and efficiently run hospital, it provides 63 beds, harbours a blood bank, and offers medical care within four specialist areas- Paediatrics, Internal Medicine, General Surgery, and Gynaecology & Obstetrics.

Qalqilia village is practically under siege being completely surrounded by the separation wall, with only one checkpoint connecting it to the rest of the West Bank. The 40,000 people living in Qalqilia, refugees and non-refugees, are unable to access medical facilities on the other side of the wall.

The hospital has seen a surge in demand for its services from both, non-refugees and refugees who previously attended to private hospitals or to Nablus Hospital. Reasons stem from restriction of access to increased poverty and strike of the health personnel. In facts, the number of non-refugees, including *municipality-referred poor patients* and *non-refugee emergency cases,* was twice as high in 2006 compared to 2005.

3.5 Palestine refugees from Iraq

The prolonged war in Iraq has resulted in millions of Iraqis fleeing their country. Among those who seek a safer environment, are the Palestine refugees who lived in Iraq until the war. In Jordan, refugees are hidden caseload, except for the 97 in the camp on the border. Higher number is in the Syrian Arab Republic, where the government has offered a non-renewable visa to Iraqis but has denied access to Palestinians, who are then trapped in al-Tanf area. Total number of Palestine refuges is 345 with 129 of them under 15 years of age.

3.6 UNRWA's response

Field Health Programme in Syria is providing essential health services in Al-Tanf to the Palestine refugees from Iraq. A mobile team comprised of one medical officer and one nurse has paid 35 visits to Al-Tanf for examination and treatment of the refugees. An average of 40 cases were examined each visit

Family Heath Care All children age 0 to 6 years were given the needed immunization (approximately 15 cases). Thirteen pregnant women were given proper antenatal care. In addition, family planning services were provided to all married women with an extensive health education on this issue; as a result, 17 women are now using family planning methods. One Obst/Gyn specialist visited the camp twice to follow-up high-risk pregnancies and to treat 15 gynaecological cases.

Non-communicable Diseases Suitable follow-up of previously diagnosed cases and identification of new cases of diabetes and hypertension was done in the camp. Case-mix was as follows: 23 cases of hypertension (16 males and 7 females), 4 cases of diabetes (3 males and 1 female), and 2 cases of diabetes and hypertension (both males). Other patients with a variety of chronic disease were examined and given treatment.

The senior dental surgeon went to Al-Tanf camp 11 times with the dental nurse to treat 210 cases.

4 Medical care services

New global funding programmes pay insufficient attention to the need for national capacity building in quality assurance, procurement and supply management, rational use of medicines and technologies and pharmacovigilance; without improvements in these areas much of the new funding may be wasted.

WHO/Medium-term strategic plan, 2008-2013

4.1 Objective

The objective of the medical care programme is to reduce disability and mortality from acute and chronic illnesses by provision of diagnostic and treatment services to the Palestine refugee population through the Agency's network of primary health care facilities and provision of essential hospital services at governmental or contracted institutions.

4.2 Programme activities

Curative medical care services are provided as an integral part of the Agency's comprehensive primary health care activities, whereby the physical, human and financial resources allocated to this programme are shared with and complement disease control and health prevention and promotion activities. The specific activities of this programme component consist of provision of outpatient medical care including issue of medicines, laboratory investigations, radiology services, oral health services, physical rehabilitation and hospital services. Services at the primary level are provided to the served population free-of-charge, whereas policies for cost sharing are in place with respect to hospital services and other outsourced services such as advanced medical investigations and prosthesis.

Services were provided through a network of 127 primary health care facilities, Agency-wide. Of these facilities, five health centres located in the largest camps in Gaza Strip were operated on double-shift. Introduced 15 years ago, this unique arrangement was maintained because of the Agency's inability to establish additional health care facilities that would help to reduce excessive workloads resulting from rapid population growth, increased demand for services and integration of new activities within the Agency's primary health care services.

Owing to their critical socio-economic conditions, some 24,000 Palestine refugees displaced from Gaza Strip since 1967, continued to receive UNRWA health services in Jordan.

In addition, beginning 2004 health services started to be provided to some 13,000 Palestine refugees who are on the official records of the Lebanese authorities but are not registered with UNRWA.

Likewise, Bedouin tribes who took refuge in Syria since 1948 and were not previously registered with UNRWA have been included in Agency records.

4.3 Progress in 2006

4.3.1 Out-patient care

Upgrading primary infrastructure, projects for expansion, upgrading and rehabilitation of primary health care facilities during 2006 consist of the following:

- **In Jordan**, construction of Amir Hassan health centre completed. New health centre established in rented building in Aqaba'a, in the south of the country to provide services for more than 10,000 refugees in the city. South Baqa'a health centre was relocated to a new building.
- **In Syria**, Reconstruction of Qabr Essit health centre was completed in June 2006. Reconstruction of Dera'a health centre is ongoing.
- **In Gaza**, Nuseirat H/C was reconstructed by October 2006. Renovation at various health centres to reuse of maternity wards for other health activities was completed. Khan Younis and Bureij H/Cs are still under reconstruction.
- **In West Bank**, new health point was established at Beit Surik. Reconstruction of Arroub and Jalazone health centres was started.

Utilization trends Utilization of out-patient services in 2006, was more than that in 2005 level with a total of approximately 8.8 million medical consultations compared to 8.4 in 2005 provided to the served population through the Agency primary health care facilities, out of which 265,527 were specialist's consultations (see table 1).

Table 1, Utilization of outpatient services, 2005

Field	Jordan	Lebanon	Syria	Gaza	WB	All Fields
Registered refugees	1 858 362	408 438	442 363	1 016 964	722 302	4 448 429
a. Medical consultations						
First visits	419 461	145 476	221 796	577 068	270 598	1 634 399
Repeat visits	1 649 536	765 295	710 254	2 492 394	1 286 833	6 904 312
Ratio of repeat to first visits	3.9	5.3	3.2	4.3	4.8	4.2
Sub-total	**2 068 997**	**910 771**	**932 050**	**3 069 462**	**1 557 431**	**8 538 711**
b. Specialist care						
Gyn/obst	44 571	13 907	26 911	80 295	11 021	176 705
Cardiology	6450	7994	1296	8186	2606	26 532
Others	5349	12 157	37	39 083	5664	62 290
Sub-total	**56 370**	**34 058**	**28 244**	**127 564**	**19 291**	**265 527**
Grand total a+b	**2 125 367**	**944 829**	**960 294**	**3 197 026**	**1 576 722**	**8 804 238**
Daily workload per medical officer	92	83	92	95	108	95

The ratio of repeat to first visits increased from 3.6 in 2005 to 4.2 in 2006 mainly because of improved follow-up on patients suffering from noncommunicable diseases and the increase in the number of patients at general and sick baby clinics.

Staff workloads The workloads at UNRWA primary health care facilities was reduced from 110 in 2005 to 95 patients per medical officer by the end of 2006 due to decrease in load in Gaza Field from 137 to 95 after recruitment of additional medical officers through the Job Creation Programme and the reduction in Jordan Field from 106 to 92 after filling of vacant posts on temporary basis. The highest workload was observed in the West Bank Field with 108 patients per medical officer per day and the lowest in Lebanon Field with 83. (See figure 1). Although the workload was reduced, it is still high and far from UNRWA target of 70 patients per Medical Officer.

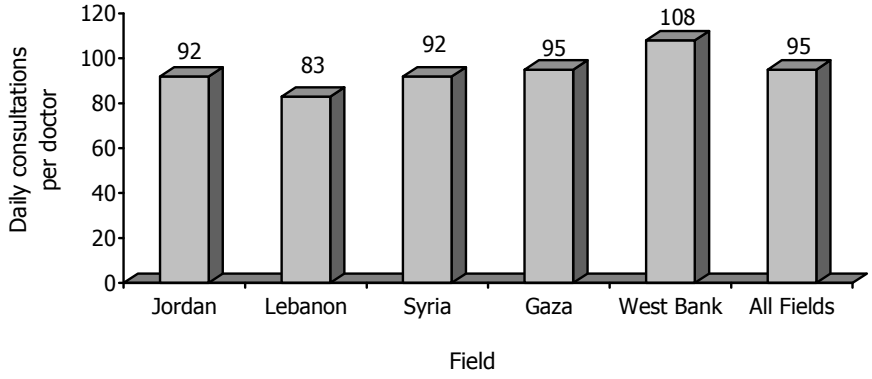


Figure 1, Average daily workloads, per doctor

4.3.2 In-patient (hospital) care

Services provided UNRWA 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 governmental or non-governmental hospitals.

In addition to outsourced services, UNRWA operates a 63-bed hospital in Qalqilia, West Bank, which accommodates 14 surgical, 12 medical, 20 paediatric, 15 Gyn/obst and 2 intensive care beds in addition to a 5 bed emergency department. Data on utilization of hospital services in 2006 is shown in table 2 below.

Table 2, Utilization of outsourced hospital services, 2006

Indicators	Jordan	Lebanon	Syria	Gaza	WB	All
Patients hospitalized	18 025	19 793	9897	3699	17 5725	68 986
Bed days utilized	38 900	45 035	13 871	13 677	42 444	153 927
Average stay in days	2.2	2.3	1.4	3.7	2.4	2.2

Utilization trends The number of patients who benefited from hospital services excluding Qalqilia Hospital during 2006 increased from 61,895 in 2005 to 68,986 patients. This represents an increase of 11.4% Agency-wide, while the average number of bed days utilized was almost identical to utilization trends in 2005 with an average of 2.2 days Agency wide.

The average daily bed occupancy in the UNRWA run hospital in Qalqilia during 2006 reached 57.0 percent with improvement from 2005 by 4.4%.

[1] Data does not include patients hospitalized in Qalqilia hospital.

In spite of construction of the separation wall, which enclave Qalqilia town from surrounding localities the percentage of patients who benefited from Qalqilia hospital services increased by 8% from the year 2005. This may be explained by increased demand to Qalqilia hospital services by the refugees living in the West Bank.

Table 3 & 4 below provide data on utilization of UNRWA Qalqilia hospital in the West Bank and shows how the non-refugees increased their utilization of the hospital since 2004.

Table 3, In-patient care, UNRWA facilities, 2006

Indicators	Qalqilia hospital, West Bank
Number of beds	63
Persons admitted	6 657
Bed days utilized	13 030
Average daily bed occupancy (%)	57%
Average stay in days	2.0

Table 4, Inpatients admitted by category in 2004-2006

	2004	2005	2006
Refugees	4351	4901	5649
Municipality-referred Poor Patients	229	319	611
Married to Non Refugees	Non existing category	Non existing category	57
Non Refugee Emergency Cases	150	124	260
Total Non Refugees	379	443	928
Total Admission*	**4794**	**5406**	**6657**

**Total admissions also include UNRWA employees and Intifada patients*

Age distribution of patients Analysis of the age distribution of patients hospitalized during 2006, reveals that 22.9% were children below 15 years of age (see table 5 below).

Table 5, Age distribution of hospitalized patients, 2006

Field	No. of hospitalized patients	Age group (years) in%				All age groups
		0-4	5-14	15-44	45+	
Jordan	18 025	3.6	5.0	81.5	9.9	100
Lebanon	19 794	18.6	13.1	40.6	27.7	100
Syria	9 894	14.6	7.1	54.3	23.9	100
Gaza	3 663	5.4	7.5	53.5	33.7	100
WB[1]	24 237	18.6	9.5	48.7	23.2	100
All Fields	**75 613**	**13.9**	**9.0**	**55.4**	**21.8**	**100**

[1] *Data includes patients hospitalized in Qalqilia and outsourced hospitals*

Gender distribution of patients Almost 66% of hospitalized patients were women, with the highest rate of 84.5% in Jordan and the lowest of 46.1% in Gaza. This gender variation is mainly due to the pattern of resource allocations and the different referral and reimbursement policies implemented in each Field (see table 6 below).

New hospitalization agreement with Ministry of Health, Jordan was implemented to reimburse hospitalization costs directly to MOH and reduce time and efforts for both

staff and refugees. In 2006 Special emphasis were directed on improving hospital services in Gaza Field, where the available provision is neither commensurate with the population size nor with actual needs.

Table 6, Distribution of hospitalized patients by gender, 2006

Field	No. of hospitalized patients	Sex	
		Male%	Female%
Jordan	18 025	15.5	84.5
Lebanon	19 794	46.9	53.1
Syria	9 894	41.7	58.3
Gaza	3 663	53.9	46.1
West Bank	24 237	37.1	62.9
All Fields	**75 613**	**35.9**	**64.1**

Causes of admission, analysis of data on hospitalized patients by cause of morbidity and type of intervention, as shown in table 7, reveal significant variations between one Field and another with predominance of surgical conditions in Syria and Gaza Fields, internal medicine in Lebanon and the West Bank, and deliveries in Jordan Field.

Similar to gender distribution, these variations are not related to major differences in the prevailing morbidity patterns, but are rather due to implementation of different referral policies and to the level of Agency assistance provided in each Field.

Table 7, Distribution of hospitalized patients by cause of admission, 2006

Field	No. of hospitalized patients	Surgical %	Internal medicine%	ENT %	Opth. %	Deliveries %
Jordan	18 025	20.3	17.2	0.5	0.5	61.5
Lebanon	19 794	22.9	60.8	4.1	1.2	11.0
Syria	9 894	53.9	10.2	6.6	8.9	20.5
Gaza	3 663	50.9	47.0	0.0	0.1	2.0
WB	24 237	23.3	46.5	5.1	2.8	22.3
Total	**75 613**	**27.8**	**38.5**	**3.7**	**2.5**	**27.5**

4.3.3 Laboratory services

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, three additional laboratories were established, one in Aqaba'a health centre in Jordan, the second in Ein Hilweh 1 health centre in Lebanon and the third in Beit surik health centre in the West Bank Field. This increased the number of laboratories providing comprehensive laboratory services to 102. The remaining 25 health facilities continued to provide basic laboratory support (blood glucose, blood haemoglobin and urine tests by dipstick) through a well-trained nursing staff using basic laboratory equipment. Figure 2 below shows the number of laboratories in the five Field during the period from 1995 to 2006.

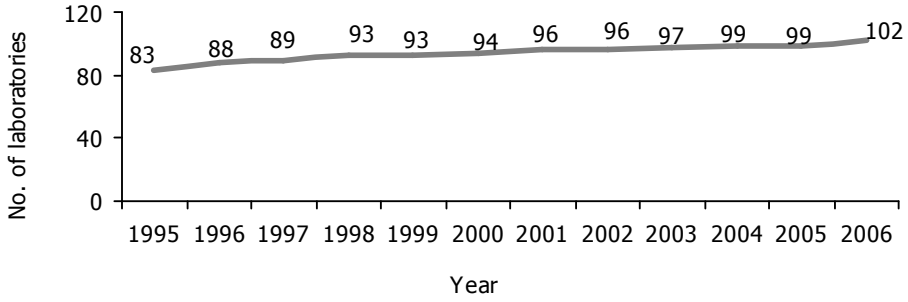


Figure 2, No. of laboratories integrated within UNRWA health facilities

In order to meet the approved plan of activity to expand bacteriology services to area level, seven additional health centre laboratories started providing bacteriology services during 2006, two in each of Jordan, Lebanon and the West Bank Fields and one in Syria Field. This increased the number of laboratories providing this service from 19 in 2005 to 26 in 2006. Arrangements were also made for the referral of patients or samples to those laboratories to ensure better utilization of this service.

The utilization of laboratory services (number of tests performed) increased by 7.5% Agency-wide in 2006 compared with 2005. The rates of increase were 10.6% in Jordan, 10.4% in the West Bank, 6.8% in Gaza and 4.8% in Syria, while a decrease by 0.4% was observed in Lebanon Field, as health facilities could not provide regular services during the war between Lebanon and Israel. The increase on utilization of laboratory services is consistent with the expected population growth, increasing demand and introducing new interventions. Figure 3 shows the trend in utilization of laboratory services during the period 1995-2006.

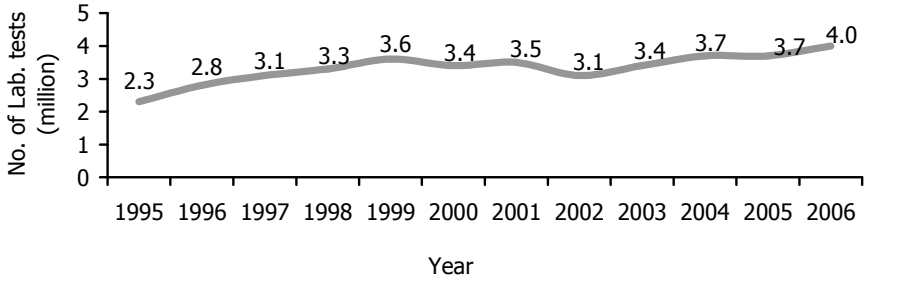


Figure 3, Trend in utilization of laboratory services

As part of the policy to conduct **periodic self-evaluation** of the various programme components a comparative study of workloads and cost-benefit analysis of laboratory services was carried out based on the 2006 statistical data.

Table 8 shows the actual productivity in WLUs/hour during the period 2001-2006. Data analysis revealed that the productivity target of 45 to 55 WLUs/hour was almost achieved or exceeded in Jordan, Syria, the West Bank and Gaza Fields, while was below the target in Lebanon.

The highest rate of productivity (66.4 WLUs/hour) continued to be reported from Gaza Field due to the limited number of available Laboratory Technicians. The recruitment of 18 Laboratory Technicians under Job Creation Programme was necessary to compensate some of the deficit in number of recruited staff.

Table 8, Actual productivity (WLUs/hr) of laboratory services by Field, 2001-2006

Year	Jordan	Lebanon	Syria	Gaza	West Bank	Average
2001	43.3	58.4	60	66.3	48.7	55.3
2002	50.8	55	47.1	72.3	47.2	53
2003	54.2	49	47.9	76.6	58.4	58.7
2004	58.5	49.9	49.4	65.7	56.6	55.9
2005	59.9	41.7	49.4	67.0	36.6	50.8
2006	58.6	42.7	46.1	66.4	51.4	52.7

Automated haematology and chemistry analyzers were introduced to replace the labour-intensive manual procedures and the recruitment of additional laboratory technicians in Lebanon, Gaza and the West Bank.

Efforts will be exerted to secure similar equipment in Jordan and Syria through raising project proposal for possible funding by interested donors.

The cost of laboratory services provided by UNRWA including staff, non-staff and equipment (General funds and donations), (USD 2,612,312) continued to be far below the public rates (USD 10,788,801), indicating that the UNRWA's experience in integrating laboratory services into its primary health care activities remains very cost-effective compared to outsourcing these services, where additional 8 million dollars are needed, (table 9 – figure 4).

Table 9, Comparative analysis on cost of laboratory services at UNRWA facilities and Host Authorities (in USD)

	Jordan	Lebanon	Syria	Gaza	WB	All Fields
Public Cost	2 909 220	1 151 664	970 323	3 640 468	2 117 126	10 788 801
UNRWA Cost	538 049	463 951	274 654	692 712	642 946	2 612 312

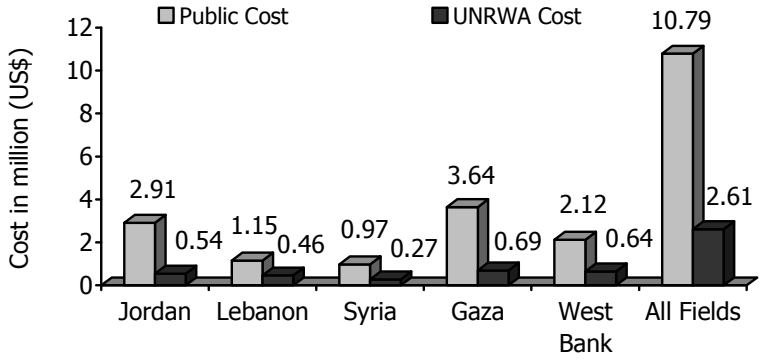


Figure 4, Comparative analysis on annual cost of laboratory services performed at UNRWA facilities and cost of same services if they were outsourced by Host Governments

The cost of laboratory supplies procured under GF through the cyclic review indents for the year 2006 amounted to USD 858,719 and was distributed as per figure 5. Procurement of these supplies enabled the smooth running of laboratory services, hence no stock ruptures were observed against laboratory supplies and reagents during this year.

Table 10, Expenditure on Laboratory Supplies and Equipment, 2006

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza	WB	All Fields
Laboratory supplies	177 084	104 696	114 549	240 103	222 287	858 719
Equipment	0	249 076	35 225	31 132	40 381	355 814

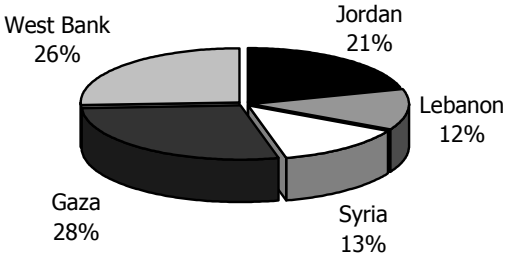


Figure 5 - Expenditure on laboratory supplies (US$)

The situation was very different for securing the needed equipment for the year 2006 as planned for the Biennium Budget 2006-2007. None of the Requisition for Procurements (RPs) prepared for 2006 were processed due to the freeze on funds under JR, some of these equipment were secured through donation funded projects and amounted to USD 355,814 and were distributed as per figure 6.

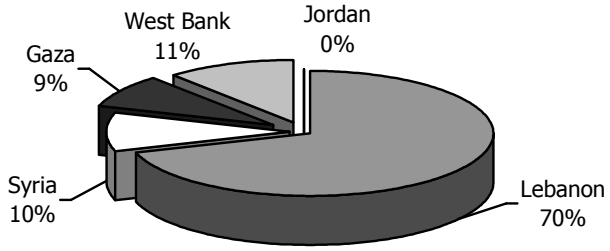


Figure 6 - Expenditure on laboratory equipment (US$)

Special emphasis continued to be placed to follow-up on performance of laboratory personnel and on the proper provision and utilization of laboratory services. To this effect, the following activities were conducted:

- Two training courses for all laboratory technicians were conducted and in-service training according to a standard training package for the newly recruited technicians in all Fields. Special training on bacteriology services was conducted for all concerned laboratory technicians at hospital bacteriology laboratories.
- The quality of laboratory services provided was followed up through implementing an internal quality control system on daily basis at all laboratories and a six-monthly control checking under direct observation of all steps of the laboratory testing procedure including pre-analytical, analytical and post-analytical phases using a pre-prepared control sample.
- An annual assessment of the trends in utilization and productivity of laboratory services at health centre level was conducted in each Field.

- An annual assessment of laboratory services provided was performed at all laboratories utilizing a standard checklist, necessary actions were considered in light of major findings and according to priority.
- The available essential laboratory equipment were reviewed for possible upgrading and the necessary equipment inventory list was established.
- The quality and available quantity of laboratory supplies were checked on regular basis in coordination with concerned staff at procurement division.
- A laboratory support system for surveillance of sexually transmitted diseases was activated at all laboratories consistent with the relevant WHO guidelines.
- Arrangements were made with the public health laboratories of the host countries with respect to referral of patients or samples for surveillance of diseases of public health importance.

Analysis of data collected from all UNRWA laboratories in 2006 revealed:

- **Out of 96 626 stool examinations performed 17 731 (18.4%) were positive for intestinal parasites** out of which 56.7% were Entamoeba histolytica, 28% Giardia lamblia and 3.7% Ascaris lumbricoides.
- **A total of 81 877 Hb tests were performed to screen children of one year of age for anaemia**, the percentage of anaemic results among Hb tests performed for children at one year of age varied from 37.8% in Lebanon, 39.2% in Syria, 44% in Jordan 45.3% in the West Bank to 70.9% in Gaza field. Most of anaemic results ranged from moderate to mild type.
- **A total of 156 193 Hb tests were performed to screen pregnant women** at registration and at 24 weeks of gestation for anaemia, the percentage of anaemic results among Hb tests performed for pregnant women at 24 week of gestation varied from 21.7% in Jordan, 22.1% in Syria, 23.8% in the West Bank, 26.5% in Lebanon to 36% in Gaza Field. Most of anaemic results ranged from moderate to mild type.
- **A total of 351 581 postprandial plasma glucose tests were performed as follow-up tests for diabetic patients**, the percentage of results reflecting non-control status varied from 63.07% in Jordan, 59.3% in the West Bank, 54.6% in Lebanon, 47.8% in Syria to 43.1% in Gaza Field.

4.3.4 Oral health

Expansion in oral health services in 2006 included the establishment of additional dental clinic in Aqaba'a health centre in Jordan and 2 mobile dental units in Lebanon.

Analysis of the trends of utilization of dental services in 2006, as shown in table 11, revealed that there was 4.3% increase in dental consultations over 2005, while there was no increase in screening activities. Daily workload increased in Gaza Field from 34 in 2005 to 43 in 2006, as the health department could not fill 12 posts of dental surgeons during the reported period due to financial constrains. The workload increased from 26 in 2005 to 28 consultations per dental surgeon in 2006.

Table 11, Utilization of dental services, 2006

Indicator	Jordan	Lebanon	Syria	Gaza	WB	All Fields
Dental consultations	184 164	75 573	104 293	204 437	115 431	683 898
Dental screening	46 270	27 589	44 560	87 339	25 500	231 258
Daily dental surgeon workloads	25	25	20	43	24	28

The steady increase in number of dental consultations over the last eleven years is shown in figure 7 below:

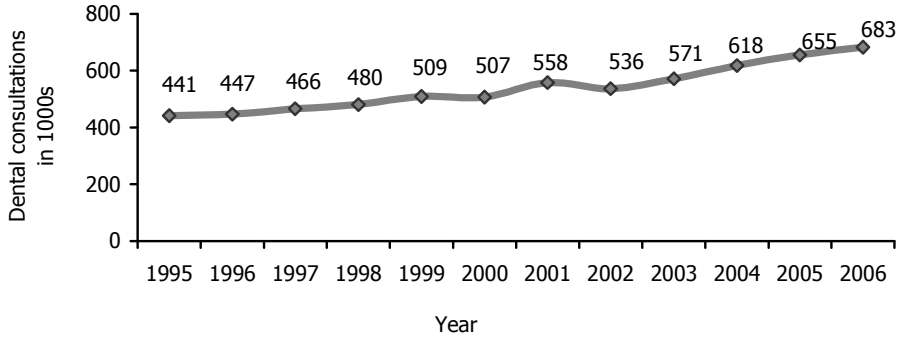


Figure 7, Trend in utilization of dental services

Assessments on workloads, productivity and efficiency of oral health services were conducted in the five Fields of the Agency's area of operation based on a standardized protocol. The assessment is carried out as part of the periodic evaluation of system performance and is used to assess staffing requirements and re-organization of services to obtain optimal utilization of available resources.

Comparative analysis of productivity rates in relation to the defined target of 50 workload units per hour are shown in figure 8 below which also shows relative changes from 2005 data.

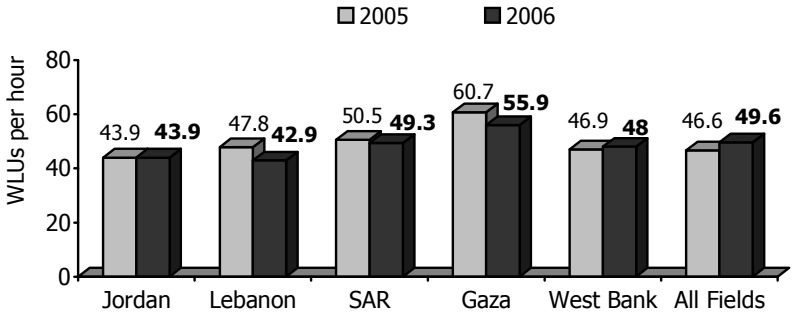


Figure 8, Productivity of dental services by Field

Although there was a drop in productivity in Gaza from 60.7 workload unit to 55.9, it is still considered higher than the 50-unit target. **Data shows that the highest workload was in Gaza Strip and the lowest in Lebanon.**

4.3.5 Medical supplies

Total value of medical supplies and equipment from all funds (regular cash budget, in-kind contributions and emergency appeals) in 2006 was approximately USD 15.19 million, representing an increase of 4% from 2005. Total amount spent from the General Fund was approximately USD 11.1 million (73%), while the total value of the in-kind and emergency appeals was approximately USD 4.1 million (27%). Medical

supplies and equipment represented approximately 21% of the total expenditure on medical care services. (See figure 9.)

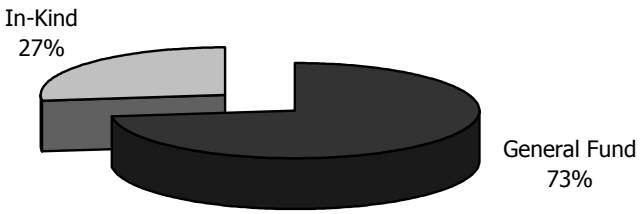


Figure 9, Contribution of In-kind and General Fund (GF)

a Expenditure by Field

The annual study on medical supplies utilization trends revealed that expenditures by Fields were as follows: Gaza was the highest USD 5.46 million (36%), followed by Jordan USD 4.5 million (23%), West Bank USD 3.0 million (20%) and Lebanon USD 1.6 million (11%). The lowest was Syria USD 1.52 million (10%), figure 10 below.

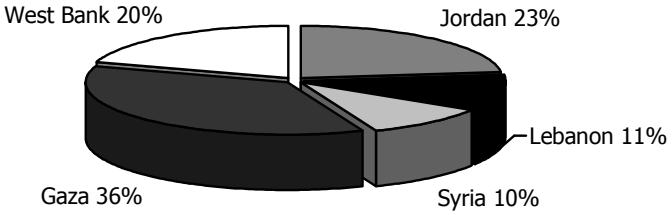


Figure 10, Expenditure by Field, 2006

Average expenditure on medical supplies per outpatient medical consultation was USD 1.7, Agency-wide, (see figure 11 below). The highest rate of USD 1.9 per medical consultation was from Lebanon and West Bank Fields, followed by Gaza USD 1.8 and Jordan USD 1.7. The lowest rate was observed in Syria USD 1.6.

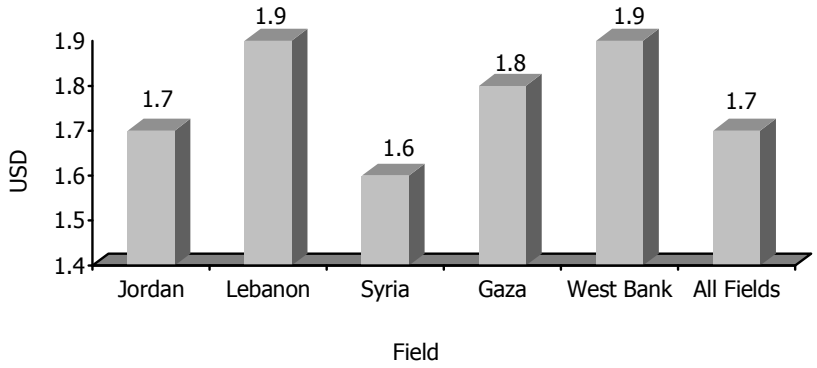


Figure 11, Expenditure on medical supplies per medical consultation, 2006

Average expenditure on medical supplies per served refugee was USD 4.7, Agency-wide (see figure 12 below). The highest rate of USD 7.1 per served refugee was from Lebanon, followed by Gaza Field USD 6.7, West Bank USD 6.4 and Syria USD 4.3. The lowest rate was observed in Jordan USD 2.7.

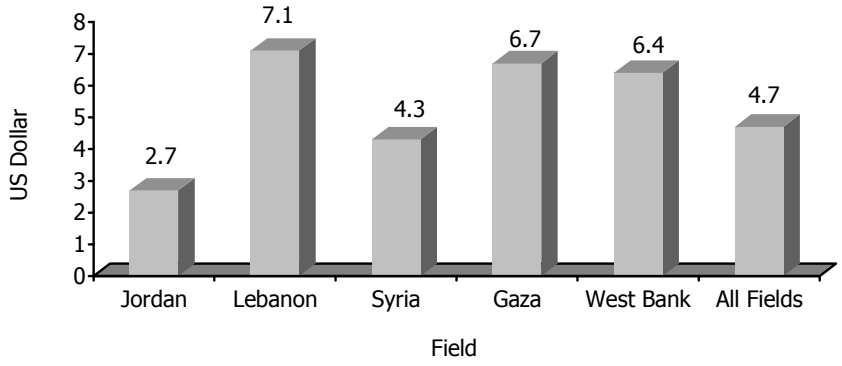


Figure 12, Expenditure on medical supplies per served refugee, 2006

From the above three figures, it can be noted that total expenditures in Lebanon were lower than other fields as expenditure/served population rate and expenditures/outpatient consultation rate are the highest. Conversely, in Jordan total expenditures are high, while average expenditures per consultation and per served refugee are the lowest. The reason stems from the difference in number of served refugees: 244 971 in Lebanon and 1 339 082 in Jordan.

b Expenditure by service

Figure 13 show that USD 2,7 million (18%) of the total expenditure was on the medical equipment and related supplies. This was distributed among various services provided by Health Department as shown in figure 14 on the next page. Laboratory service ranked first with (44%), followed by hospital and disposable supplies (35%), then X-ray and dental equipment (each 10%). The lowest was for outpatient services equipment (1%)

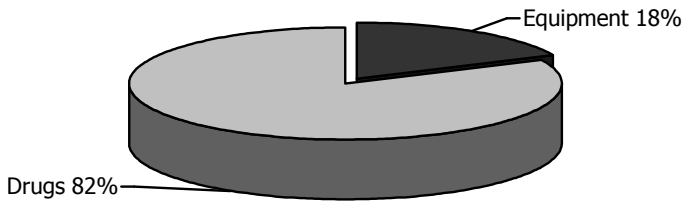


Figure 13, Expenditure of drugs and equipment, 2006

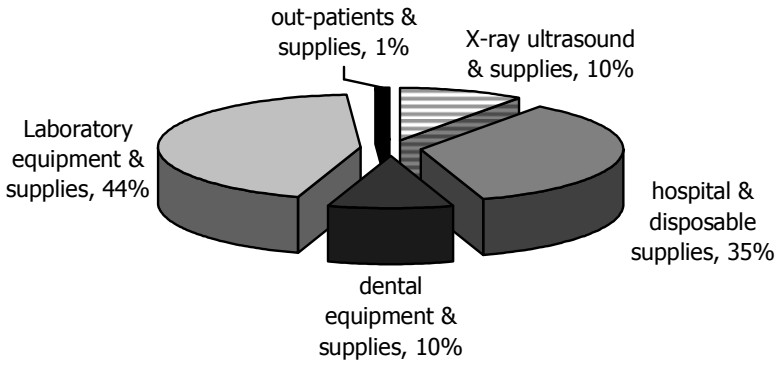


Figure 14, Expenditure on equipment and supplies

Figure 15 below shows that 30% of the total expenditure on drugs was spent on diabetes and cardiovascular diseases medicines (mainly for hypoglycaemic agents, which represent 16% of the total expenditure on medications). Antibiotics represented 14% of total expenditure, with a slight reduction from 2005 by 2%.

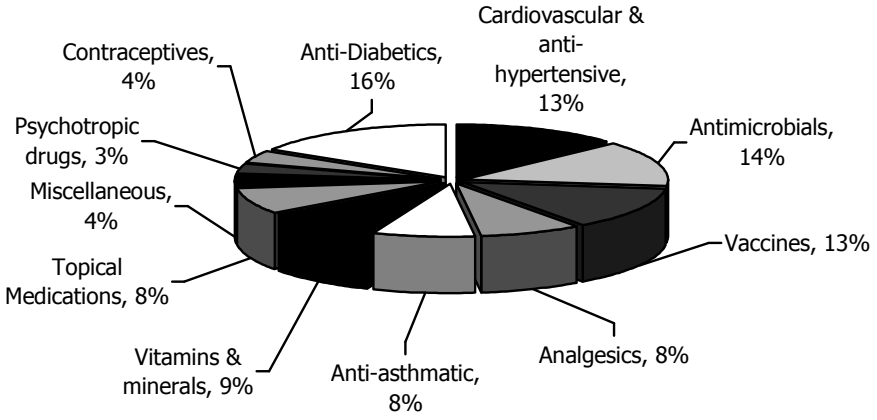


Figure 15, Expenditure on drugs

Great focus was given in 2006 to improve antibacterial prescribing practices Agency-wide and continuous follow-up was given to all clinics. Analysis of data received from all Fields revealed reduction in the rates in prescribing of antibacterial medicines Agency-wide from 53% in 2004 to 31% in 2006. The lowest rate was 20% in Lebanon and the highest rate was 39% in Gaza, 27% in Jordan, 34% and 31% in Syria and West Bank respectively. The rates of prescribing antibacterial medicines by Field are shown in figure 16 on the following page.

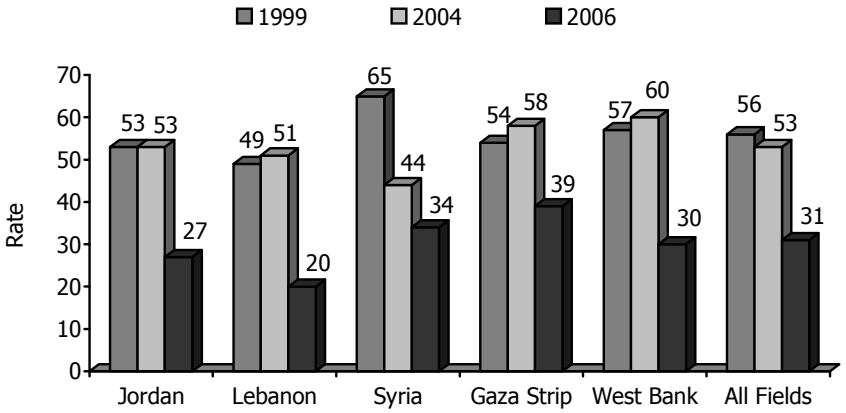


Figure 16, Rates of prescribing antibacterial medicines by Field

Technical guidelines for management of common sexually transmitted diseases among women, management of common infectious diseases, management of diabetes mellitus & hypertension and the recommended doses for the different antibiotics were formulated and distributed to all Fields. Adequate copies were made available to every Medical Officer and specialist aiming at providing a ready reference to assist UNRWA medical personnel in selection of appropriate medicines for treatment of patients aiming at promoting rational prescribing practices consistent with WHO recommendations and recent advances in pharmacology.

Annual assessment of pharmaceutical services at Field pharmacy and health centre levels was carried out Agency-wide according to standard checklists in order to identify and address needs for improving storage capacity, ensure safety precautions, upgrade equipment and assess performance.

c Donations

Analysis of the donation (In-kind /cash) revealed that USD 1.88 million (46%) was for Gaza, while the lowest contribution was for Syria. The distribution of donation among fields is shown in figure 17.

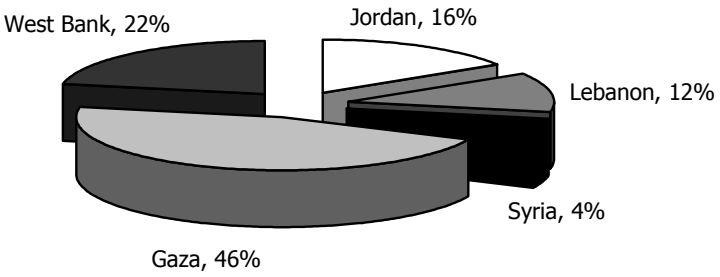


Figure 17 – Distribution of Donations

Table 12 shows the **cash contributions** donated during the year 2006, which were used for procurement of miscellaneous medical supplies, some medical and laboratory equipments.

Table 12, Cash contributions donated during the year 2006

Donor	Field	USD
Japanese Government	Gaza	1 120 000
	Lebanon	276 855
	West Bank	218 634
		Total contribution to UNRWA =1,615,489
French Government	West Bank	218 943
Kingdom of Saudi Arabia Government	Gaza	191 051
Spanish Government	Gaza	78 625
Irish Government	West Bank	18 495
Italian Government	Syria	27 790
USA Government	Syria	7 436

The following **in-kind contributions** were donated during the year 2006:

- The Ministry of Health of the Palestinian Authority provided Gaza and West Bank Fields with their requirements of vaccines, Iron drops and tablets as well as some disposable syringes, needles and cold-chain equipment at USD 944,969 (USD 661,004 for Gaza and USD 283,965 for the West Bank).
- The in-kind donation to Gaza Field amounted to USD 353,727 (USD 297,073 from the Egyptian Red Crescent, and USD 56,654 from The United Palestinian Appeal, USA), which were in the form of medications.
- Health Partners International Canada (HCI) contribution to UNRWA , West Bank amounted to USD 176,351 in the form of medications and medical supplies.
- The Ministry of Health, Jordan provided UNRWA with its requirements of vaccines, contraceptives and vitamin A with a total cost of USD 656,122.
- UNICEF contribution to UNRWA amounted to USD 128,495 (USD 97,808 for Lebanon and USD 30,687 for Syria) in the form of vaccines, medications disposable syringes, needles and cold-chain equipment.
- The Ministry of Health, Syria contribution to the Field amounted to USD 112,865 in the form of vaccines and tuberculosis medications.
- UNFPA contribution to UNRWA amounted to USD 20,883 for West Bank in the form of medications, contraceptives and medical equipment.
- The Ministry of Public Health in Lebanon contributed a total of USD 11,800 to the Field in the form of medicines, and Polio Oral vaccine.
- Masrouji trading Co, Ramallah contribution to UNRWA, West Bank amounted to USD 17,401 in the form of children milk.
- Donors from South Lake City (SLC) contributed to UNRWA, Lebanon in a form of medications and medical supplies.

4.3.6 Physiotherapy services

In order to meet the increasing demand on physical rehabilitation in oPt as a result of increased violence during the first and the second Intifada, UNRWA operates 6 physiotherapy units in Gaza and 6 in the West Bank Field, providing a wide range of physiotherapy and rehabilitation services including manual treatment, heat therapy, electro therapy, gymnastic therapy with an outreach programme.

Table 13, Distribution of patients treated at physiotherapy units in oPt.

Field	Patients treated in 2005		Patients treated in 2006	
	Trauma	Non-Trauma	Trauma	Non-Trauma
West Bank	714	2917	910	3249
Gaza	1434	3591	1549	3893
Total	**2148**	**6508**	**2459**	**7142**

As shown in table 13, a total of 9,601 patients were treated during 2006 with an increase of 15.8% over that of 2005. Patients suffering from sequelae of physical trauma and injuries sustained during military incursions accounted for 34.4% of the total patients.

In Jordan, there is only one Physiotherapy unit operating within Baqa'a camp health centre. During 2006, a total of 125 patients completed their courses of treatment.

4.3.7 Radiology services

UNRWA operates 18 radiology units (seven units in the West Bank, five in Gaza, four in Lebanon and two in Jordan Field). In these units the needed plain x-rays services are provided to patients attending the health centres, beside that and through different contractual agreements with hospitals and private radiology clinics, plain x-rays and other types of diagnostic radiology services such as mammography, Hysterosalpingeography, intravenous pyelography, ultrasound and others are provided to refugees.

Table 14 shows the number of both plain and other x-ray radiographs provided in all Fields during 2006.

Table 14, Number of X-ray radiographs Carried in and out-side UNRWA health Facilities.

Field	Inside UNRWA	Outside UNRWA			Grand Total
	No. of Plain X-Rays	No. of Plain X-Rays	No. of other X-rays	**Total**	
Jordan	1416	2048	26	**2074**	**3490**
Lebanon	22 240	1095	1974	**3069**	**25 309**
Syria	0	1130	948	**2078**	**2078**
Gaza	26 503	0	0	**0**	**26 503**
West Bank	20 040	0	337	**337**	**20 377**
Total	**70 199**	**4273**	**3285**	**7558**	**77 757**

5 Health protection and promotion

Overall, the reproductive health indicators for the population served by UNRWA reveal that great progress has been made over the past decade, and many of the indicators are better than of the host countries.

Report of a WHO Technical assessment mission 2005

5.1 Objective

The objective of the Agency's health protection and promotion programme is to preserve the sustainable investment achieved in women's and children's health, promote their mental and psychological well-being and attain further progress in reduction of infant, child and maternal mortality through an integrated primary health care approach consistent with the health-related Millennium Development Goals (MDGs) as well as with the standards set out in the Convention on the Rights of the Child (CRC).

5.2 Programme activities

1 UNRWA 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, nutritional surveillance, mental health, screening for breast and cervical cancers in Syria and Lebanon Fields, prevention and control of hereditary anaemia and surveillance and management of sexually transmitted diseases (STDs).

2 The strategic approach of the programme is based on full integration of services and continuity in a life cycle approach comprising 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 attention and care to those identified as at risk, throughout the course of pregnancy and during the post-partum period.

3 Special attention was placed during the last few years on improving data collection and management as a means to improve surveillance of maternal and child health, enhance system performance and improve outcomes of care.

These efforts comprised revision of the standard reporting formats, investment in developing a new management health information system to improve monitoring and response at the service delivery level, heavy investment in staff development and capacity building, as well as conducting health services research to assess the health status of women and children and assess outcomes of care.

5.3 Progress in 2006

5.3.1 General

The 12th Field Family Health Officers' meeting was held during January 2007. The main objective of the meeting was to review the progress achieved in implementation of the 2006 approved plan of activities and develop an annual plan of activities for the year 2007. The plan included a series of action-oriented activities, capacity building activities and a system of periodic monitoring and self-evaluation of performance/ outcomes based on measurable targets set for the current biennium 2006-2007. 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. In 2006, a study was conducted to assess the prevalence of anaemia among pregnant women and children 6-36 months of age in Gaza and West Bank. To enhance the process of decentralization, the Management Health Information System was expanded to all health centres in all Fields and the Total Quality Management (TQM) concept was implemented in almost all health centres to address health-centre specific issues.

A standardized training plan covering both in-service and on-the-job training was implemented to enhance institutional capacity building at the service delivery level. Table 1 below shows that 1909 staff-days training were conducted during 2006 for different staff categories.

Table 1, Family health training activities, 2006

Training subjects	Staff-days training by staff category			
	Medical	Nursing	Others	Total
Training on breast self examination	0	22	0	22
Management health information system (MHIS)	132	77	0	209
Training on computer skills	54	30	156	240
Training on audiometry	24	33	0	57
Otolaryngology training workshop	36	0	0	36
Orientation of newly recruited staff on family health activities	144	186	0	330
Counselling on family planning	94	448	0	542
Training on psychosocial support and mental health	17	22	0	39
Training on total quality management (TQM)	138	111	0	249
Integrated management of childhood illnesses (IMCI)	15	23	0	38
Training on management of growth retarded children	0	12	0	12
Training on family health programme review	130	0	0	130
Training on adolescent health	0	5	0	5
Total	**784**	**969**	**156**	**1 909**

Health educational materials on various programme components represent an integral part of the Agency's health education/health promotion activities. The annual requirements of these materials were reproduced and distributed to all Fields. 335400 copies of 15 educational pamphlets were reproduced during the year. Health education movies are shown in the HCs while patient wait.

As part of the self-evaluation process, family health programme review exercise was undertaken in all health centres in all Fields for the fourth consecutive year, to follow-up on the progress made towards addressing the identified health centre-specific strengths and weaknesses. A team of supervisors together with health centre staff conducted the programme review using a standardized tool. Through problem-solving approach, corrective measures were taken to address areas that needed further improvement at health centre and at Field levels. Results of this exercise were presented and discussed during the 12th FFHOs' meeting during which it was agreed to continue conducting this exercise annually to address gaps, overcome difficulties and to monitor progress.

Implementation of the maternal health and family planning module of the Management Health Information System (MHIS) started in April 2003 to decentralize programme management, improve surveillance, monitoring and response at the service delivery level and enhance the problem-solving capacity of staff.

Beginning 2005 the MHIS project was expanded to all health centres; 86 health centres utilized the available computer. The remaining health centres recorded the data on hard copies, which was entered afterwards at Field level. Staff used the results of the obtained indicators from the MHIS to implement the total quality management (TQM) exercise with the aim of continuous improvement.

During the 12th FFHO meeting the results of data collected by the MHIS during 2006 compared to that collected in 2005 was presented by the HHIS for Agency and Field level while the FFHOs presented and discussed health centres level. The results of data collected from health centres through the MHIS as measured by the selected maternal health indicators during 2006, are outlined in the relevant maternal health and family planning sections of this report.

5.3.2 Antenatal care

During 2006, UNRWA primary health care facilities cared for 91 889 pregnant women who accounted for 73.4% of all expected pregnancies among the refugee population based on the crude birth rates published by the Host Authorities with an increase in the overall coverage by about 2%. The highest coverage rates were in Gaza and Syria fields and the lowest were in Jordan and the West Bank Fields. The high rates could be largely attributed to the special efforts exerted in order to encourage early registration for pre-natal care. The low rate in the West Bank is mainly due to restricted accessibility to services, imposed by frequent closures, checkpoints, curfews and the separation wall. The low rate of 55.2% in Jordan is mainly due to the underserved refugee communities residing outside camps. However, there was a steady increase in the number of pregnant women who registered for antenatal care from 70282 in 2000, and 87668 in 2005 to 91889 in 2006.

Table 2, Coverage of UNRWA's antenatal care, 2006

	Jordan	Lebanon	Syria	Gaza	WB	All Fields
Registered refugees	1 858 362	408 438	442 363	1 016 964	722 302	4 448 429
Expected No. of pregnancies	53 892	6 535	10 174	36 102	18 491	125 195
Newly registered pregnancies	29 746	4 399	9 538	35 800	12 406	91 889
Coverage rate	**55.2**	**67.3**	**93.7**	**99.2**	**67.1**	**73.4**

The number of pregnant women registered during 2006 increased by 4.4% over the number in 2005 with an increase of 9.5% in Jordan, 4.3% in Gaza, 3% in West Bank and 1.5% in Syria whereas there was a drop of 6.7% in Lebanon Field. The increase in the number of pregnant women in Jordan and Gaza could be attributed to increased demand and improved coverage while in Syria the increase in the number of pregnant women with the high prevalence of contraceptive could be attributed to improved coverage. The decrease, in the number of pregnant women in Lebanon for second consecutive year, could be attributed to the high contraceptive prevalence.

According to UNRWA risk scoring system, 12.6% of pregnant women were classified in the high-risk category and 23.6% were alert (at moderate risk). This meant that more than 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 (3) below with an overall rate of 12.6% cent Agency-wide. The highest high-risk rate of 15.3% was in Gaza Strip followed by 13.1% in the West Bank; this could be largely attributed to the high parity, too early and too late pregnancies and high prevalence of anaemia. Whereas the lowest rates of 7.5% and 8.6% were in Lebanon and Syria respectively where the total fertility rate declined and the marital age increased in the last decade.

Table 3, Proportional distribution of pregnant women according to risk status through rapid assessment, 2006

Field	Risk Status		
	High	Alert	Low
Jordan	11.3	23.1	65.6
Lebanon	7.5	24.6	67.9
Syria	8.6	25.3	66.1
Gaza	15.3	22.9	61.8
West Bank	13.1	24.7	62.1
All Fields	**12.6**	**23.6**	**63.8**

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 records. The assessment revealed that optimal immunization coverage continued to be maintained and that 99.7% of pregnant women could be considered as protected according to the current criteria of immunization.

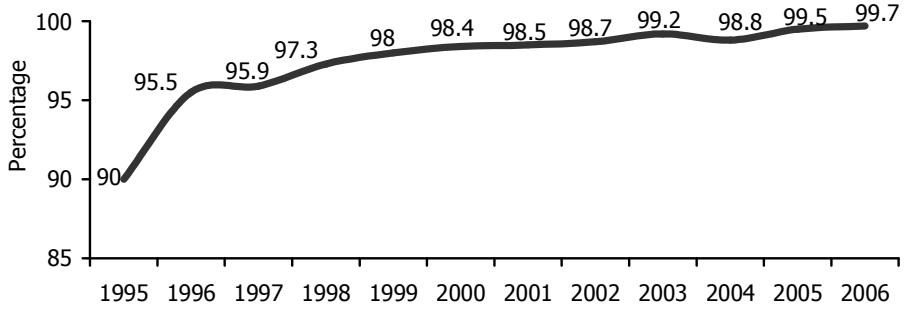


Figure 1, pregnant women protected against tetanus 1995-2006

It is worth mentioning that there was a drop in the overall coverage from 99.2% in 2003 to 98.8% in 2004. However, there was an increase in immunization coverage in

all Fields from the figures of 2005. In Gaza, exceptional efforts were exerted by staff members through active surveillance and home visits to overcome the barriers to access, which resulted in an increase from 99.1% in 2005, and to 99.4% in 2006. While the overall immunization coverage in the other Fields including West Bank was close to 100%. Owing to the optimal immunization coverage maintained, no cases of tetanus were reported among mothers or newborns.

Data from the MCH/FP module of the management health information system provided indicators for quality of antenatal care. These indicators are as follows:

a Number of antenatal visits

A key objective of the maternal health care programme is to ensure that women register 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.

Table 4, Proportion of pregnant women by No. of antenatal visits, 2006

No. of antenatal visits	Jordan %	Lebanon %	Syria %	Gaza %	WB %	All fields
1	2.4	0.6	1.8	0.9	2.8	1.7
2 - 3	8.3	2.2	10.0	5.0	12.3	7.5
4 - 6	35.4	17.1	42.7	31.2	43.9	34.9
7 - 9	43.9	56.0	44.3	49.4	36.0	45.5
10+	9.9	24.1	1.3	13.6	4.9	10.4
Total	**100**	**100**	**100**	**100**	**100**	**100**

Analysis of data reveals that the percentage of pregnant women, who paid 4 visits or more to UNRWA maternal health services, is 90.8% compared to 89.1% in 2005, Agency-wide as shown in Table (4) above and Figure (2) below.

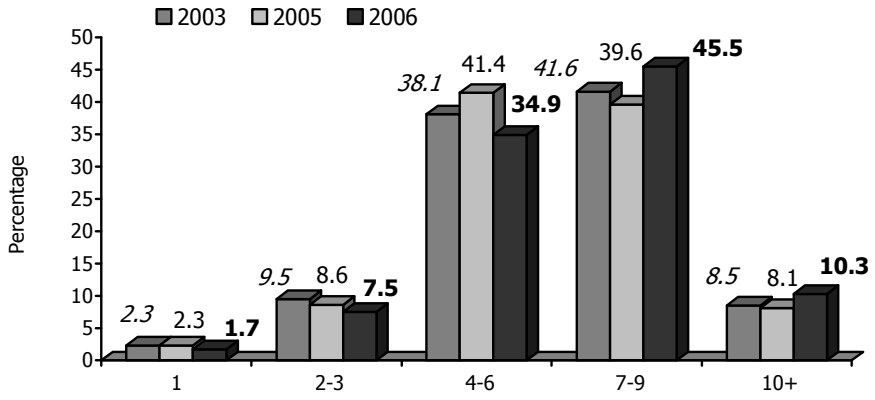


Figure 2, Proportion of pregnant women by the No. of antenatal visits, 2006

The proportion was highest in Lebanon (97.2%), followed by Gaza (94.1%), Jordan (89.3%), Syria (88.2%), and it was lowest in the West Bank (84.9%). The average antenatal visits ranged from 6.1% in Syria to 7.9% visits in Lebanon giving an Agency-wide average of 7 antenatal visits.

b Proportion of pregnant women who registered during 1st trimester

It can be seen from Table (5) below that 65.8% of pregnant women Agency-wide registered during the 1st trimester, while 31.8% registered during the 2nd trimester and 2.4% only registered during the 3rd trimester.

Table 5, Maternal health indicators, 2006

Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	All Fields
Distribution of pregnant women according to time of registration						
During 1st trimester	70.3	88.3	67.7	60.1	61.3	65.8
During 2nd trimester	26.6	10.8	29.3	38.3	35.8	31.8
During 3rd trimester	3.1	1.0	3.0	1.6	2.9	2.4
Percentage of pregnant women who paid 4 visits or more	89.3	97.2	88.3	94.2	84.9	90.8
Average No. of antenatal visits	6.2	7.9	6.1	7.8	6.8	7.0
Percentage of pregnant women delivered by trained personnel	99.7	100.0	98.6	100.0	99.5	99.7
Overall discontinuation rate among family planning users (%)	7.9	5.4	6.6	6.1	6.6	6.7

Figure (3) below, shows that the proportion of women, who registered during the first trimester, increased substantially in all Fields during the period 2004 to 2006.

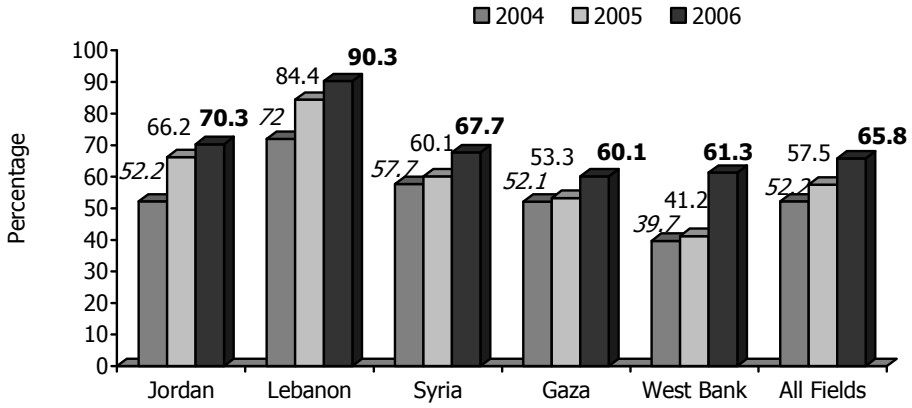


Figure 3, Proportion of pregnant women who registered during the 1st trimester (2004, 2005 & 2006)

5.3.3 Intra-partum care

UNRWA subsidises the hospital delivery of pregnant women classified as high-risk either by referral to contracted hospitals or through reimbursement of costs.

As shown in Table (6) and Figure (4) below, 93.5% of the reported deliveries, Agency-wide took place in hospitals during 2006 compared to 85.4% in 2002 and 90.6% in 2005. During 2006 UNRWA maternity units in Gaza were closed, as further analysis has shown that deliveries at maternity units are no more cost effective. Therefore, a decision was made to subsidize all pregnant women to deliver in hospitals, redeploy staff and to integrate the space occupied by the maternity units with the MCH services. During 2006 pregnant women who are expected to utilize maternity units they were assisted in hospitals this was reflected in an increase in hospital reported deliveries from 81.7% in 2005 to 88% in 2006 in Gaza Field.

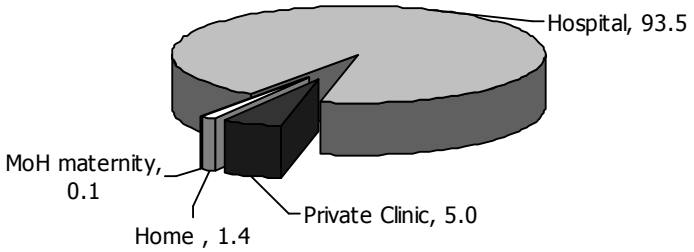


Figure 4, Distribution of deliveries according to place, 2006

It can be seen from Table (6) that the highest rate of home deliveries was in Syria. It should be noted however, that the percentage of home deliveries in that Field dropped from 15.4% in 2000 to 7.9% in 2005 to 6.2% in 2006 and that a substantial proportion of home deliveries was attended by trained personnel.

Table 6, Proportional distribution of deliveries according to place, 2006

Deliveries	Jordan	Lebanon	Syria	Gaza	WB	All
Total No. of reported deliveries	25 094	4026	8918	32 076	10 762	80 876
Distribution of deliveries according to place (%)						
At home	0.7	1.0	6.2	0.5	1.7	1.4
At MoH maternities	0.0	0.0	0.0	0.3	0.0	0.1
In hospitals	99.1	98.5	90.9	88.0	97.1	93.5
At private clinics	0.2	0.4	2.9	11.3	1.1	5.0

In general, 98.6% 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 (5) on the next page.

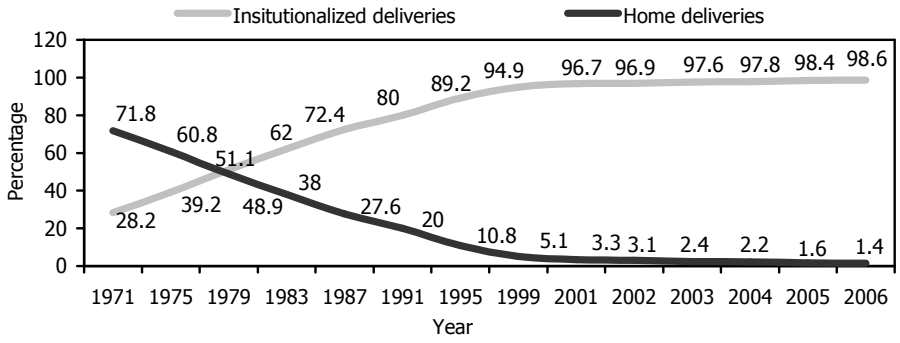


Figure 5, Trends of home and institutionalized deliveries

As shown in Figure 6, data collected through the management health information system indicate that, the percentage of women who delivered by trained personnel Agency-wide was 99.7% with slight variations between Fields. This rate was 99.7% in Jordan, 100% in Lebanon and Gaza, 99.5% in the West Bank and 98.6% in Syria. Data obtained from the routine system revealed that 1.4% of women deliver at home. This indicates that the majority of women who deliver at home are attended by trained personnel.

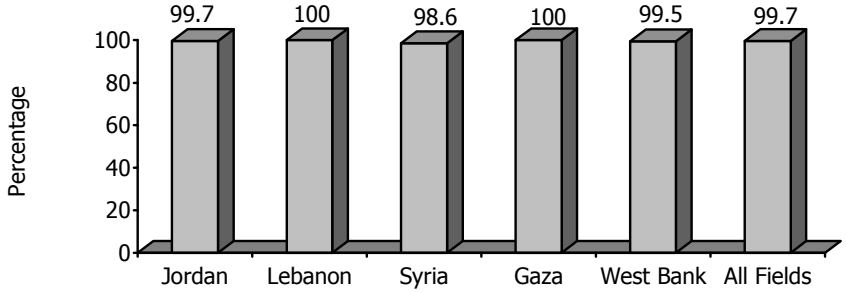


Figure 6, Proportion of women who delivered by trained personnel, 2006

The total number of pregnant women who were expected to deliver during 2006 Agency-wide was 87,758. Active surveillance of the outcome of pregnancy of those women indicated that 81,916 delivered (93.4%) and 5,543 aborted (6.3%). The outcome of only 299 pregnant women (0.3%) who received antenatal care at UNRWA primary health care facilities remained unreported or unknown as shown in Table (7) on the next page. The percentage of unknown outcome of deliveries dropped from 2.8 in 2002 to 0.3% in 2006. The highest percentage of unknown outcomes was in the West Bank namely 1.9% compared to 9% in 2002. Although there was a reduction in this percentage in the West Bank, it is still considered to be high. This high percentage of unknown outcome could be attributed to inadequate feedback due to curfews and restrictions imposed on movement of clients and staff.

Table 7, Outcome of pregnancy, 2006

Field	No. of expected deliveries 2005	Known outcome						Unknown	
		Deliveries		Abortions		Total		No.	%
		No.	%	No.	%	No.	%		
Jordan	27 685	25 738	93.0	1 886	6.8	27 624	99.8	61	0.2
Lebanon	4 549	4 096	90.0	453	10	4 549	100	0	0
Syria	9 506	8 941	94.1	552	5.8	9 493	99.9	13	0.1
Gaza	34 207	32 193	94.1	2011	5.9	34 204	100	3	0.01
WB	11 811	10 948	92.7	641	5.4	11 589	98.1	222	1.9
All	**87758**	**81916**	**93.4**	**5 543**	**6.3**	**87459**	**99.7**	**299**	**0.3**

Analysis of data obtained through the hospital management information system indicated that caesarean section rate among women assisted through UNRWA hospitalization schemes varied widely from one Field to another. These rates however, relate to women in the high-risk category and not to all reported deliveries. Table (8) below shows that the CS rate was highest in Syria at 41.2% while it was 53.1% in 2005 and 72.5% in 2003. This reduction could be attributed to the contracts concluded with University Hospitals, beginning 2004, which have a reputation of a more rational and acceptable CS rate. Although there was a reduction in the CS rate in Syria, nonetheless, it is still considered to be high even among high-risk pregnant women. This mainly reflects the medical practice in some contracted hospitals. The lowest rate was in Gaza 10.8% this is not truly representative, mainly due to lack of feedback from hospitals as the number of subsidized hospital deliveries in Gaza during 2006 amounted to only 74 deliveries while the total number of hospital deliveries in Gaza amounted to 31,683 with a rate of 88% of hospital deliveries.

Table 8, Comparison of the C.S rate among UNRWA-assisted deliveries and all reported deliveries through MHIS, 2006

Field	Assisted deliveries (high risk) (In-patients Reports)					All reported deliveries (MHIS)
	Total deliveries	Vaginal deliveries		Caesarean section rate		Caesarean section rate
		No.	%	No.	%	%
Jordan	11 080	8 540	77.1	2 540	22.9	14.4
Lebanon	2 176	1 532	70.4	644	29.6	19.9
Syria	2 027	1 191	58.8	836	41.2	23.7
Gaza	74	65	87.8	9	12.2	10.8
West Bank	5 416	3 951	73.0	1 465	27.0	18.1
Total	**20 773**	**15 279**	**73.6**	**4 780**	**26.4**	**14.9**

Data obtained through the MCH management health information system reveals that CS rate among all pregnant women ranged from the lowest 10.8% in Gaza to 23.7% in Syria the highest with an overall caesarean section rate of 14.9% (see Table 8 above).

The prevalence of diabetes mellitus during pregnancy in 2006 was established at 1.9% Agency-wide compared to 1.7% in 2005. As shown in Table (9) below, the prevalence rate varied from 2.7% the highest, in Lebanon, to 1.3% in Gaza the lowest, which indicates that it is still below the universally expected rate of 3-5%. Further efforts need to be exerted in order to improve detection rate. Further analysis of data revealed that 30.9% of women with diabetes during pregnancy were with pre-existing diabetes, 33.9% had gestational diabetes and recovered after delivery,

13.2% were diagnosed during pregnancy and did not recover after delivery, while 22% were still pregnant at the end of 2006.

Table 9, Prevalence of diabetes and hypertension during pregnancy, 2006

Prevalence rate (%)	Jordan	Lebanon	Syria	Gaza	WB	All
Diabetes during pregnancy	2.3	2.7	2.5	1.3	1.9	1.9
Hypertension during pregnancy	6.2	6.5	6.2	9.4	4.2	7.2

The prevalence of hypertension during pregnancy including pre-existing and pregnancy-induced was 7.2% while it was 7.0% in 2004 with wide variations between Fields as shown in Table (9) above. The incidence of pregnancy-induced hypertension increased from 2.7% in 2001 to 4.5% in 2006, which indicates an improved detection rate. 45.5% of hypertension cases were pregnancy-induced and recovered after delivery, 23.7% of women had pre-existing hypertension, 15.3% were identified during pregnancy and the condition persisted after delivery while 15.5% were still pregnant at year-end.

5.3.4 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 at UNRWA primary health care facilities or at home, whichever is more accessible and convenient to the families.

Table 10, Post-natal care coverage, 2006

Field	No. of deliveries	No. women who received care 2006	Coverage of Post-natal care (%)
Jordan	25 799	22 649	87.8
Lebanon	4 096	3 939	96.2
Syria	8 954	8 535	95.3
Gaza	32 196	31 765	98.7
West Bank	11 170	9 925	88.9
All Fields	**82215**	**76 813**	**93.4**

Table (10) above indicates that, a total of 76,813 women received post-natal care during the year representing 93.4% coverage rate of expected deliveries, Agency-wide with the highest rates of 98.7% in Gaza and 96.2% in Lebanon Fields, and the lowest rate of 87.8% in Jordan and 88.9% in the West Bank. This low coverage in the West Bank could be attributed to the continued restriction of movements due to the prevailing emergency situation.

5.3.5 Family planning services

A total of 22,057 new family planning acceptors were enrolled in the programme during the year 2006. The total number of continuing users of modern contraceptive methods Agency-wide increased from 109,244 in 2005 to 116,336 in 2006 with an annual increase of 6.5%.

Table 11, Family planning services, 2006

	Jordan	Lebanon	Syria	Gaza	WB	All
No. of new FP acceptors during the year	7 841	1 596	2 496	7 024	3 100	22 057
Total No. of continuing users at end year	31 376	11 892	17 809	37 351	17 908	116 336
Distribution of FP users according to method:						
IUD	43.8%	41.3%	45.2%	50.9%	52.0%	47.0%
Pills	29.4%	28.9%	30.2%	25.4%	26.3%	27.8%
Condoms	22.7%	28.0%	20.4%	19.2%	18.5%	21.2%
Spermicides	1.5%	0.7%	1.7%	0.8%	1.2%	1.2%
Injectables	2.6%	1.1%	2.6%	3.7%	2.0%	2.8%

It is worth mentioning that the number of new family planning acceptors in Gaza increased markedly from 1,365 in 2005 to 7,024 in 2006. This could be attributed to the efforts exerted by health staff at service delivery level and improved counselling. The number of continuing users in Gaza dropped from 30 466 in 2001 to 29,540 in 2003 then increased to 30 765 in 2004, which is the pre-Intifada level, and to 33 848 in 2005 and to 37 351 in 2006. There was an increase in the number of continuing users of 10.3% in Gaza, 7.7% in the West Bank, 6.7% in Jordan and 4.3% in Lebanon Field, whereas, there was a decrease of 0.9% in Syria Field.

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 in all Fields.

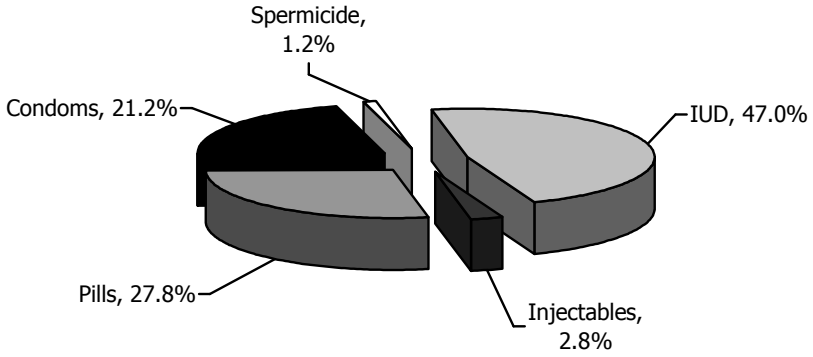


Figure 7, Contraceptive method mix, Agency-wide, 2006

Couple-Years of Protection (CYP) is an output indicator used to estimate the number of clients (or couples) that the dispensed contraceptives protected in a year.

Contraceptives dispensed during 2006 through the Agency's family planning services provided 113,578 CYP with variations between Fields as shown in Table (12) below. The table also shows that, the CYP provided during 2006, increased in all Fields except in Lebanon and Syria Fields where there was a mild decrease.

Table 12, Years protection provided through the Agency's family planning programme, 2000-2005

Couple Years of protection (CYP)	Jordan	Lebanon	Syria	Gaza	West Bank	All Fields
During 2000	12 261	7 865	18 895	33 685	11 179	83 885
During 2002	20 801	11 442	16 236	30 043	11 450	89 972
During 2003	23 654	12 608	16 172	29 559	14 056	96 049
During 2004	26 241	11 065	18 762	31 753	13 784	101 605
During 2005	26 675	13 551	16 160	33 847	18 425	108 658
During 2006	28 921	9 790	15 992	38 941	19 934	113 578

Data from the MCH/FP module of the MHIS revealed that discontinuation rate of modern contraceptives ranged from 5.4% in Lebanon to 7.9% in Jordan. In 1996, a study was conducted to assess the discontinuation rate of modern contraceptives short after integration of family planning services within the Agency's maternal health programme, since then progress attained is shown in Figure (8) below.

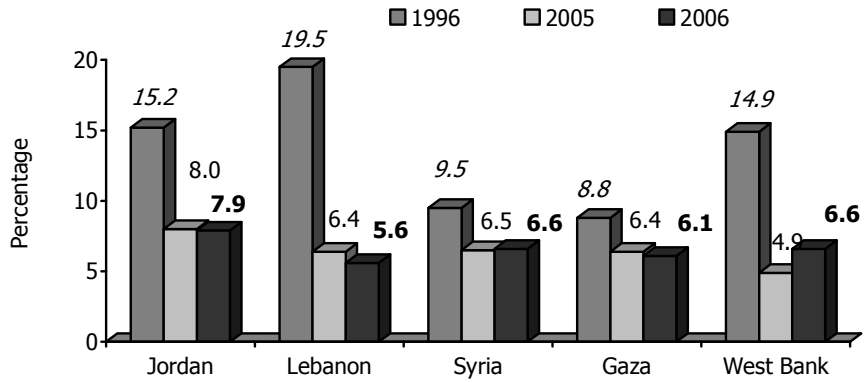


Figure 8, Discontinuation rates of modern contraceptives (1996, 2005, 2006)

The tangible success of the family planning programme is demonstrated in Figure (9) below, which shows a steady increase in number of family planning acceptors over the number of pregnant women cared for, since integration of family planning services into UNRWA's maternal and child health care services in 1994.

During the last 10 years, there was approximately a 3-fold increase in the number of women enrolled in the programme. It is worth mentioning that the total number of family planning acceptors is an output indicator, which reflects the change in the reproductive health practices of the refugee population. However, the actual impact of the Agency's family planning programme is usually evaluated through conducting periodic studies every five years.

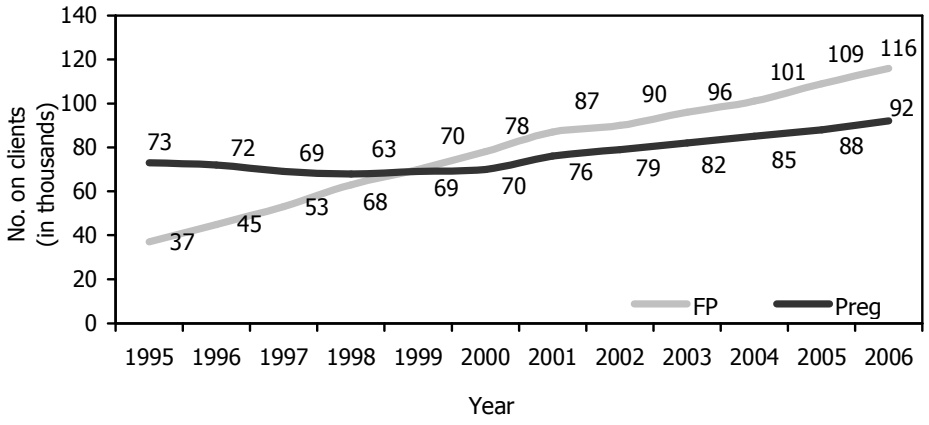


Figure 9, Total number of pregnant women and FP acceptors in thousand (1995- 2006)

The last study was conducted in 2005 revealed that there was a notable drop in the TFR among mothers of children 0-3 years of age who attended the MCH clinics since the introduction of the family planning programme in the five Fields as shown in Figure (10) below, it can be also noticed that the highest fertility rates in 2005 were in Gaza and Jordan.

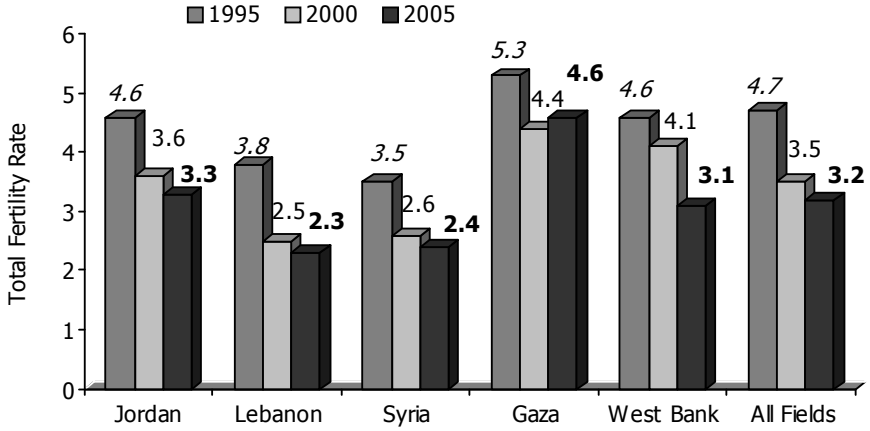


Figure 10, Change in total fertility rates between 1995, 2000 2005 and 2006

5.3.6 Surveillance of maternal mortality

During 2006, a total of 14 maternal deaths were reported from the five Fields, giving a maternal mortality ratio of 16.2 per 100,000 live births compared to 19 cases in 2004 and 15 cases in 2005. 7 deaths were reported from Gaza Strip, 4 from Jordan, 1 each from the West Bank, Lebanon and Syria Fields. One case only was not registered at UNRWA clinics for antenatal care, 7 cases were registered during the first trimester, 5 cases during the second trimester and two cases during the 3rd trimester. Most maternal deaths were of multi-parity and/or pregnancy after 30 years of age. The age of 10 cases was 30 years or more and 11 cases were with gravida 3 or more. 10 cases died during pregnancy or labour while 4 cases of maternal deaths occurred during postnatal period. 11 cases died in hospitals while 3 cases died at

home of those 2 in Gaza and one in the West Bank, which reflects limitations on the availability and accessibility of intra-natal care in oPt. 5 cases of the 14 maternal deaths, which were registered at UNRWA antenatal care, paid less than 4 visits. Two cases out of the 4 reported from Jordan paid only one antenatal visit.

5 maternal deaths (36%) out of the 14 were due to preventable causes including 2 cases of haemorrhage and 3 cases from toxaemia/hypertension. Pulmonary embolism was the cause in 4 maternal deaths (28.6%). 4 cases (28.6%) were with underlying morbidity; 2 maternal deaths (14.3%) were with congenital heart disease and one case (7.1%) was with liver disease complicated with oesophageal varicose, one case (7.1%) with appendicitis complicated into peritonitis and one case (7.1%) due to hypoglycaemic coma.

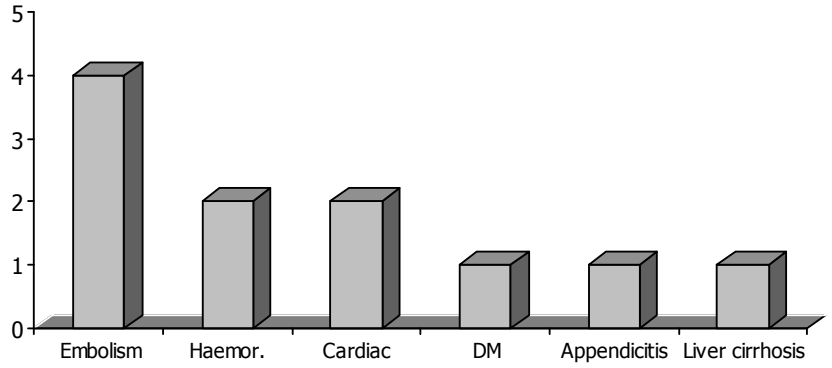


Figure 11, Causes of maternal deaths, 2006

5.3.7 Infant and child health

During 2006, a total of 250,812 infants and children below 36 months of age compared to 240,930 in 2005, 4.1% increase, 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.

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 been stabilized.

Attendance during the first year of life was estimated at 90% of all infants registered, Agency-wide with the highest rate of 100% in Lebanon and Gaza Fields. The attendance rates Agency-wide were 75% during the second year and 49% during the third year of life.

Service coverage rates were estimated as the number of infants below 12 months of age registered for care, to the expected number of surviving infants based on the best estimates of crude birth rates as published by the Host Authorities.

Table 13, Infant and child health care, 2006

Field	Jordan	Lebanon	Syria	Gaza	WB	All
Registered Refugees	1 858 362	408 438	442 363	1 016 964	722 302	4 448 429
Estimated No. of surviving infants *	52 653	6 412	9 879	35 164	18 195	122 303
Infants below 1 year registered	29 529	4 282	9 498	31 733	11 331	86 373
Coverage of infants (%)	**56.1**	**66.8**	**96.1**	**90.2**	**62.3**	**70.6**
% regular attendance	81	100	85	100	88	90
Children 1-<2 years registered	28 797	4 294	8 629	31 795	10 450	83 965
% regular attendance	76	99	89	60	94	75
Children 2-<3 years registered	28 546	4015	7 776	29 515	10 622	80 474
% regular attendance	39	88	68	40	75	49
Children 0-3 years newly registered	**86 872**	**12 591**	**25 903**	**93 043**	**32 403**	**250 812**

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

Services coverage increased from 62.3% in 2002 to 70.3% in 2005, to 70.6% in 2006 with the highest rate of 96.1% in Syria and the lowest in Jordan (56.1%) as shown in Table (13) above. This increased coverage in Lebanon could be attributed to the low crude birth rate reported this year by the host authority.

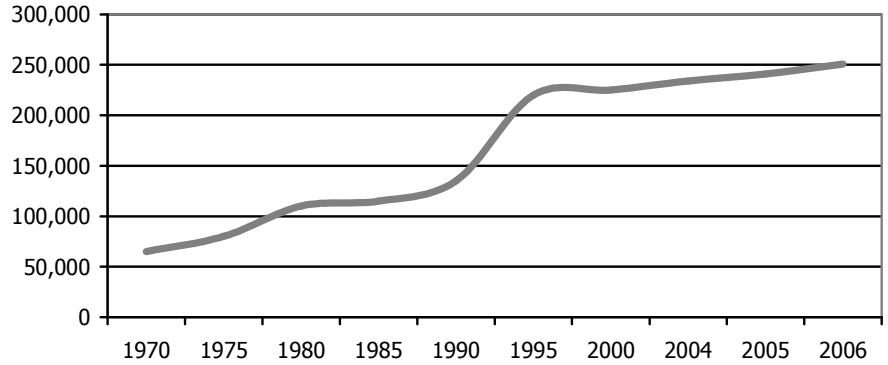


Figure 12, Infant & children below 36 months under care

In Jordan Field, the coverage rate of 56.1% could be attributed to the availability of other health care providers and the limited number of UNRWA facilities with several un-served refugees' communities outside camps. The low coverage in the West Bank could be attributed to obstacles or/and restricted access.

During 2006, the immunization coverage was optimal for infants below 12 months of age for all EPI antigens Agency-wide. The rates were 99.9% for BCG, 99.6% for each of OPV, DPT and Hepatitis B, and 99.4% for Measles. 100% coverage of all antigens was achieved in Gaza and Lebanon Fields. The Hib vaccine is provided for infants below 12 months of age in three Fields, Jordan, Lebanon and Syria and the coverage rates were 99.3%, 100% and 99.8% and it was introduced as from November 2006 in West Bank and Gaza respectively. Likewise, the immunization coverage rate for booster doses was optimal namely, 99.3% for OPV, 99.4% for DPT and 98.1% for MMR. (For more details, refer to table 2, chapter VI of this report).

An analysis of the West Bank data by area and health centre revealed that the extraordinary efforts exerted by health staff and the successful collaboration with public health authority, NGOs and community organizations, resulted in substantial improvement on the immunization coverage in the West Bank in general and in certain pockets with low coverage detected during 2005 in Jerusalem and Hebron areas in particular.

5.3.8 Surveillance of infant and child mortality

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 2006 as shown in figure 13 were low birth weight and prematurity (29.0%), congenital malformations (22.0%) and acute respiratory infections (18.4%). The cause of death in 7.2% of reported cases could not be ascertained. Further analysis of data showed that 62.2% of reported infant deaths were during the neonatal period and the majority of which were due to prematurity.

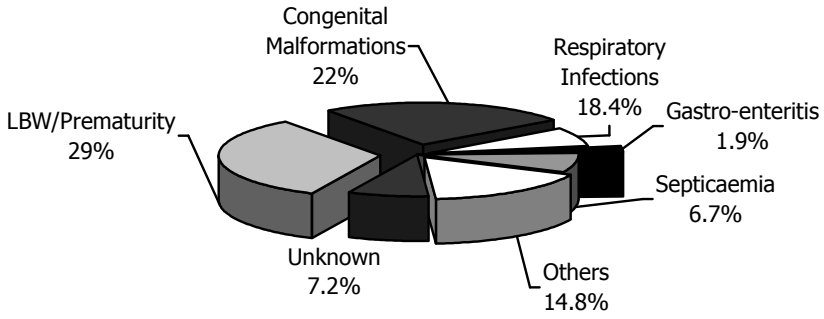


Figure 13, Leading causes of infant mortality in 2006

Mortalities due to congenital malformations were more likely to occur during the early neonatal (0-7 days) and 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, 56.6% and 43.4% respectively.

Between 1969 and 2006 there was a substantial change in the pattern of causes of infant deaths. In 1969, the two main causes of infant death were gastroenteritis and respiratory infections contributing to 36.0% and 35.0% of infant deaths respectively. While in 2006, the two main causes of deaths were prematurity/LBW and congenital malformation. This change in the pattern of causes could be attributed to the high vaccination coverage, better health care and increased health awareness among families in general and mothers in particular.

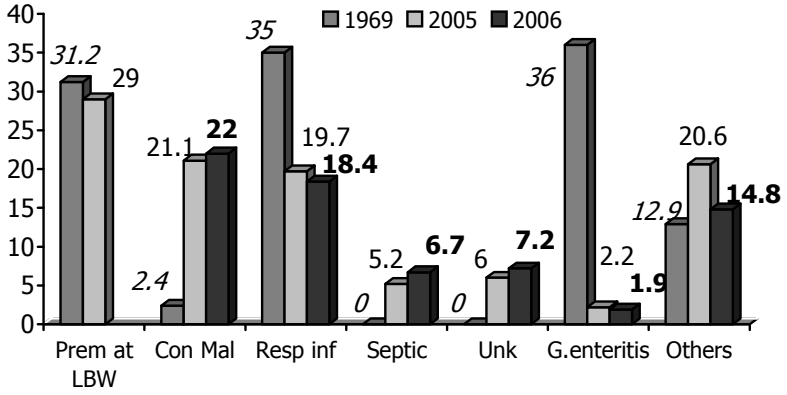


Figure 14, Causes of infant mortality 1969, 2005 and 2006

As can be noticed from Figure (15) and similar to 2005, congenital malformations ranked first among the leading causes of child mortality at 17.8% followed by accidents (17.1%) while it was 8% in 2005, followed by respiratory infections (14.7%) and heart diseases accounted for 11.6% of child mortality. The reduction in the proportion of unknown category from 4% to 3.1% is due to better reporting and verification of cause of death.

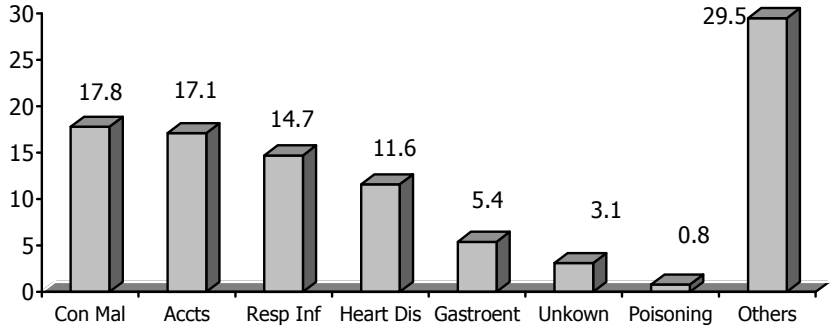


Figure 15, Causes of child mortality, (1-3 years, 2006

Among children 2-3 years of age, 65.9% of child deaths took place during the second year of life, while 34.1% took place during the third year. It is worth mentioning that seven of the reported child deaths during 2006 were due to gastroenteritis. Therefore, more efforts need to be exerted to address respiratory infections, accidents and gastro-enteritis as preventable causes of child mortality contrary to infant mortality; child mortality was higher among females than males namely 53.5% and 46.5% respectively

One of the main specific objectives of Health Protection and Promotion program is to reduce the infant and early child morbidity and mortality.

There has been a considerable reduction in infant and child mortality in the last five decades among Palestinian refugees, This substantial reduction was to large extent made possible through, the implementation by UNRWA of several cost effective interventions to prevent morbidity and reduce infant and child mortality such as immunization, growth monitoring, promotion of breast feeding, management of diarrhoeal diseases, family planning programme, management of acute infections

including respiratory Infections, screening and management of nutritional deficiencies and health education programme. The very high infant mortality rate (160 deaths per 1000 live birth) reported in early 1950s declined to 22 per 1000 live birth in 2003. The graph below illustrates the decline in the rate of infant mortality, which took place over the last five decades in Gaza Field.

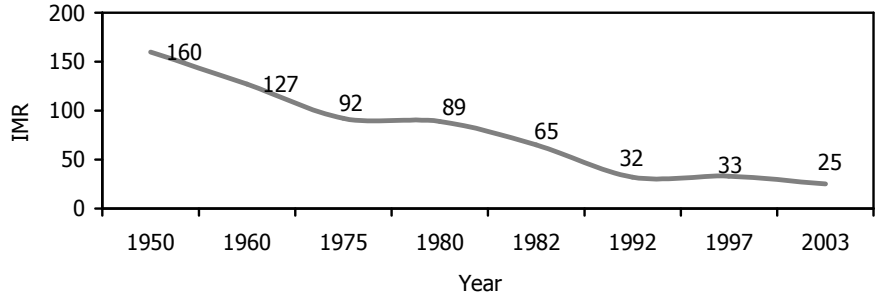


Figure 16, Infant Mortality Rate in Gaza Field

Results of 2003 study on infant and child mortality revealed that there was a substantial drop in the mortality rate across the Fields, however, if mortality is to be further reduced, specific targeted interventions should be implemented. Therefore, to further understand the underlining causes of these deaths, a system of an in-depth inquiry (verbal autopsy) of infant and children deaths was implemented. During 2006, a total of 589 in-depth inquiries were undertaken in the five Fields. The results revealed that 81% of all deaths took place during the first 6 months of life and 83.3% of children 0-3 years of age died in hospitals while 16.3% died at home. 54% of all deaths were males and 46% were females. The majority of deaths were due to congenital malformations 31.1% and low birth weight/prematurity 27.8%, which is consistent with data obtained from the routine reporting system. It is worth mentioning that accidents contributed to 8% of deaths, sudden death contributed to 5.8% of all deaths and only in 1.2%, the cause of death was unknown.

5.3.9 Study on anaemia in Gaza and West Bank

This study was conducted to asses the prevalence of anaemia among pregnant women and children 6–36 months, and to monitor changes in the prevalence of anaemia, after the aggravation of the humanitarian crisis which was erupted in the oPt after the imposed sanctions early 2006.

The study revealed that the prevalence of anaemia among pregnant women in both Fields was 38.6%, with wide variation between the two Fields; 44.9% in Gaza compared to 31.1% in the West Bank.

Table 14, Prevalence of anaemia among pregnant women 2004 and 2006

Fields	Prevalence of anaemia among pregnant women		Variance 2004-2006
	2004%	2006%	
Gaza	35.7	44.9	+9.2
West Bank	29.5	31.1	+1.6

The study also showed that the prevalence of anaemia increases with age, parity and with the stage of pregnancy. It shows that the lowest rate of anaemia was reported

during the first trimester of pregnancy and almost doubled in the second and third trimester of gestation.

The prevalence of anaemia among children 6-36 months of age in both Fields was 47.9% compared with 33.8% Agency-wide in 2004 survey. The reported prevalence from Gaza was 57.5% compared to 54.7% in 2004 and 37.1% in the West Bank compared with 34.2% in 2004 as shown in the table below:

Table 15, Prevalence of anaemia among children 6-36 months of age in 2004, 2006

Fields	Prevalence of anaemia among children 6-36 months		Variance 2004-2006
	2004%	2006%	
Gaza	54.7	57.5	+2.8
West Bank	34.2	37.1	+2.9

The highest rate of anaemia in both Fields was among children 6-11 months of age, which reached 55.8%, compared to 47.5% Agency-wide in 2004. 55.9% among 12-17 months of age compared to 37.4% Agency-wide in 2004. 51.6% among children 18-23 months compared to 29.1% Agency-wide in 2004 and dropped to 35.5% among children 24-36 months of age compared to 20.3% Agency-wide in 2004. The study revealed that anaemia among children increased with the increase of mother's parity and the childbirth order.

In spite of the fact that UNRWA implemented different measures and strategies to combat anaemia among children and pregnant women including provision of prophylactic iron for mothers during pregnancy to increase iron stores, iron fortification of flour distributed through food aid programme for pregnant women and nursing mothers, screening of children at age of one year and the provision of therapeutic iron to anaemic children, anaemia still a public health problem.

5.3.10 School health

During the school year 2005-2006, a total of 485,471 pupils were enrolled in UNRWA schools, of whom 243,040 girls and 242,431 boys, distributed between elementary grades (316,212), preparatory grades (166,011) and secondary grades (3,284) only in Lebanon.

Collaboration with Education Department was further enhanced through regular and ad-hoc meetings of school health committees at various levels during which all components of the school health programme, areas for cooperation, ways and means to overcome difficulties encountered in the Fields were discussed, training of Health Tutors on the newly revised TIS, first phase screening and life support skills and provision of vision charts to schools.

a New entrants medical examination

During the school year 2005/2006, a total of 47,848 new entrants were registered in UNRWA schools of whom 24,157 girls and 23,691 boys, they received Immunization, thorough medical examination and follow-up. The main morbidity conditions detected among new entrants were: dental caries in 40%, gingivitis 6.4%, vision defects in 5.1%, squint 1%, undescended testicles 0.9%, heart disease 0.8%, bronchial asthma 0.7%, hearing impairment and congenital malformations with 0.4% each, hernia and thyroid enlargement in about 0.3% each, physical disabilities and haemolytic anaemia in 0.2% and DM, arthritis, amputation and epilepsy in 0.1% each. Children with

disabilities were assisted towards provision of eyeglasses, hearing aids and other prosthetic devices according to their conditions and available resources.

In the absence of an Agency-wide mechanism for hearing screening, it was not possible to assess the prevalence rate of hearing impairment; only 206 cases were detected in 2006 compared to 97 cases in 2005. Resources were allocated to introduce programmes for early detection and management of disabilities especially hearing impairments including the procurement of audiometers and training of staff in the five Fields.

b Screening

Screening activities targeting pupils in the 7th grade and in the 4th grades in all Fields and covers; testing of vision, hearing and thyroid enlargement as well as oral health problems. Of the 57,480 students enrolled in the 7th grade, 56,014 were screened with coverage rate of 97.4% compared to 94.8% in 2005. The main morbidity conditions detected were vision defects with 11.8% and hearing impairment in 0.87%.

Of the 55,091 students enrolled in the 4th grade, 51,744 were screened with coverage rate of 94%. The main morbidity conditions detected were vision defects with 9.5% and hearing impairment with 0.86%.

c Immunization

During the school year 2005-2006, schoolchildren were immunized according to immunization schedules as follows:

New entrants: Booster dose of DT/Td immunization coverage Agency-wide was 98.9% ranging from 100.0% in Lebanon and Syria to 99.9% in Gaza, 98.3% in Jordan and 97.2% in the West Bank. The coverage rates of OPV for new entrants were 99.4% in Jordan, 99.3% in the West Bank and 99.2% in Gaza.

341 new entrants' schoolchildren in Jordan were vaccinated with MMR. This vaccine is given only as a catch-up to those who were not vaccinated previously.

Sixth grade females: Rubella vaccine is given to female students in the 6th grade in Gaza and West Bank. The coverage rates in Gaza and the West Bank were 99.7% and 96.6% respectively.

Ninth grade: During the school year 2005/2006 the overall coverage rate of Td vaccination among 9th grade school children in the five Fields was 98.8%.

d Deworming programme

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 enrolled in its schools in all Fields using a single dose of an effective wide-spectrum anti-helminthic for 3 successive years. During the school year 2004/2005, all Fields completed the three years campaign. The response rate was very high where approximately 96% of students took the tablets. Upon completion of the three-year campaign, only new entrants will receive the medications for three successive years. During the school year 2005/2006 deworming programme was implemented targeting schoolchildren in the first, second and third elementary classes with high coverage (98%). In addition, a health awareness campaign accompanied the distribution of the medicine.

e Health educational materials

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 and teacher training centres. Approximately 75,000 copies of the booklet "Facts about tobacco" and 51,500 copies of the booklet "Facts about AIDS" where reproduced during 2005 and were distributed to the targeted students during the school year 2005/2006.

Multivitamins supplementation in Jordan and Gaza, the Ministry of Education in collaboration with the Ministry of Health, Jordan sustain a programme for provision of multivitamins to all schoolchildren in government and UNRWA schools.

- **In Lebanon** 155 health tutors were trained on first phase screening and first aid and life support techniques during September 2006 through 8 sessions. Training of 65 medical officers, including school health teams MOs on school health technical instructions was conducted through 4 workshops during November and December 2006.

  In Lebanon two surveys for vision and hearing screening were conducted in coordination with Education Department, during which medical officers and health tutors were trained on screening technique, vision charts were distributed to all schools, health centres and health points and 14 audiometers of the Oto Acoustic Emission Technology (OAET) were purchased. During this survey a total of 38,453 schoolchildren were screened for hearing and vision impairments out of them 411 student were found suffering of certain degree of hearing loss, 165 students had bilateral hearing loss and 246 students had unilateral hearing loss and they were provided with 576 digital fully computerized hearing aids. 6,814 students were detected with certain degree of vision impairment, out of them 2,979 males and 3,835 females and 5,875 students were provided with eyeglasses.

- **In Gaza:** A total of 193 Health Tutors were trained on first phase screening and 50 teachers and 500 students on first aid and life support. First aid materials, fire extinguishers and alarm ring were distributed by the Education Department. Audiometers were purchased and distributed to school health teams and training of school health team on audiometry was conducted.

- **In Syria:** Training of school Health Tutors on first phase screening was conducted and training of health staff on the TIs has been completed in addition of provision of vision charts to school health teams and to schools. 16 audiometers were purchased and training of school health teams on audiometry and vision screening is ongoing.

- **In Jordan** 155 Health Tutors were trained during 8 sessions on first phase screening and on first aid.

A study conducted by Dr. Mohammed Afifi from the Substance Abuse Research Centre in Gaza and West Bank reported a high prevalence of substance abuse in high schools and universities: Tobacco in high schools 7-18%, universities 9-50%, alcohol in high schools 0.3-1.6%, universities 3-4%, heroin/cocaine in high schools 0.8-1.6%, universities 0.8-2.9%, marijuana in high schools 1.1-3%, universities 1.2-4.6%, inhalants in high schools 2.6-4.6%, universities 2.4-4.7%, prescription drugs in high schools 2.5-4.6%, universities 3.3-4.5%. Moreover the study revealed that 59.0% of Palestinian students exhibit functional impairment and nearly 90.0% of youth questioned reported symptoms of severe or moderate hopelessness (32.2% and 57.6% respectively). This underscores the particular importance of developing comprehensive school-based services.

5.3.11 Nutrition

During 2006, a total of 109,294 pregnant women and nursing mothers compared to 105,000 in 2005 (4.1% increase) 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.

During 2005 the Overseas Development Institute (ODI) conducted a review of the emergency programme. The report stated, "The irregularity of food distribution is itself enough to frustrate attempts to correlate amounts distributed with objectives needs. That said, the contents of the food basket are generally appropriate, and are greatly appreciated by recipients. Indeed, the food ration entitlement has great symbolic significance for Palestine Refugees, and any decision to cut it, needs to take this into consideration". It also stated, "The programme has undoubtedly contributed significantly to alleviating hardship, and it has reached the great majority of the most vulnerable".

With respect to utilization of food the ODI team stated, "On the question of selling-on of relief food, while there is anecdotal evidence that relief food does indeed appear on the market, it does not appear that this happens on a significant scale. Evidence from focus group interviews with householders would also appear to indicate that for the most part, the food received is consumed by the households concerned".

The WFP and FAO report published in January 2007 stated that: ((Loss per capita incomes sharply reduced economic access to food with real per capita income decreasing by half since 1999 and resulting in six out of ten people falling below the 2.10 USD per day poverty line in mid-2006.

However, food security in all areas of WBGS has declined since the 2000 Intifada and most recently, due to the loss of PA income amidst growing concerns about the sustainability of Palestinians' resilience.

Dietary diversity seems to be negatively affected by rising poverty levels, and changes to diet in terms of micronutrient content could have long-term consequences on the nutritional wellbeing of the population

The nutrition review indicated that, albeit slowly, chronic malnutrition is on a steadily rising trend; and, micronutrient deficiencies are of concern, particularly iron, iodine and Vitamins A and D.

The 2006 CFSVA (Comprehensive Food Security and Vulnerability Analysis) concluded that 34% (1,322,019) of the WBGS is food insecure, 20% (777,658) is marginally secure, 12% (466,595) is vulnerable to becoming food insecure.

Analysis on the food security profiles by refugee status show that the depth of food insecurity is lower among the non-refugee population than among refugees:

- Out of the total 34% of the population residing in WBGS who are classified as food insecure, food insecurity among non-refugees is 30% while it is 40% for refugees thus demonstrating that the severity of food insecurity is higher for the latter group.
- Population living in camps is the most food insecure (45%).
- Refugees' camps have the highest food insecurity and dependency profile.

The report concluded it is worth mentioning that 46% of the Palestinian are children (0-4 years), who are typically more vulnerable to food insecurity nutritional outcomes))

The wheat flour, which was distributed during 2006 by the Agency in the context of its regular and emergency food aid programmes, was fortified with iron folate, and other trace elements and vitamins. The Palestinian Authority introduced a programme for iron and vitamins fortification of imported as well as locally produced flour. This measure was also implemented countrywide in Jordan. In addition, UNRWA had joined efforts with WHO to encourage the Host Authorities in Syria and Lebanon. 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.

Efforts continued to be 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.

The 2006 data indicate that identification of children with growth retardation improved in all Fields. The incidence rate increased from 2.8% in 2005 to 3.4% in 2006. However the detection rate of growth retardation in some Fields was very close to the expected results while in others underreporting is still an issue of concern especially in the West Bank. In Gaza Strip, not only that the prevalence rate was low in light of the generalized socio-economic hardship, but also the recovery rate was also low. The highest prevalence rates were reported from Syria and Jordan whereas the recovery rate was the highest in Lebanon and West Bank (see Table 16 below).

Table 16, Prevalence of growth retardation among children 0-3 years of age, 2006

Field	Growth Failure/retardation among 0-3 children			
	Incidence	**Prevalence during 2006** (period prevalence)	**Prevalence at year end, 2006**	**Recovery rate (%)**
Jordan	4.6	7.3	3.1	45.7
Lebanon	4.5	7.2	2.7	56.3
Syria	3.4	6.7	3.2	40.7
Gaza	2.6	4.4	2.7	22.7
West Bank	1.5	2.8	1.2	49.0
All Fields	**3.4**	**5.6**	**2.7**	**39.2**

Considering that data is gender disaggregated, there was no gender disparity except in Lebanon. In Lebanon the growth retardation among females was 2% compared to 0.8% among males.

5.3.12 Mental health programme

The objective of the Community Mental Health Programme is to promote and deliver a range of integrated community interventions aimed at improving the psychological and social wellbeing of Palestinian refugees consistent with the gender and health-related Millennium Development Goals (MDGs) (specifically 3,4 and 5), the Convention on the Rights of the Child (CRC) (specifically article 19, inter-alia) and the World Health Organization Mental Health Policy and Service Guidance Package (WHO, 2003).

Mental disorders account for nearly 12% of the global burden of disease. People with mental disorders face stigma and discrimination in all parts of the world. The burden of mental disorders is maximal in young adults, the most productive section of the population. 97.0% of students, living in the occupied Palestinian territories, report direct exposure to violence. The need of people, living their entire lives in violent contexts, is profound. Research indicates that the violence and its consequences will

likely afflict them and their children for generations even after the cessation of all hostilities

Palestine refugees are among the most disadvantaged sectors of the population. Since 1948 they have been suffering from the trauma of displacement. The present experience of conflict and violence only adds up to the very many wounds and scars marked in their psyche over the last decades. Whereas, 20% of the Palestinian population is in need for psychosocial support. The percentage rises to 44.9% among the refugee population, and 53% among camp population (IUED).

Since the outbreak of the second Intifada on 28 September 2000, the Palestinian refugees entered a new era of suffering. Killing, shooting, mass destruction, and closure became everyday reality. Rates of unemployment and poverty reached unprecedented levels. Continuous Israeli incursions into the Palestinian territories and the level of violence escalated are continuing to leave an increased psychological distress for many Palestinians leaving no space for community healing. Over the last six and half years 4,785 Palestinians, among them 786 children, have been killed and tens of thousands have been injured many of whom are left with permanent disability.

Different studies have shown that the refugee population are suffering from different psychological disorders that vary according to age, sex and place of residence. The most affected groups among the refugee population are children, women, adolescents, and the elderly. Research carried out during and before the Intifada showed increase rates of stress related disorders among the general Palestinian population. In 2001 Gaza Community Mental Health Programme showed that more than 90% of the Palestinian children are exposed by one way or another to traumatic event and more than half of them developed moderate-severe traumatic reactions; on a separate study it was found that there was a high prevalence of PTSD among the injured. In Primary Health Care facilities it was also found that 60% of the attendants suffer from masked psychiatric symptoms. 59.0% of Palestinian students exhibit functional impairment, which is most prominent in the school environment. This underscores the particular importance of developing comprehensive school-based services and nearly 90.0% of youth questioned reported symptoms of severe or moderate hopelessness (32.2% and 57.6% respectively).

A study conducted by Rita Giacomini from Birzeit University on Palestinian Adolescents Coping with Trauma reported that among students of 10th and 11th grades a very high level of exposure to violent events "80% of them saw shooting, 67% stranger humiliated, 49% stranger injured, 11% friend/neighbour killed, 60% exposed to tear gas, 35% house searched, 22% house shoot at, 30% body searched and 23% injured at least once by occupation violence”

Another study conducted by Dr. Samir Qouta on the Prevalence of PTSD among Palestinian children (2003) revealed that: The most frequent types of exposure for children are: 94.6% witnessed funerals, 83.2% witnessed shooting, 66.9% saw injured or dead who were not relatives, 61.6% saw family members being injured or killed, 36.1% were tear gassed. The study realized that the increase in exposure to traumatic events led to an increase in the rate of identifiable PTSD symptoms: 32.7% of the children suffered from moderate levels of PTSD symptoms indicating psychological intervention, 49.2% of the children suffered from moderate levels of PTSD symptoms, 15.6% of the children suffered from low levels of PTSD symptoms, 2.5% of the children had no symptoms also they found significant differences between boys and girls. For acute levels of PTSD, 57.9% of girls developed such symptoms, while among boys it was 42.1%, children living in camps suffered more than children living in towns. It was found that 84.1% of camp children developed PTSD, while 15.8% of town children developed PTSD.

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.

UNRWA responded immediately to the psychosocial needs of the Palestinian community that emerged by implementing appropriate community-based mental health interventions. To fulfil this critical gap of services that became crucial two psychosocial support programmes; one in Gaza and the second in the West Bank were funded through the emergency programme. The two programmes were implemented as sector-wide activities involving the Health, Education and Relief & Social Services departments

The programme started in 2002 as psychosocial support project by recruitment of a number of counsellors in Gaza and West Bank. With widening the programme perspective and recruitment of international expert in 2005; it was re-named as Community Mental Health Programme. The programme in Gaza relies on 189 counsellors being supervised by 6 assistant supervisors and administered by the training coordinator, administrative officer and 3 supervisors. In West Bank the programme run by 110 counsellors being supervised by 6 assistant supervisors and administered by 3 supervisors, programme manager, training coordinator, and administrative officer. The counsellors conduct their activities departing from UNRWA health centres, schools, and community centres

Throughout 2006 it has offered frontline counselling and group interventions with the aim of improving the mental health and social wellbeing of beneficiaries. Specifically it has offered school, community and clinic based activities for children, parents, other individuals, families and groups.

Table 17, Total number of sessions and beneficiaries

	Group counselling	Individual counselling	Referral	Home visits
No of sessions	13 501	15 361	40	1066
No of beneficiaries	169 521	10 876	40	3566

In schools 176 counsellors at UNRWA school in Gaza and 70 counsellors in WB schools to conduct the mental health activities in schools they work in close cooperation with the school staff, teachers, and head-teachers to ameliorate the psychological suffering experienced by children, in addition they deal with day-to-day problems encountered in most schools.

In Health Centres 14 counsellors in Gaza and 20 in West Bank at health centres who deal with cases referred from the health staff for counselling and organize public awareness meetings, depending on needs however they may carry out community-based interventions as well.

Community Counsellors There are 8 counsellors allocated at the community centres in Gaza and 20 counsellors in WB. They are based in community centres run by UNRWA and carry out their activities departing from these centres. They mainly conduct awareness raising activities and individual counselling occasionally. The counsellors conduct the following activities in the different installations.

Individual Counselling Session Individual counselling sessions tailored to the individual need of each beneficiary were conducted. During 2006 a total of 10,876 beneficiaries, from all age groups were reached through 15,361 individual counselling sessions.

Group Counselling Sessions Children with lower scale problems are assisted through these sessions. Children having similar problems are grouped and through group facilitation and interaction the counsellor helps them to understand their

problems and learn from each other's experiences. Through a succession of sessions with mental health games the children are helped to master certain techniques and develop some measures to become less exposed and more adaptable to environmental stressors. During 2006 a total of 169,521 beneficiaries were counselled through 13501 group-counselling sessions.

Group Guidance Sessions The counsellors conducted 2,498 group sessions and reached thousands of children. Through these sessions the counsellors educate the children or their families about certain mental health issues and encourage them to self-reflect and probate on their own or others experiences to guide them to optimal methods of self care and resilience.

Public Awareness Meetings During this activity adults are invited for a talk about certain mental health topic. The group can be for parents, teachers, housewives, fathers, university students etc…the attendants are given time to ask and discuss their concerns.

Publications The counsellors also prepare and help in preparing posters, brochures, pamphlets and others. Mostly they address mental health concerns and educate people about health coping and self-awareness. In addition to topics related to healthy lifestyles.

Emergency Response The programme responds to different emergencies as part of the emergency and early recovery team of the UNRWA to facilitate the appropriate response to population needs and improve the beneficiaries' coping in post conflict period.

Capacity building In order to ensure the effective delivery of interventions, considerable effort is being directed at continuous capacity building development of staff delivering services. To this end, during 2006 the programme conducted 5 specialized training courses (in English) and 249 training hours in mental health and English language for the counsellors. In addition, the counsellors receive an average of 3-5 hrs of on the job supervision monthly. The programme became one of the important resources for national mental health plan and is taking a leading position in monitoring and implementing the plan.

Table 18, Training, workshop and professional development

Training Course	Training Hours	No. of Beneficiaries
Advanced counselling skills	72	189 counsellors
English Language	57	189 counsellors
Trauma & grief	7	189 counsellors
Developmental Psychology	15	189 counsellors
Behaviour Modification	16	189 counsellors
Group Discussion	54	189 counsellors
Narrative Therapy	25	24 counsellors
Stress Management	3	70 counsellors

5.3.13 Gender mainstreaming

Gender is a crosscutting issue to all core programme activities. For the last years this issue has been addressed through different activities to orient staff on the concepts of gender mainstreaming.

In accordance with the UN policy of gender equity and equality, the Health Department has been encouraging the recruitment of female staff. Table (19) below shows the percentage of women staff recruited in the different categories. The overall rate, Agency-wide for the year 2006 was 31.6% compared to 29.5% in 2005.

Table 19, Percentage of women employed in the Health Programme

Staff categories	Percentage of women recruited staff (in%)					
	Jordan	Lebanon	Syria	Gaza	WB	All
Specialists	0	18.8	50.0	31.0	11.0	22.2
Medical Officers	13.0	21.6	30.0	25.0	9.0	19.7
Dental Surgeons	26.0	14.7	21.0	23.0	0.0	16.9
Pharmacists	0.0	50.0	100	0.0	33.3	36.7
Asst. Pharmacists	36.0	20.0	41.0	52.0	63.6	42.5
Lab. Technicians	33.0	15.0	52.0	62.0	55.5	43.5
All categories	**27.0**	**23.4**	**40.0**	**36.0**	**31.4**	**31.6**

The highest rate of females recruited was among Laboratory Technicians and the lowest was among Medical Officers. The highest rate was in Syria Field with 40% followed by Gaza 36.0%, the West Bank 31.4%, Jordan 27.0% and the lowest was in Lebanon Field 23.4%.

In addition, as part of gender mainstreaming, 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, operational research conducted by Health Department was gender-oriented.

5.3.14 Cervical and breast cancer screening

Status of implementation In order to provide secondary prevention aiming at early detection and management of cervical and breast cancer at an early curable stage and to promote primary prevention activities, UNRWA implemented a screening programme for breast and cervical cancer beginning the year 2006. The level of implementation varied between Fields according to the availability of funds in addition to other technical and operational difficulties.

The following activities were undertaken in all Fields:

- Training workshops on the technical instruction.
- Training on breast self-examination for nursing staff.
- Feasibility studies for implementation were conducted in each Field.
- Contracts were concluded in two Fields namely Syria and Lebanon to carry out mammogram and cytology screening tests during 2006, while technical and budgetary limitations are facing the implementation in the other Fields.
- It is not expected to secure the needed funds for implementation during 2007 in the Fields.

a Syria and Lebanon

- Awareness campaigns were conducted in all Health centres including placement of posters, group discussions, video films on breast self examination, contracts were concluded and guidelines prepared to health staff which includes protocols for referral of patients to the contracted centre, Interpretation of mammography and pap smear reports, recording and reporting of the results at HC and Field level.
- During 2006 in Lebanon, a total of 2,005 women were given referral for mammography, out of them 1,428 (71.2%) underwent the test, 9 cases were detected with confirmed breast cancer and referred for treatment. 1,750 women underwent Pap smear, out of them 2 cases were detected with confirmed cervix cancer and referred for treatment.

In Syria a total of 1,285 women were given referral for mammography, out of them 47 cases (3.8%) were considered suspicious of those 29 cases were ultimately found

negative, 6 cases were considered as precancerous lesion and 12 confirmed cases of breast cancer and referred for treatment. 1,644 women underwent Pap smear, out of them 118 (7.1%) cases were screened positive of those 37 with precancerous lesion and 10 cases detected with confirmed cervix cancer and referred for treatment

5.3.15 Activities conducted in coordination with host authorities, UN and NGOs

Activities and collaboration links with other health care providers are encouraged, strengthened and developed in the benefit of the refugee community. UNRWA maintains wide range of collaboration and coordination activities with different bodies in the Fields. The main activities conducted during 2006 are outlined by Field and organization as follows:

a Syria

- **With the MoH:** The MoH Syria has been providing the Field with it's requirement of quadrable, hepatitis and MMR vaccines in addition to donation of family planning supplies upon stock rupture of the Field reserve. This was not needed during 2006.
- **With UNICEF:** A training workshop on cervical cancer prevention was conducted by UNICEF for medical officers, staff nurses and midwives. A total of 45 health staff were trained.

b Jordan

- **Collaboration with public health authorities in Jordan:** UNRWA continued to receive its requirements of modern contraceptive supplies from the MoH Jordan. The regular quantities of multivitamins and vitamin A are received free of charge to be distributed to schoolchildren. All vaccines are provided free of charge by the MoH Jordan. The FFHO Jordan is a member of different national committees, such as the Higher Population Counsel, the National School Health Committee, the National Committee for Premarital Examination, and the National Committee for Newborn Examination. Iron fortification of bread, which is implemented countrywide in Jordan. An agreement was implemented effective 21 September 2006 between the Ministry of Health, Jordan, and UNRWA, on new hospitalization reimbursement scheme.
- **With UNICEF**: in collaboration with UNICEF, UNRWA in Jordan implemented a training-workshops for medical officers on child abuse during which 65 medical officers were trained in the subject in addition to health programme activities.
- **Activities conducted with WHO in Jordan Field:** Training-workshops on IMCI for 5 Medical officers and 11 Staff nurses.

c Lebanon

- **With public health authorities in Lebanon:** In collaboration with the MoH, Lebanon Field participated in the National Poliomyelitis Immunization Campaign and the Breast Cancer Awareness campaign.
- **With UNICEF:** A total of (14) medical officers, (15) staff nurses and (14) senior practical nurses attended a three-day follow-up training workshop, on psychosocial disability among children facilitated by UNICEF.
- **With academic institutions:** A total of (7) medical officers and (7) staff nurses attended a short course on Management at the American University of Beirut (AUB).Two students with MPH from the Faculty of Health Science – AUB received

four months training in UNRWA health centres under the supervision of Field Family Health Officer, Lebanon. Students developed a small-scale survey on clients' satisfaction of UNRWA provided health services, as part of their academic requirements.

- **Activities conducted with other NGOs:** Close collaboration was maintained with Lebanese Family Planning Association sharing different activities. In addition Health Department received 30,000 Condoms on Loan basis during 2006. In cooperation with the Italian NGO "Ricercae Cooperazione", a training course on "Reproductive Health Counselling for Adolescents" for medical officers and senior staff Nurses, from seven health centres was conducted.
- **Activities conducted with international Organizations:** In collaboration with ECHO the Health Department implemented the "Early detection and management of physical disabilities and combat micronutrient deficiencies among children" project funded by ECHO where, Iron preparation and Vitamin "A" provided to children 6- 36 months of age and vision and hearing screening of all students enrolled in UNRWA schools followed by providing eye glasses and hearing aids for students who were detected with vision/hearing impairment.

d Gaza

- **With the Ministry of Health (PNA):** The Field receives regular **v**accine supply from the MoH and the newly introduced vaccine (HIB) was coordinated implemented jointly including training of the targeted staff members. Exchange of information on surveillance and reporting of maternal mortalities including reactivation of the Maternal Mortality Committee. Joint training activities on: STDs and infection prevention control among others were conducted. Health Education and promotion Joint activities. Regular supplies are received for distribution of minerals and vitamins to schoolchildren.
- With the Medical Relief Committee: Participation in conference for presentation of the Anaemia study. Cooperation in the Field of health education and promotion.
- With the UNFPA: A Joint meeting coordinated by the UNFPA with other health care providers to study the impact of the current situation on the maternal health through revision and analysis of all maternal mortalities.
- With USAID, Hanan: UNRWA health centres are included in a three years joint project addressing mothers, children health and nutrition (MCHN), aiming to improve access and quality of MCHN services. This is a multi phase project, targeting specific number of HCs in each phase. It is mainly focused on capacity building, management and technical issues.
- Médecins Sans Frontières: Cooperation with this French NGO, mainly in the fields of first aid training and training of school health tutors.

e West Bank

- UNRWA maintains wide range of collaboration with different bodies working in the West Bank including: Ministry of Health PNA, WHO, UNICEF, UNFPA, Japanese International Cooperation Association JICA, St. John Eye Hospital - outreach clinic Community Health Department, Universities, Foundation for Health and Social Development- JUZOOR and Palestinian Family Planning & Protection Association – Jerusalem among others. Celebration of All World Health Days in coordination with different organizations including World Smoking day, World Diabetes Day, World Aids Day, Infants and Children Days.
- **With the Ministry of Health (PNA):** UNRWA is a member in different national committees such as the National Coordination Committee for Reproductive Health, the National committee for Breast Feeding, the National committee for Health Education and the National School Health Education Committee. UNRWA

participated in the Nutrition Surveillance System in collaboration with the MoH and sponsored by WHO. Participated in the preparation of the National Palestinian Guideline on Breast Feeding with UNICEF. Participated in the preparation of the Guide Book for health tutors. The first phase for 1st to 4th grades was accomplished The PKU screening programme was implemented effective 1st September 2005, training, forms and supplies are provided by the MoH. The FFHO, FDCO, FNO and the Health Education Supervisor attended a-three day workshop-training on IMCI conducted by the MoH

- **Activities conducted with other NGOs:** A-three days Workshop on DM and HTN during pregnancy in addition to ALSO courses for Obst/Gyn was conducted in collaboration with the Foundation for Health and Social Development JUZOOR. The JICA pilot project on MCH booklet, which started in A/Jaber, Ein Al Sultan Health Centres, and Al-Auja Health Point, was finalized and a plan of activities for 2007 was prepared to promote the implementation of the developed booklet. In this regard, two health education sessions on ANC, PNC, and Breast Feeding in addition to JICA booklet were presented for Pregnant and Nursing Mothers during November and December 2006.
- **With St. John Eye Hospital- Jerusalem:** Long standing cooperation including an on ongoing monthly plan of activities was agreed upon, Community Health Department- Outreach Programme, regular meetings at Field Office in presence of A\CFHP and Vision Screening for school children in addition to training of school teachers and tutors in the screening process.

6 Disease prevention and control

Risk-factor prevention is the most cost-effective approach that low-and middle-income countries can adopt to control adverse health and social outcomes attributable to chronic noncommunicable diseases, mental health and behavioural disorders, violence and injuries.

WHO/Medium-term strategic place, 2008-2013

6.1 Objective

The objective of the Agency's disease prevention and control programme is to reduce morbidity, disability, and mortality from communicable and noncommunicable diseases consistent with WHO targets and recommended intervention strategies.

6.2 Programme activities

1 UNRWA employs an active system of epidemiological surveillance of communicable diseases, including vaccine-preventable diseases and is committed to implementation of the United Nations Millennium Development Goals as well as WHO targets for eradication of poliomyelitis, elimination of neonatal tetanus, reduction of mortality from measles. UNRWA is also committed to combating communicable diseases of public health importance including implementation of the WHO directly observed treatment, short course strategy (DOTS) for control of tuberculosis.

2 Close coordination is maintained with the Ministries of Health of the Host Authorities for surveillance of communicable diseases, supply of vaccines, exchange of information, participation in national immunization days and mass immunization campaigns, outbreak investigation and laboratory surveillance of HIV/AIDS and other communicable diseases, which require advanced virological or immunological investigations that cannot be performed at UNRWA facilities.

3 Control of noncommunicable diseases is offered as an integral part of the Agency's primary health care activities with special emphasis on diabetes mellitus and hypertension. Specialized care for cardiovascular diseases is provided by specialists who visit health centres according to a weekly rotating schedule and advice on the management of patients referred to them by health centre medical officers.

   UNRWA's approach towards prevention and control of noncommunicable diseases is based on the at risk strategy because the Agency does not have the means to embark on a population-based strategy of primary prevention as it has no control over effective means for dissemination of knowledge and public awareness including national educational curricula and mass media.

6.3 Progress in 2006

Control of communicable diseases

6.3.1 Vaccine-preventable diseases

a Incidence trends

Similar to previous years, there were no cases of poliomyelitis, tetanus, diphtheria, or pertussis among the refugee population during 2006 (table, 3). No cases of acute flaccid paralysis were reported from Fields.

Incidence rate of smear-positive pulmonary tuberculosis was 0.9 per 100,000 populations Agency-wide, representing no variations from 2005.

The highest rates were reported from Lebanon with 2.0/100,000, followed by Syria, Gaza, and Jordan Fields with rates of 1.8, 1.1, and 0.7 per 100,000 respectively. West Bank reported no cases at all. In all Fields, rates are lower than expected for the current prevalence in the country; this means that more efforts must be made to strengthen surveillance.

Overall incidence rate of measles Agency-wide was 0.5 per 100,000 populations, higher than that in 2005 at 4/100,000. Rubella' s incidence rate dropped from 3.7 per 100,000 populations in 2005 to 1.6 per 100,000 in 2006, with most of the reported cases from West-Bank, Syria and Jordan – 5.3, 3.2 and 1.2/100,000 respectively. No cases were reported from Gaza and Lebanon Fields.

Incidence of mumps dropped from 48.0 per 100 000 populations during 2005 to 11.5 per 100 000 during 2006. The highest rate of 19.7 per 100,000 was reported from the West Bank, which had an outbreak although promptly contained, followed by 11.6/100,000 in Jordan, 11.1/100,000 in Gaza, 5.6/100,000 in Syria, and 4.9/100,000 in Lebanon.

b Tuberculosis control

Close cooperation was maintained between UNRWA and national tuberculosis programmes. A total of 75 cases of various forms were newly diagnosed in 2006 Agency-wide of which 29 (38.7%) were pulmonary smear positive, 6 (8.0%) were pulmonary smear negative and 40 (53.3%) were extra pulmonary cases. Most detected cases were reported from Syria 28 (37.3%), followed by Lebanon with 16 cases (21.3%), Jordan with 16 (21.3%) and Gaza with 15 (20.0%). No cases were reported from The West-Bank Field.

Detection rates in all Fields continued to be below the WHO-recommended target of 70% of expected number of cases for the country. Some of the Fields, i.e. Syria, had a drastic improvement in its detection rate since WHO lowered the expected incidence rate for the country.

Using the directly observed treatment, short course strategy (DOTS), all Fields achieved 100% cure rate, which exceeds the WHO target of 80% cure rate (see table 1 on the next page).

Table 1, Directly observed treatment short course strategy (DOTS) for control of tuberculosis, programme indicators, 2006

TB indicators	Jordan	Lebanon	Syria	Gaza	WB	All
Expected No. of smear-positive cases based on WHO estimated incidence rates, among served population	66	12	17	40	24	159
No. of cases based on WHO target of 70% detection rate of expected incidence	46	8	12	28	17	111
Number of cases detected	9	5	6	9	0	29
Actual detection rate of TB smear positive cases (%)	19.6	62.5	50.0	32.1	00	26.1
Cure rate of new smear +vet	100	100	100	100	100	100

c Immunization coverage

Coverage of the expanded programme on immunization among children below 2 years of age was measured through rapid assessment.

The assessment revealed that the target of sustaining above 95% coverage, both for primary and booster series was achieved in all Fields. As seen in table 2, the coverage of primary vaccines reached 99.4% while coverage of booster immunization reached 98.1%.

Table 2, Coverage of the expanded programme on immunization 2006 based on the rapid assessment technique

Vaccine	Jordan	Lebanon	Syria	Gaza	WB	All
Coverage rates as percentage of infants 12 months of age						
BCG	99.8	100	99.8	100	99.8	99.9
Poliomyelitis	99.3	100	99.8	100	98.8	99.6
Triple (DPT)	99.3	100	99.8	100	99.2	99.9
Hepatitis	99.3	100	99.8	100	99.1	99.6
Hib*	99.3	100	99.8	NA*	NA*	NA*
Measles	98.9	100	99.7	100	98.7	99.5
All vaccines	98.9	100	99.7	100	98.7	99.4
Coverage rates as percentage of children 18 months old, for booster doses						
Poliomyelitis	98.3	100	99.7	100	99.5	99.3
Triple (DPT)	98.7	100	99.7	100	99.5	99.4
MMR	98.7	100	99.7	99.9	90.8	98.1

** Note: Hib vaccine was introduced in Gaza and The West Bank in November 2006.*

Analysis of UNRWA data on immunization in the West Bank by area and by health centre revealed the extraordinary efforts exerted by health staff and the successful collaboration with public health authorities, NGOs, and community organizations. This resulted in substantial improvement of immunization coverage throughout the Field and, in particular, in those pockets where coverage, detected in 2005 was low.

6.3.2 Disease outbreaks

No outbreaks were reported during 2006.

6.3.3 Mass immunization campaigns

In cooperation with MoH Lebanon and UNICEF Lebanon, UNRWA conducted two rounds of polio campaign for children 0-5 years of age during October-December 2006. In Jordan, in cooperation with the MoH, two rounds of polio campaign were conducted for children 0-5 years of age in Jordan Valley during February-March 2006.

6.3.4 Other communicable diseases

a Viral hepatitis

Figure 2, shows the incidence rate of reported viral hepatitis cases (mainly hepatitis A) Agency-wide during the last 10 years. As seen from the figure, there are significant changes in the reported incidence rates during 2006 which more due to improvement in the surveillance and reporting activities.

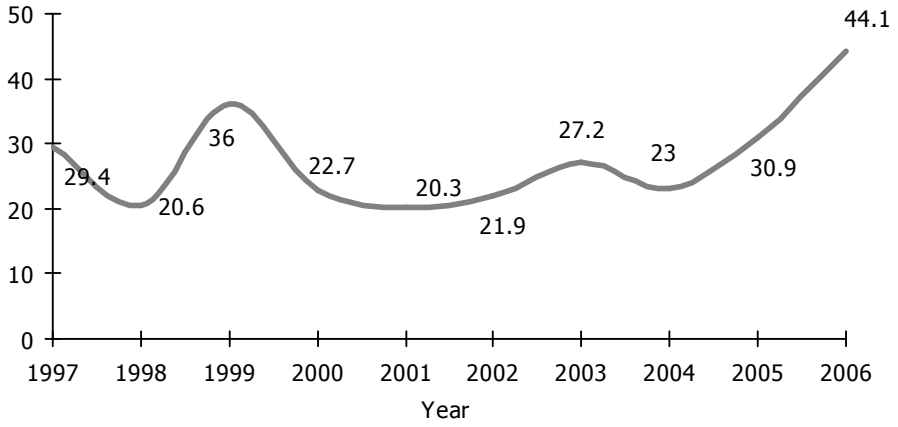


Figure 1, Incidence rate of reported viral hepatitis (per 100,000) Agency-wide, 1997- 2006

b HIV/AIDS

Only one case of HIV/AIDS was reported during 2006 from Jordan Field.

The cumulative number of laboratory-confirmed cases of HIV/AIDS among refugees reported Agency-wide up to 2006 was 143 cases, of which 25 from Jordan, 23 from Lebanon and 14 from Syria. Gaza and the West-Bank Fields reported 20 and 61 cases respectively, among both refugees and non-refugees.

However, there are good reasons to believe that the actual prevalence of HIV/AIDS is higher than the reported cases due to weak surveillance in general.

c Brucellosis

The incidence of brucellosis increased from 8.1 per 100,000 populations in 2005 to 11.8 per 100,000 in 2006, with the highest incidence rate of 102.2 consistently reported from Syria. Incidence rate in Lebanon was 5.7, in Jordan 1.0, in the West Bank 0.8 and in Gaza 0.1 per 100,000 populations.

d Salmonella & typhoid fevers

The incidence of typhoid fevers Agency-wide increased from 2.2 per 100 000 populations in 2005 to 4.3 per 100 000 populations in 2006. However, this increase should not be explained by the changes of the epidemiological profile of the disease, but rather attributed to improved surveillance activities, training of health staff and expansion of the laboratory services.

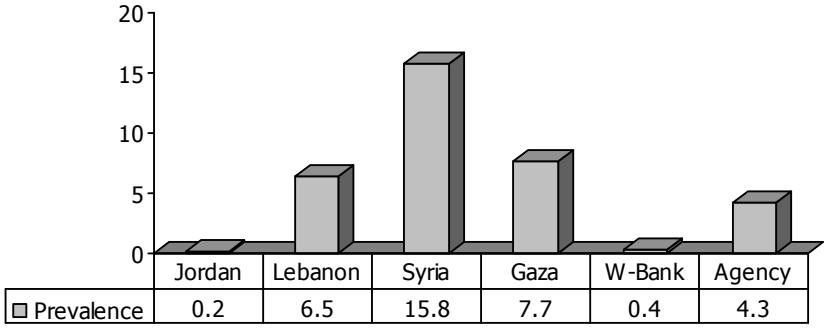


Figure 2, Incidence rate of reported Typhoid (per 100,000) by Field, 2006

Figure 2 shows that the highest incidence rate of 15.8 per 100,000 was reported from Syria Field followed from Gaza and Lebanon with 7.7 and 6.5 respectively. The lowest rates were seen in the West Bank and Jordan with 0.4 and 0.2 respectively.

e Bloody diarrhoea

The incidence of bloody diarrhoea Agency-wide is 389 per 100,000 populations with significant variations between Fields. Figure 3 shows the incidence rates of bloody diarrhoea per 100,000 populations, by Field during 2006.

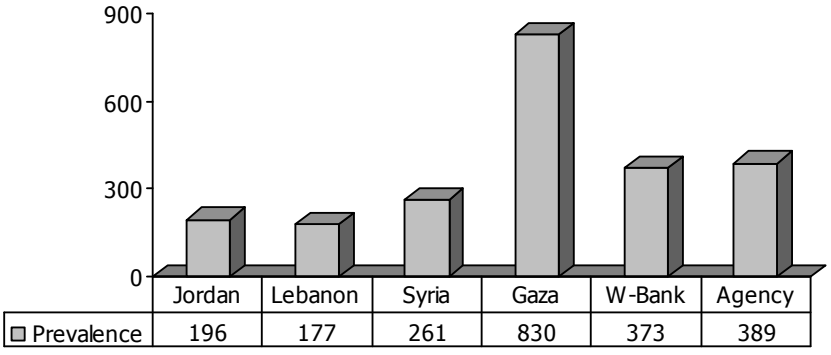


Figure 3, Incidence rate of reported bloody diarrhoea (per 100,000) by Field, 2006

The highest incidence rate was reported from Gaza Field 830 per 100,000 populations followed by the West Bank and Syria with 373 and 261 respectively, lowest rate were seen in Jordan and Lebanon with 196 and 177 respectively.

f Other communicable diseases

Table 3 shows the incidence rates of reported communicable diseases from all Fields.

Table 3, Incidence rates of reported cases of communicable diseases per 100,000 served population during 2006

Disease	Jordan	Lebanon	Syria	Gaza	WB	All
Served population	1 339 082	244 971	341 328	817 515	487 155	3 230 051
Acute flaccid paralysis*	0.0	0.0	0.0	0.0	0.0	0.0
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	0.0
Cholera	0.0	0.0	0.0	0.0	0.0	0.0
Diphtheria	0.0	0.0	0.0	0.0	0.0	0.0
Meningococcal meningitis	0.0	0.0	0.0	0.4	0.0	0.09
Meningitis – bacterial	0.1	0.0	0.0	0.5	4.9	0.9
Meningitis – viral	1.2	0.0	1.2	5.6	5.3	2.8
Tetanus neonatorum	0.0	0.0	0.0	0.0	0.0	0.0
Brucellosis	1.0	5.7	102.2	0.1	0.8	11.8
Watery diarrhoea (children 0-3)	14 446	43 849	25 119	19 304	32 041	21 280
Bloody diarrhoea	196.6	177.6	261.0	830.3	373.0	389.0
Viral hepatitis	15.8	29.0	105.8	82.7	21.1	44.1
HIV/AIDS	0.1	0.0	0.0	0.0	0.0	0.03
Leishmania	0.0	0.0	35.4	0.0	0.6	3.8
Measles**	0.3	0.4	1.8	0.0	1.2	0.5
Gonorrhoea	0.1	0.0	0.3	0.1	0.2	0.12
Mumps	11.6	4.9	5.6	11.1	19.7	11.5
Rubella**	1.2	0.0	3.2	0.0	5.3	1.6
Tuberculosis, smear positive	0.7	2.0	1.8	1.1	0.0	0.9
Tuberculosis, smear negative	0.1	1.6	0.3	0.0	0.0	0.2
Tuberculosis, extra pulmonary	0.4	2.9	6.2	0.7	0.0	1.2
Typhoid fevers**	0.2	6.5	15.8	7.7	0.4	4.3

** Among children <15 years*
*** Include suspected and confirmed cases*

No cases of poliomyelitis, cholera, diphtheria, tetanus neonatorum, or pertussis were reported.

Control of non-communicable diseases

6.3.5 Diabetes and hypertension

a Strategy

Due to limited financial and human resources, the Agency's focus is placed on the at-risk approach in respect of hypertension and diabetes mellitus. The intervention strategy consists of three elements.

The first is community health education (primary prevention), to promote healthy life-styles including; weight control and adherence to healthy balanced dietary patterns to avoid obesity and high lipid levels, regular dynamic physical exercise, reduction of salt intake, increased fruits and vegetables intake, and avoidance/cessation of smoking.

The second element (secondary prevention), for early detection of diabetes and hypertension by active screening of individuals at risk of developing diabetes and/or hypertension which include; overweight persons (BMI > 25) or obese (BMI > 30), those with positive family history for diabetes, hypertension, cerebrovascular or cardiovascular disease, all pregnant women and women with obstetric history associated with preeclampsia/eclampsia, miscarriages or stillbirth, women with either past history of gestational diabetes or hypertension or delivery of big babies, persons at > 40 years of age.

The third element (tertiary prevention) which concentrate on effective case-management of patients suffering from diabetes mellitus and hypertension to achieve acceptable blood pressure, glycaemia and lipids control, and education of patients on all aspects relevant to self-care, with concentration on close monitoring and management in accordance with the technical guidelines and standard management protocols.

A Technical Instruction and guidelines on management control, and prevention of diabetes and hypertension diseases was prepared and distributed to the Fields.

All persons with confirmed diagnosis of diabetes and/or hypertension are consoled to be registered at the NCD clinic and a special patient registration file (PRF) is opened, where assessment of the health status is completed during the first visit.

For simplicity and practical reasons, the PRFs are kept in three separate groups, PRFs for patients with diabetes mellitus only (type 1 & type 2), PRFs for patients with hypertension only, and PRFs for patients with both, diabetes mellitus and hypertension.

The patients are stratified according to their control status for frequency of medical consultations, through appointed visits, the patients are subjected to clinical, and laboratory's investigations including blood cholesterol (triglycerides, LDL and HDL on needs), blood glucose, and creatinine, to evaluate the health status, the results of the assessment are recorded in the patient registration file (PRF).

For practical reasons, post-prandial plasma glucose tests (2-hr PPG), and blood pressure measurements were used to monitor the control status of patients with diabetes and hypertension. For diabetes; if two of the last three PPG are < 180mg/dl (10mmol/I), in some conditions two of the last three fasting plasma glucose tests are as (FPG) < 140 mg/dl (7mmol/I), then patient is considered with control blood glucose. For hypertension, control status is considered if systolic blood of < 140 mmHg and diastolic blood pressure of <90mmHg in the measurement of last visit and one of two measurements taken during the preceding schedule visits.

Diabetes mellitus and hypertension are associated with preventable risk factors such as; high lipids, overweight and related behavioural risks; unhealthy diet, physical inactivity and tobacco use. When individuals have more risk factors, they are more likely to develop or have diabetes and/or hypertension, and these risk factors are strongly associated with complications among patients with diabetes and/or hypertension, which include cardiovascular diseases, renal diseases, eye diseases, peripheral vascular diseases, and nervous system diseases.

b Patients under care

By the end of 2006, the total estimated served refugees at all UNRWA Fields is 3,230,051 person, 150,408 (4.7%) out of them are registered under care at the NCD clinics as patients with diabetes and/or hypertension in the five Fields of UNRWA's area of operations, distributed as 48,711 (32.4%) in Jordan, 38,865 (25.8%) in Gaza, 24,017 (16.0%) in West-Bank, 20,005 (13.3%) in Syria, and 18,810 (12.5%) in Lebanon.

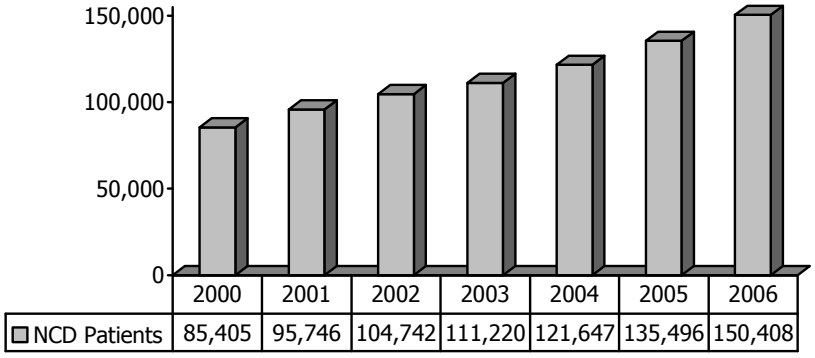


Figure 4, Numbers of patients with diabetes and/or hypertension under care at the NCD clinics in the five Fields from 2000-2006

The number of diabetic patients under care in the five Fields is 80,965, proportion of type 1 diabetes is 1.8%, and 64.0% out of total diabetic have elevated blood pressure hypertension (≥ 140/≥ 90 mmHg).

The number of patient with hypertension diseases without diabetes is 69 443 which represent 46.2% out of total registered patients under care in the five Fields.

Table 4 shows the distribution of patients under care by end of 2006 by Field and type of disease

Table 4, Patients with diabetes and/or hypertension by Field and morbidity

Morbidity type	Jordan	Lebanon	Syria	Gaza	WB	All
Diabetes mellitus type I	1006	177	343	732	484	2742
Diabetes mellitus type II	7666	1989	3287	8629	4838	26 409
Hypertension	20 837	10 460	9,939	18 318	9889	69 443
Diabetes mellitus & hypertension	19 202	6184	6,416	11 186	8806	51 814
Total	48 711	18,810	20 005	38 865	24 017	150 408

c Prevalence rates

Prevalence of diabetes mellitus

The prevalence of diabetes mellitus and hypertension among the served population at ≥ 40 years of age was 8.8 and 13.4% respectively.

Figure 5 shows, that the prevalence of diabetes mellitus disease among the served population at ≥ 40 years of age is 8.8% Agency-wide, with the highest rates in Lebanon at 11.2%, followed by Gaza with 10.9, the West Bank with 10.0 Syria with 8.1 and Jordan with the lowest rate of 7.3%.

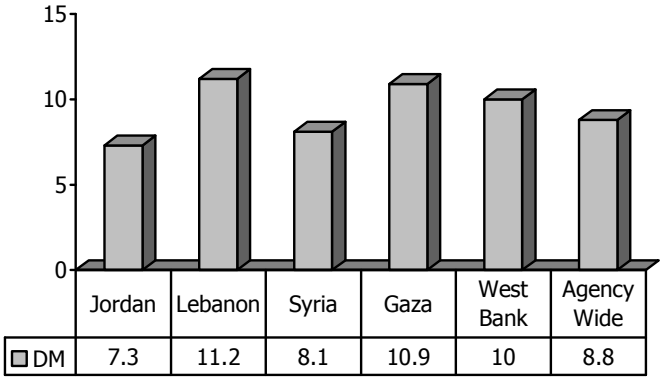


Figure 5, Prevalence rates of diabetes among served population at ≥ 40 year of age by Field, 2006

Prevalence of hypertension

Figure 6 shows, that the prevalence of hypertension disease among the served population at ≥ 40 years of age is 13.4% Agency-wide with the highest rate in Lebanon at 18.9%, followed by Syria at 16.1, Gaza at 15.8, the West Bank at 13.5, and Jordan with the lowest of 10.6%.

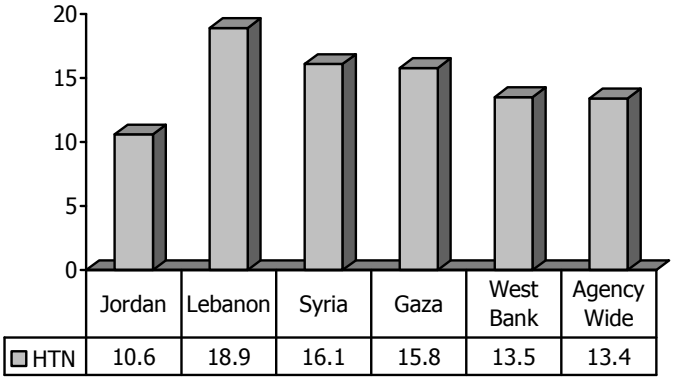


Figure 6, Prevalence rates of hypertension disease among served population at ≥ 40 year of age by Field, 2006

Figure 7 shows the proportion of diabetic patients with associated hypertension is 63.9% of all diabetes patients, with significant variations between Fields.

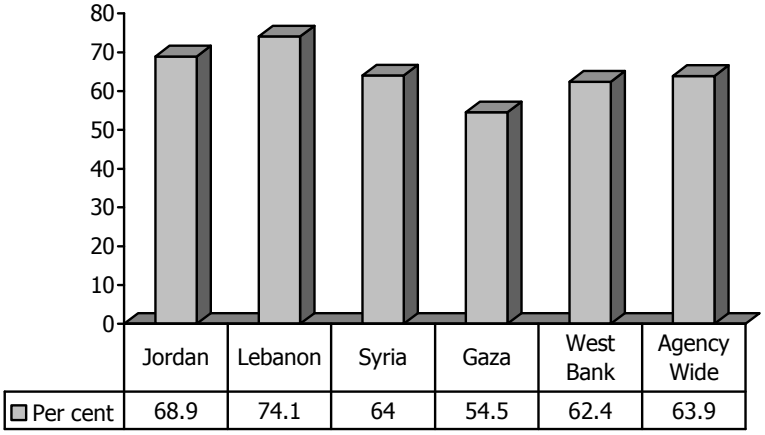


Figure 7, Proportion of associated hypertension among diabetic patients under care by Field, 2006

It is important to note that the rates refer to prevalence among refugees attending UNRWA clinics and not the general refugee population. Studies d in host countries revealed much higher rates, indicating a low detection rate among refugees.

d Age and gender distribution of patients under supervision at NCD clinics

Table 5 provides data on the distribution of patients with diabetes and/or hypertension who were under supervision end 2006 by age group and gender. 91% of patients were above 40 years of age, and 64.0% were females.

Gender distribution is largely affected by attendance pattern at UNRWA health facilities and not by significant variations in morbidity profiles.

Table 5, Distribution of patients with diabetes & hypertension by age & gender, 2006

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Diabetes & hypertension	Hypertension	All patients
No. of patients at end of 2006	2742	26 409	51 814	69 443	150 408
Age distribution (percentage)					
Below 20 years	31.0	0.1	0.0	0.2	1.0
20–39 years	56.0	10.0	3.0	9.0	8.0
40–59 years	13.0	62.0	43.0	45.8	46.0
60 years & above	0.0	29.0	54.0	45.0	45.0
Total	**100**	**100**	**100**	**100**	**100**
Sex distribution (percentage)					
Male	51.0	42.0	36.0	34.0	36.0
Female	49.0	58.0	64.0	66.0	64.0
Total	**100**	**100**	**100**	**100**	**100**

e Type of management

There are significant variations between the Fields regarding type of management among patients with type 2 diabetes, hypertension.

Management of patients suffering from hypertension

Table 6 shows percentages of patients with hypertension on (lifestyle) non-pharmacological management for 2005-2006. It is worth mentioning that this table includes all patients suffering from hypertension with/without associated diabetes.

Table 6, Percentages of hypertensive patients on non-pharmacological management (lifestyle) by Field, 2005-2006

Field	% of Lifestyle management only	
	2005	2006
Jordan	9.7	6.5
Lebanon	29.5	20.1
Syria	11.0	5.4
Gaza	12.3	7.5
West Bank	13.8	8.7
All Fields	14.0	8.8

From table 6, there is significant variation between Fields regarding percentage of patients suffering from hypertension on lifestyle only (non-pharmacological type of management) for 2005 and 2006.

For year 2006 in comparison with year 2005, there is drop in percentages of patients suffering from hypertension who are on lifestyle management only for the hypertension diseases in the five Fields.

The highest percentage reported from Lebanon Field, and the percentages of hypertensive patients on non-pharmacological management (lifestyle only) dropped from 29.5% during 2005 to 20.1 for 2006, followed by the West-Bank from 13.8 to 8.7%, in Gaza from 12.3% to 7.5%, in Jordan from 9.7% to 6.5% during 2006, in the West-Bank from 13.8% to 8.7% and in Syria dropped from 11.0% during 2005 to 5.4% during 2006.

Management of patients with diabetes mellitus

Table 7 shows the distribution of types of management for all patients with diabetes mellitus excluding diabetes type 1 for years 2005-2006 by Field.

The table includes all diabetic patients with/without association of hypertension. There are significant variations between the Fields regarding types of management for the patients with type 2 diabetes, and there are variations between the frequency of patients regarding the different types of management for 2005 and 2006.

Table 7, types of management for patients with type 2 diabetes by Field, 2005-2006

Field	Lifestyle only		OHA		Insulin		Insulin +OHA	
	2005	2006	2005	2006	2005	2006	2005	2006
Jordan	10.0	8.1	56.4	56.7	20.2	22.2	13.4	13.0
Lebanon	23.6	22.7	52.1	59.1	16.3	12.4	8.0	5.8
Syria	15.9	12.0	66.6	61.4	9.1	15.9	8.4	10.7
Gaza	9.3	8.6	54.0	58.1	22.0	16.3	14.7	17.0
West Bank	15.0	14.4	63.9	63.5	13.0	12.8	8.1	9.3
All Fields	12.9	11.4	57.9	59.1	17.6	17.2	11.6	12.3

Percentages of patient with diabetes on insulin

Table 8 shows the numbers and percentages of patients with diabetes including type 1 diabetic patients who use insulin as part of their management by Field, 2005 -2006.

Table 8, Frequency of diabetic patients on insulin by Field, 2005-2006

Field	2005		2006	
	Number	%	Number	%
Jordan	9029	36.1	10 347	37.5
Lebanon	2045	25.9	1662	19.9
Syria	1880	20.5	2911	29.0
Gaza	7190	39.0	7310	35.6
West-Bank	2937	23.9	3494	24.8
Total	**23 081**	**31.7**	**25 725**	**31.9**

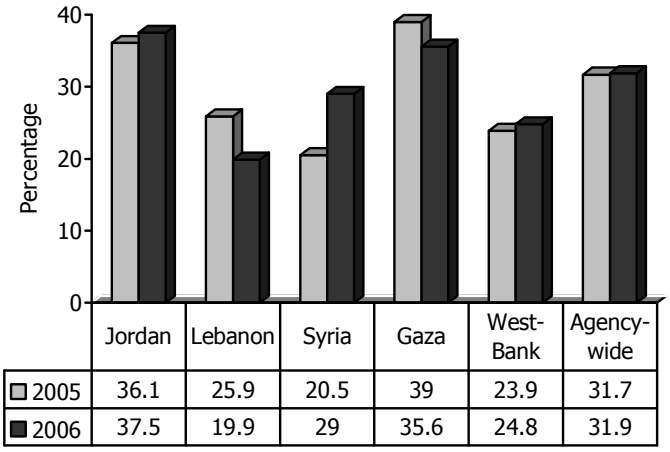


Figure 8, Percentage of diabetic patients on insulin, 2005- 2006

Significant variations between Fields are noted in insulin use: Jordan has the highest percentage with 37.5% of diabetic patients treated with insulin, followed by Gaza with 35.6%, Syria with 29.0%, the West Bank with 24.8% and Lebanon with the lowest rate of 19.9%.

f Risk Scoring

The risk assessment tool, modified from WHO-CVD Risk Management Package, was used for risk scoring of patients under care in the NCD clinics during last quarter of 2006. The objective is to stratify, by level of risk of developing further complications, all patients under care for NCD and to assess whether or not to introduce secondary prevention, which comprises lifestyle changes, management of cardiovascular risk factors including prophylactic drugs, taking into account the available funds and resources.

A newly introduced risk-scoring sheet was added to the patients' file and it was filled during the follow up consultation visits. Considered risk factors are family history for cardiovascular diseases, age, control status for blood pressures and/or blood glucose, physical inactivity, obesity, lipids disorders and smoking habit.

End December 2006, 146,092 (97.1% of total registered patients with diabetes and/or hypertension under care in the NCD clinics) have been assessed for risk of developing further complications. Table 7 shows the result of the study and how higher risk is associated mostly with the combination of diabetes and hypertension.

Table 9, Percentages of risk status by type of disease

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Diabetes & hypertension	Hyper tension
No. of patients at end of 2006	2,642	25,387	51,114	66,949
Low risk	68.6	29.7	9.1	24.4
Moderate risk	28.2	59.9	57.8	61.8
High risk	3.2	10.3	33.1	13.3

Table 10 shows percentages of high-risk patients by Field and type of diseases and highlights significant variations between Fields.

Table 10, Percentages of high-risk status by Field and type of disease

Field	DM type 1	DM type 2	Dm & HTN	Hypertension
Jordan	2.0	7.9	31.1	10.2
Lebanon	9.2	15.6	36.5	18.8
Syria	4.3	17.4	42.4	21.4
Gaza	3.1	7.6	26.8	10.3
West- Bank	2.7	12.1	35.5	14.7
Total	**3.2**	**10.3**	**33.1**	**13.8**

g Percentages of risk factors

A combined observational and analytical cross sectional study was conducted in the five Fields during the fourth quarter 2006. The main objectives of the study is to find out the rates of risk factors associated with cardiovascular diseases (CVD) among patients with diabetes and/or hypertension under care in the NCD clinics by Field and type of diseases. A representative sample of 13,668 (9.1%) of patients under care by end of 2006, with proportions of registered patients by type of disease from each Field was selected systematically from all NCD clinics according to number of patients. Findings are described below.

Prevalence of modifiable risk factors

Table 11, Rates of the different modifiable risk factors among patients registered under care, 2004, 2005, and 2006

Risk factors	Risk criteria	Rate		
		2004	2005	2006
Obesity	Body mass index ≥ 30	60.7	59.8	61.5
Hypercholesterolemia	Cholesterol value of ≥ 200 mg/dl	39.5	44.4	37.8
Uncontrolled blood pressure	BP ≥ 140/90 in the last 2 values of measurement	53.6	34.8	30.7
Uncontrolled glycaemia	PPG > 180/dl in two of the last 3 values	70.8	65.7	46.7
Physical inactivity	< 30 minutes/day, 3 times per week	48.3	39.7	46.8
Smoking	Any type of tobacco use	18.1	15.7	16.3

Table 11 shows an improvement regarding prevalence of uncontrolled status for both blood pressure and blood glucose from 2004 to 2006, which is an encouraging indicator for applied management approach. Hypercholesterolemia shows mild improvement, while other risk factors obesity, physical inactivity, and smoking are still highly prevalent and more investment is needed to modify lifestyle to reduce the burden of these risk factors on the patient life.

Stratification of patients by risk status under care is presented in table 12.

Table 12, Stratification of patients by risk status and diseases

Disease	Low risk	Moderate risk	High risk
Diabetes	9.5	19.6	70.9
Hypertension	13.8	24.4	61.8
All patients under care	10.6	22.1	67.2

The proportion of patients with high risk among patients with diabetes is 70.9%, while among patient with hypertension is 61.8%. This difference will be more evident among patients with both diseases.

Percentage of late complications among the sampled patients

Table 13 shows the percentages of reported late complications; CVD (myocardial infarction, stroke and congestive heart failure related to diabetes and/or hypertension), end stage renal failure (ESRF), amputation and blindness among the studied sampled patients.

Table 13, percentages of late complications by Field and type of diseases, 2006

Field	Type of Disease			Total%
	Diabetes	DM & HTN	Hypertension	
Jordan	8.1	31.9	19.8	19.3
Lebanon	5.6	12.6	8.2	9.7
Syria	8.4	21.3	13.0	15.9
Gaza	6.8	20.0	9.2	12.3
West-Bank	7.1	20.6	13.5	15.5
All Fields	5.9	16.2	10.6	14.5

From the table there are significant variations between the Fields, which is more likely to be related to under recording and reporting of complications on the PRFs, while variations by type of diseases are going with the expectations.

h Defaulters

The reported number of defaulters (patients who did not attend the NCD clinic for a calendar year for follow up and/or collection of medicines by themselves or relatives) amounted to 6448, which represent 4.3% of total patients under supervision.

Table 14, Distribution of defaulters by Field, 2006

Defaulters	Jordan	Lebanon	Syria	Gaza	WB	Agency -wide
Number	1430	844	706	1389	271	6 448
Percentages out of remaining 2006	3.0	4.5	3.5	3.6	1.1	4.3

Despite health staff' extraordinary efforts to follow-up on defaulters, utilizing all available means including home visits, telephone calls, notification through family members and others, this is still an area for further improvement. The highest rate of defaulters (4.5%) was reported from Lebanon and the lowest from the West Bank (1.1%).

i Non-attendance

Assessment of non-attendance (patients who did not attend to the NCD clinics for consultation and/or collection of medicines for two consecutive appointments) of patients was conducted during 2006.

As shown in table 15, the main reason for non-attendance was death in 20.0% of patients, followed by those seeking care in public health and private sectors at 16.0 and 9.9% respectively, patients' negligence with 15.1%, and accessibility difficulties to health centre in 10.1%.

Table 15, Distribution of non-attendance by causes and Field, 2006

	Jordan	Lebanon	Syria	Gaza	WB	Total
No. of non-attendants	4194	1505	1508	2497	1909	11613
% out of remaining 2006	8.7	8.0	7.5	6.4	8.0	7.7
Causes of non-attendance in%						
Death	14.9	18.2	18.9	32.6	17.3	20.0
Profound disability	6.5	7.6	13.9	8.2	5.8	7.8
Travel abroad	5.0	8.2	12.6	5.6	10.7	7.5
Patient's negligence	12.7	20.0	14.5	18.9	12.0	15.1
Treatment at public, private or NGO sector	28.6	22.0	23.6	18.9	32.7	25.9
Difficult access to health facility	10.5	16.3	6.4	7.7	10.5	10.1
Not ascertained	21.8	7.8	10.0	8.0	10.0	13.5
Total	100	100	100	100	100	100

Death as a cause of non-attendance was highest in Gaza Field at 32.6%. Difficult access to UNRWA health facilities was highest in Lebanon at 16.3%, West Bank and Jordan at 10.5%. Accessibility might be the cause of the 32.7% non-attendants in the West Bank, as many are changing their care providers.

Counselling and education of patients are cornerstones to overcome problems of non-attendance, yet certain causes of non-attendance are the responsibility of health staff while others show a need for further coordination and follow-up.

j Mortality

A total of 2,878 deaths, which accounted for 1.9% of all non-communicable disease patients were reported during 2006. 48.2% of them had diabetes with hypertension, 37.5% had hypertension, and 14.3% had diabetes.

Table 16, Mortality rates by Field, 2006

	Jordan	Lebanon	Syria	Gaza	WB	All
Number of deaths	716	387	462	788	525	2 878
% of all NCD patients	1.5	2.1	2.3	2.0	2.2	1.9

Table 16 shows variations between Fields regarding the reported death rate: highest rates were reported from Syria and the West Bank (2.3, 2.2% respectively) and the lowest from Jordan with 1.5%.

Table 17, Disease-specific mortality rates among reported death cases by Field, 2006

% by disease	Jordan	Lebanon	Syria	Gaza	WB	All
Diabetes	0.9	1.1	1.9	1.8	1.4	1.4
Diabetes with hypertension	2.2	2.8	3.1	2.8	3.3	2.7
Hypertension	1.1	1.8	1.9	1.7	1.6	1.6

Breakdown of mortality data Agency-wide by type of disease revealed that the highest mortality rate was among patients with diabetes associated with hypertension at 2.7% followed for patients with hypertension at 1.6% and the lowest was among patients with diabetes at 1.4%.

The burden of diabetes and hypertension is on increase and it will continue to draw on the scarce Agency resources. It is therefore, essential to ensure that these diseases are properly managed ahead the need to meet the high cost of treating their complications and disabling effects.

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6.3.6 Other non-communicable diseases

Prevalence of a wide range of noncommunicable diseases including chest diseases, hereditary anaemia, and cancers is increasing among the refugee population. However, it was not yet possible to allocate part of the limited resources of the health programme to ascertain the burden of these diseases in terms of morbidity, disability, and mortality or to introduce appropriate interventions to adequately address them.

During 2006 screening for cancer cervix and breast cancer were implemented in Syria and Lebanon with encouraging results.

Assistance is provided to patients as they come to the attention of the health care system, which comprises medical supplies and hospitalization on need-basis.

7 Environmental health

Benefits from environmental health improvements are enjoyed by rich and poor, in developed and developing countries, lowering health costs and lessening conflict over environmental resources.

WHO/Medium-term strategic plan, 2008-2013

7.1 Objective

To reduce morbidity and risks of outbreaks associated with poor environmental conditions and practices by maintaining acceptable environmental health standards in refugee camps and contributing to sustainable development in the sub-sectors of water, sewerage, and solid waste management and integrating camp systems within municipal/regional systems.

7.2 Programme activities

1 UNRWA's regular environmental health services continued to be focused on maintaining acceptable standards of water and sanitation in refugee camps in the five Fields of its area of operations.

These services were provided to approximately 1.3 million Palestine refugees residing in 58 official camps in Jordan, Lebanon, Syria, Gaza Strip, and the West Bank. The services were provided either directly by UNRWA, or in close collaboration with local municipalities or through contractual arrangements.

In Jordan and Syria, the Host Authorities had historically played a major role in camps development and integrated camp infrastructure of water, sewerage, and drainage within municipal systems, except in few situations where camps are located in areas where no such systems exist. Unlike Jordan and Syria, the environmental conditions in Lebanon, Gaza Strip and the West Bank remained generally poor and the Agency had to assume a major role in camp development.

2 UNRWA's approach to camp development was developed in the late eighties where several development projects were implemented in Gaza Strip and the West Bank in the context of the Expanded Programme of Assistance to the occupied Palestinian territory. This approach was further enhanced through the establishment of the Special Environmental Health Programme in Gaza, in 1993, which 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 and rehabilitation of water networks in refugee camps and nearby municipal areas. The programme has also assisted in review of feasibility studies and technical designs for development projects in the refugee camps in Lebanon, Syria, and the West Bank.

7.3 Progress in 2006

7.3.1 Camp population with access to water and sewerage facilities

Figure 1, below provides data on the percentage of camp shelters with access to safe water and connection to sewerage systems, as at end of 2006:

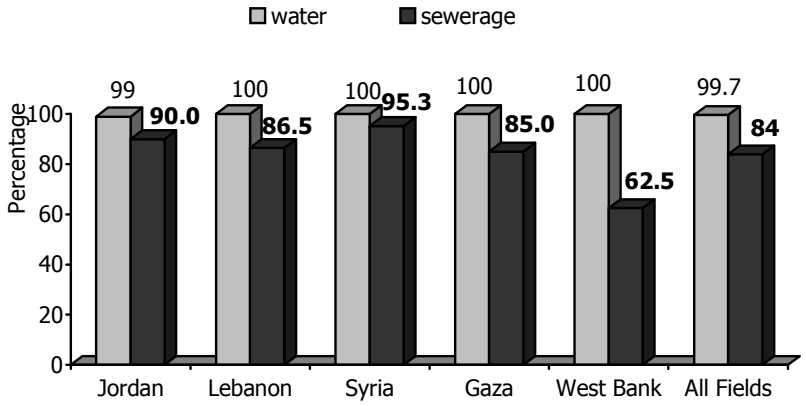

Figure 1, Percentage of camp shelters with access to safe water and indoor sewerage systems connection

UNRWA Environmental Health in Lebanon assumes full responsibility for the operation and management of 16 water sources in 6 camps. This activity includes pumping, distribution and quality control. For the remaining camps, UNRWA shares responsibility of water supply with the community and the municipal authorities.

In Lebanon, also fully automated chlorination equipment have been installed on the water sources at B/Shemali, Rashidieh, Mia Mia and Beddawi Camps, and consequently qualified water plant operators have been recruited to run these high technology water plants

In Syria Field, emergency water resource was installed at Quber Essit water well to be able to fill the tankers in emergency cases. The station was supplied by electrical unite generator, this in an additional work to regular daily activities such as adding chlorine, chemical and bacteriological analyses for water samples.

In Jordan Field, all camps have municipal water network. The water network at two camps namely Talbieh and Jarash is old and in a real need of rehabilitation. A water project has been started by the Government in 2006 to rehabilitate the water network at Talbieh camp. It will be completed in 2007.

At present, 13 camps, Agency-wide do not have proper sewerage systems. Feasibility studies and detailed designs are readily available for implementing development projects in these camps subject to availability of funds.

It is also worth mentioning that in spite of the optimal rate of indoor connections to water networks, pumping of water into these networks is intermittent and the quantity of water is inadequate. In addition, the quality of water in Gaza Strip does not meet international standards for drinking purposes because of high salinity levels.

The Environmental Health Divisions maintained all camps sewer systems in operational conditions through regular inspections and clearing of sewer manholes.

7.3.2 Development projects in Gaza Strip

The following main projects were completed during 2006 in Gaza Strip under the Special Environmental Health Programme:

- Pavement of roads and pathways in Nuseirat camp, phase III, Jabalia camp, phase VII, Khan Younis camp, phase I, and in Rafah camp, phase III.
- Development of the main road at Maghazi.
- Construction of wastewater pumping station at Khan Younis.
- Construction of water wells No.2 & 3 at Beach camp.
- Repair the park of Jabalia Camp, phase VII.
- Construction of gravity sewage line and wastewater pumping station in Khan Younis.
- Construction of main storm water drainage line at the Middle Area.
- Construction of sewer line at Dier El-Balah.

Total investment in development projects since the establishment of the Special Environmental Health Programme in 1993, is outlined in figure 2 below:

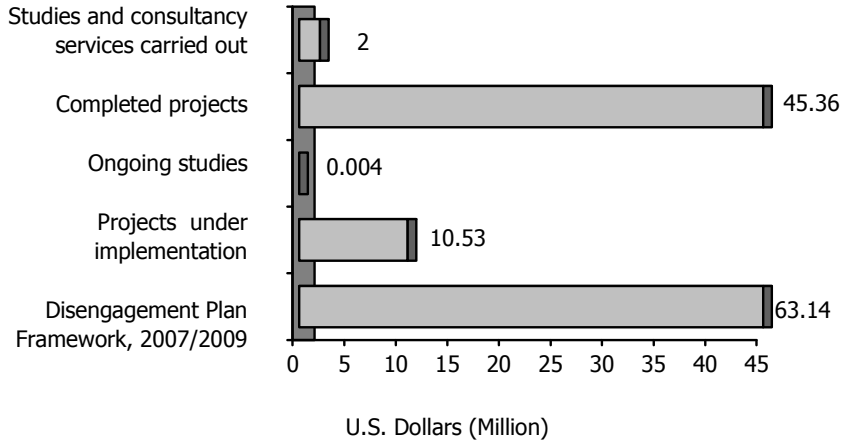

Figure 2, Special Environmental Health Programme, Gaza, Cost of Projects, Studies and consultancy Services

7.3.3 Development projects in Lebanon

Infrastructure projects have been concluded in six camps with the EU funding. Another camp is subject to improvement works with funding from USA. Similar projects are being planned for implementation in the remaining five camps to alleviate the suffering of the inhabitants from storm water floods and to construct water and sewerage systems.

Such projects require integration of camp facilities to the adjacent municipalities and consequently relevant coordination is being made with the Lebanese municipal authorities.

Construction of Sewerage, drainage and water supply system in El Buss camp with total budget of USD 1,192,140 is ongoing. The construction of sewerage and storm water drainage, and water supply networks in Shatila camp with total budget of USD 2,560,000 is in final stage.

7.3.4 Development projects in Syria

The partnership and financing agreement between the European Union (EU) and the Syrian Government has been signed after a series of delays. According to this agreement, the EU will contribute ∈ 8.0 millions for environmental projects. This development will enable the Agency to go ahead with implementation of the projects for construction of water and sewerage systems in Khan Eshieh camp and construction of sewerage system in Khan Dannoun camp, which constitutes an integral part of the agreement for development of rural areas. The objectives of the project include:

- Improve public health and environmental conditions.
- Provision of sustainable and safe water supply system.
- Provision of wastewater collection system.
- Utilization of treated wastewater for irrigation of crops.
- Reduction of the risk of contamination of ground water resources.
- Capacity building for local community groups and institutions.

The inception report and the feasibility study were completed in 2004. The bidder for construction of the project submitted in 2006. Construction works will start in 2007 and is expected to be completed in January 2008.

Self-help projects in Dera'a and Jaramana camps were completed in December 2006.

7.3.5 In West Bank

During 2006, the following projects were completed in the West Bank:

- Extension of storm water channel in Nurshams and A/Jaber camps.
- Repair of sewer and manholes in Al- Dhesheh and Jenin camps.
- Construction of storm water channel and sewer line in Kalandia camp.

7.3.6 Vector Control

Insect control was regularly carried out to control houseflies at refuse collection points within the camps. Rodent control was also regularly carried out to control rats. In Jordan Field a three-day joint rodent control campaign was carried out at Husn camp and its surroundings. Irbid Municipality, Husn Camp Improvement Committee, and UNRWA participated in this campaign. Regular and individual spraying campaigns were conducted in all official camps in Syria Field.

7.3.7 Solid waste management

Improvement in the process of mechanization of refuse collection and disposal in refugee camps was made in all Fields. Several collection points were upgraded and a series of cleaning campaigns were carried out in many camps in the Fields. However, further work is needed to upgrade available systems in all Fields. Currently, 28 out of the 58 camps are served by local municipalities. 18 of these camps are in the West Bank Field.

Generated domestic wastes from the camps as well as other types of wastes such as rubbles and debris were collected by UNRWA sanitation labourers regularly and were disposed off into municipal dumping sites.

The programme aims at enhancing the mechanization process for collection and disposal of wastes through procurement of appropriate equipment to offset the increase in the quantities of solid waste due to population growth. The trend in Lebanon for charging fees for the collection and disposal of refuse has been settled for the three camps in Tyre Area through a temporary agreement for 2007 with the municipality and the proprietor of the final disposal site. New arrangements are being discussed with the municipality in the light of the construction of a waste disposal compound, which is expected to operate towards the end of 2007. This new sanitary disposal plant will charge UNRWA considerable fees based on the actual amount of refuse disposed off.

In Jordan Field, removal of solid waste from the point of collection to the point of final disposal at municipal dumping sites was carried by private contractors at six camps, namely Baqa'a, Marka, Irbid, Husn, Suf, and Jarash camp, by municipalities for Zarka, J/Hussein, and Amman New Camp and by UNRWA from Talbieh camp.

In Syria Field new mini truck was purchased to serve in the extension area in Khan Danoun camp, but there still need for recruiting 5 to 7 additional labourers to serve the whole extension area.

The main objective of the mechanization of refuse collection projects, which represent an integral part of the Agency's medium term plan (2005-2009), is to achieve cost-efficiency gains by reducing the labour-intensive costs and improve general cleanliness in all camps.

7.3.8 Other activities

The Environmental Health Divisions launched awareness campaigns on environmental health issues, aiming at raising public awareness in camps and improving understanding of environmental issues such as proper handling of domestic wastes, rationalization of water consumption. In Lebanon Field, campaigns were implemented so far in five camps in line with implementation of capital infrastructure projects.

A survey Conducted for all UNRWA schools regarding the water and sanitation conditions. The fund has been secured to target the most urgent works in 8-10 schools in the West Banks.

A cleaning day was carried out in Jordan Field namely; at Zarka camp to involve the community and community associations in the cleaning process. Special focus was placed on the role of the community, and particularly schoolchildren, in raising awareness and promoting healthy behaviour in order to improve the environmental condition of the camp. Various activities were carried out on this occasion through joint collaboration and efforts between UNRWA, Department of Palestinian Affairs (DPA), Zarka Camp Services Committee, and governmental authorities.

A comprehensive infrastructure need assessment was conducted in all camps in West Bank to plan for 2007 emergency project. Cleaning campaigns took place in some camps especially in the public holidays in cooperation with the Camp Committees and volunteers.

7.4 Environmental health services

	Jordan	Lebanon	Syria	Gaza	WB	All
Demographic data						
Registered refugees as at end of 2005	1 858 362	408 438	442 363	1 016 964	722 302	4 448 429
Camp population	328 076	215 890	119 055	478 272	186 479	1 327 772
No. of camps	10	12	9	8	19	58
Percentage of camp population to total registered refugees	18	53	27	47	26	30
Water supply						
Percentage of shelters with access to safe water	99	100	100	100	100	99.8
Sewerage and drainage						
No. of camps partially or fully connected to sewerage networks	9	9	9	8	11	46
Percentage of shelters connected to sewerage networks	90	86.5	95.3	85	62.5	84.0
Solid waste management						
No. of camps partially or fully served by UNRWA mechanized systems	1	12	7	8	16	44
No. of camps served by Municipalities	3	5	2	0	18	28
No. of camps served through contractual arrangements	6	0	0	0	2	8

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.

Annexes

FACT SHEET, 2006						
	Jordan	Lebanon	Syria	Gaza	W.Bank	Agency-wide
A - DEMOGRAPHIC INDICATORS						
Registered refugee population in thousands	1858	408	442	1017	722	4448
Percentage of camp population to total registered refugees	17.7	52.9	26.9	47.0	25.8	29.8
Percentage of refugees to total country/district population	35.1	11.6	2.5	67.8	28.9	14.5
Growth rate of registered refugees (%) [1]	1.6	1.0	2.3	3.0	3.1	2.2
Total fertility rate [2]	3.3	2.3	2.4	4.6	3.1	3.2
Percentage of children below 18 years of age	36.4	29.8	35.8	47.6	40.5	38.8
Percentage of women of reproductive age (15-49 Years)	25.8	27.2	25.9	22.9	23.6	25.0
Percentage of population 40 years and above	26.6	33.7	28.5	21.0	26.5	26.2
Aging index	35.3	54.0	35.3	19.1	32.6	31.5
Average family size [2]	5.1	4.9	4.7	5.8	5.8	5.3
B - UNRWA's HEALTH INFRASTRUCTURE						
Primary health care (PHC) facilities :						
Inside official camps	13	13	14	11	17	68
Outside camps	11	12	9	7	20	59
Total	**24**	**25**	**23**	**18**	**37**	**127**
Ratio of primary health care facilities per 100,000 population	1.3	6.1	5.2	1.8	5.1	2.9
Services integrated within PHC facilities :						
Laboratories	24	16	21	15	26	102
Dental clinics a) Stationed units	27	17	17	13	22	96
b) Mobile units	3	0	1	3	1	8
Family planning	24	25	23	18	37	127
Special care for non-communicable diseases	23	25	23	15	37	123
Specialists	9	10	4	15	7	45
Radiology facilities	2	4	0	5	7	18
Physiotherapy clinics	1	0	0	6	6	13
Hospitals[3]	0	0	0	0	1	1

1 Rates are calculated based on population figures as per UNRWA "Registration Statistics.

2 UNRWA study, 2005

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

FACT SHEET, 2006						
	Jordan	Lebanon	Syria	Gaza	W.Bank	Agency-wide
C - BUDGETARY AND HUMAN RESOURCE INDICATORS						
Health personnel per 100,000 registered refugees						
a) Doctors	5.9	12.3	12.4	14.4	10.8	10.0
b) Dental surgeons	1.7	4.7	4.3	3.4	2.4	2.7
c) Nurses	14.5	29.9	30.3	28.8	34.3	24.0
Annual per capita budget allocations on health US $	9.5	36.9	18.6	27.0	29.5	20.4
Total allocations on health as percentage from approved regular budget	16.8	22.5	23.2	18.9	24.2	18.6
Average expenditure on pharmaceuticals per out-patient medical consultation US$	1.7	1.9	1.6	1.8	1.9	1.8
D - HEALTH STATUS INDICATORS						
Infant mortality rate per 1000 live births [1]	22.5	19.2	28.1	25.2	15.3	22
Infant mortality rate per 1000 live births by gender [1]						
a) Boys	23.6	18	33.1	26.6	15.7	
b) Girls	20.8	20.3	22.5	22.8	14.8	
Neonatal mortality rate per 1000 live births [1]	13.5	15	22.9	17.1	9.3	15.3
Child mortality rate (below 3 years) per 1000 live births [1]	25.1	20.2	30.5	28.3	17.6	24.4
Percentage of women married by the age < 18 years [2]	21.2	26.1	21.1	34.7	35.4	27.7
Mean birth interval (months) [2]	36.3	41.0	41.3	32.4	38.3	37.9
Percentage of women with birth intervals ≤ 24 months [2]	35.7	32.2	31.1	42.2	31.9	35.6
Prevalence of modern contracepives among women of reproductive age utilizing UNRWA MCH services [2]	53	69	67.2	33.7	56.3	55.4
Mean marital age (women) [2]	20.4	20.2	20.7	19.1	19.2	19.9
Percentage of infants breastfed for at least one month [3]	75.9	87.2	78.3	65.0	87.1	78.9
Prevalence of exclusive breast feeding up to 4 months [3]	24.0	30.2	40.3	33.3	34.5	32.7
Prevalence of anaemia among children < 3 years of age [4]	28.4	33.4	17.2	54.7	34.2	33.8
Prevalence of anaemia among pregnant women [4]	22.5	25.5	16.2	35.6	29.5	26.3
Prevalence of anaemia among nursing mothers(4)	22.2	26.6	21.7	45.7	23.0	28.6
Prevalence of anaemia among school children(4)						
a) 1st grade	14.4	22.3	9.1	36.4	14.6	19.5
b) 9th grade	11.6	16.9	6.0	11.4	14.9	12
Percentage of pregnancies at high or moderate risk	34.4	32.0	33.9	38.2	37.9	36.2
Prevalence of diabetes among population served, 40 years and above (%)	7.2	9.5	9.6	10.9	10.1	8.9
Prevalence of hypertension among population served, 40 years and above (%)	10.5	18.9	16.0	15.8	13.7	13.5
No. of cases of communicable diseases reported						
a) Pulmonary TB smear positive	9	5	6	9	0	29
b) Measles	4	1	6	0	6	17
c) Rubella	16	0	11	0	26	53
d) Mumps	155	12	19	91	96	373
e) HIV/AIDS	1	0	0	0	0	1

1 UNRWA study, 2003

2 UNRWA study, 2005

3 UNRWA study, 2001

4 UNRWA study 2004

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

FACT SHEET, 2006	Jordan	Lebanon	Syria	Gaza	W.Bank	Agency-wide
E - INDICATORS OF COVERAGE WITH PRIMARY HEALTH CARE						
Percentage of pregnant women who received antenatal care	55.2	67.3	93.7	99.2	67.1	73.4
Percentage of pregnant women who paid at least four * ante-natal visits to UNRWA MCH Clinics	89.3	97.20129171	88.3	94.2	84.9	90.8
Average No. of antenatal visits	6.2	7.9	6.1	7.8	6.8	7.0
Proportion of pregnant women registered during * the first trimester	70.3	88.3	67.7	60.1	61.3	65.8
Percentage of pregnant women protected against tetanus	99.7	99.2	100.0	99.4	100.1	99.7
Percentage of pregnant women delivered by trained personn	99.7	100.0	98.6	100.0	99.5	99.7
Percentage of deliveries in health institutions *	99.4	99.0	91.2	99.2	98.5	98.3
Percentage of pregnant women who received postnatal care	87.8	96.2	95.3	98.7	88.9	93.4
Percentage of surviving infants who received regular care and monitoring	56.1	66.8	96.1	90.2	62.3	70.6
Percentage of infants 12 months old fully immunized	98.9	100.0	99.7	100.0	98.7	99.4
Percentage of children 18 months old received all booster doses of EPI vaccines	98.3	100.0	99.7	99.9	99.5	98.1
Percentage of camp shelters with access to safe water	99	100.0	100	100	100	99.8
Percentage of camp shelters with access to sewerage facilities	90	86.5	95.3	85	62.5	84.0
Number of camps served by UNRWA mechanized refuse collection and disposal equipment	1	12	7	8	16	44
F - PERFORMANCE INDICATORS						
Average daily medical consultations per doctor	92	83	92	95	108	95
Average daily consultations per dental surgeon	25	25	20	43	24	28
Actual laboratory productivity rate compared to the target of 50 workload units /hour	58.6	42.7	46.1	66.4	51.4	51.8
Actual productivity of dental services compared to the target of 50 workload units per hour	43.9	42.9	49.3	55.9	48	49.6
Average stay (days) among hospitalized patients	2.2	2.3	1.4	3.7	2.4	2.2
Average daily bed occupancy (%) a) Qalqilia hospital	0	0	0	0	57.0	57.0

* Data obtained through the manegment health information system , 2005

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacillus Calmette-Guerin
CDC	Centres for Disease Control & Prevention
CRC	Convention on the Rights of the Child
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
EMRO	Eastern Mediterranean Regional Office
EPI	Expanded Programme on Immunization
ESCWA	United Nations Economic and Social Commission for Eastern Asia
EU	European Union
GAPAR	General Authority for Palestine Arab Refugees
GIS	Geographic Information System
Hib	Haemophylus influenzae stereotype b
HIV	Human Immuno-deficiency Virus
IMCI	Integrated Management of Childhood Illnesses
IDDs	Iodine Deficiency Disorders
IUDs	Intra-uterine Devices
IUED	Geneva's Graduate Institute of Development Studies
FAO	Food and Agriculture Organization
FP	Family Planning
MCH	Maternal & Child Health
MDG	Millennium Development Goals
MMR	Measles, Mumps, and Rubella
NCDs	Noncommunicable Diseases
NIDs	National Immunization Days
NGOs	Non-Governmental Organizations
NTPs	National TB Programmes
OPV	Oral Polio Vaccine
oPt	Occupied Palestinian Territory
PA	Palestinian Authority
PCBS	Palestinian Central Bureau of Statistics
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
USAID	United Sates Agency for International Development
WHO	World Health Organization
WFP	World Food Programme
WBGS	West Bank and Gaza Strip
TB	Tuberculosis

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