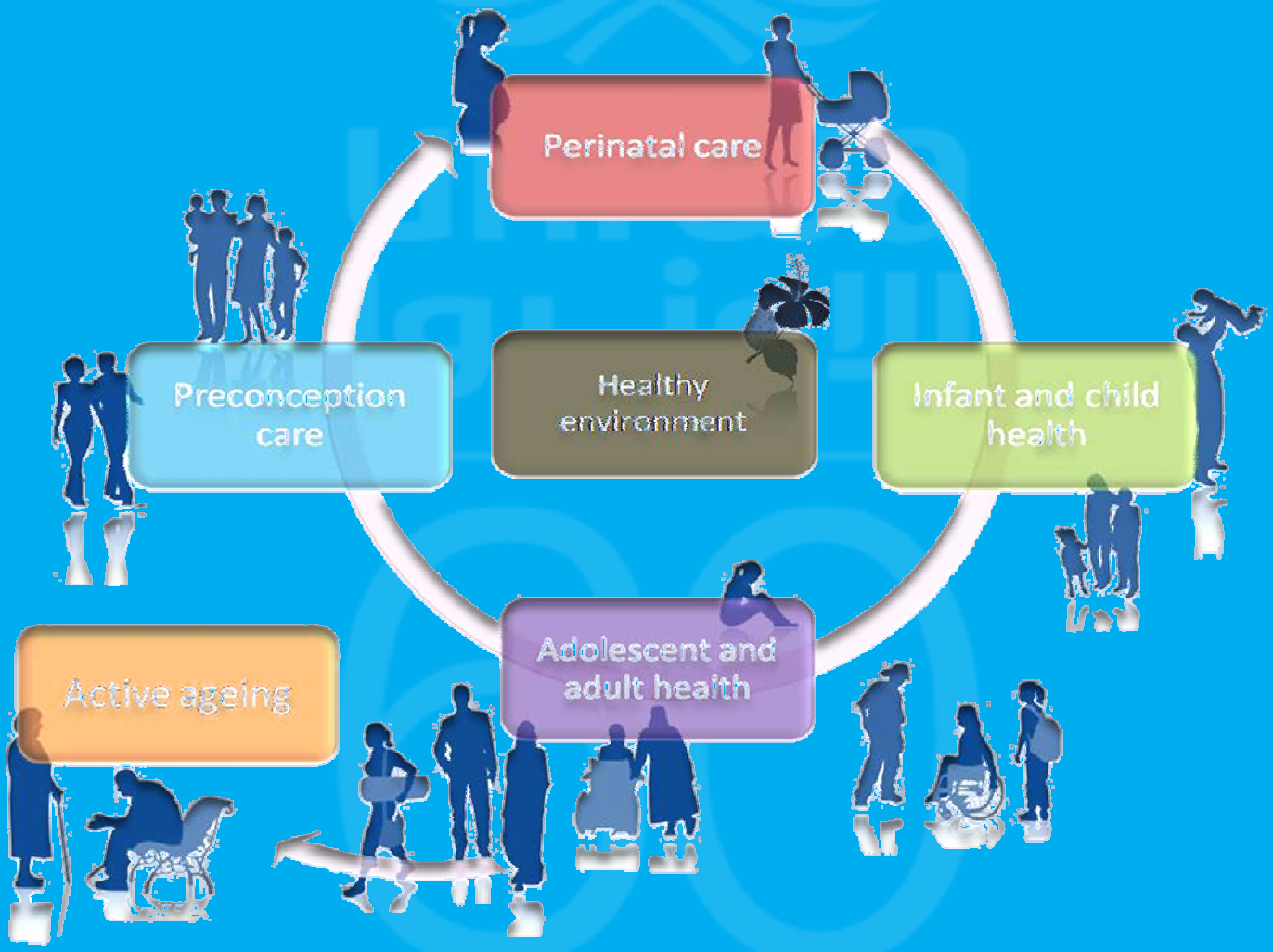
The Annual Report of the Department of Health

2009



United Nations Relief and Works Agency
for Palestine Refugees in the Near East

The Annual Report of the Department of Health

2009

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FOREWORD OF THE DIRECTOR OF HEALTH

It is with sadness and pride that UNRWA marked its 60th year of activities in 2009, in a climate of uncertainty for the future due not only to the absence of a political solution that would pose an end to its mandate, but also to the effects for the global economic crisis and decreases in funding.

The year 2009 started with one of the worse upsurges of violence in the Gaza Strip. Until the 19th of January 2009, the Israeli Defense Forces carried out a three-week high intensity military operation damaging hospitals, primary health care centers, ambulances and killing civilians. UNRWA infrastructures and supplies were severely damaged or destroyed by precision bombs. In the wake of 2009 the World's hopes of a progress in the Peace Process were shattered as the possibilities of a resolution of conflict seemed further and further away. Even today, although mercifully bombs have stopped falling, the expansion of construction in the West Bank and the restriction of the living and movement space reserved to Palestinians continue, amid a fervent international debate that has so far been ineffective.

In Gaza, the blockade remains firmly in place, with all its adverse consequences for humanitarian access, for normal life and for the recovery and reconstruction effort: as always in these situations, civilians with no affiliation to armed groups or political parties bear the brunt. Conditions in the West Bank are similarly dire: the web of physical obstacles - some 592 currently - restricts Palestinian social interaction and denies access to economic opportunities and to resources such as land and water; UNRWA's own work is also constrained as our staff and vehicles are not immune from a myriad restrictions. In Lebanon, steps taken in recent years to improve refugee living conditions are yet to address the serious socio-economic hardships they endure, at the same time, the reconstruction of Nahr El Bared camp remains a pressing concern. In Jordan and Syria, Palestine refugees are fortunate to enjoy a climate of stability, and to benefit from access to government services, yet, as in our other three Fields, our offer of health care as well as the maintenance of UNRWA's facilities and infrastructure are hampered by the limited funds available.

For years, UNRWA has faced persistent and serious budget deficits, which hinder our ability to supply services to the standards Palestine refugees deserve. The budget allocated to Health has been reduced, we are restricted in our ability to plan and deliver quality health services and consequently activities had to be rethought carefully. In order to avoid indiscriminate and unplanned cuts that could have damaged our most vulnerable beneficiaries, a comprehensive health care system review in each Field was carried out that will lead in the coming years to a Health System reform. The circumstances of austerity generate anxiety among refugee communities and among our health staff. The lack of funds prevents us from responding favourably to health staff's legitimate demands for salary increases to cope with rises in the cost of living.

Looking back today, however, the UNRWA health programme appears strengthened. Epidemiological surveillance, strengthened in the Gaza Strip in the aftermath of the war, has led to the implementation of an Early Warning System for timely communicable disease detection, the entire epidemiological surveillance system was revised and the epidemiological surveillance and response training was carried out in all Fields, the peri-natal care component was strengthened by the implementation of antenatal care and by the revision of the child growth monitoring system up to 5 years, the Mother and Child Health handbook and the family protection and domestic violence screening was introduced, the e-health information system to reach the target of "paperless clinic" was further improved. Even the 2009 Influenza Pandemic has had the positive effect of strengthening partnerships with the Ministries of Health in the Host Countries and with WHO. However a lot is still to be done and the reform of the Health Programme within the agency whilst defined in its programmatic aspects will require efforts and resources to be completed.

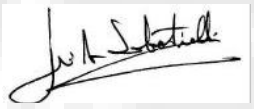
I want to pay a special tribute to the health staff in all Fields. Their professionalism and commitment, despite our limited resources and the difficult conditions under which we work, are the mainstays of UNRWA's strength. I thank each and every one of them for their support, hard work and engagement in tackling the many challenges we have encountered over 2009 while promoting, protecting and preserving the health of Palestine refugees, in line with World Health Organization standards.

It is no exaggeration to say that UNRWA's humanitarian and human development programmes are a vital lifeline for the almost five million Palestine refugees in Middle East as inequity, socio-economic hardship and poor living conditions aggravated by the global financial crisis have increasingly adverse effects on refugee lives and livelihoods. As several stakeholders are responding to UNRWA's call for enhanced partnerships, we have to bear in mind the extreme vulnerability of Palestine refugees and the extraordinarily harsh conditions under which they live.

For its part, the UNRWA Health Programme, with the help of WHO, host countries, donors and partners, remains resolute in its humanitarian and human development mission, as long as a just and lasting solution to the plight of refugees remains out of reach, and our presence and services continue to be required by the refugees we serve.

Dr. G. Sabatinelli

WHO Special Representative
Director of the UNRWA
Health Programme



MESSAGE OF THE UNRWA COMMISSIONER GENERAL AND OF THE WHO REGIONAL DIRECTOR

UNRWA's mission is to assist Palestine refugees to achieve their full human development potential until such time that just and lasting solutions resolve their plight. We hold a strong conviction that this potential remains alive in spite of the daunting circumstances in which refugees live. UNRWA's health programme is one of the means by which refugees can enjoy more fulfilling lives. WHO remains UNRWA's principal partner in that endeavor.

This Annual Report offers a comprehensive overview of the strategies, initiatives and activities comprising UNRWA's response to the health needs of Palestine refugees in the course of 2009. The health programme function primarily through a network of 137 clinics located across the region, both inside and outside refugee camps. It is guided by the Millennium Development Goals, by the policies and standards of the World Health Organization, and by three strategic goals, namely, to ensure universal access of refugees to quality, comprehensive primary health care, to protect and promote family health, and to prevent and control diseases. We commend UNRWA's health staff - some 2,500 health workers and 450 doctors, most of whom are refugees themselves – for their continuing dedication to the achievement of these objectives.

The successes of UNRWA's health programme over the decades are well known. UNRWA is widely acknowledged to have contributed to the control of vaccine-preventable and other communicable diseases while maintaining minimal levels of infant, child and maternal mortality. However, challenges remain. Non-communicable diseases have emerged as a major health concern for Palestine refugees. In the occupied Palestinian territory, the context of occupation, virtually closed borders, human rights violations and severe movement restrictions has created a self-replicating cycle of poverty, conflict and serious health risks, in some instances threatening the right to life itself.

UNRWA's ability to respond to these and other challenges has been hampered by resource and sustainability issues. Funding difficulties have affected the quality and availability of health services. With each UNRWA doctor handling an average of about 100 consultations each day and many health facilities in need of maintenance, we struggle to keep the standards of care refugees need and deserve. The financial situation also restrains creative approaches to primary health care. With more generous contributions to UNRWA's General Fund, we could expand coverage of treatment of non-communicable diseases, attract skilled health professionals and invest in the infrastructure and equipment for a more efficient health programme – from modern laboratories to digital programmes supporting our innovative e-health initiative.

Additional resources would also be essential to fund the transition from existing traditions of curative medicine to a system centred on a prevention philosophy – one which takes as its point of departure the avoidance of health risks at every stage of the life-cycle and which includes initiatives to promote healthy lifestyles, making refugee communities – rather than the health centre - the principal arena for UNRWA's primary health care interventions. The way forward requires us to maximize the complementary of services, drawing on the comparative advantages of each service provider to offer a seamless range of quality, regional health programmes across the region.

Ultimately, the realization of a just and durable solution to the plight of refugees and the establishment of a viable, secure State of Palestine will be the means by which long and healthy lives will be realized for Palestine refugees. We call on the international community to remain focused on these goals.

Filippo Grandi

UNRWA Commissioner General

Dr. H. Gezairy

Regional Director WHO/EMRO

EXECUTIVE SUMMARY

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) has been the main comprehensive primary health care provider of Palestine Refugees for the past 60 years and is the largest humanitarian operation in the Near East. The Mandate of the Health Programme is to protect, preserve and promote the health status of Palestine refugees within the Agency's five areas of operation (Jordan, Lebanon, Syria, the Gaza Strip and the West Bank) aiming for them to achieve the highest attainable level of health consistently with the Millennium Development Goals (MDGs), the Convention on the Rights of the Child and the policies and strategies of the World Health Organization.

This report provides a comprehensive and technical overview of the achievements of the Health Programme throughout 2009. Responding to the ongoing reform of the Health Programme, it has been structured according to the life cycle approach to health care that is promoted by the Agency.

UNRWA provides health assistance to Palestine Refugees from preconception to old age. After providing an overview of the demographic and epidemiological profile of the Agency's beneficiaries, the reader will find detailed information on each of the activities carried out in 2009 according to the phases of the life cycle:

- Peri-natal Care;
- Infant and Child Health;
- Adolescence and Adult Health;
- Active Ageing.

Moreover chapters dedicated to activities aimed at addressing the social determinants of health and delivering health to the victims of conflict address the Programme's cross cutting achievements

The final chapter of this report is dedicated to the Programme Management stream which outlines the accountability and governance mechanisms adopted in 2009 in order to provide health care to Palestine refugees as well as the advocacy, monitoring, evaluation and operational research initiatives that have taken place in the reporting period.

This executive summary reflects the chapter subdivision adopted in this report.

THE DEMOGRAPHIC PROFILE OF PALESTINE REFUGEES TODAY

By the end of 2009, almost five million Palestine refugees were registered with UNRWA. Almost two million of these refugees resided in the occupied Palestinian Territories (oPt) in the Gaza Strip and in the West Bank. The remaining were spread over three host countries: Lebanon, Syria and Jordan. Approximately 30% lived in refugee camps, the others residing in unofficial camps or in towns, and villages with host country communities. Across UNRWA's area of operation almost 40% of refugees are children below 18 years of age. The UNRWA calculated 2009 dependency ratio, measured as the proportion of the population below 15 and above 65 years of age, was over 85% in the Gaza Strip. This implies that the economic burden on family units is particularly high, even not taking into account the contextually high unemployment rates and worsening poverty levels.

PRECONCEPTION CARE

Preconception care is widely recognized as a critical component of the maternal and child health and comprises a set of prevention and management interventions that aim to identify and modify risks to a woman's health or pregnancy outcome by emphasizing factors that must be acted on before or early in pregnancy in order to have maximal impact. In 2009, UNRWA introduced specific preconception care services for couples planning a pregnancy whilst continuing its long standing activity in the field of family planning. 22,958 new family planning acceptors were enrolled in 2009 with a marked increase of acceptors also in the Gaza Field, that still boosts higher fertility rates and lower contraceptive use than the other UNRWA Fields of operation.

PERINATAL CARE

The goal of the peri-natal care services provided by UNRWA, is to preserve the sustainable investment in women's and children's health, promote their mental and psychological wellbeing and attain further progress in the reduction of infant, child and maternal morbidity and mortality through an integrated primary health care approach consistent with the Millennium Development Goals (MDGs), the standards set out in the Convention on the Rights of the Child (CRC), WHO policies and best practices in Public health. Maternal and child health is one of cornerstones of UNRWA's primary health care. During 2009, UNRWA provided antenatal care to 103,943 pregnant women, with over 70% coverage. 95.8% of UNRWA assisted women delivered in hospital and 87,578 benefited of post-natal care.

INFANT AND CHILD HEALTH

Infant and child health focuses on providing paediatric curative and preventive services as well as school health services, including medical examinations, immunization, screening for vision and hearing impairment, oral health consultations, vitamin A supplementation, de-worming, health education and promotion activities. 282,259 children younger than three years of age were assisted by the UNRWA paediatric services in 2009 and 479,156 new pupils were enrolled in UNRWA schools, benefiting from the comprehensive school health services offered by the Agency.

ADOLESCENT AND ADULT HEALTH

UNRWA currently runs 137 Primary Health Care (PHC) Health Centres and one hospital. In 2009, UNRWA medical officers provided over ten million consultations. These were complemented by over 700,000 dental consultations and almost 260,000 dental screening sessions. In line with the shift to preventive care of the Agency, the number of oral health consultations decreased in 2009 while screening increased. In the oPt over 8,000 refugees benefited from individual mental health counselling sessions, over 30,000 from group counselling and almost 6,000 received home visits from UNRWA mental health staff.

In order to meet the demand for physical rehabilitation in the oPt as a result of violence, UNRWA operates nine physiotherapy units in Gaza and six units in West Bank, providing a wide range of physiotherapy and rehabilitation services. In 2009, over 14,000 patients were treated in the oPt 400 patients were admitted to treat injuries sustained during the Gaza war in January 2009, 30% of those were children.

Over 80,000 people were assisted by the programme to cover hospital care costs in 2009, either in contracted secondary/tertiary care facilities or in the UNRWA hospital in Qalqilia (West Bank). Qalqilia hospital had an average daily bed occupancy rate in 2009 of 57.3% and over 6,000 people were admitted.

ACTIVE AGEING

The reduction of communicable disease incidence combined with modifications in life style and longevity have led to a change in the

Palestine refugees' morbidity profile with the emergence of non-communicable diseases such as cardiovascular diseases, diabetes mellitus and cancer. Proportional mortality among patients affected by diabetes and hypertension followed by UNRWA clinics remained stationary in 2009, but the number of beneficiaries assisted increased steadily since 2000 reaching 188,276. This confirms the epidemiological trend that is seeing an increasing importance of Non Communicable Diseases (NCD) as causes of morbidity and mortality among Palestine Refugees.

ADDRESSING THE SOCIAL DETERMINANTS OF HEALTH

Addressing the social determinants of health such as nutrition and environmental health has gone a long way to improving the health status of Palestine refugees in the past 60 years. Delivery of essential sanitation and water services was maintained in 2009 notwithstanding difficulties faced in particular due to the closure regime and conflict in the oPt. Almost all Palestine refugees in camps today have access to clean water and sanitation services. Supplementary feeding programmes have compensated growing budget constraints by prioritizing activities to serve the most needful refugees, in order to prevent the effects of poor nutrition in the most vulnerable phases of life (such as pregnancy and nursing).

DELIVERING HEALTH CARE TO THE VICTIMS OF CONFLICT

2009 not only saw UNRWA challenged by the chronic emergency in the oPt and by a war in the Gaza Strip, but also by reconstruction efforts in Nahr el-Bared camp in Lebanon and by assistance to Palestine refugees that fled Iraq and are still waiting for relocation near the Syrian-Iraqi border. Outreach services in particular in the West Bank were maintained. The five teams serving this area have treated an increasing number of Palestinian refugees (from 69,500 in 2003 to 133,582 in 2009). Emergency funds have permitted to recruit additional staff and put in place other compensation mechanisms to limit the consequences of movement restrictions in the oPt on access to health care, on medical supply provision as well as the effects of conflict and socio-economic hardship on refugees across the Agency's area of operations.

PROGRAMME MANAGEMENT

The Health Programme's expenditure in 2009 was USD 87 million. Around 4,644 staff members work for the Health Department across the five Fields of operation, including the staff employed in Qalqilia hospital, specialists, school medical officers, pharmacists, laboratory and X-ray technicians. The staff to population ratio in 2009 was 9.4 for physicians and 22.9 for nurses, a slight decrease since 2008. 2009 was a year of planning where the results of the monitoring and evaluation carried out in 2008 was discussed in the framework of a Health Reform that is taking its first steps. Advocacy, also among the scientific medical community was fostered through the publication in prestigious scientific international journals and strong ties with international partners were maintained and expanded. These include other United Nations Organizations, Ministries of Health (MoH) in the host countries as well as Universities and Academic Institutions.

Long and Healthy Lives

The Life Cycle Approach to Health

THE UNRWA HEALTH PROGRAMME: A LIFE CYCLE APPROACH TO HEALTH CARE

A healthy life is a continuum of subsequent phases from infancy to old age each with specific health needs. Health care should therefore be designed to provide packages of prevention and clinical assistance that are best suited to each phase of an individual's life. The Life Cycle Approach to Health is the model used by UNRWA to design its package of health services.

UNRWA Long and Healthy Lives, 2009

THE HEALTH PROGRAMME TODAY

The mandate of the United Nations Relief and Works Agency's (UNRWA) health programme is to protect, preserve and promote the health of Palestine refugees and to meet their basic health needs. For the past 60 years the Agency has been the main comprehensive primary health care provider for the Palestine refugee population.

In 2009 the UNRWA Health Programme underwent a programmatic shift as part of a major health reform that aims at increasing quality, efficiency and effectiveness of activities in light of the chronic disparity between the refugee needs and the financial resources available. This programmatic shift, called the **life cycle approach to health**, puts the refugee at the centre of all health activities carried out by the programme and focuses on a comprehensive primary health care delivery.

Refugees are assisted from preconception to active ageing through curative and preventive health services that include post-natal follow-up of infants (growth curve monitoring, medical check ups and vaccinations), outpatient consultations, family planning, ante-natal care of pregnant women, oral health, and secondary prevention and management of diabetes and hypertension in refugees over 40 years of age. Control of communicable diseases is achieved in part through high vaccination coverage and in part by the early detection and control of outbreaks through a health centre based epidemiological surveillance system. The environmental health programme controls the quality of drinking water, provides sanitation and carries out vector and rodent control in refugee camps thus reducing the risk of epidemics. In 2009, the Agency managed a network of 137 clinics, located both inside and outside the refugee camps, serviced by 4,644 health care workers, including 449 doctors who conducted 10.4 million medical consultations.

Figure 1 – The Life Cycle Approach to Healthcare

POPULATION SERVED IN 2009

By the end of 2009, the total number of Palestine refugees registered in the Agency's area of operation was 4,766,671. Although the Agency started operating in a classic post-conflict situation, the socio- economic conditions of its beneficiaries have diversified according to the political and economic situation of their host countries, including the recognition of refugee status and the level of access to Government services. Refugees are therefore a diverse population with diverse needs and health priorities. On top of this, the chronically volatile security context in this part of the Middle East, has obliged UNRWA to adopt a dynamic two tired approach balancing emergency relief with human development according to the situation on the ground. It has made UNRWA an extremely adaptable Agency capable of guaranteeing the continuity of its services though closure regimes as well as full blown conflicts.

Lebanon hosts 425,640 Palestine refugees, of whom over 50 % live in refugee camps. Palestine refugees in Lebanon cannot benefit from the State's social service including health care. Their generally illegal resident status, the employment restrictions they face combined with the high cost of work permits, account for their protracted financial dependence [1]. Access to health care for Palestine refugees in Lebanon is restricted to UNRWA, International Organizations and the private sector, the latter demanding mostly prohibitive fees for service. Uniquely in this Field, UNRWA has stipulated agreements with Palestinian Red Crescent Society Hospitals to guarantee equity in access to secondary health care. In all other Fields a reimbursement scheme is in place for secondary and tertiary care.

Syria and Jordan host 472,109 and 1,983,733 refugees respectively [2]. Palestine refugees in these countries enjoy full social rights. In Syria they are given the rights of citizens. In Jordan Palestine refugees are granted citizenship based on criteria such as place of origin (i.e. the West Bank) and year of arrival. The Gazans living in Jordan face restrictions on access to higher education and jobs [3] and are therefore the most vulnerable group [4]. Palestine refugees, whilst remaining a potentially fragile population overall, have in these countries been allowed to enter the labour market and have social mobility.

The occupied Palestinian territory is suffering the long-term effects of socio-economic hardship due to the closure regime in place that is effectively limiting the movement of people and goods both in the West Bank and the Gaza Strip. Palestine Refugees living in West Bank and the Gaza Strip however have access to health services of the Palestinian Authority (PA) and of all other health providers. In this section, the situation Palestine Refugees in the occupied Palestinian territory (oPt) is not expanded upon, as a detailed description is found in Chapter 8 if this report.

Over three million refugees accessed UNRWA primary health care services, both preventive and curative, during 2009, a slight increase compared with 2008. The proportion of refugees accessing UNRWA services increased in all Fields except in Jordan where it remained stable. This is suggestive of an unchanged, continuative dependency on UNRWA health services.

Table 1 - Demographic indicators by Field, 2009

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Population of host countries in 2009	6,269,285	4,017,095	21,762,978	1,551,859	2,461,267	**36,062,484**
Registered refugees	1,983,733	425,640	472,109	1,106,195	778,994	**4,766,671**
Proportion (%) of refugees in host countries	31.6	10.6	2.2	71.3	31.7	**13.2**
Proportion (%) of refugees accessing UNRWA health services in 2009 (absolute number)	56.0 (1,110,890)	59.0 (249,459)	77.0 (363,669)	82.0 (907,079)	70.0 (545,296)	**67.0 (3,176,393)**
In camps (%)	17.2	53.2	27.1	45.4	25.4	**29.3**
Aging index	41.2	63.1	37.0	21.2	36.5	**35.7**
Fertility rate	3.3	2.3	2.4	4.6	3.1	**3.2**
Male/female ratio	1.1	1.03	1.02	1.03	1.02	**1.03**
Dependency ratio	66.9	55.3	68.3	85.3	72.1	**70.2**

Sources UNRWA Registration Statistical Bulletin of the fourth quarter 2009 and CIA World Fact-book July 2009 population estimates (https://www.cia.gov/library/publications/the-world-factbook/ last accessed on the 29/3/2010)

DEMOGRAPHIC AND EPIDEMIOLOGICAL PROFILE OF PALESTINE REFUGEES

DEMOGRAPHIC OVERVIEW

Almost five million [5] Palestine refugees are assisted by UNRWA, a rapidly growing, young population with decreasing but still high fertility rates and increasing life expectancies. Across UNRWA's area of operation 37.1% of refugees are children below 18 years of age. The UNRWA calculated 2009 dependency ratio, measured as the proportion of the population below 15 and above 65 years of age, was over 85% in the Gaza Strip. This implies that the economic burden on family units is particularly high, even not taking into account the contextually high unemployment rates and worsening poverty levels (Table 1).

The population pyramid (Figure 1) although hampered by two main artifacts: a delay in the registration of newborns leading to a smaller 0-4 age group estimation, and the lack of a compulsory death notification system in the Agency leading to a possible over-estimation of the over 60 age group, is showing signs of a shift from an early demographic transition to an intermediate one in the past 30 years.

While early stage transition is characterized by successive age groups being smaller than the preceding age group, with the younger classes being the most populated ones overall; the intermediate phase is dominated by the working age groups. In this phase, if low unemployment is maintained, the population is potentially capable of supporting the younger and older age groups. For this reason this kind of population is considered to be in a particularly favourable, if transitory, economic position and has been described as having a "demographic gift" or demographic"dividend"[5].

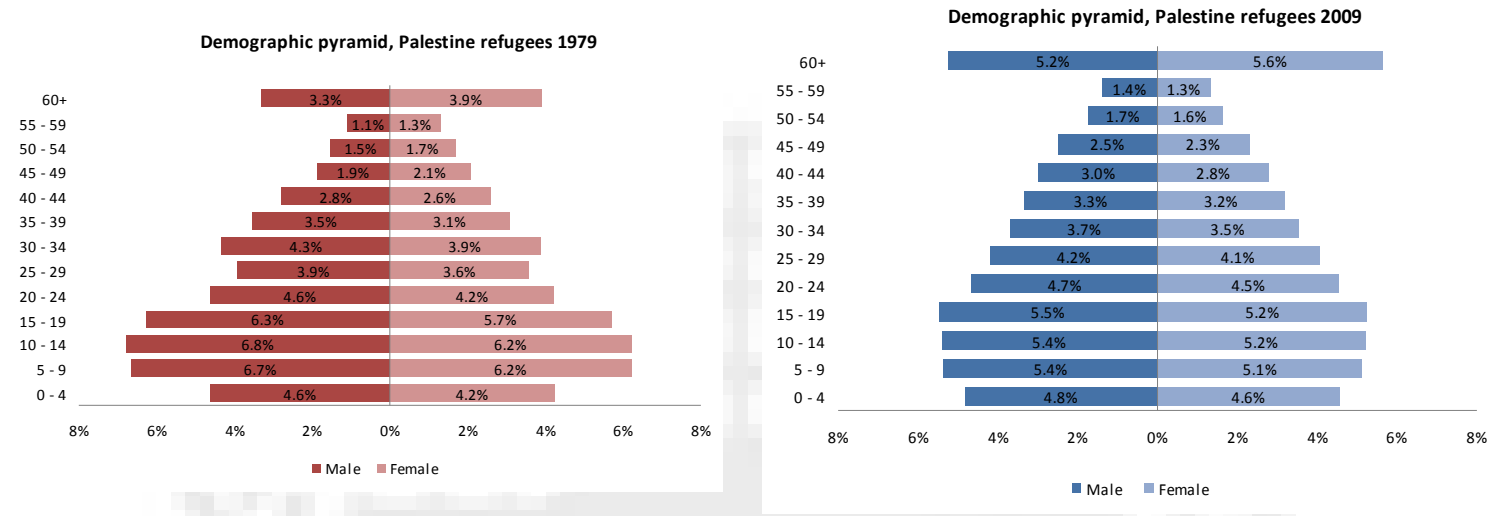


Figure 2 – Demographic pyramids of Palestine refugees, 1979 and 2009

The shift to late phase demographic transition implies that a growing proportion of elderly are supported by a smaller proportion of working age people with a population pyramid that gradually grows almost rectangular in shape. When applied to the Palestine refugee population these considerations are a cause of concern. Whist no particular economic advantage is currently observed in the hardship stricken populations in the oPts due to high unemployment and poverty, and in socially and economically discriminated populations in Lebanon, the expected evolution is towards an ageing refugee population which could be even more vulnerable and dependant on external aid.

Approximately 30% of registered refugees live in 58 official camps. The remaining refugee population live in unofficial camps, towns and villages side to side with host country population. The distribution of refugee camp population varies significantly from one Field to another, with the highest rate in Lebanon and Gaza Strip and the lowest in Jordan (Table 1). Although the number of registered refugees who were internally displaced or took refuge in neighboring Arab countries has increased by more than six times since 1948, proportion of people residing in camps has decreased. The high population density in camps and the legal limitation of expansion are two of the leading factors that encourage refugee emigration from camps. Population density is a cause of concern not only in refugee camps. The Gaza Strip is the most populated area on Earth with 1.5 million people living on an area 365 sq. Km, and with a population density 4,110 people/sq. km as opposed to the West Bank where it is almost ten times less (443 people/sq. Km).

PROGRESS IN ACHIEVING MDGS

Despite a widespread offer of health services and high immunization coverage rates, health indicators did not improve substantially in 2009. Millennium Development Goal (MDG) targets for infant mortality have been reached by UNRWA in Jordan, Lebanon and the West Bank. Rates are in line with, or lower than, host countries except in Syria that consistently reports lower mortality figures. This could be related to the different sampling of the surveys as Palestine refugees in Syria are only 2.2% of the population whereas they constitute between 10.6% and 71.3% of the population in other countries making an overlapping of survey results more likely.

There are signs of a stabilization of infant mortality trends as highlighted in the UNRWA 2008 survey for Jordan, West Bank and Syria. This was expected as post delivery and neonatal assistance is mainly provided by public health care services and, therefore infant mortality rates cannot be expected to decrease significatively below national levels until health infrastructure and human resource development allows secondary and tertiary facilities to reduce prematurity, low birth weight and malformation mortality.

Other MDG indicators for Palestine Refugees are overall comparable to those of their host countries (Table 2). In the oPts however the Gaza Strip compares unfavourably with the West Bank despite the fact that they share the same healthcare providers and have comparable populations. The Gaza Strip has consistently higher infant mortality rates (UNRWA data West Bank: 19.5/1000 vs Gaza Strip: 20.2/1000; UN MDG data for oPt: 24.0/1000) and a lower life expectancy (West Bank: 74.5 years vs. Gaza Strip: 73.4 years) [6]. Both territories compare unfavourably with Israel (UN MDG Infant Mortality Rate: 4.0/1000; Life expectancy: 80.73 years) [6,7].

Vaccine-preventable diseases are well under control in all UNRWA's areas of operation and MDG monitored measles immunization coverage is consistently 95% or above and in line with national rates. The decline in infectious disease incidence is a generalized trend in the region and leading causes of death of Palestine refugees have shifted from communicable to non communicable diseases such as cardiovascular diseases and cancer. However diseases associated with poor environmental health, such as viral hepatitis and enteric fevers, are still a public health threat reflecting local endemicity patterns.

High coverage of UNRWA Primary Health Care services has a different meaning than the same finding in a Country. It is an expression of persistent or increasing economic vulnerability and/or limitation to health access that are making Palestine refugees more and more dependant on the Agency as their sole health care provider. There has been a dramatic increase in the coverage of UNRWA mother and child health services since 1990 that tends to exceed coverage rates reported by host countries in particular in the Gaza Strip where the socio-economic conditions of Palestine Refugees are the harshest (Table 2). Conversely, looking at coverage against estimated refugee beneficiaries (Table 6) within the oPts, coverage is lower in the West Bank, again underlining the difference between these refugee groups even though they both have full access to Palestinian National Authority health services.

Table 2 – Selected MDG Indicators, Palestine refugees and Host Country population

			Jordan		Lebanon		Syria		Occupied Palestinian Territory		
			Pal. refugees	Host Country	Pal. refugees	Host Country	Pal. refugees	Host Country	Pal. Refugees (West Bank)	Pal. Refugees (Gaza Strip)	Host Country
MDG 4	Reduce child mortality	Infant mortality rate/1000	22.6	21.0	19.0	26.0	28.2	15.0	19.5	20.2	24.0
		% infants 12 months immunized against measles	99.3	95.0	100.0	53.0	99.8	98.0	99.7	100.0	99.0
MDG 5	Improve maternal Health	% Antenatal care coverage (at least 1 visit)	100.0	98.8	100.0	95.6 (2002)	100.0	84.0 (2006)	100.0	100.0	98.8
		% of deliveries attended by skilled health personnel	100.0	99.0	99.9	98.0 (1995)	99.1	93.0 (2006)	99.8	100.0	98.9
		Maternal mortality ratio/ 100,000 births#	20.2	62	21.6	150	53.2	130	48	28.6	21.3
		Contraceptive use among married women in reproductive age (%)	53	57.1 (2007)	69	58.0 (2004)	67.2	58.3 (2006)	56.3	33.7	50.2
MDG 6	Combat HIV, Malaria, TB and other diseases	Incidence rate of TB/ 100,000#	0.2	7.4	4.6	18.6	17.4	23.6	0.4	0.2	19.9
MDG 7	Environmental sustainability	% population with sustainable access to an improved source of water##	99.4	98.0	100.0	100.0	100.0	89.0	100	100	89.0
		% population with access to improved sanitation##	93.0	85.0	92.0	100.0	96.0	92.0	63.0	92.0	80.0

This table presents the latest data available for selected MDG indicators in UNRWA's Field of operation for Palestine refugees (UNRWA data) and the entire host country population (UN MDG data). UNRWA data refers to 2009 except for the Infant mortality data collected in 2008 that can be attributed to 2005-2006. All MDG data (http://unstats,un,org/unsd/mdg/data.aspx), unless differently stated, refer to 2007. # Data on maternal mortality and tuberculosis prevalence reflects only beneficiaries attending UNRWA services. ## These indicators are collected by UNRWA as the % of camp shelters with access to safe water and sewerage facilities.

EPIDEMIOLOGICAL OVERVIEW

The reduction of communicable disease incidence combined with a longer life expectancy and modifications in life style have led to a change in the refugees' morbidity profile with the emergence of non-communicable diseases such as cardiovascular diseases, diabetes mellitus and cancer. The highest prevalence of diabetes mellitus among Palestine refugees above 40 was observed in the Gaza Strip reaching 13.1% and the highest prevalence of hypertension in Lebanon (20.8%).

The global change in eating habits and lifestyles is also leading to higher caloric intakes and physical inactivity in Palestine refugees. However, this higher caloric intake is not associated with mitigation of existing nutritional deficiencies, which leads to a new and perhaps more unsettling kind of malnutrition, in which an excessive caloric intake, in the form of fat and carbohydrates, accompanies a persistent lack of micronutrients. Obesity is highly prevalent, reaching 53.7% among women in Jordan, while the lowest prevalence was found in Lebanon (men 23.6%, women 40.6%) [8].

Conversely, although severe under-nutrition as reported in the 1950s and 1960s is no longer highly prevalent, moderate stunting is still a problem among children under five in the oPt and prevalence was placed at 12.4% in the Gaza Strip, as opposed to 7.9 % in the West Bank. This highlights once again the difference between these two refugee groups [9].

Iron-deficiency anaemia and vitamin-A deficiency remain severe public-health problems among Palestine Refugees in the Near East. In Lebanon, the prevalence of anaemia among children under three years of age in 2004 was 33.4%, which makes it the highest in Palestine refugees who live outside the occupied Palestinian territory (28.4% in Jordan and 17.2% in Syria) [10].

In the same survey, the prevalence of anaemia in West Bank and the Gaza Strip was higher (34.3% and 54.7%, respectively) and a pejorative trend was highlighted in both Fields in 2006 with a prevalence of 37.1% in the West Bank and 57.5% on the Gaza Strip [11].

Mental disorders, related to the chronically harsh living conditions and long-term political instability, violence, and uncertainty are becoming a public-health concern. In Lebanon, 19.5% of Palestine refugee adolescents suffer from mental distress and 30.4% of women in the same refugee camps reported mental distress [12].

FUTURE DIRECTIONS

Palestine refugees are victims of health inequalities. UNRWA aims at ironing out these socio-economic disparities and mitigating their effects on health through the provision of the best possible comprehensive primary health care services to Palestine refugees. UNRWA's effort is to ultimately enable them to live healthy, full and productive lives.

With its cross-cutting approach to comprehensive primary health care, UNRWA is in a unique position to implement targeted preventive and curative services and to address the social determinants of health. Supported by the international community, UNRWA has developed over the years a refined, tailored and effective package of measures to mitigate the effects of the conflict on Palestine refugee communities. However, the chronic imbalance between the needs and demands of the refugee population on the one hand and the human and financial resources available to the programme has led to a constant renegotiation and prioritization of activities to cope with budget constraints.

Financial constraints are a serious concern for the Agency. In 2009, the Health Programme faced a budget reduction and was not able to reimburse costs for all deliveries taking place in hospitals opting to select cases at high and moderate risk. For the same reason, life-saving tertiary care treatments, such as dialysis are still not reimbursed by the Agency.

Even so, the UNRWA health system is overstretched with each doctor seeing on average 98.5 patients a day.

In 2009, a shift from curative to preventive care within the UNRWA health system has been formalized as part of an extensive and ongoing health care reform. This aims to decrease the burden on UNRWA health providers, increase the service quality and efficiency whilst addressing the aspects less likely to be covered by other health care providers.

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PRECONCEPTION CARE

There is evidence that improving women's health before pregnancy is important for optimizing pregnancy outcomes. However, many women continue to enter pregnancy in less than optimal health [...]. Making preconception care services available to women and couples is expected to significantly improve maternal and infant outcomes, particularly for women at risk.

Proceedings of the Preconception Health and Health Care Clinical, Public Health, and Consumer Workgroup Meetings, 2006 Atlanta, Georgia

Preconception care is widely recognized as a critical component of the maternal and child health. It comprises a set of prevention and management interventions that aim to identify and modify risks to a woman's health or pregnancy outcome by emphasizing factors that must be acted on before or early in pregnancy in order to have maximal impact. It can be broadly defined as the provision of biomedical and behavioural interventions prior to conception in order to optimize women's wellness and subsequent pregnancy outcomes. Couples receive counselling in UNRWA when planning a pregnancy and are advised to avoid too many, too early, too late and too close pregnancies through modern family planning methods.

PROGRESS IN 2009

- The preconception care services became an integral component of the UNRWA health offer and services were introduced in all Fields. The preconception care program is now part of the maternal health care and fully integrated within its primary health care system;
- Technical guidelines and management protocols were produced;
- Records, reports and other forms were formalized and printed;
- A training package was developed and Mother and Child Health staff in the five Fields was trained;
- Interventions were piloted in 2 Health Centres in the Jordan Field for 6 months;
- An evaluation meeting was conducted to introduce the necessary adjustment to the program;
- Based on this experience, full scale implementation in all Fields started in October 2009;
- Emergency contraception methods were added to the range of modern contraceptive method provided within the Family Planning Services during 2009. This constitutes a reliable contraceptive method after unprotected intercourse or failure of other methods. Women are counselled concerning the option for emergency contraception, if required and indicated timely.

ACTIVITIES OF THE PRECONCEPTION CARE SERVICE

Couples with conception intentions are counselled and provided with the necessary medical care in addition to folic acid supplementation to achieve the following objectives:

- Manage and control factors which contribute to poor birth outcomes before pregnancy;
- Ensure that all women of reproductive age enter pregnancy in optimal health;
- Encourage early registration for antenatal care;
- Achieve further reduction in infant, child and maternal morbidity and mortality by preventing or minimizing health problems for the mother and her foetus;
- Avoid unwanted pregnancies by helping couples understand their reproductive health options and adjust their lifestyle accordingly;
- Control hereditary diseases among newborns through identification of parents with increased genetic risks, and provide them with sufficient knowledge to make informed decisions about their reproductive options;
- Prevent and treat infections, in particular genital tract infections;
- Prevent and control of hereditary anaemia;
- Identify and assist, whenever feasible, couples who may have infertility problems; and
- Improve the overall knowledge, attitudes and behaviours of men and women regarding reproductive health in general, and preconception care in particular.

MAIN COMPONENTS OF THE AGENCY'S PRECONCEPTION CARE SERVICE

- *Health promotion*
- *Counselling*
- *Screening*
- *Periodic risk assessments*
- *Intervention and follow-up*
- *Folic acid supplementation*

ACTIVITIES OF THE FAMILY PLANNING SERVICE

A total of 22,958 new family planning acceptors were enrolled in the family planning programme during 2009. The total number of continuing users of modern contraceptive methods Agency-wide increased by 1.5% from 132,732 in 2008 to 134,729 in 2009.

Table 3 - Family planning services, 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
No. of new Family Planning acceptors	7,730	1,692	2,659	7,916	2,961	**22,958**
Total No. of continuing users at end year	35,129	12,942	18,751	47,479	20,428	**134,729**
Distribution of FP users according to method						
IUD	41.0%	42.1%	43.0%	50.8%	56.3%	**47.3%**
Pills	28.7%	27.4%	26.8%	24.8%	24.6%	**26.3%**
Condoms	26.4%	29.5%	26.3%	20.6%	15.7%	**22.9%**
Spermicides	1.1%	0.4%	1.1%	0.2%	0.9%	**0.7%**
Injectables	2.8%	0.6%	2.8%	3.6%	2.4%	**2.8%**

It is worth noting that the number of new family planning acceptors in Gaza increased markedly during the last three years, from 1,365 in 2005 to 7,916 in 2009. 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, to 41,874 in 2007 , 45,232 in 2008 and to 47,479 in 2009. There was an increase in the number of continuing users by 4.9% in Gaza, 2.7% in Lebanon, 2.6% in Syria, while they decreased in Jordan and West Bank.

The distribution of family planning acceptors according to the contraceptive method used is shown in Table 3. The same pattern of contraceptive method mix was maintained during 2009 and IUDs continued to be the most popular method of contraception followed by contraceptive pills and condoms.

Couple-Years of Protection (CYP) is an output indicator used by UNRWA to estimate the number of clients (or couples) that were protected from pregnancy in a year by an UNRWA dispensed contraceptive. The contraceptives dispensed during 2009 through the Agency's family planning services provided 130,009 CYP with variations between the Fields as shown in Table 4. The Table also shows that the CYP provided during 2009 increased in all Fields except in Jordan and Lebanon where there was a mild decrease in spite of an increase in users.

Table 4 - Table 12, Years of protection provided through the family planning programme, 2000-2009

Couple Years of protection (CYP)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
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 2004	26,241	11,065	18,762	31,753	13,784	101,605
During 2006	28,921	9,790	15,992	38,941	19,934	113,578
During 2008	31,258	9,716	18,404	41,049	18,412	118,840
During 2009	25,758	9,606	25,711	43,217	25,717	130,009

Data from the Maternal and Child Health/Family Planning module of the Management Health Information System (MHIS) revealed that the discontinuation rate of modern contraceptives ranged from 4.9% in West Bank and 5.7% in Syria to 8.5% in Jordan. In 1996, a study was conducted to assess contraceptive practices and the discontinuation rate of modern contraceptives shortly after the introduction of family planning services into the Agency's maternal health programme in 1994. The progress attained thus far is shown in Figure 3.

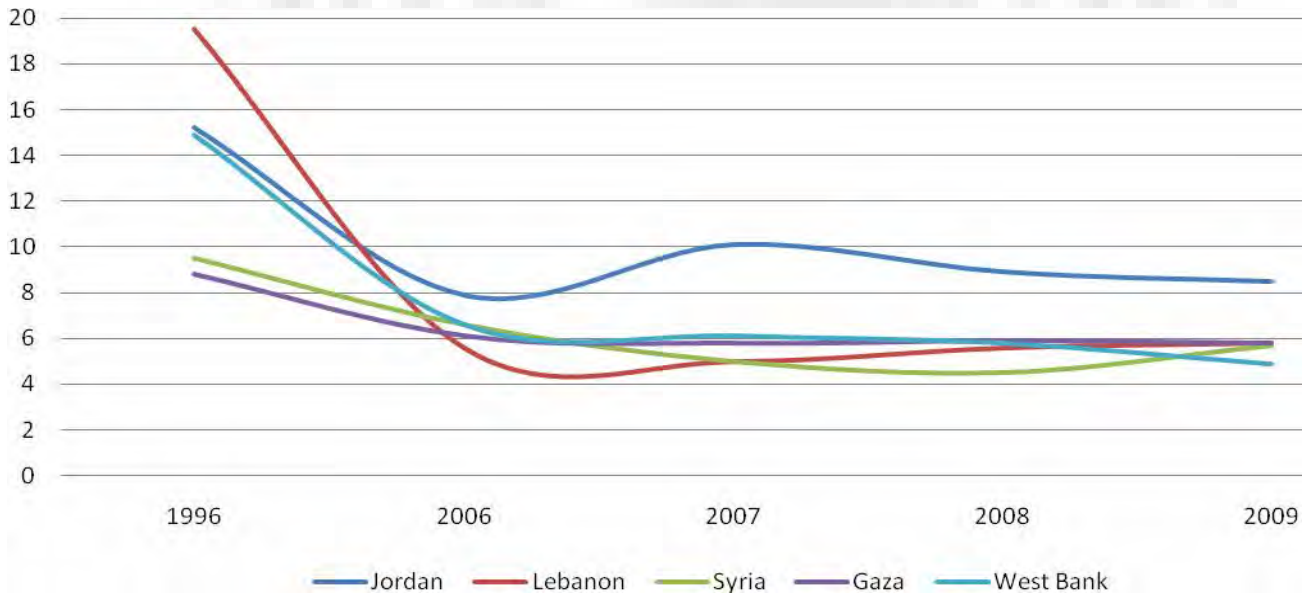


Figure 3 - Discontinuation rates of modern contraceptives: 1996, 2006- 2009

The success of the family planning programme is evident from Figure 4, which shows a steady increase in the number of acceptors over the number of pregnant women cared for, since the introduction of the family planning programme. During the last 10 years, there has been a three-fold increase in the number of women enrolled in the programme. The total number of family planning acceptors as an output indicator, reflects the change in the reproductive health practices of the refugee population.

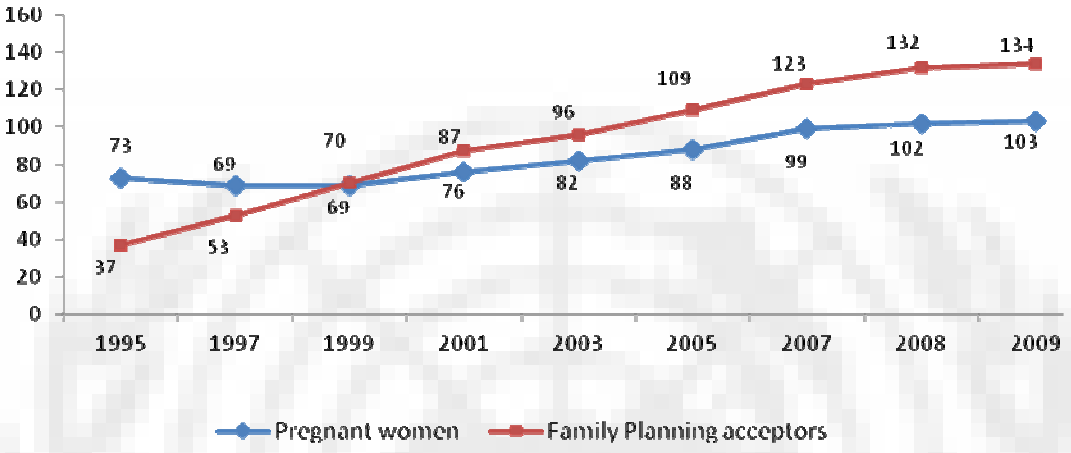


Figure 4 - Total number of pregnant women and FP acceptors in thousand, 1995-2009

The last UNRWA study on current contraceptive practices conducted in 2005, revealed that there was a notable drop in the total fertility rate among mothers of children 0 to 3 years of age who attended the Maternal and Child Health clinics since the introduction of the family planning programme as shown in Figure 5. It can be also noted that the highest fertility rates in 2005 were in Gaza and Jordan.

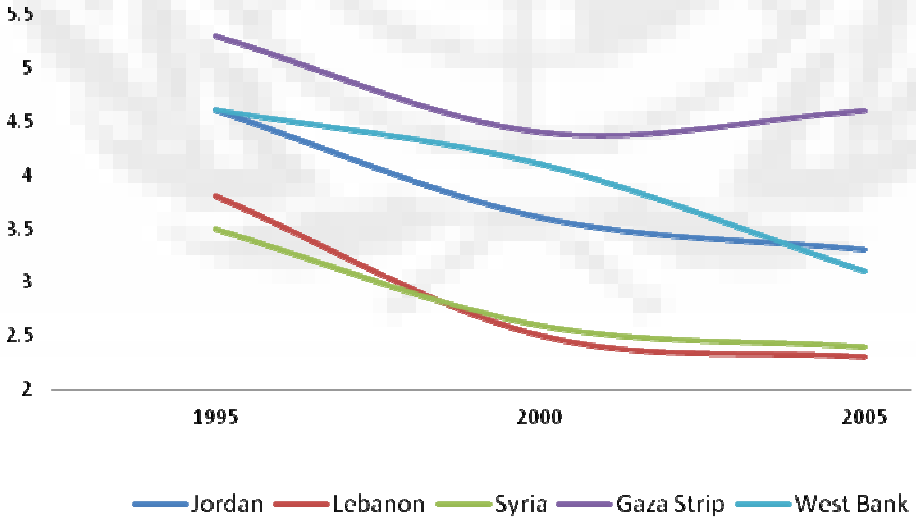
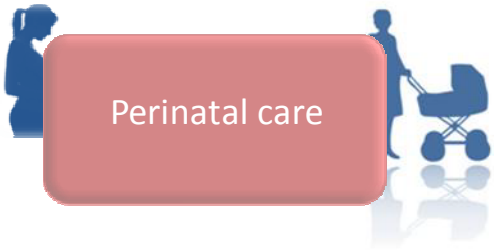


Figure 5 - Total fertility rates trends: 1995, 2000 and 2005



PERINATAL CARE

The fifth Millennium Development Goal (MDG) aims to improve maternal health. The two targets set for this goal are to" reduce by three – quarters, between 1990 and 2015, the maternal mortality ratio" and "achieve, by 2015, universal access to reproductive health".

UN Millennium Development Goals website, 2009

In the World, some 4 million neonatal deaths occur each year, the majority within the first few days of birth. WHO has gathered evidence that a small number of effectively delivered interventions from before conception to immediately after birth can substantially reduce newborn deaths particularly in low-income communities.

The increasing economic vulnerability and/or limitation to health access are making Palestine refugees more and more dependant on UNRWA as their sole health care provider. This is particularly evident for maternal and child health and has led to a dramatic increase in the coverage of UNRWA mother and child health services since the 1990s. A pregnant refugee woman assisted by UNRWA on average receives seven antenatal visits. During these check ups, the risk status of the pregnancy is assessed to enable a more personalized and appropriate follow-up, immunization against tetanus is carried out as is screening for gestational diabetes and hypertension. Moreover UNRWA meets the increased nutritional needs of pregnant women and nursing mothers by providing dry rations (comprising vegetable oil, rice, sugar and pulses) beginning in the third month of pregnancy until 6 months after delivery. Pregnant women are also protected against micronutrient deficiencies and are provided with iron supplementation throughout pregnancy. UNRWA promotes safe motherhood and the prevention of perinatal deaths by subsidizing delivery in hospital for high-risk pregnancies. Mothers and newborns are then clinically followed up after childbirth either in the UNRWA health facilities or at home.

OBJECTIVES OF PERINATAL CARE

To preserve the sustainable investment in women's and children's health, promote their mental and psychological wellbeing and attain further progress in the reduction of infant, child and maternal morbidity and mortality through an integrated primary health care approach consistent with the Millennium Development Goals (MDGs), the standards set out in the Convention on the Rights of the Child (CRC), WHO policies and best practices in Public Health.

PROGRESS IN 2009

- Full scale implementation of the Maternal and Child Hand Book in the West Bank and the Gaza Strip was successfully achieved in 2009. Preparations are completed to start implementation in Jordan, Syria and Lebanon Fields during 2010;
- Development of a new Maternal Health Record to be consistent with the MCH handbook and changes introduced to the program;
- Development of a New Child Health Record to capture the WHO new growth monitoring standards and to expand the scope of growth monitoring to include infants and children 0-5 years;
- The Management Health Information System is now well established in all Health Centres and the process of decentralization of programme management was further enhanced. Data generated from the system have been used to improve surveillance, monitoring and response at the service delivery level. Health centres staff can utilize the available computers to enter, process and analyse data and they are well acquainted on how to use indicators obtained from the MHIS to identify areas for further improvement;
- A comparison of the indicators generated by the MHIS during the second quarter of 2009 with those collected during the same period in 2008 are outlined in the relevant maternal health and family planning sections of this report;
- The Technical Instructions on provision of maternal health care were updated and revised to address new additional interventions. Preparations were undertaken including training, printing of record and distribution of hard and soft copies, for wide scale implementation in all Fields as from October 2009;
- Post-abortion care was established. Complications from spontaneous and/or unsafe abortion are recognized as preventable causes of maternal morbidity and mortality. In order to prevent post-abortion complications for women attending UNRWA MCH clinics, health staff provide comprehensive post-abortion care, including the management and referral of cases of abortion with complications, in addition to counselling and providing post-abortion family planning services;
- Screening for domestic violence was introduced. Domestic violence is associated with poor pregnancy outcomes. Women attending preconception, antenatal, post-natal and family planning services are screened counselled and are provided with the necessary support and help;
- Oral health services were integrated in MCH services. To ensure good oral health during preconception, pregnancy and lactation, oral health services were reoriented to focus on the preventive aspect of oral health. Women are counselled by MCH staff about healthy diet, importance of daily tooth brushing, using fluoride toothpaste, advised on their children's oral health and referred to the dental clinic for screening, further advice and possible treatment; and
- The standardized training plan covering both in-service and on-the-job training was implemented to enhance institutional capacity building at the service delivery level.

ACTIVITIES OF THE PERI-NATAL CARE SERVICE

Comprehensive maternal health care to women of reproductive age including:

- Ante-natal care;
- Surveillance and management of sexually transmitted diseases (STDs);
- Intra-natal care; and
- Post-natal care.

MAIN COMPONENTS OF UNRWA'S PERI-NATAL CARE SERVICE

- *A strategic approach based on the integration of services comprising: pre-natal, intra-natal and post-natal care;*
- *A proactive system of risk assessment, surveillance and management;*
- *A well developed Management Health Information system with continuous improvement in data collection, data analysis and management to decentralize decision making, enhance system performance and improve the outcomes of care;*
- *Decentralized management at different levels including at health centre, area level and at Field level, guided with the indicators generated from the health information system to improve monitoring and response in a timely manner at the service delivery level;*
- *Significant investment in staff development and capacity building using formal, in-service and on-the-job training;*
- *Conduction of health services research in particular operational research;*
- *Strong partnership and collaboration with other programs within UNRWA, public health authorities of host countries, WHO and other UN sister organizations, NGO's and the community.*

As shown in Table 5, during 2009 a total of 6,714 staff training days were conducted, compared to 3,293 in 2008, for staff in various categories. This heavy investment in training was to acquaint health staff with the new TIs on Maternal and Child care.

Table 5 - Family health training activities, 2009

Training subjects	Staff-days training by staff category			
	Medical	**Nursing**	**Others**	**Total**
Training on MCH handbook	45	243	5	**293**
Training on breast self examination	4	64	316	**384**
Training on Health Information System	202	266	0	**468**
Reproductive health quality assurance	23	24	0	**47**
Domestic Violence	26	26	0	**52**
STIs/STDs	43	56	0	**99**
Breast feeding	0	12	0	**12**
Management of growth retarded children	35	73	20	**128**
Family planning counselling	46	76	0	**122**
Training on preconception care	173	457	5	**635**
Training on gender	65	260	50	**375**
Vitamin A supplementation	24	58	12	**94**
Immunization	92	330	5	427
Screening programme for PKU& congenital hypothyroidism	45	231	5	281
Anaemia	23	61	0	84
Family health review / HC assessment	96	376	5	477
Mental Health	47	108	0	155
Infection control	0	6	0	6
child Health Care	235	925	6	1166
Training on maternal health	268	576	25	869
School health activities	25	21	262	308
Preventive dental care integration	56	176	0	232
Total	**1,573**	**4,425**	**716**	**6,714**

ANTE-NATAL CARE

During 2009, UNRWA primary health care facilities cared for 103,934 pregnant women which accounted for 73.4% of all expected pregnancies among the registered refugee population. The number of expected pregnancies is calculated by multiplying the total number of registered refugee population (as per UNRWA registration system) by the crude birth rates published by the Host Authorities which are as follows: 2.8% in Jordan, 2.0% in Lebanon, 2.8% in Syria, 3.69% in Gaza and 3.01% in the West Bank. The highest coverage rates were in Gaza and Syria and the lowest were in the Jordan, Lebanon and West Bank. The high rates of coverage could be largely attributed to the efforts exerted in order to improve quality and encourage early registration for pre-natal care. The low rate in the West Bank is mainly due to the restricted access to services, imposed by frequent closures, checkpoints, curfews and the Separation Wall, while the low coverage rate of 56.7% in Jordan is mainly due to the limited accessibility of underserved refugee communities residing outside camps.

Table 6 - Coverage of UNRWA's antenatal care, 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered refugees	1,983,733	42,5640	472,109	1,106,195	778,994	4,766,671
Expected No. of pregnancies	55,545	8,513	13,219	40,819	23,448	141,543
Newly registered pregnancies	31,512	5,453	9,921	41,976	15,081	103,943
Coverage rate	**56.7**	**64.1**	**75.1**	**100.0**	**64.3**	**73.4**

As also observed in previous years, the demand for UNRWA antenatal services continued to increase. During 2009, the number of pregnant women registered for antenatal care increased by 1.8% with an increase of 6.1% in Gaza Field, 3.6% in Lebanon, 12.9% in West Bank while there was a decrease of 6.8% in Jordan and of 2.3% in Syria. The increase in the number of pregnant women registered in Gaza and Lebanon is mainly due to increased demand for maternal services as UNRWA is almost the only provider of this services to refugee community in those Fields, while in West Bank the increase could be explained by the prevailing situation of limited accessibility to other health care providers and the increased number of refugee women married to non refugees enrolled in the program.

RISK ASSESSMENT

During 2009, according to the UNRWA risk scoring system using the rapid assessment technique, there were no significant changes in the risk status of pregnant women attending UNRWA health centres. 14.7% compared to 15% in 2008 were classified in the high-risk category and 24.0% compared to 23.8% were at moderate risk. This meant that more than one third of pregnant women under supervision needed special care, including assistance during delivery. The rates varied from one Field to another as shown in Table 7, with the highest high-risk rate of 19.0% in Gaza Strip followed by 13.4% in Jordan and 11.8% in the West Bank. This could be largely attributed to high parity, early marriage, too early and too late pregnancies, and the high prevalence of anaemia. Whereas the lowest rates of 7.5% and 9.1% in Lebanon and Syria respectively where the total fertility rate has declined and the marital age has increased in the last two decades.

Table 7 -Distribution of pregnant women according to risk status through rapid assessment, 2009

Field	Risk Status		
	High	Alert	Low
Jordan	13.4	25.1	61.5
Lebanon	7.5	24.4	68.1
Syria	9.1	27.6	63.3
Gaza Strip	19.0	23.0	58.0
West Bank	11.8	22.3	65.9
Agency	**14.7**	**24.0**	**61.3**

Data from the Maternal and Child Health/Family Planning module of the MHIS 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 as early as possible in pregnancy to allow ample time for risk identification follow up and management, and to meet the WHO recommended standard of at least four antenatal visits during the course of pregnancy.

Table 8 - *Proportion of pregnant women by No. of antenatal visits, 2009*

No. of antenatal visits	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
	%	%	%	%	%	
1	4.2	1.0	2.4	0.6	1.8	2.2
2 – 3	9.4	5.8	11.1	5.8	14.9	8.8
4 – 6	33.7	21.4	43.3	25.5	42.0	32.3
7 – 9	44.0	55.6	40.6	53.1	36.6	46.5
10+	8.7	16.2	2.6	15.0	4.7	10.2
Total	**100**	**100**	**100**	**100**	**100**	**100**

In 2009, the percentage of pregnant women who paid four antenatal visits or more to UNRWA maternal health services was comparable to 2008 (89.0%). The proportion was highest in Gaza (93.6%), followed by Lebanon (93.2%), Syria (86.5%) and Jordan (86.4%), and was lowest in the West Bank (83.3%) as shown in Table 8.

However, the average number of antenatal visits showed variations among Fields ranging from 5.9 visits in Syria, the lowest, to 8.1 visits in the Gaza Strip, the highest, giving an Agency-wide average of 7.1 antenatal visits per pregnancy.

b) Early registration for ante-natal care

This is measured as the proportion of pregnant women who registered during the first trimester. As can be seen from Table 9, the trend for early registration continued during 2009 with 77.3% of pregnant women Agency-wide registered during first trimester compared to 74.9% during 2008. 20.3% registered during the second trimester and only 2.4% registered during the third trimester.

Table 9 - Maternal health indicators, 2009

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Distribution of pregnant women according to time of registration						
During 1st trimester	74.4	88.1	76.5	80.4	73.4	77.3
During 2nd trimester	21.8	10.3	21.7	18.4	23.9	20.3
During 3rd trimester	3.8	1.6	1.8	1.2	2.7	2.4
Percentage of pregnant women who paid 4 visits or more	86.4	93.2	86.5	93.6	83.3	89.0
Average No. of antenatal visits	6.2	6.9	5.9	8.1	7.1	7.1
Percentage of pregnant women delivered by trained personnel	100	99.9	99.1	100	99.6	99.8
Percentage of deliveries in health institutions	99.5	98.7	95.2	99.6	99.4	99.0
Overall discontinuation rate among family planning users (%)	8.5	5.8	5.7	5.8	4.9	6.4

Figure 6 shows that the trend for early enrolment in the ant-natal care, the proportion of women who registered during the first trimester of pregnancy increased substantially during the period 2003 to 2009. This increase was consistent in all Fields.

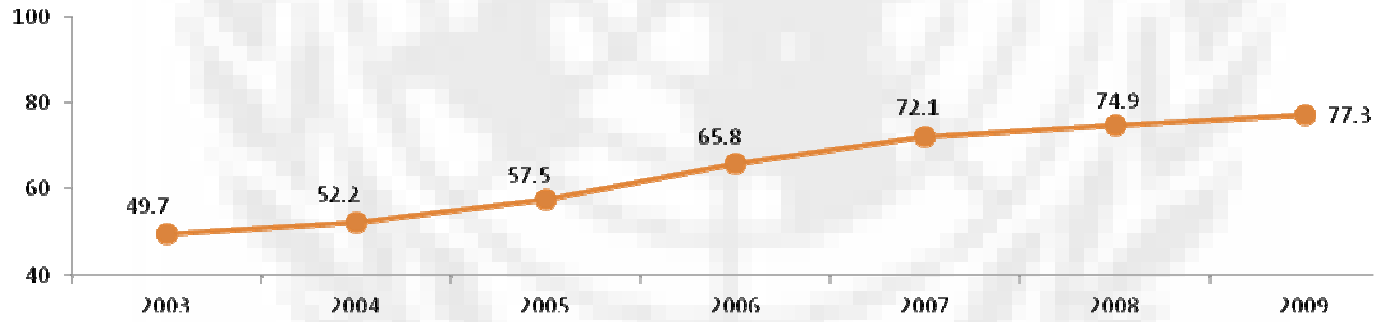


Figure 6 - *Trend of early registration (first trimester) for ante-natal care, 2003-2009*

DISEASE PREVENTION

TETANUS IMMUNIZATION

Similarly to previous years, a survey was carried out to assess the level of protection of pregnant women against tetanus based on current and past immunization records. The study revealed that optimal immunization coverage was maintained. 99.6% of pregnant women were protected according to the current criteria of immunization.

No cases of *tetanus neo-natorum* were reported in 2009 and as a result of the optimal immunization coverage maintained during the last decades, no cases of tetanus were reported among mothers or newborns.

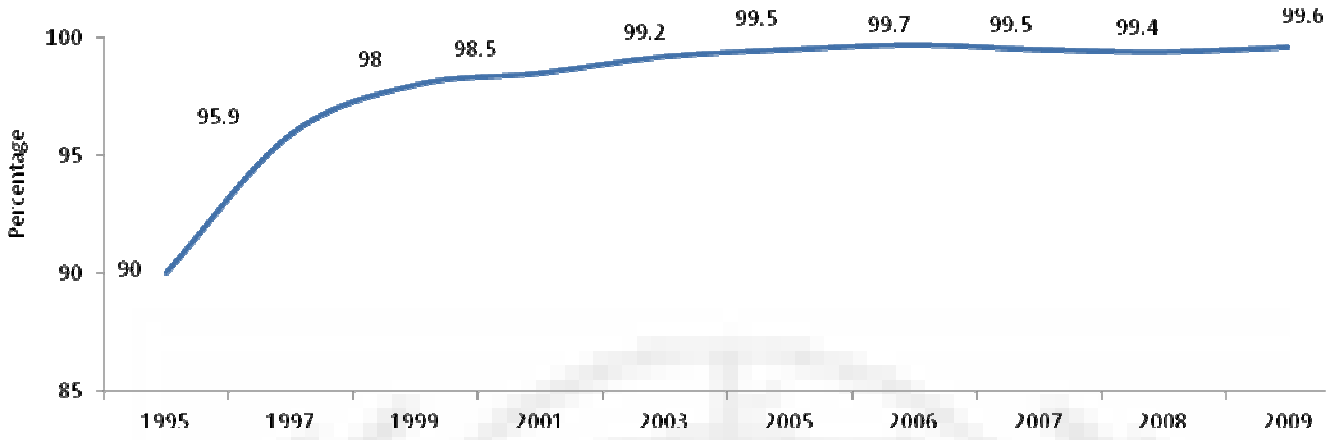


Figure 7 - *Pregnant women protected against tetanus, 1995-2009*

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 10 and Figures 8 and 9, hospital delivery was the main choice of delivery during 2009. 95.8% of the reported deliveries Agency-wide took place in hospitals compared to 85.4% in 2002, 90.6% in 2005 and 95.7% in 2008. This increase in the proportion of hospital deliveries was mainly due to the shift from private clinics and home delivery to hospitals.

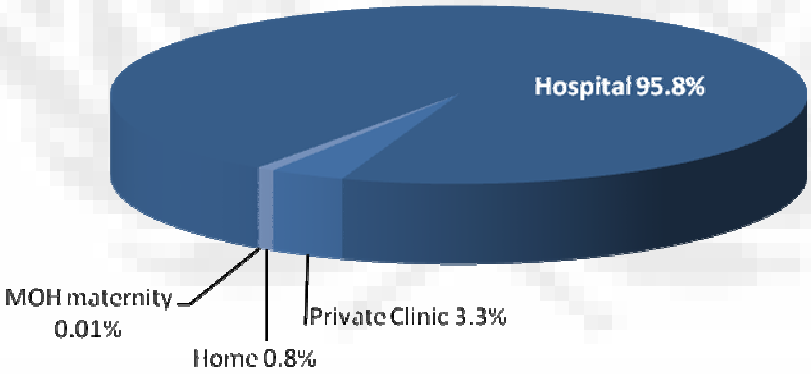


Figure 8 - *Distribution of deliveries according to place, 2009*

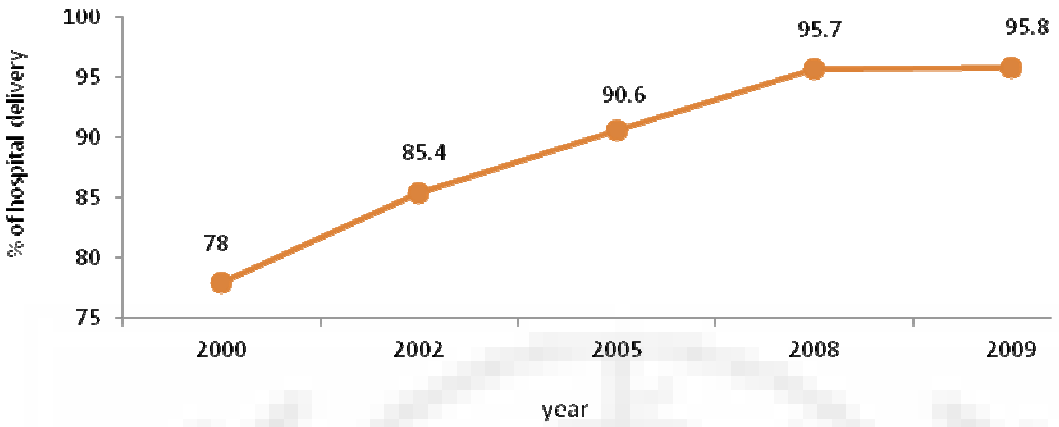


Figure 9 – Trends in hospital delivery, 2000-2009

As can be seen from Table 10, consistently with previous years, there were no significant changes in the proportion of home deliveries. The highest rate of home deliveries was in Syria, however, the percentage of home deliveries in that Field followed the same trend of decrease observed in other Fields dropping from 15.4% in 2000 to 7.9% in 2005 to 5.5% in 2007 and to 5.6% in 2009. It is worth mentioning that the vast majority of these home deliveries were attended by either qualified midwives or physicians.

Table 10 - Proportional distribution of deliveries according to place, 2009

Deliveries/Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Total No. of reported deliveries	29,398	4,594	9,444	38,057	12,283	93,776
Distribution of deliveries according to place (%)						
At home	0.2	0.4	5.6	0.2	0.6	0.8
At MOH maternity	0.0	0.0	0.0	0.03	0.0	0.01
In hospitals	99.7	99.3	92.8	92.0	99.2	95.8
At private clinics	0.03	0.3	1.5	7.8	0.1	3.3

99.2% of deliveries Agency-wide were institutionalized deliveries, including hospitals, maternities and private clinics. The percentage of home deliveries continued to decrease over the last three decades as shown in Figure 10.

This trend could be reverted if budget cuts and financial constraints continue to compromise the subsidy to hospitalization for delivery. Of particular concern is the home delivery of high risk pregnant women.

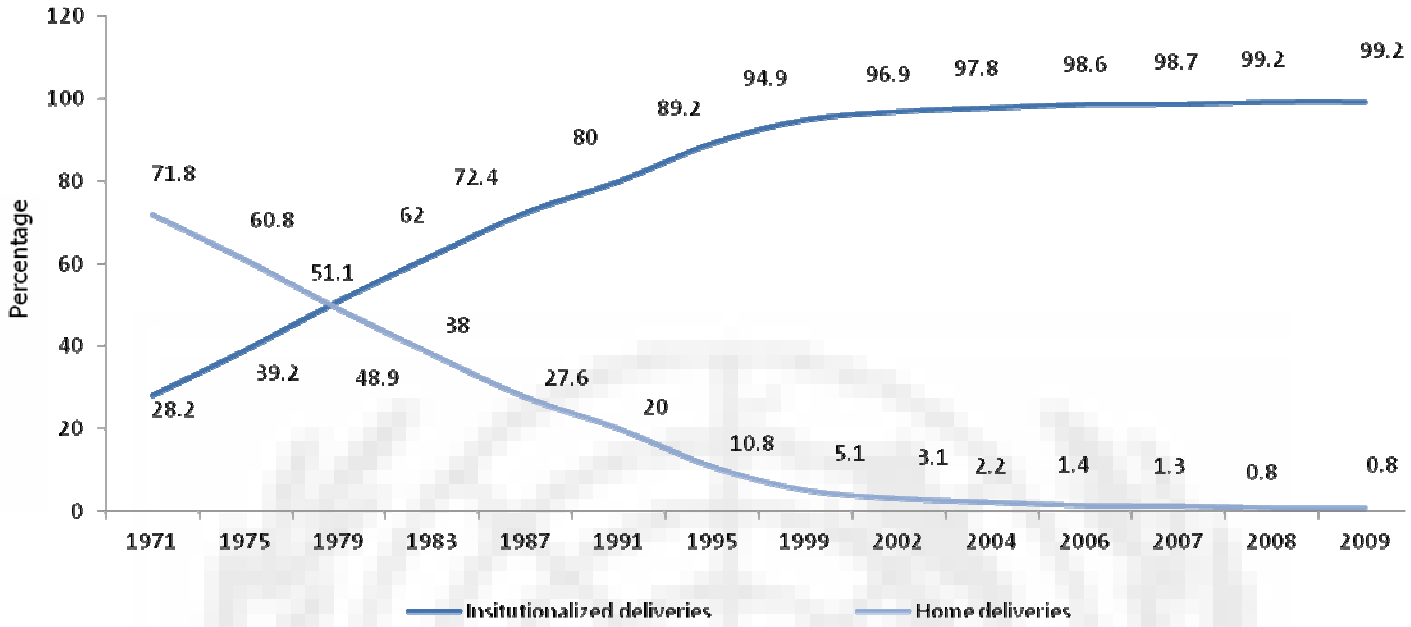


Figure 10 - Trends of home and institutionalized deliveries, 2009

Data collected through the MHIS indicates that the percentage of women who delivered with assistance from trained personnel Agency-wide was 99.8%.

OUTCOME OF PREGNANCY

The total number of pregnant women who were expected to deliver during 2009 Agency-wide was 102,739. Active surveillance of the outcome of pregnancy for those women indicated that 95,303 delivered (92.7%) and 7,228 aborted (7.03%). The outcome of only 179 pregnant women (0.2%), compared to 197 in 2008 who received antenatal care at UNRWA health care facilities, remained unreported or unknown as shown in Table 11. The percentage of unknown outcomes dropped from 2.8% in 2002 to 0.2% in 2009. The highest proportion of unknown outcomes was found in the West Bank at 1.2% compared to 9% in 2002. Although there was a reduction in 2009, it is still considered high and could be attributed to inadequate feedback and follow up of defaulters due to curfews and restrictions imposed on the movement of clients and staff.

Table 11 - Outcome of pregnancy, 2009

Field	No. of expected deliveries 2009	Known outcome							Unknown	
		Deliveries		Abortions		Maternal	Total			
		No.	%	No.	%	Deaths	No.	%	No.	%
Jordan	31,556	29,266	92.7	2,278	7.2	6	31,550	99.9	6	0.01
Lebanon	5,211	4,625	88.8	585	11.2	1	5,211	100	0	0.0
Syria	10,185	9,516	93.4	664	6.5	5	10,190	100	0	0.0
Gaza Strip	41,548	38,588	92.8	2,947	7.1	11	41,546	99.9	2	0.01
West Bank	14,239	13,308	93.5	754	5.3	6	14,068	98.8	171	1.2
Agency	**102,739**	**95,303**	**92.7**	**7,228**	**7.03**	**29**	**102,565**	**99.8**	**179**	**0.2**

CAESAREAN SECTION

Analysis of the data obtained through the hospital management information system indicated that the caesarean section rate among women assisted through the 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 12 shows that the caesarean section rate among all reported deliveries was highest in Syria at 32.8% and lowest in the Gaza Strip at 11.0%. This may reflect client preference and the medical practice in some contracted hospitals.

Table 12 - Comparison of the caesarean section rate among UNRWA-assisted deliveries and all reported deliveries through MHIS, 2009

Field	Assisted deliveries (high risk) (In-patients Reports)					All reported deliveries(MHIS)
	Total deliveries	Vaginal deliveries rate		Caesarean section rate		Caesarean section rate
		No.	%	No.	%	%
Jordan	14,867	11,606	78.1	3,261	21.9	17.9
Lebanon	2,587	1,674	64.7	913	35.3	28.3
Syria	1,999	870	43.5	1,129	56.5	32.8
Gaza Strip	23	18	78.3	5	21.7	11.4
West Bank	7,851	5,905	75.2	1,946	24.8	20.7
Agency	**27 327**	**20,073**	**73.5**	**7,254**	**26.5**	**17.8**

DIABETES MELLITUS AND HYPERTENSION DURING PREGNANCY

Agency-wide the prevalence of diabetes mellitus (DM) during pregnancy in 2009 was stable compared with 2008 (3.1% and 3.2% respectively) but has increased compared with previous years (1.9% in 2006). This is probably due to the changes introduced by the 12th Field Family Health Officers meeting in 2007, which involved the establishment of new cut off point to perform the Oral Glucose Tolerance Test (OGTT) for pregnant woman from 110mg/dl to 85mg/dl. As shown in Table 13, the prevalence of diabetes varied from 4.2% in Jordan, to 3.9% in West Bank, to 3.6% in Lebanon, to 2.7% in Syria and to 2.0% in Gaza Field. Although some Fields achieved the expected prevalence rate of DM of 3-5% indicating good detection capacity, others have not. This suggests that further efforts, in particular in the Gaza Field, need to be exerted. 20.1% of women with diabetes during pregnancy had pre-existing diabetes, 48.4% had gestational diabetes and recovered after delivery and 8.6% were diagnosed during pregnancy and did not recover after delivery. 17.4% were still pregnant at the end of 2009.

Table 13 - *Prevalence of diabetes and hypertension during pregnancy, 2009*

Prevalence rate (%)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes during pregnancy	4.2	3.6	2.7	2.0	3.9	**3.1**
Hypertension during pregnancy	7.6	7.9	5.2	12.6	3.7	**8.9**

The prevalence of hypertension during pregnancy including pre-existing and pregnancy-induced hypertension was 8.9% in 2009, 9.2% in 2008 and 7.2% in 2006 with wide variations between Fields as shown in Table 13. Approximately 47.0% of hypertension cases were pregnancy-induced and recovered after delivery, 24.7% of women had pre-existing hypertension, 13.6% were identified during pregnancy and the condition persisted after delivery, while 6.0% were still pregnant at the end of the year.

POST-NATAL CARE

Post-natal care services carry out a thorough medical examination of the mother and the newborn at UNRWA health care facilities or at home, whichever is more accessible and convenient to the families. Table 14 shows that during 2009 a total of 87,578 women received post-natal care compared to 89,418 in 2008 and 76,813 during 2006, representing a 92.0% coverage rate of expected deliveries, with the highest rates of 97.4% in Gaza and 96.6% in Lebanon, and the lowest rate of 85.7% in Jordan and 85.0% in West Bank. The continued restriction on movement due to the prevailing situation in the West Bank, could partly explain this difference. Conversely in Jordan, a general tendency at poor attendance of clients after the post-natal period has been observed.

Table 14 - Post-natal care coverage, 2009

Field	No. of deliveries	No. women who received care 2009	Post-natal care coverage (%)
Jordan	29,266	25,111	85.7
Lebanon	4,625	4,470	96.6
Syria	9,521	9,086	95.4
Gaza Strip	38,588	37,589	97.4
West Bank	13,308	11,322	85.0
Agency	**95,308**	**87,578**	**92.0**

SURVEILLANCE OF MATERNAL MORTALITY

Pregnancy is a normal, healthy state which most women aspire to at some point in their lives. However, if quality health services are not provided, this process carries with it serious risks of death and disability, most of the deaths could be avoided if preventive measures were taken. For every woman who dies, many more suffer from serious conditions that can affect them for the rest of their lives. Women die because they are simply unaware of the need for care, of dangerous warning signs or because services at various levels are inaccessible and/or inadequate.

During 2009, a total of 29 maternal deaths were reported from five Fields giving a maternal mortality ratio of 31.0 compared to 21.6 per 100,000 live births in 2008. Eleven deaths were reported from Gaza, six deaths were reported from each of Jordan and West Bank, five from Syria and only one from Lebanon.

Out of the 29 deaths, 27 were registered at UNRWA clinics for antenatal care, of them 16 were registered during the first trimester, ten during the second trimester and one during the third trimester. Three were primigravidas, all reported from the West Bank, three cases had one parity, five cases three parities and 18 were para 4 or more. Five women were 39 years or older, 11 were between 30 and 39 years, 12 deaths were among women aged between 25 and 29, and only one maternal death was a woman below 20 years of age. Nine cases died during pregnancy and five during labour. Fifteen cases of maternal death occurred during the postnatal period. Twenty-three cases died in hospital while three cases died at home (all in Gaza Field). It is noteworthy that eight of the women who died, paid less than four visits to UNRWA clinics.

Table 15 – *Distribution of maternal deaths by cause of death and Field in 2009*

Cause of death	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Pulmonary embolism	1		2	3	2	8
Hemorrhage	1		1		2	4
Pneumonia	2				2	4
Respiratory failure				1		1
Sickle cell disease			1			1
Cardiac arrest	1	1		1		3
Eclampsia/toxaemia			1			1
Septic Shock				1		1
DIC				1		1
Acute heart failure				3		3
Swine Flue, H1N1	1					1
Un-known				1		1
Total	**6**	**1**	**5**	**11**	**6**	**29**

Five maternal deaths (17.2%) were due to preventable causes including four cases of haemorrhage and one case of toxaemia/hypertension. Pulmonary embolism was the main reported cause of death in eight cases (27.6%), and four women (13.8%) had an underlying morbidity (three cases of heart failure and one case of sickle cell disease). Four maternal deaths (13.8%) were due to pneumonia and one case (3.4%) to respiratory failure. Five women died of iatrogenic complications in the hospital (three cases of cardiac arrest, one case of septic shock and one case of DIC). The cause of death in one case was not ascertained and was reported as unknown, while one death was caused by Influenza A/H1N1v.

INFANT AND CHILD HEALTH

Children represent the future, and ensuring their healthy growth and development ought to be a prime concern of all societies. Their particularly fragile health status in the first months of life and their greater vulnerability to malnutrition and infectious diseases compared with other age groups, demands an efficient and competent network of preventive and curative paediatric services.

UNRWA Long and Healthy Lives, 2009

Prevention starts in UNRWA with health education and counselling of mothers on appropriate feeding practices and baby care. Infants and children below 36 months of age then receive care at UNRWA health centres including a thorough medical examination, growth monitoring, immunization and screening for disabilities. Micronutrient deficiencies are prevented through supplementation of iron, Vitamin A and D. UNRWA clinics offer paediatric preventive services and sick children receive health care by general practitioners, paediatricians and cardiologists.

Screening for disability, a thorough medical examination and immunizations are also carried out when a refugee child is enrolled in an UNRWA school. Particular attention is given to diseases and disabilities that can negatively impact his/her learning capacity such as hearing and vision impairment and worm infestations, to oral health, vitamin supplementation and health education. Once identified, children with special needs are assisted towards provision of eyeglasses, hearing aids and other prosthetic devices.

ACTIVITIES OF THE INFANT AND CHILD HEALTH SERVICE

- Infant and child health care;
- School health services; and
- Nutritional surveillance.

PROGRESS IN 2009

- In collaboration with the Education Department and with the support of the Tobacco Free Initiative in EMRO-WHO and CDC Atlanta (USA), the Global School Personnel Survey was conducted among a representative sample of UNRWA schools in the five Fields of operation. Results were released during 2009
- The family health programme review exercise was undertaken in all Health Centres for the 6th consecutive year, to follow-up on progress made towards addressing identified Health Centre-specific strengths and weaknesses. A team of supervisors together with Health Centre staff conducted the review using a problem-solving approach, and corrective measures were taken to address any areas that needed further improvement at the Health Centre or Field levels. The results of this exercise including the appointment system, waiting times, privacy, counselling, completeness of records, proper management of cases, risk assessment and cold chain, will be presented and discussed during the forthcoming 14th Field Family Health Officers' meeting.

INFANT AND CHILD HEALTHCARE

The number of infants and children under care continued to increase in 2009. A total of 282,259 infants and children below 36 months of age, compared to 274,714 in 2008, received preventive care at UNRWA primary health care facilities including a thorough medical examination, growth monitoring, immunization against vaccine-preventable diseases and identification of special needs. These activities were supported by health education and counselling of mothers on appropriate feeding practices and baby care.

Table 16 - Infant and child health care, 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered Refugees	1,983,733	425,640	472,109	1,106,195	778,994	4,766,671
Estimated No. of surviving infants *	54,289	8,351	12,846	39,982	22,990	138,459
Infants below 1 year registered	31,027	5,089	10,074	38,255	11,663	96,108
% regular attendance	86	94	84	98	92	92
Child health coverage rate	**57.2**	**60.9**	**78.4**	**95.7**	**50.7**	**69.4**
Children 1-<2 years registered	33,175	4,792	9,858	34,718	12,263	94,806
% regular attendance	83	89	87	77	98	84
Children 2-<3 years registered	33,426	4,370	8,545	32,925	12,079	91,345
% regular attendance	39	78	63	44	78	50
Total children 0-3 years registered	**97,628**	**14,251**	**28,477**	**105,898**	**36,005**	**282,259**

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

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 rapid growth and development, and are keen to provide them with the full range of primary immunizations. The attendance becomes less regular during the second and third years of life because children have received all their primary and booster immunizations, because the intervals between scheduled visits become longer and the health of the child stabilizes.

Attendance rate during the first year of life was reported at 92% of all infants registered Agency-wide with the highest rate of 98% in the Gaza Strip and 94% in Lebanon. The attendance rates Agency-wide were 84% during the second year and 50% during the third year of life.

Service coverage rates were estimated based on the number of infants below 12 months of age that have been registered for care and the expected number of surviving infants which is calculated by multiplying the crude birth rates (as published by the Host Authorities) by the number of registered refugees in each country.

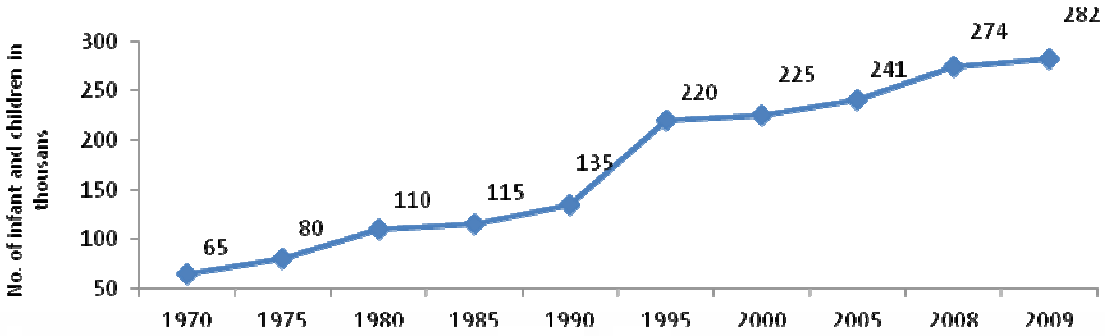


Figure 11 - *Infant & children below 36 months under care, 1970-2009*

Services coverage increased from 62.3% in 2002, to 75.2% in 2008 and decreased to 69.4% in 2009. It is worth noting that the change in crude birth rates reported from Host Authorities could have affected estimations. The highest rate of coverage at 95.7% was reported from the Gaza Strip and the lowest from the West Bank (50.7%) and Jordan (57.2%) as shown in Table 16.

In Jordan, the low coverage rate compared to other Fields 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 while in the West Bank could be attributed to obstacles or/and restricted access to health services in particular for refugees residing outside camps.

INFANTS AND CHILDREN WITH GROWTH RETARDATION

Efforts to strengthen UNRWA's nutritional surveillance continued in 2009, with special emphasis on management of infants and children suffering from growth related problems. Promotion of breast-feeding and counselling of mothers on infant and child nutrition, including the appropriate use of complementary feeding and micronutrient supplements, was the main focus.

The incidence rate of growth retardation was 3.6% in 2009 compared to 4.1% in 2008. This change is mainly due to the implementation of the WHO new growth standards in West Bank and the Gaza Strip. The detection rate of growth retardation in some Fields was very close to the expected; while in other Fields identification of cases and underreporting still an issue of concern.

As would be expected due to the chronic socio-economic hardship, in the Gaza Strip the prevalence rate was highest and the recovery rate the lowest (Table 17). No disparity between sexes was observed.

Table 17 - *Prevalence of growth retardation among children 0-3 years of age in 2009*

Field	Incidence	Prevalence during 2009 (period prevalence)	Prevalence at year end, 2009	Recovery rate (%)
Jordan	4.3	7.3	2.9	46.4
Lebanon	4.0	6.1	2.7	51.7
Syria	3.3	6.5	3.4	36.5
Gaza Strip	3.9	8.3	4.9	27.4
West Bank	0.8	2.0	0.8	60.5
Agency	**3.6**	**6.9**	**3.5**	**37.5**

REDUCING INFANT MORTALITY AND CHILD MORTALITY

INFANT MORTALITY

In 2009, the results of the infant mortality survey carried out in 2008 were released. Although the survey is conceived to estimate infant mortality is also provided estimated for early child mortality and due to the method adopted, the rates were retrospective, assessing the period 2005-2006.

INFANT MORTALITY SURVEY 2008, BRIEF OVERVIEW OF METHODS AND LIMITATIONS

During 2008, the Health Department conducted its third infant mortality survey. The method used is indirect and estimates infant deaths of preceding children asking mothers about their babies' health status upon registration at UNRWA clinics, taking a representative sample of newborns. The advantage of using the same method throughout the years is that data is comparable. However limitations imposed by the study design are acknowledged, in this case the inaccuracy of data collected due to the mother's recall bias and the fact that estimated infant mortality does not refer to the year in which the survey was conducted but to roughly about three years before. This time reference is calculated in each Field on the basis of the birth interval between the current and preceding child and the age at registration of the former.

Table 18 - *Infant and child mortality rates among Palestine refugees, 2005-2006*

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank
Neonatal mortality rate (<28 days)/ 1,000 live births	15.1	14.1	17.4	12.0	15.4
Infant Mortality Rate (<1yr)/per 1,000 live births	22.6	19.0	28.2	20.2	19.5
Infant & child mortality rate (approx 0-3yrs)/ per 1,000 live births	25.4	20.8	29.6	22.6	21

Infant mortality rates (Table 18) ranged between 19.0‰ live births in Lebanon and 28.2‰ in Syria and no statistically significant changes were observed compared with the previous survey conducted in 2003. Although infant mortality has declined quite sharply between 1995 (1997 survey) and 2000 (2003 survey) in Jordan, Lebanon and the Gaza Strip, this has not been the case in Syria that maintained the highest mortality also in the current survey. Findings of this survey indicate that the infant mortality rates of Palestine refugees are comparable to those of most host countries. The Millennium Development Goal for the reduction in the number of infant deaths has been met in Lebanon and in the occupied Palestinian territory. In Jordan this target seems well within reach while Syria appears to be lagging behind.

Between 59-74% of all infant deaths occur on the first month of life (neonatal mortality) and almost half 43.2% of those deaths occur for causes related to low birth weight or prematurity. Communicable diseases are an infrequent cause of death in the neonatal period 15% compared to 30% in the post neonatal period, Respiratory infections were responsible for 13.5% of deaths, gastro-enteritis for 2.4%, and septicaemia and meningitis for 2.8%.

Consistently with the results of the 2003 survey and with data acquired through 2009 routine mortality surveillance (Figure 12), the three main causes of infant deaths among Palestine refugees are related to Low Birth Weight/Prematurity, Congenital Malformations and Respiratory Infections.

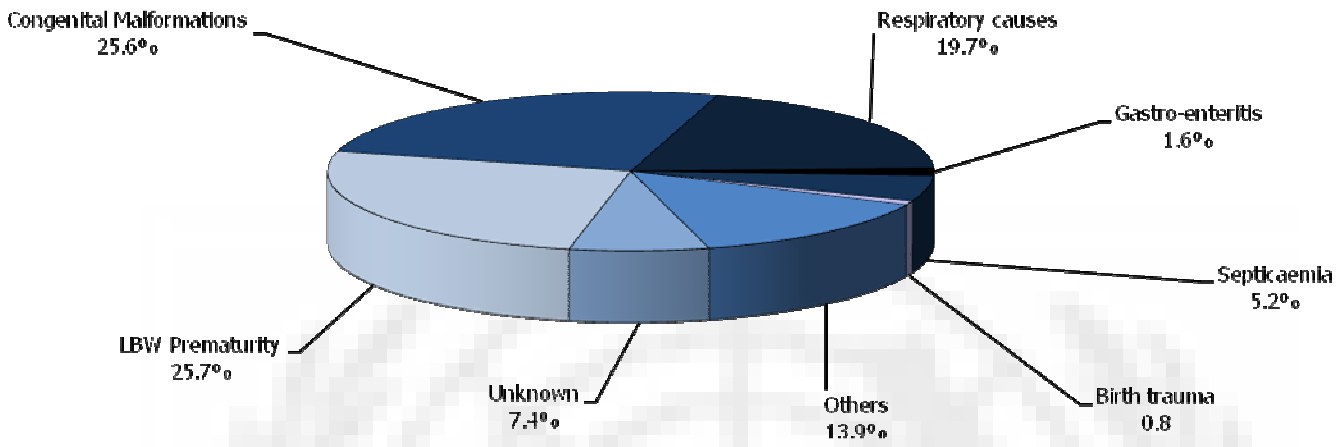


Figure 12 - *Leading causes of infant mortality – routine surveillance, 2009*

Over the last three decades (Figure 13), the causes of infant death have changed substantially. In 1969, the two main causes of infant death were gastroenteritis and respiratory infections contributing 36.0% and 35.0% of infant deaths respectively. This change in the pattern of causes could be attributed to the high vaccination coverage, better health care, improved sanitation and increased health awareness among families in general and mothers in particular. Both looking at the proportion of neonatal (deaths in the first month) to infant deaths and their causes, UNRWA beneficiaries show mortality profiles close to the more developed regions of the World as described by WHO. This is a very positive outcome of the sustained implementation of comprehensive Mother and Child Health (MCH) programmes.

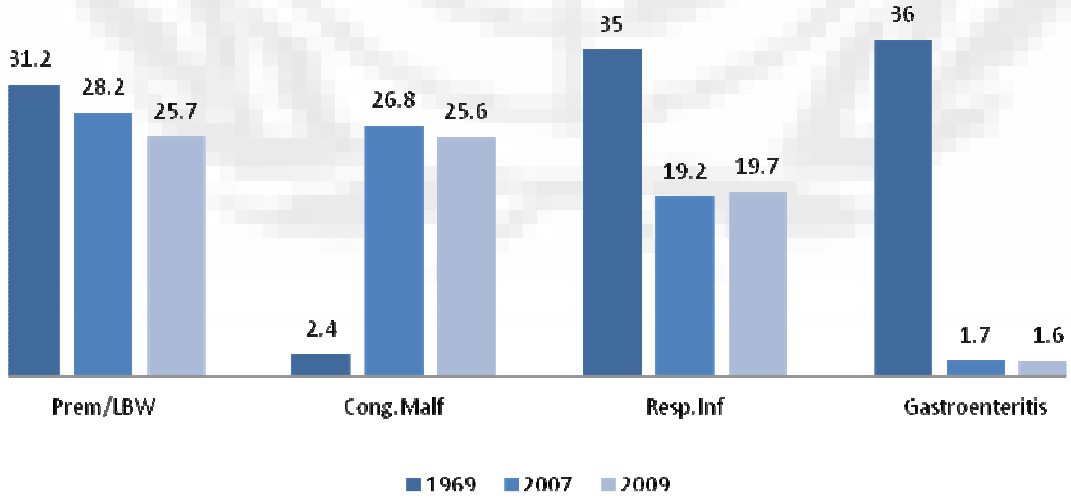


Figure 13 - *Main causes of infant mortality 1969, 2007 and 2009*

DETERMINANTS OF INFANT MORTALITY

The 2008 infant mortality survey identified inadequate birth spacing as the most important determinant of infant death followed by higher parity and mother's education in some Fields.

Weaker statistical correlations were found between infant mortality and timing of pregnancies (too early/too late), residence in or outside refugee camps and sex in some Fields.

UNRWA is working to strengthen its Primary Health Care system by establishing new well known effective interventions and consolidating existing ones in order to try to reduce further preventable infant deaths. What should be kept in mind, however, is that unless health infrastructure and human resource development in the host countries allows tertiary facilities to reduce prematurity, low birth weight and malformation related deaths, and until health inequalities in the occupied Palestinian territories still preclude to those refugees residing there full access to higher standards of care, infant mortality cannot be expected to become significantly lower anytime soon. The issues of an equitable access to higher level of perinatal and emergency neonatal services for Palestine refugees need to be raised urgently and supported by the international community.

EARLY CHILD MORTALITY (1-3YEARS)

158 cases of death were reported among children aged 1-3 years in 2009. Compared to previous years there is no change in the pattern of child mortality. As shown in Figure 14, congenital malformations ranked first among the leading causes of child mortality at 20.3% followed by heart diseases which accounted for 15.8%., respiratory infections at 14.6%, accidents at 10.7%, gastroenteritis 4.4%, Unknown cause of death 7.0% and others category 27.2.

69.6% of deaths occurred during the second year of life, while 30.4% occurred during the third year. It is worth noting that 10.7% of the reported child deaths during 2009 were due to accidents and poisoning. Also respiratory infections and gastroenteritis are other causes of death that are preventable if immediate medical treatment is sought.

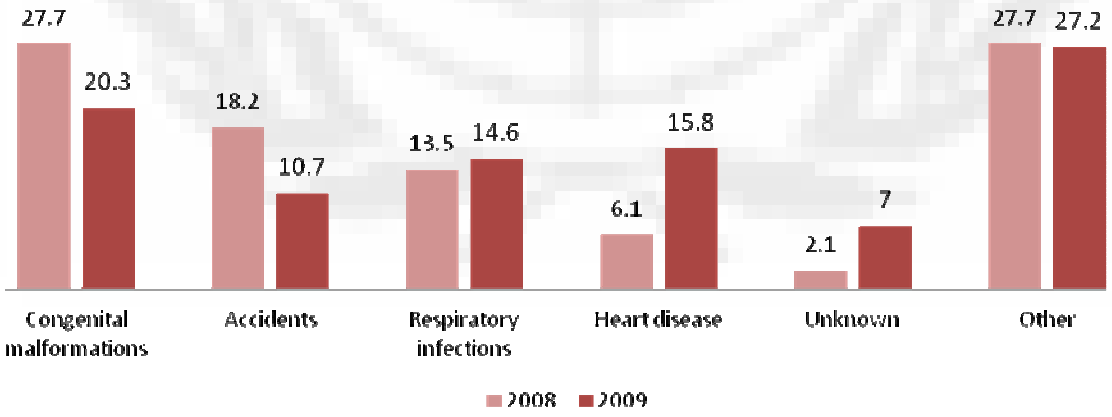


Figure 14 - Causes of child mortality (1-3 years), 2008 and 2009

In terms of distribution of deaths by sex, child mortality and similar to the infant mortality was higher among males than females at 51.3 % and 48.7% respectively, however there is no direct correlation between the sex of the child and the cause of death.

16.5% children who died during 2009 died at home and were not hospitalised, this could be explained by the increased difficulties facing refugees to access hospital services due to limited funds allocated to subsidize hospitalization.

One of the main objectives of the Health Protection and Promotion Programme is to reduce infant and early child morbidity and mortality, and during the last five decades there has been a considerable reduction in infant and child mortality among Palestine refugees. This reduction has largely been made possible through the implementation by UNRWA of several cost effective services to prevent morbidity and reduce mortality. These services include immunization, growth monitoring, promotion of breast feeding, management of diarrhoeal diseases, family planning programmes, management of acute infections including respiratory infections, screening and management of nutritional deficiencies, environmental sanitation in camps and health education campaigns. The high infant mortality rate (160 deaths per 1000 live birth) reported in early 1950s declined to 25 per 1000 live births in 2003 and to 20.2 per 1000 live births in 2008. Figure 15 illustrates the decline in the rate of infant mortality, which has taken place over the last five decades in Gaza.

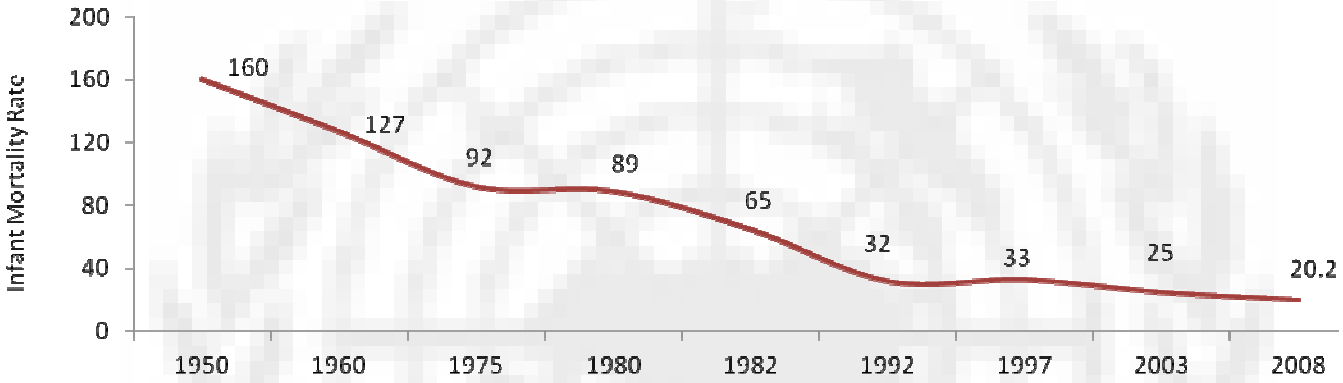


Figure 15 - ***Infant Mortality Rate in Gaza Field, 1950 - 2008***

IMMUNIZATION COVERAGE

UNRWA's vaccine programme provides immunization for ten diseases: tetanus, diphtheria, pertussis, TB, measles, rubella, mumps, polio, Hib and hepatitis. Today the program's coverage, as measured through the rapid assessment technique, is close to 100% (Table 19). This extraordinary achievement has led to a substantial decrease in the incidence, morbidity and mortality of communicable diseases.

Coverage improved in 2009, both for immunizations conducted in the first year (99.7% vs 99.6% in 2008) and for those conducted in the second year (99.4% vs 99.2% in 2008), due the availability of the vaccines throughout the year, the enforcement of appointment system and continuous follow up of defaulters by health centres staff.

Table 19 - Coverage of the expanded programme on immunization 2009 based on the rapid assessment technique

Vaccine	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Coverage rates as percentage of infants 12 months of age						
BCG	99.9	100.0	99.9	100	99.9	**99.9**
Poliomyelitis(IPV)	99.8	NA	99.9	94.6	99.9	**97.7**
Poliomyelitis(OPV)	99.8	100.0	99.9	100.0	99.9	**99.9**
Triple (DPT)	99.8	100.0	99.9	100.0	99.9	**99.9**
Hepatitis B	99.8	100.0	99.9	100.0	99.9	**99.9**
Hib	99.8	100.0	99.9	100.0	99.9	**99.9**
Measles	99.3	100.0	99.8	100.0	99.7	**99.7**
All vaccines	99.3	100.0	99.8	94.6	99.7	**97.7**
Coverage rates as percentage of children 18 months old, for booster doses						
Poliomyelitis(OPV)	98.9	98.6	99.5	99.9	99.4	**99.4**
Triple (DPT)	98.9	98.6	99.5	99.9	99.4	**99.4**
MMR	**98.9**	**98.6**	**99.5**	**99.9**	**99.5**	**99.4**

As observed in previous years, no cases of poliomyelitis, tetanus, diphtheria, or pertussis were reported among the refugee population during 2009 (Table 28).

Overall incidence rate of measles Agency-wide was 1.2 per 100,000 population, almost the same as 2008 (1.3/100,000). Rubella incidence rate decreased from 1.6 per 100,000 populations in 2008 to 1.1 per 100,000 in 2009. In order to reach the WHO targets for disease elimination by 2010, more work needs to be done to ensure maintenance of optimal immunization, improvement in detection and confirmation suspected cases and their appropriate management. Incidence of mumps (5.7/100,000) was lower than incidence of 2008 (22.0/ 100,000) when an outbreak took place in Lebanon. The incidence of viral meningitis was 3.8/100,000 with the highest rate in the West Bank, mainly from Qalqilia hospital (19.1/100,000).

SCHOOL HEALTH

During the school year 2008-2009, a total of 479,156 pupils were enrolled in UNRWA schools, of whom 239,188 girls and 239,968 boys, distributed between elementary grades 312,446 and preparatory grades 162,675. 3,990 were enrolled in secondary school in Lebanon, where Palestine refugees do not have alternative affordable options for higher education.

Collaboration with Education Department was further enhanced in 2009. Regular and ad-hoc meetings of school health committees at various levels were conducted during which all components of the school health programme, areas for cooperation, ways and means to overcome difficulties encountered in the Fields were discussed. Formal trainings of Health Tutors took place and screening materials and emergency supplies were provided.

NEW ENTRANTS MEDICAL EXAMINATION

During the school year 2008/2009, a total of 51,609 new entrants were registered in UNRWA schools of whom 25,834 girls and 25,766 boys. They received thorough medical examination, immunization, and follow-up. The main morbidity conditions detected among new entrants were oral health problems mainly dental caries in 46.8%, gingivitis 2.6%. 96 students from the Gaza Strip were diagnosed with fluorosis. Vision defects were fount in 4.1%, bronchial asthma in 1.6%, hernia in 1%, squint in 0.7%, hearing impairment in 0.5%, chronic otitis media in 0.9%, undescended testicles in 0.9%, heart disease in 0.7%, thyroid enlargement in 0.6%, congenital malformations in 0.5%, haemolytic anaemia in 0.3%, arthritis in 0.3%, physical disabilities in 0.2% and epilepsy in 0.3%. 25 children were diagnosed with type I Diabetes Mellitus.

Health problems related to personal hygiene are still prevalent among school children. Pediculosis was found in 2.7% and scabies in 0.4% of new entrants. Children with disabilities were assisted towards provision of eyeglasses, hearing aids and other prosthetic devices according to their conditions and available resources.

SCREENING

UNRWA screening activities during the school year 2008-2009 targeted pupils in the fourth and seventh grades in all Fields, and involved testing of vision and hearing, for thyroid enlargement and oral health problems. Of the 53,340 students enrolled in the seventh grade, 51,629 were screened with a coverage rate of 97%. The main morbidity conditions detected were vision defects in 15.3% and hearing impairment in 0.9%. Of the 52,973 students enrolled in the fourth grade, 52,002 were screened with a coverage rate of 98.2%. The main morbidity conditions detected were vision defects in 13.3% and hearing impairments in 1.0%.

Oral Health screening was also conducted for the 7^{th} and 9^{th} grades in all Fields and for the 4^{th} grades in West Bank and the Gaza Strip. A total of 43,531 students were screened in the 7^{th} grade with a coverage rate of 81.6% compared to 78% in 2008. 38,234 students in the 9^{th} grades with coverage rate of 83.8% compared to 80% in 2008, and 28,432 in 4^{th} grade in Gaza and West Bank with coverage rate of 96,6% compared to 74% in 2008. It is worth mentioning that this substantial improvement in oral health screening for school children across the five Fields is the result of the reorientation of the oral health program towards a more preventive approach and the heavy investment to train staff on this concept.

During 2009, Health Tutors also received training on first phase screening and life support skills, and vision charts were provided to all UNRWA schools.

CHILDREN WITH SPECIAL HEALTH NEEDS

During the school year 2008-2009 a total of 2,661 school children were identified as with special health needs. They were given special medical attention and their school records were kept separately to facilitate follow up of cases by the school health teams.

Of those, 140 students were affected by juvenile diabetes mellitus and 1,147 had bronchial asthma. 382 showed behavioural problems, 336 had heart diseases, 298 epilepsy and 212 suffered major physical disabilities. 14,453 were assisted towards the cost of eye glasses and 142 towards the cost of hearing aids.

11,340 students were referred to UNRWA health facilities for treatment and 2,319 were further referred to either a medical specialist or to hospital.

IMMUNIZATION

During the school year 2008-2009, students were immunized according to the immunization schedules in each Field as follows:

- New entrants received a booster dose of tetanus-diphtheria (DT/Td) immunization, coverage Agency-wide was 99.2%. The coverage rates of oral polio vaccine (OPV) for new entrants were 99.8% in the Gaza Strip and 100% in both Jordan and the West Bank.
- Only 11 new entrants in Jordan were vaccinated with measles-mumps-rubella (MMR). This vaccine is given only as a 'catch-up' to those students who had not been previously immunised.
- Sixth grade females in Gaza and the West Bank Fields received Rubella vaccine. The coverage rates were 99.9% and 99.6% respectively.
- The overall coverage rate of Td vaccination among ninth grade school children in the five Fields was 99.8%. The highest coverage was reported from Gaza and West Bank with 100% followed by Lebanon (98%), Syria (97.8%) and Jordan (97.6%).

DE-WORMING PROGRAMME

In order to improve the health status of school children, UNRWA, in accordance with WHO recommendations, continued the implementation of a de-worming programme for school children enrolled in UNRWA schools in all Fields. This programme of de-worming used a single dose of an effective wide-spectrum anti-helminthic for three successive years. During the 2004-2005 school year, all Fields completed the three year campaign with a high response rate (approximately 96% of students took the tablets). Since 2006, only new entrants have received the medications for three successive years, and during the 2008-2009 school year the de-worming programme targeted school children in first, second and third elementary classes with much success. The coverage reached in these grades was 97.8%. In addition to the distribution of de-worming medicine, a health awareness campaign was carried out on the importance of personal hygiene.

VITAMIN A SUPPLEMENTATION

During the 2008-2009, two doses at a six month interval of 200,000 International Units (IU) of Vitamin A were administered to school children from grade one to grade six in all UNRWA schools with high coverage rates.

THE GLOBAL SCHOOL PERSONNEL SURVEY (GSPS) IN UNRWA SCHOOLS

Smoking among adolescents and adults is highly prevalent in the Near East. Schools are an ideal setting in which to provide tobacco use prevention education. School-based tobacco prevention education programmes that focus on skills training have proven effective in reducing the onset of smoking. School-based health programmes aim to enable and encourage children and adolescents who have not experimented with tobacco to continue to abstain from any use. For young persons who have experimented with tobacco use, or who are regular tobacco users, school tobacco prevention education programmes may encourage discontinuation.

School surveys are useful tools in gathering data as they are relatively inexpensive and easy to administer, tend to report reliable results, and refusals are significantly low. The UNRWA GSPS includes data on prevalence of cigarette and other tobacco use as well as information on attitudes on school policy toward tobacco use, access to teaching materials and training, and

attitudes toward tobacco use. These factors are components that UNRWA could include in a comprehensive tobacco control program.

UNRWA GSPS is a school-based survey of school personnel from the schools that participated in the 2008 UNRWA Global Youth Tobacco Survey (GYTS), with students in grades 7, 8, and 9. For the GYTS, a two-stage cluster sample design was used to produce representative data for each Field of operation. Schools were selected with probability proportional to enrollment size. All teaching staff and other personnel of selected schools were eligible to participate.

Given the fact that GSPS data in one Field of operation is not valid for the other Fields for socioeconomic and cultural reasons which are largely influenced by the country where the refugees are hosted, it was decided to undertake the survey in UNRWA schools in the five Fields of the Agency's areas of operations: Jordan, Syria, Lebanon, West Bank and the Gaza Strip. The data collection started during 2008, data analysis and release of results took place in 2009.

JORDAN

A total of 540 teachers and administrators participated in the UNRWA-Jordan GSPS survey, the school response rate and the school personnel response rate were 100%.

Main findings of the Jordan GSPS:

- 43.6% of school personnel have ever smoked cigarettes;
- 26.7% currently smoke cigarettes and 31.7% have ever smoked shisha;
- Nine in ten schools have a policy prohibiting tobacco use among students;
- Eight in ten have a policy for personnel; nearly nine in ten schools enforce their polices;
- Nearly half the schools include tobacco use prevention in school curriculum;
- Five in ten teachers have access to teaching materials on tobacco use;
- 13.0% of the teachers have ever received training on youth tobacco use prevention;
- 32.9% of schools use non-classroom programs to teach youth tobacco use prevention;
- Nearly nine in ten think smoking should be banned from public places; and
- More than nine in ten think teacher tobacco use influences youth tobacco use.

SYRIA

A total of 408 teachers and administrators participated in the UNRWA-Syria GSPS survey , the school response rate was 100% and the school personnel response rate was 93.8%.

Main findings of the UNRWA-Syria GSPS:

- 37.3% of school personnel have ever smoked cigarettes; 26.3% currently smoke cigarettes and 26.2% have ever smoked shisha;
- Nine in ten schools have a policy prohibiting tobacco use among students; eight in ten have a policy for personnel; nine in ten enforce their polices;
- Three-quarters of the schools include tobacco use prevention in school curriculum;
- Six in ten teachers have access to teaching materials on tobacco use;
- 12.9% of the teachers have ever received training on youth tobacco use prevention;

- 45.5% of schools use non-classroom programs to teach youth tobacco use prevention;
- More than nine in ten think smoking should be banned from public places; and
- Nearly nine in ten think teacher tobacco use influences youth tobacco use.

LEBANON

A total of 341 teachers and administrators participated in the UNRWA-Lebanon GSPS survey, the school response rate and the school personnel response rate were 100%.

Main findings of the UNRWA-Lebanon GSPS:

- 38.4% of school personnel have ever smoked cigarettes; 22.9% currently smoke cigarettes and 33.5% have ever smoked shisha;
- Nine in ten schools have a policy prohibiting tobacco use among students; seven in ten have a policy for personnel;
- Three-quarters enforce their polices;
- More than six in ten of the schools include tobacco use prevention in school curriculum;
- Five in ten teachers have access to teaching materials on tobacco use;
- 13.8% of the teachers have ever received training on youth tobacco use prevention;
- 30.0% of schools use non-classroom programs to teach youth tobacco use prevention;
- Nearly nine in ten think smoking should be banned from public places; and
- More than eight in ten think teacher tobacco use influences youth tobacco use.

GAZA STRIP

A total of 700 teachers and administrators participated in the UNRWA-Gaza GSPS survey , the school response rate and the school personnel response rate were 100%.

Main findings of the UNRWA-Gaza GSPS:

- 1.2% of school personnel have ever smoked cigarettes; 15.5% currently smoke cigarettes and 16.6% have ever smoked smoked shisha;
- Eight in ten schools have a policy prohibiting tobacco use among students; nearly seven in ten have a policy for personnel; more than three-quarters enforce their polices;
- More than five in ten of the schools include tobacco use prevention in school curriculum;
- Nearly five in ten teachers have access to teaching materials on tobacco use;
- 12.1% of the teachers have ever received training on youth tobacco use prevention;
- 48.2% of schools use non-classroom programs to teach youth tobacco use prevention;
- Nine in ten think smoking should be banned from public places; and
- More than nine in ten think teacher tobacco use influences youth tobacco use.

WEST BANK

A total of 473 teachers and administrators participated in the UNRWA-Syria GSPS survey , the school response rate and the school personnel response rate were 100%.

Main findings of the UNRWA-West Bank GSPS:

- 36.4% of school personnel have ever smoked cigarettes; 21.9% currently smoke cigarettes and 32.1% have ever smoked smoked shisha;
- Eight in ten schools have a policy prohibiting tobacco use among students; five in ten have a policy for personnel;
- More than two-thirds enforce their polices;
- More than three out of five of the schools include tobacco use prevention in school curriculum;
- Nearly three in five teachers have access to teaching materials on tobacco use;
- 14.5% of the teachers have ever received training on youth tobacco use prevention;
- 51.2% of schools use non-classroom programs to teach youth tobacco use prevention;
- Nine in ten think smoking should be banned from public places; and
- More than nine in ten think teacher tobacco use influences youth tobacco use.

ADOLESCENT AND ADULT HEALTH

Adolescence and young adulthood are unique periods in the lifespan of an individual, they present unique challenges but also the opportunity to pave the way towards a healthy and productive adult life.

UNRWA Long and Healthy Lives, 2009

Adolescent and adult refugees benefit from preventive and curative services available in UNRWA clinics and on average attend those clinics six times during the year, mostly to treat mild upper respiratory tract infections and arthrosis. In 2009, the number of UNRWA medical consultations reached 10.4 million. Each UNRWA Health Centre provides free diagnostic services through radiology units and laboratories. Moreover UNRWA has the capacity of providing microbiology services covering the needs of every Health Centre either directly or through hospital referral agreements with the Host Countries.

Each Health Centre has a dispensary that delivers free drugs to refugees upon receiving the UNRWA physician's prescription. UNRWA, however, does not only provide general medical services but also specialist preventive and curative ones that include: screening for cervical and breast cancer among post-puberal refugee women, mental health programmes (in the Gaza Strip and West Bank), oral health curative and preventive services with a dentist cabinet in each Health Centre and physical rehabilitation in the oPt to treat conflict and non-conflict related disabilities.

MEDICAL CARE SERVICES

Medical care services are provided through a network of 137 primary health care facilities located both inside and outside camps Agency-wide of which 64 are inside camps and 73 are outside camps. Of these facilities:

– Four health centres located in the largest camps in the Gaza Strip are operated on a double-shift introduced 17 years ago, this unique arrangement was maintained 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.

– Five mobile health teams have operated since 2003 in West Bank in order to facilitate access to health services in those areas affected by closures, checkpoints and the barrier (further information on the Agency's outreach activity is available in chapter 8 of this report).

ACCESS TO HEALTH CARE

One of the strategic objectives of the health programme is to maintain and improve universal access to quality comprehensive health care. Activities under this objective include outpatient medical care, Laboratory investigations, radiology services, oral health, physical rehabilitation, medical supplies, and assistance towards the cost of secondary medical care at public, nongovernmental and private health care facilities.

Owing to their critical socio-economic conditions, subgroups of Palestine refugees that technically do not fall under the UNRWA mandate were accepted as beneficiaries of the Agency's Health Programme. These include:

- Almost 25,000 Palestine refugees displaced from the Gaza Strip since 1967 in Jordan;
- Almost 15,000 Palestine refugees who are on the official records of the Lebanese authorities, but are not registered with UNRWA in Lebanon; and
- Likewise, Bedouin tribes who took refuge in Syria since 1948 and were not previously registered with UNRWA have been included in Agency records.

OUT-PATIENT CARE

Utilization trends

Utilization of out-patient services in 2009 was higher than that in 2008 with a total of 10.4 million medical consultations compared to 9.9 million in 2008. Of these consultations 302 238 were specialist consultations.

In the UNRWA system, out-patient medical consultations are classified in two groups: first and repeat visits. First visits occur when an individual or family file is activated at the start of each calendar year. All other visits are considered repeat visits.

The ratio of repeat to first visits increased from 3.6 in 2008 to 3.8 in 2009. This is mainly due to the increase in the number of patients at general and paediatric clinics. This ratio has a very wide variation among Fields, and among health centers in the same Field. The highest ratio was in Lebanon, 5.0 and the lowest was in Syria 2.3 (Table 20).

Table 20 - Utilization of outpatient services, 2009

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered refugees	1,983,733	425,640	472,109	1,106,195	778,994	4,766,671
Medical general consultations						
First visits	451,386	161,709	312,940	782,884	387,127	2,096,046
Repeat visits	1,842,450	810,778	707,745	3,125,202	1,474,212	7,960,287
Ratio of repeat to first visits	4.1	5.0	2.3	4.0	3.8	3.8

Sub-total	2,293,836	972,487	1,020,585	3,908,086	1,861,339	10,056,333
Specialist care						
Obs/Gyn	48,002	20,165	14,534	80,924	9, 440	173,065
Cardiology	5,902	10,169	1,264	14,391	2,741	34,467
Others	5,361	16,070	64	66,959	6,252	94,706
Sub-total	59,265	46,404	15,862	162,274	18,433	302,238
Total	**2,353,101**	**1,018,891**	**1 036,447***	**4,070,360****	**1 879,772*****	**10,358,571**

** Data includes 8351 medical consultations utilized by Refugee women married to non-refugee men (MNR); ** Data includes 337 945 medical consultations utilized by MNR; *** Data includes 54 443 medical consultations utilized by MNR*

ANALYSIS OF UNRWA OUTPATIENT SERVICES

An analysis of the utilization profile of UNRWA outpatient services was conducted in 2008 in all Fields, and consisted in a retrospective analysis of the clinical records of 2,500 patients for the year 2007. Data analysis was conducted in 2009, when the results were released.

The study is aimed at identifying possible reasons for the high utilization rate of UNRWA primary health care services by introducing a clinical and not administrative based classification of outpatient consultations.

Main findings:

- The number of consultations per patient range between an average 6.5 and 8.9 consultations per year according to Field, excluding routine check-ups for chronic diseases;
- Most patients attend UNRWA out-patient services for new disease episodes, and follow-up visits are only 5% to 31% of consultations with variations according to the Fields and the curative services that the patients access. This means that follow-up consultations for chronic diseases are not the reason for the high number of visits; and
- The main reasons for clinical consultation are: upper respiratory tract infections, lower back pain and arthritis.

For detailed information about this study and its findings can be found in the following report “Analysis of UNRWA Outpatient Services - Department of Health – 2009” that can be requested to the UNRWA Department of Health, HQ Amman.

STAFF WORKLOADS

The number of consultations per medical officer per working hour per day at UNRWA primary health care facilities, decreased from 101 in 2008 to 98.5 in 2009.

The working hours per day were adjusted to 6.25 hours for all Fields. For Syria and Lebanon Fields, the correction factor 0.8 has been used to adjust for their specific working days (five days in a week). The highest workload was reported from the West Bank Field with 109 patients per medical officer per day and the lowest in Syria Field with 83. Although the workload was reduced, it is still high and far from WHO target of 70 patients per Medical Officer per day.

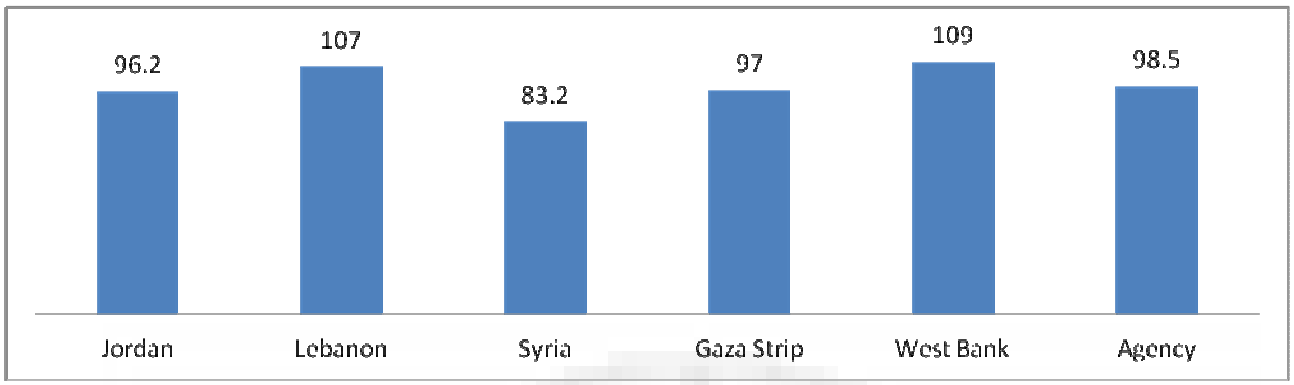


Figure 16 - *Average daily medical consultations per doctor, 2009*

LABORATORY SERVICES

In line with the policy of integrating laboratory services within UNRWA's primary health care activities and in order to meet the increasing demand on basic laboratory services, a new laboratory was established in the West Bank Field. This increased the number of laboratories providing comprehensive laboratory services to 120. The remaining 17 facilities (12 in Lebanon, 2 in Syria and 3 in Gaza) continued to provide basic laboratory support (blood glucose, blood haemoglobin and urine tests by dipstick) through competent nursing staff using basic laboratory equipment. Figure 17, shows the number of laboratories in the five Fields from 2000 to 2009.

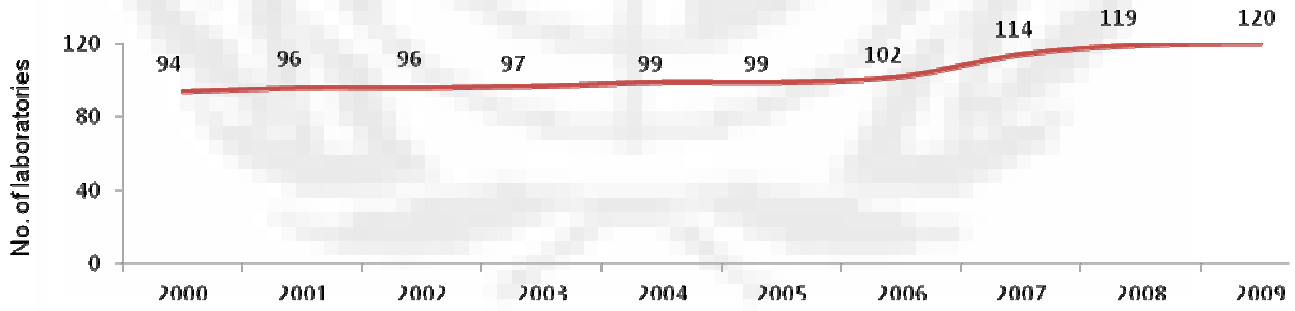


Figure 17 - Number of laboratories integrated within UNRWA health facilities, 2000-2009

UTILIZATION TRENDS

The number of tests performed decreased by 3.8% Agency-wide in 2009 compared with 2008. The rates of decrease were 9.8% in the Gaza Strip, 5.3% in Lebanon, 2.9% in Jordan and 1.5% in Syria, while an increase of 7.6% was observed in the West Bank.

The decrease observed in all Fields except the West Bank is mainly attributed to stock disruption of laboratory reagents due to budget limitations during the second year of the Agency's financial biennium and to price increases compared with 2008. The increase in the West Bank is consistent with the expected population growth. In this Field funds were secured from the emergency budget. Further budget cuts in laboratory services are expected in the biennium 2010-2011, as the budget allocated to the Health Programme as a whole will decrease. Figure 18 shows the trend in utilization of laboratory services during the period 2000-2009.

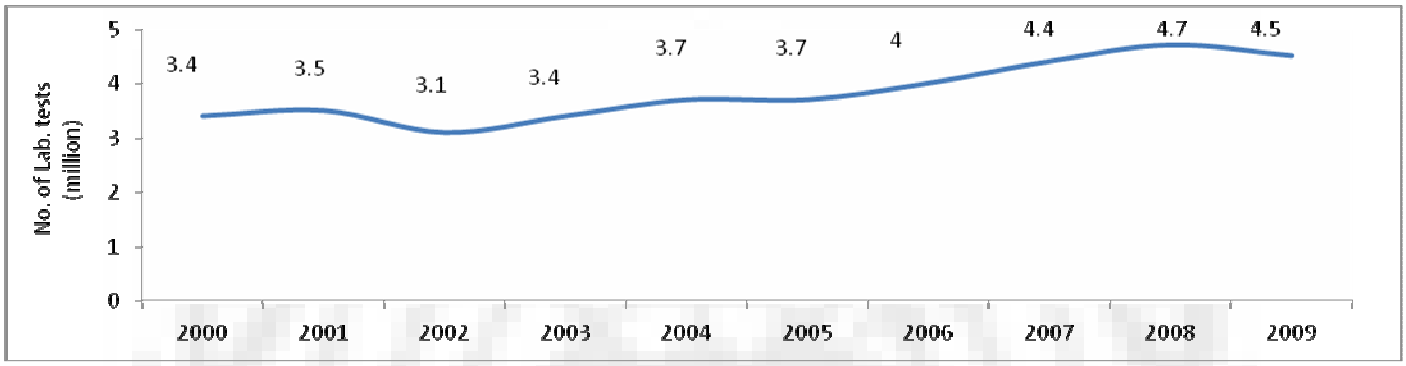


Figure 18 - Trend in utilization of laboratory services, 2000-2009

PERIODIC SELF-EVALUATION

A comparative study of workloads and efficiency of the laboratory services was carried out based on the 2009 statistical data as part of UNRWA's periodic self-evaluation of the programmes. The WHO approach for workload measurement was used [1].

Table 21 shows the actual productivity in Work Load Units (WLUs)/hour during the period 2001-2009. The productivity target of 45 to 55 WLUs/hour was achieved in Jordan and the West Bank Field, while it was below the target in Syria, Lebanon and Gaza Fields.

The reason behind the apparently low productivity observed in Gaza Field is the recruitment of 55 laboratory technicians under emergency programme during 2009 as part of the "job creation policy" compared to only 14 in 2008. The low productivity observed in Syria and Lebanon Fields is mainly attributed to the fact that they work five days a week instead of six. This is indicative that the additional daily working hours (1.25) are not efficiently utilized. In the West Bank, the recruitment of 27 laboratory technicians under the "job creation programme" was necessary to compensate for the deficit in the number of staff and the increasing demand on laboratory services.

Table 21 - Productivity (WLUs/hr) of laboratory services by Field, 2001-2009

Year	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
2001	43.3	58.4	60	66.3	48.7	55.3
2002	50.8	55.0	47.1	72.3	47.2	53.0
2003	54.2	49.0	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
2007	50.2	44.6	42.0	77.1	44.0	54.2
2008	50.3	42.5	43.0	78.0	59.3	56.4
2009	49.4	41.3	43.2	40.3	49.7	44.6

Automated Haematology Analyzers were introduced in all laboratories in Lebanon, Gaza, West Bank and Jordan Fields and in eight laboratories in Syria.

Automated Chemistry Analyzers were introduced at area level in all Fields. This technology reduced the reagent consumption to 1/5 and replaced the labour-intensive manual procedures, saving time and effort. The savings were used to cover the need of laboratories during January and February 2010 due to late deliveries during these months, and will be reflected on the quantities ordered in 2010.

COST EFFICIENCY

The cost of laboratory services provided by UNRWA, including staff, consumables, equipment/infrastructure depreciation, continued to be far below the public rates for equivalent services. This suggests that UNRWA's experience in integrating laboratory services into its primary health care activities remains very cost-efficient *vis a vis* referring patients to external services (Table 22).

Table 22 - *Comparative analysis on annual cost of laboratory services performed at UNRWA facilities and cost of same services if outsourced to Host Governments (USD)*

Cost	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Public	3,255,992	1,282,230	1,124,757	1,160,083	4,326,701	12,258,063
UNRWA	1,002,722	681,616	506,883	1,211,445	825,906	4,345,686

The cost of laboratory supplies procured under UNRWA's General Fund through the cyclic review indents for the year 2009 amounted to USD 877,567 and those funded through project raised by the Fields amounted to USD 90,597 (Table 23). Procurement of 10.3% of the laboratory supplies through projects was necessary to compensate the deficit in the allocated budget for laboratory services. This situation is expected to worsen in 2010.

Table 23 - *Expenditure on Laboratory Services and Equipment in 2009*

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Supplies	220,119	126,559	111,606	353,849	156,031	968,164
Equipment	144,484	33,339	27,499	238,369	7,571	451,262
Other expends.	80,962	141,119	77,976	87,509	130,586	518,152

Staff	557,157	380,599	289,802	531,718	531,718	2,408,108
All	1,002,722	681,616	506,883	1,211,445	825,906	4,345,686

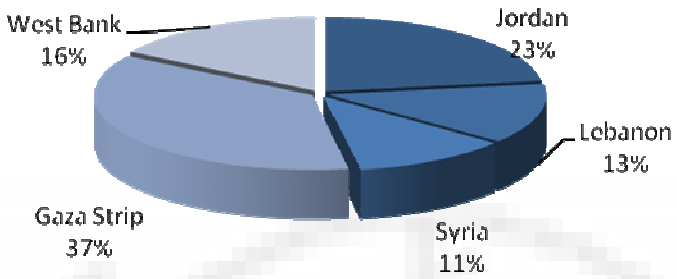


Figure 19 - *Expenditure on laboratory supplies (USD)*

The expenditure on laboratory equipment during 2009 amounted to USD 451,262, out of which USD 115,194 (25.5%) were secured through General Fund whereas the vast majority USD 336,068 (74.5%) through emergency funds, project funds and/or donations. More than 50% of the expenditure on laboratory equipment USD 238,369 was for Gaza Field to replace the equipment which was destroyed during the 2009 conflict, the funds were secured through emergency appeals (Figure 20).

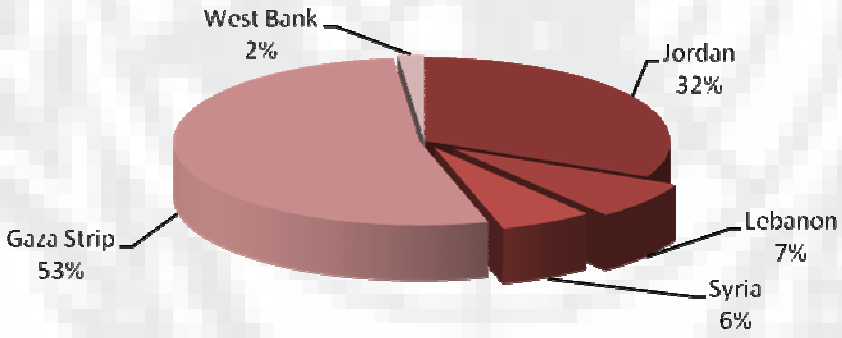


Figure 20 - *Expenditure on laboratory equipment (USD)*

ACTIVITIES OF THE LABORATORY SERVICES

In 2009, UNRWA continued to follow-up on the performance of laboratory personnel and on the proper provision and utilization of laboratory services. To this effect, the following activities were conducted:

- *Training courses for all laboratory technicians and in-service training (according to a standard training package) for newly recruited technicians were conducted in all Fields;*
- *Special training of the Head Laboratory and Medical Diagnostic Services, the Field Laboratory Services Officers from West Bank and Jordan and 50 Laboratory Technicians from the West Bank Field on the use and interpretation of external quality control was conducted in Jerusalem. The training was organized by RANDOX, UK through their local dealer in the West Bank;*
- *The quality of laboratory services was followed on a daily basis through an internal quality control system in place in all laboratories, and a six-monthly control check of the laboratory testing procedures which included pre-analytical, analytical and post-analytical phases using a pre-prepared control sample;*
- *UNRWA laboratories in the West Bank continued to participate in the external quality control programme at a reasonable cost. All Fields participated to a three months external quality control programme supported by RANDOX, UK;*
- *Annual assessment of the trends in utilization and productivity of laboratory services at health centre level was conducted in each Field as part of an internal assessment policy according to a standard assessment protocol;*
- *The quality of laboratory supplies was checked on a regular basis in coordination with concerned staff in the procurement division;*
- *Arrangements were made with the public health laboratories of the Host Countries with respect to the referral of patients or samples for surveillance of diseases of public health importance;*
- *The Head Laboratory and Medical Diagnostic Services conducted a joint visit with the Senior Procurement Officer to the "Medic International Exhibition" to update the UNRWA list of potential suppliers of laboratory consumables and equipment.*

Analysis of data collected from all UNRWA laboratories in 2009 revealed:

- A total of 94,806 Children at one year of age were screened for anaemia. The percentage that tested positive for anaemia varied: 70.3% in Gaza, 43.6% in Lebanon, 42.9% in Jordan, 40.1% in the West Bank to 37.3% in Syria. Severity ranged from moderate to mild;
- A total of 102,980 and 78,192 pregnant women at registration and at 24 weeks of gestation respectively, were screened for anaemia. The percentage of the second group that tested positive was: 54.7% in Gaza, 41.0% in Lebanon, 36.2% in the West Bank, 35.2% in Jordan to 29.1% in Syria. Results revealed moderate to mild forms of the disease;
- 102,994 pregnant women at registration and 85,277 at 24 weeks of gestation were screened for diabetes mellitus to improve the detection rate of gestational diabetes. Abnormal results were found in 6% to 24% of cases who were subjected to the oral glucose tolerance test for confirmation;

- 102,994 pregnant women were screened once during their course of pregnancy for urinary tract infection;
- 94,807 plasma glucose tests were performed to screen individuals 40 years of age and older for diabetes mellitus to improve diabetes detection rates;
- 216,387 Creatinine tests were performed to screen diabetic patients for nephropathy and 172,146 cholesterol tests to screen them for hypercholesterolemia; and
- Out of 91,691 stool examinations performed 16,282 (17.8%) were positive for intestinal parasites, of which 65.1% were *Endamoeba histolytica*, 25.5% *Giardia lamblia* and 3.6% *Ascaris lumbricoides*.

ORAL HEALTH SERVICES

Oral health services were expanded in 2009 to reach a total of 106 fixed and 12 mobile clinics. This increased the number of health facilities providing dental services from 115 to 118. Figure 21 below shows the number of dental clinics in the five Fields from 2000 to 2009.

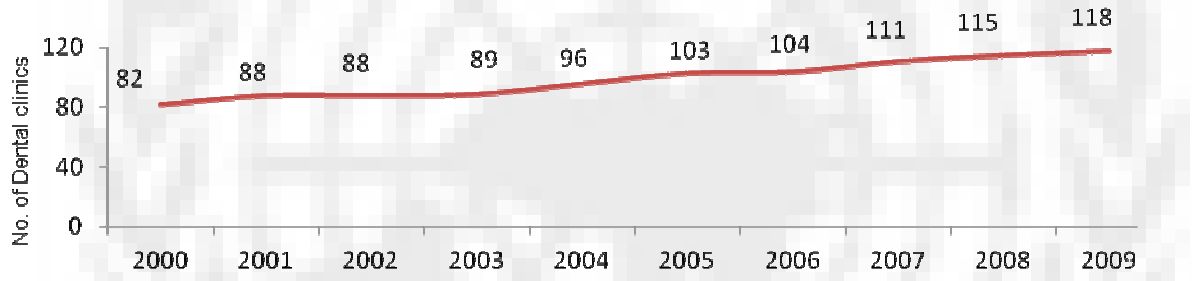


Figure 21 – Number of UNRWA dental clinics

Analysis of the trends of utilization of dental services in 2009 revealed that there was a 4.8% decrease in dental consultations which is consistent with the strategic objective of reorienting the dental services towards a preventive approach. The trends of screening activities conducted for the different target groups are shown in Table 24.

Table 24 - Utilization of dental services in 2009

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Dental consult. 2008	193 254	76 421	100 347	268 222	122 430	760 674
Dental consult. 2009	193 691	75 519	77 159	255 105	122 846	724 320
Variance %	+ 0.2	- 1.2	- 23.1	- 4.9	- 0.3	- 4.8
Dental screening 2008	57 251	16 100	48 253	94 612	76 020	292 236
Dental screening 2009	58 212	21 939	46 760	109 158	20 180	256 249
Variance %	+0.02	+0.38	- 0.03	+0.15	- 0.73	- 0.12
Productivity WLUs/hr	52.3	45.1	50.0	87.7	44.7	57.2

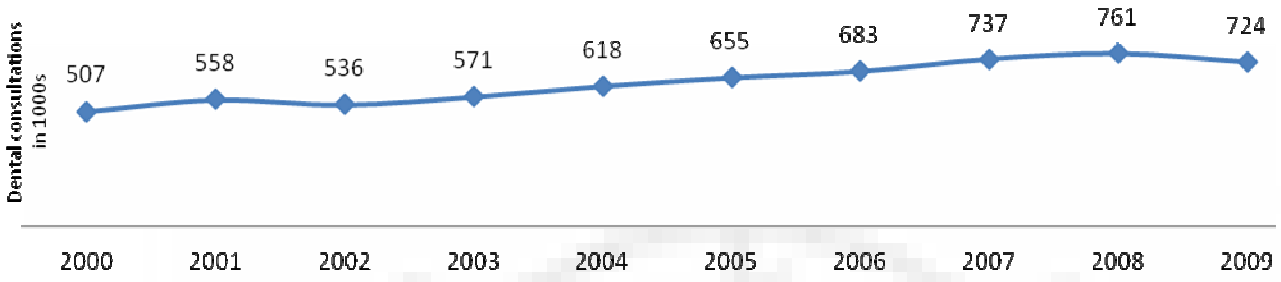


Figure 22 – Trend in utilization of dental services, 2000-2009

An assessment of workloads, productivity and efficiency of oral health services was conducted in the five Fields. The assessment, based on standardized protocol, was carried out as part of the periodic evaluation of system performance and is used to identify staffing requirements and the need for re-organization of services.

A comparative analysis between 2008 and 2009 of productivity ratios in relation to the defined target of 50 workload units per hour is shown in Figure 23.

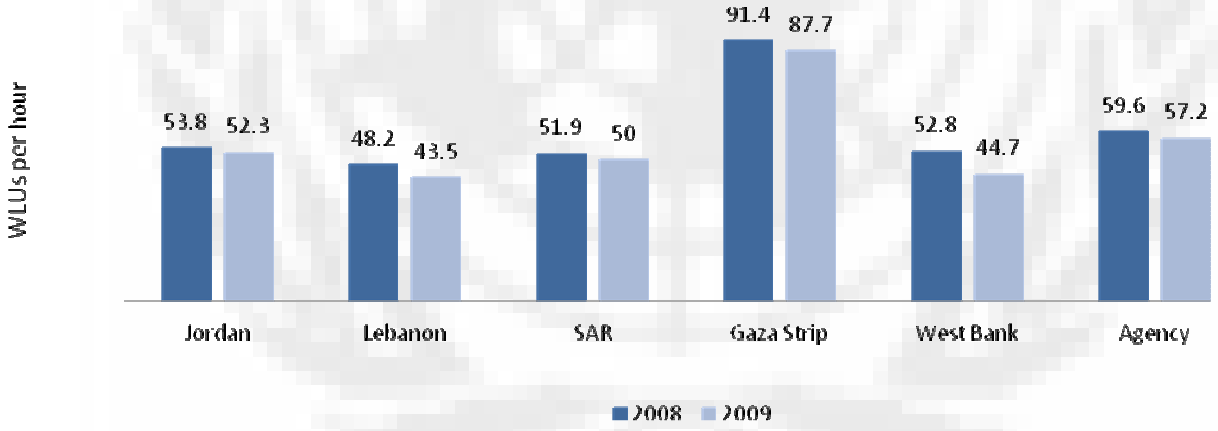


Figure 23 - *Productivity of dental services by Field, 2008-2009*

The acceptable average actual productivity per Dental Surgeon per hour (45-55 WLUs/hr.) was achieved or exceeded in all Fields, Gaza Strip continued to report the highest workload (87.7 WLUs/h).

The expenditure on dental services during 2009 amounted to USD 527,295 out of which USD 141,206 on dental supplies and USD 386,089 on dental equipment. About 45.8% (USD 241,255) of expenditure was secured through general funds whereas 54.2% (USD 286,040) through emergency funds, project funds and/or donations.

In line with the recommendations of the evaluation of UNRWA Oral Health Services in Jordan, Lebanon and Syria Fields which was conducted in May 2008 by consultants from Cooperazione Odontoiatrica Internazionale. The following activities were conducted during 2009:

a) Service Organization: Preventive and Curative

- Oral health education was included in the existing network of MCH staff and families;
- Educational material was produced;
- Technical instructions for canteen sale of food were implemented;
- The method for sealant application was revised;
- The water concentration of fluoride in camps was checked and recorded;
- A campaign for fluoride tooth-paste use during school time was conducted; and
- The policy of providing root canal treatment was reconsidered.

b) Balance between curative and preventive approaches

- Treatment priorities were revised to allow more resources for community dentistry; and
- Training and links to scientific publications on community dentistry were provided to dental staff.

c) Cross infection control

- Technical Instructions on disinfection and sterilization procedures were revised and updated;
- The hand pieces (turbines and micro-motors) stocks for each Dental Clinic were increased;
- Disposable plastic film to cover handles, lamp and cods was made available; and
- Training and supervision on Cross Infection Control management were conducted.

d) Epidemiological research procedures:

- Survey methodology was standardized according to WHO guidelines;
- A baseline survey on the DMFT index will be conducted in 2010. Subsequent surveys will be conducted every four years.

PHYSIOTHERAPY SERVICES

Physiotherapy services were provided to 14,329 patients through 16 physiotherapy units (nine units in Gaza Strip, six in West Bank and one in Jordan). As shown in Table 25, 3,918 patients were treated at physiotherapy units in the West Bank where 20 staff members (11 regular employees and nine recruited under emergency programme) performed 34,914 sessions. In the Gaza Strip, and 9,845 patients were treated in the physiotherapy units. 56 staff members (26 regular employees and 30 recruited under emergency programme) conducted 129,177 sessions.

These units provide a wide range of physiotherapy and rehabilitation services including manual treatment, heat therapy, electro therapy, and gymnastic therapy with an outreach programme using advanced equipment which exceeded 50 in number and facilitated providing therapeutic exercise, manipulation massage, functional training, hydrotherapy, electrotherapy and self training.

Table 25 - Distribution of patients treated at physiotherapy units in oPts, 2009

Field	Patients treated in 2008			Patients treated in 2009		
	Trauma	Non-Trauma	Total	Trauma	Non-Trauma	Total
West Bank	1,254	4,384	5,638	652	3,266	3,918
Gaza Strip	2,195	6,070	8,265	2,831	7,014	9,845
Jordan	0	421	421	0	566	566
Total	3,449	10,875	14,324	3,483	10,846	14,329

The outcome of the treatment sessions provided in UNRWA physiotherapy units and through home visits was the following: full recovery of 83% of treated patients and persisting mild disability in 14% of cases. 3% remained disabled due to the nature of their injury or disorder. Patients with permanent disability together with their family members were trained on how to handle daily activities. This investment in occupational therapy is aimed at increasing the independence of people with special needs and increasing their self-reliance.

CONSEQUENCES OF WAR IN THE GAZA STRIP ON PHYSIOTHERAPY SERVICES

About 400 patients were admitted to physiotherapy clinics during January 2009 as a result of the conflict in the Gaza Strip, 30% of them were children, these patients received 4,243 physiotherapy treatment sessions.

Patients who were in need of physiotherapy services, increased from 8,265 in 2008 to 9,845 in 2009. About 30% of the 5,380 injured individuals during the war required physical rehabilitation to prevent complications and permanent disability.

COMMUNITY-BASED INITIATIVES

Physiotherapists in Gaza Field have conducted several educational sessions to different groups of people to raise their awareness on types of disabilities, on preventive measures of avoidable disabilities and on how to care for disabled people. Information on physiotherapy services provided in UNRWA physiotherapy units was provided.

The community-based initiatives observed in the West Bank Field included home visits during which the family of the patients were advised and trained on conducting the needed exercises. Another good example of the community-based initiatives in the West Bank was the cooperation between Physiotherapists and School Supervisors which reflected positively on the performance of disabled students.

One more important example of the community-based initiatives is represented by the cooperation and coordination between UNRWA physiotherapy staff in one hand and individuals who are recognised as potential donors of rehabilitation aid equipment and the non-governmental organizations like the Arab Rehabilitation Society and the Youth Men Christian Association.

The Health Department in the West Bank Field has already launched a preventive physiotherapy programme aimed at screening diabetic patients for foot injuries. Annually they undergo a thorough physical examination in which the following aspects are analysed: skin colour, ulcers, colloids, deformities, abnormalities of the nails, pulse, leg temperature and superficial and deep sensation. Finally shoe suitability is evaluated.

School children in the first elementary class were screened for postural deformities during which the weight, height, body mass index, foot print and the posture while standing and walking were checked.

The expenditure on physiotherapy services (non-staff) during 2009 amounted to USD 656,735 out of which USD 169,904 were spent on supplies and equipment and the remaining USD 486,831 on patient subsidies. Almost half of the funds USD 203,823 were secured through projects raised by the Fields and USD 452,912 through the General Fund. Table 26 shows the distribution of expenditure.

Table 26 - *Expenditure on Physiotherapy Services, 2009*

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Supplies	0.0	0.0	0.0	52,626	15,646	68,272
Equipment	0.0	0.0	0.0	101,632	0.0	101,632
Subsidies	80,342	32,607	93,819	214,004	66,059	486,831
Total	80,342	32,607	93,819	368,262	81,705	656,735

THE COMMUNITY MENTAL HEALTH PROGRAM

Community 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 MDGs (specifically 3, 4 and 5), the Convention on the Rights of the Child (CRC) (specifically article 19, inter-alia) and the WHO Mental Health Policy and Service Guidance Package (WHO, 2003).

Palestine refugees are among the most disadvantaged population groups. Since 1948 they have been suffering from the trauma of displacement and the present experience of conflict and violence only adds to the many wounds and scars marked in their psyche.

In response to the deteriorating psychological situation, UNRWA launched the Psychological Support Programme to offer counselling and ensure long term strategic incorporation of psychosocial well-being of refugees in the Agency's healthcare package including social mobilization on mental health issues. It is the Agency’s key response to promote the development of constructive coping strategies for refugees in crisis situations in order to prevent long-term psychological consequences.

The programme was defined in terms of psychological empowerment rather than in psychiatric framework and focuses on strengthening the resilience of the population. Through a network of counsellors established in UNRWA's Health Centre, Schools and

Community–Based Organizations, the programme seeks to promote positive factors for groups at risk and develop effective coping mechanisms to prevent further psychological deterioration.

The Mental Health programme started in 2002 as a psychosocial support project and involved the recruitment of a number of counsellors in the Gaza Strip and the West Bank. As the programme's perspective widened, an international expert was recruited in 2005 and it was re-named the "Community Mental Health Programme" (CMHP). The programme in Gaza Field relies on 189 counsellors supervised by six assistant supervisors and administered by the training coordinator, administrative officer and three other supervisors. In the West Bank the programme is run by 110 counsellors supervised by six assistant supervisors and administered by three supervisors, a programme manager, a training coordinator and an administrative officer.

Throughout 2009 the Community Mental Health Programme 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, individuals, families and groups.

THE CMHP IN THE GAZA STRIP

The year 2009 has been an extremely difficult year for refugees in the Gaza Strip. This year started with a massive Israeli Operation, the so called Operation Cast Lead, that in addition the chronic siege-like conditions, has lead to an increased need for psychosocial support, especially among children.

In 2009 the CMHP in the Gaza Strip focused on three major issues in addition to the routine counselling and training activities:

a) Dealing with the victims of war

Interventions on the victims of the war started during the conflict and continued throughout the whole year. The following activities were conducted:

- CMHP deployed counsellors in all shelters operated by UNRWA to provide support to children and their families. Counsellors were able to reach 2,493 families (15960 individuals). 20% of adults expressed disturbing psychological symptoms. 30% of children at the shelters expressed symptoms that were absent before the war experience. Counsellors conducted 225 children sessions, 172 mother sessions, 46 self support sessions, 68 parental sessions, 94 adolescent sessions, and 232 individual sessions. They reached 3,590 children (1,530 females and 2,060 males) and 3,718 adults (2,372 females and 1,346 males).
- Seventy individuals were referred to the Ministry of Health psychiatric team. 23 cases had epilepsy, 35 cases had schizophrenia and other chronic psychiatric illness, and 12 had severe post-traumatic reactions.
- Immediately after the conflict, CMHP screened UNRWA students. Almost 18,800 (10%) had been directly exposed to war incidents. Such exposure made them psychologically vulnerable and in need of a counsellors' assistance.
- CMHP provided training for 5,025 UNRWA teachers to enable them to recognize post-traumatic reactions identify ways of dealing with them. While most students showed spontaneous recovery, 5,600 students expressed variety of new symptoms after the conflict and needed counselling.
- CMHP produced 20,000 posters delivering mental health education messages that were displayed in UNRWA Schools and Health Centres.

Assisting students with Special Education Needs

During the school year 2009-2010, 14,838 students were identified as with Special Needs as they failed six essential subjects. These students underwent a medical assessment. The ones diagnosed with psychological problems, were referred to CMHP counsellors for a deeper psychosocial evaluation. Medical Teams have referred 3,126 cases for assessment, 788 of them had been examined by CMHP counsellors as of the end of 2009.

b) The Overage Students Initiative

An overage student is defined as a pupil at least two years older than his/her classmates. In the Gaza Strip 13,700 students were found to meet this criterion. In 2009, CMHP supported the Education Department in finding appropriate channels for these students to enable them to access higher education. CMHP surveyed 10,767 overage students, 3,200 were described by their teachers as violent and 1,502 students were in need of further psychological interventions.

c) Routine Activities

Counselling and mental health education activities

Counselling and awareness activities comprise the majority of the counsellors' workload which is directed at children and clients who have mild to moderate mental health problems. The counsellors hold individual and group counselling sessions using a variety of techniques.

At schools the students are referred to the CMHP by their teachers, families, or are self-referred. Table 32 shows the main activities conducted during year 2009. Due to the involvement of most counsellors in the above mentioned emergency activities, the number of beneficiaries decreased compared with 2008.

Table 27 - Number of sessions of counselling and beneficiaries during the year 2009

	Individual counselling sessions	Group counselling	Group guidance (awareness)	Public awareness meetings	Home visits	Other activities
Sessions	15,200	6,928	11,858	2,336	2,041	6,341
Beneficiaries	5,579	15,706	46,007	51,818	5,891	458,203

Capacity Building Activities

Throughout the year the CMHP continued to deliver training for the mental health professionals both using supervision sessions and through formal training workshops and courses. The majority of the training is implemented using local resources, without input from academic institutes and universities.

Training of Supervisors: 19 sessions on "individual supervision" for 13 supervisors, six sessions on "team supervision" for three supervisors and 48 counsellors and "eight sessions" on group supervision for 15 supervisors were conducted.

Training of Counsellors: "on-the-job" supervision has been conducted for counsellors. 374 sessions on "group supervision" and 1,622 sessions on "individual supervision" were conducted benefiting for 186 counsellors. In addition, four sessions on "team supervision" for 32 counsellors were performed. In January, in urgent response to the conflict, CMHP provided all counsellors with a two day training course on "Reactions and problems of children after war". Counsellors in return implemented workshops for teachers and parents in schools and clinics to explain that how to deal with children post-war reactions and problems. A total of 5,025 Teachers benefited from this training

External Training: One of the CMHP supervisors participated in three day monitoring and reporting training conducted by UNICEF and two counsellors participated in a "Crisis Intervention" training conducted by Médicos del Mundo-Spain.

Summer Mental Health Programme: The summer Mental Health program was designed to mitigate the psychological consequences of the Gaza war on students. It builds on a family counselling approach. Participants were selected based on the result of a survey conducted after the end of hostilities and benefited from ten counselling sessions.

In cooperation with Education Departments, the counselling program materials were developed and students were divided into groups. In addition to that each counsellor received training on role-plays and games to help them in managing the counselling sessions.

The Overage Initiative Workshop: CMHP conducted a workshop addressing the overage student program. The workshop was attended by the Field Program Support Officer, the Guidance and Counselling Division, the Development Centre within the Education programme, and CMHP staff members. Three rounds training courses were provided for teachers who participated in the overage initiative, each course lasted for five days and each group consisted of about 25 teachers. A three hour training course was provided to 23 counsellors who participate in the initiative.

THE WEST BANK

The tight regime and closures, the prolonged curfews, the steady deterioration of economic conditions, the concerns for physical protection and the repeated violations of international humanitarian law, have all had a devastating impact on the livelihood and the mental state of Palestinians. The refugee population is particularly affected in light of the insecurity inherent to their legal status, the loss of their livelihood and the physical threat of military operations in the camps.

The distress experienced by refugees in the West Bank has been further heightened by ongoing protection and human rights violations, including forced displacement from homes and lands. This has contributed to a prevailing sense of insecurity and anxiety for many refugees. Finally, socioeconomic impoverishment and daily living hardship has contributed to a deepening sense of dissatisfaction and hopelessness which is manifested in depression and other forms of psychological sequealae.

The Community Mental Health programme in the West Bank, implements its activities in coordination with other two programmes of the Agency: Education and Relief & Social Services.

CMHP activities and achievements

CMHP improved its positive reputation both within UNRWA and within the community. Its activities are well known and available in all community facilities. 2009 saw the establishment of very good links with the UNRWA programmes as well as with external organizations such as NGOs working in the same domain.

a) Improving awareness on psychological distress

This was done through awareness-raising campaigns addressing the community at large with a focus on the most vulnerable (children, adolescents, females and elderly) and main stakeholders active in the social surrounding. During 2009, a total of 1,096 sessions were conducted benefiting 13,636 individuals as outlined in Table 28.

Table 28 - Awareness raising and Educational activities

Topic	Number of groups	Number of beneficiaries
Sexual Violence	81	813
Sexual Education	94	782
Violence Behavior	62	1,021
Debriefing	175	3,108
Family Relation	104	823
Good Friendship	47	667
Adolescence	93	835
Leisure Time	64	510
Cheating and Lying	17	122
Empowerment of Women	73	788
Play Therapy	31	188
Intervention at Loss	55	640
Child Rights	97	2,434
Self awareness	78	666
Class discipline	25	239
Total	**1,096**	**13,636**

b) Counselling activities

Throughout the programme, 21 clinical counsellors and 64 school counsellors provided individual and group interventions and conducted awareness-raising activities to patients, students and staff as shown in Table 29.

Table 29 - Counselling activities by CMHP West Bank

	Individual counselling sessions	Group counselling	Group guidance (awareness)	Public awareness meetings	Referral
Sessions	5,258	654	8,257	1,646	-
Beneficiaries	2,759	15,239	188,377	60,504	217

c) Early detection of psychosocial and behavioural disorders in the community

Thirty psychosocial counsellors specialized on community intervention and organization worked as "community mobilizers and organizers" to work with Community Based Organizations (CBOs), community figures (e.g. committees and community leaders), volunteers, and Community Based Centres (CBCs) in the 19 refugee camps as well as with refugees in rural areas and with needy people in remote areas (e.g., Bedouin). The 30 community organizers assisted the CBCs and CBOs in developing an annual plan of psychosocial activities and community interventions.

The community organizers and mobilizers have been very active in assessing the needs of the communities and designing comprehensive plans of action for each area. A series of training workshops were organized to build the capacities of community organizers and mobilizers.

Well designed and systematic community-oriented and group-focused psycho-educational workshops were conducted as well as recreational and awareness raising activities. Activities (lectures, study days and workshops, supportive groups, theatre shows, summer camps, painting activities, etc…) aimed at addressing the audience of the camps' Community Based Organizations - CBO (Women Programme Centres, Rehabilitation Programme Centres and Children and Youth Activity Centres) focusing on children and mothers. The topics addressed by the supportive groups are listed in the Table 30.

Table 30 - Supportive group's intervention in clinics and community centres

Topic	Number of Groups	Number of Beneficiaries.
Adolescence	114	1,457
Sexual harassment	82	600
Communication skill	114	1,289
Self awareness	108	604
Child Behavior	64	752
Bedwetting	138	1,531
School violence	45	379
Stress management	98	878
Family relations	102	1,399

d) Outreach to most vulnerable groups in awareness-raising activities

In 2009, CMHP tailored its interventions, especially in terms of awareness-raising, to reach the most vulnerable individuals and communities.

- Three summer camps took place in the North Area of West Bank. They targeted academically outstanding students in UNRWA schools, and the number of participants was 230;
    - A summer camp for children took place at Arroub camp and five summer camps in Hebron area benefiting a total of 150 children;
    - Psycho-educational activities for Bedouins and Herders were conducted, targeting Palestinians residing in remote areas in the South. A systematic project was carried out with children, parents and teachers in remote areas (mainly with Bedouins in Musafer Banee Na'eem and Umm Al-Khair), as well as with refugees in the Old City of Hebron;
    - A summer camp for 40 women on awareness raising took place in Jalazone camp;
    - On the occasion of the International Women's Day, a series of awareness raising, educational, and celebration activities took place in all camps. In addition, two major activities were organized; the first was a cooperative work between the Agency's Cash for Work Programme and the CMHP in which a day of activity was held at Bethlehem; and
    - The CMHP commemorated the International Day of the Child by conducting educational, supportive, and recreational activities for children and parents in all 19 refugee camps.

e) Establishing a Referral System of cases

External referral**:** In order to ensure proper treatment of all people in need of psychological assistance, the UNRWA Community Mental Health Programme identified referral bodies operating in all Areas, benefiting about 70 refugees each year.

Referral bodies are NGOs and institutions specialised in the field of mental health. These include the Palestinian Counselling Centre (PCC) in Jerusalem and Nablus Areas, the Bethlehem family and Child Counselling Centre, the Palestinian Ministry of Health, WHO, the Palestinian Ministry of Social Affairs, YMCA, and for some cases in East Jerusalem, the Israeli Department of Social Services. An agreement was reached between UNRWA CMHP and the Palestinian Authority Ministry of Health (MoH) regarding the referral of cases for specialist treatment. Referral documents are facilitated through UNRWA clinics and schools. During 2009, 217 cases were referred for further care.

Priority for external referral has been given to people suffering from PTSD (Post Traumatic Stress Disorders) and different types of severe psychological distress while less severe cases are taken care of by UNRWA CMHP counsellors in clinics, and sometimes by school counsellors.

Internal referral**:** CMHP initiated the creation of a **networking body** in each camp, in order to provide an integrated response at the community level and hence facilitate the work of the CMHP counsellors and community organizers. Each network is composed of those counsellors, local practitioners from the UNRWA main programmes (Education, Health and Social Services), the camp service officer (CSO), representatives of CBOs (mainly from Women's Centres and Disability Programmes) and representatives of the community. Other organisations intervening in the camp may be invited.

Each network body meets on monthly basis, under the chairperson of CMHP community organizers in each camp. During 2009, 460 cases (Female 168, Male 140, and Children 152) were referred internally by the networks.

f) Capacity building

In line with CMHP plans for capacity building, in-house training workshops were conducted by supervisors to upgrade the knowledge and skills of counsellors. A training needs assessment was carried out by forming focus groups of counsellors and supervisors and a simple needs assessment questionnaire was completed. After the analysis data, a training programme was developed for counsellors and supervisors in each Area.

Training of counsellors: Training is usually conducted by the supervisors. They conduct two kinds of sessions, individual and group. The monthly supervision counsellor training is a combination of communication and self awareness skill and intervention skills exercises.

RADIOLOGY SERVICES

UNRWA operates 20 radiology units (eight units in the West Bank, six in the Gaza Strip, four in Lebanon and two in Jordan). These units provided plain X-ray services to patients attending the Health Centres. Other plain X-rays and specific diagnostic radiology services such as mammography, urography and ultrasounds are provided through specific contractual agreements with hospitals and private radiology clinics to patients, newly recruited UNRWA staff, UNRWA staff performing periodic medical examinations and as part of medical board examinations. Table 31, shows the number of radiographs provided in all Fields during 2009.

Table 31 - Number of radiographs carried in and outside UNRWA health facilities, 2009

Field	Inside UNRWA		Outside UNRWA				
	Patients	Plain X-rays	Patients	Plain X-rays	Other X-rays	Total X-rays	Grand total of X-rays
Jordan	3,351	3,887	2,376	2,365	11	2,376	6,263
Lebanon	17,901	18,438	6,432	4,015	2,417	6,432	24,870
Syria	0	0	2,776	1,065	1,711	2,776	2,776
Gaza Strip	36,386	39,735	0	0	0	0	39,735
West Bank	26,792	29,535	0	0	0	0	29,535
Agency	84,430	91,595	11,584	7,445	4,139	11,584	103,179

The radiology services conducted 103,179 X-rays to 96,014 patients out of whom, 91,595 were plain X-rays provided to 84,430 patients through UNRWA X-ray facilities. 11,584 were other radiographs performed for 11,584 patientsby contracted X-ray facilities, Table 32. The expenditure on radiology equipment during 2009 amounted to USD 72,031, and was secured from the General Fund. No new X-ray equipment was procured during the year.

Table 32 – Patients requiring radiographs by sex and age, 2009

	Female	Males	0-14 years	15-44	≥ 45 years	Total patients
Patients	47,312	48,702	29,372	40,947	25,695	96,014

PREVENTION AND CONTROL OF DISEASE

COMMUNICABLE DISEASES

Activities in prevention and control of communicable diseases in 2009 had two focuses: the mitigation of the consequences of lower hygienic standards in the Gaza Strip following the infrastructural damage caused by the war and the Influenza A/H1N1v pandemic. Surveillance has been strengthened throughout the Agency's Fields of operation and in Gaza and Early Warning System for Communicable Diseases has been established and is functioning to date.

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.

INFLUENZA A/H1N1v PANDEMIC

2009 was marked by the first pandemic of the century. As all countries of the World prepared to face this novel influenza, also UNRWA acted in the different Fields of operations in coordination with the host country and with WHO.

The Influenza A/H1N1v pandemic challenged the response capacity of the Agency and led to the compilation of guidelines, training, adaptation of existing pandemic plans and a strengthening of collaborations with WHO and host countries. No other outbreaks took place among Palestine refugees in 2009. In April and June 2009 guidelines for pandemic influenza management for Health Staff and for UNRWA Managers were issues and the UNRWA pandemic preparedness plans in each Field reviewed. In collaboration with WHO, the health programme also conducted a major workshop in October 2009.

A total of 431 cases of A/H1N1v were confirmed in 2009: 25 in Jordan, 31 in Syria, 31 in Lebanon and 63 in the West Bank. 281 were confirmed from the Gaza Strip including refugees and non refugees.

TUBERCULOSIS

Close cooperation was maintained between UNRWA and national tuberculosis programmes. A total of 76 cases were newly diagnosed in 2009 Agency-wide with increase of three cases from the year 2008. Thirty (39.5%) were pulmonary smear positive and 40 (52.6%) were extra pulmonary cases. Most detected cases were reported from Syria with a total of 59 cases (77.6%), followed by Lebanon with 11 cases (14.5%), Jordan ,Gaza and West-Bank Field with only two cases each.

Detection rates in all Fields continued to be below the WHO-recommended target of 70% of expected number of cases for the country except for Syria. Using the directly observed treatment, short course strategy (DOTS), all Fields achieved 100% cure rate.

VIRAL HEPATITIS

Figure 24, shows the incidence rate of reported viral hepatitis cases (mainly hepatitis A) Agency-wide during the last ten years. Attention still needs to be paid to this preventing this disease by maintaining good hygienic conditions especially in schools and houses.

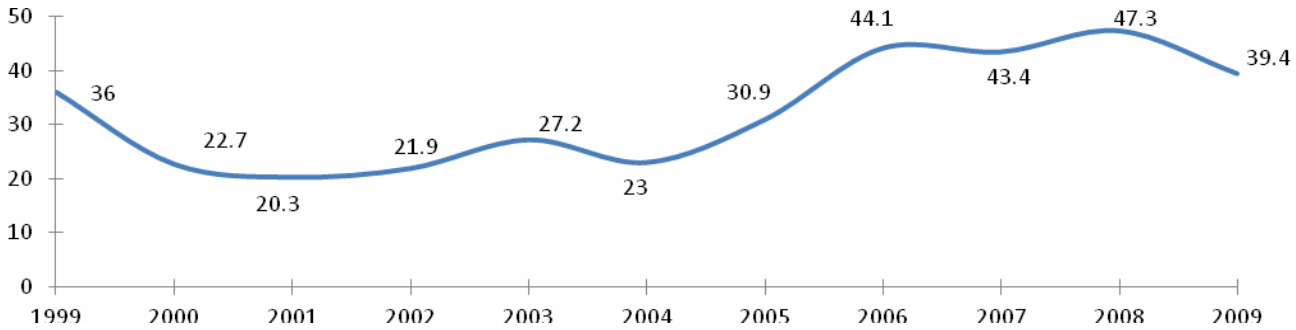


Figure 24 - Incidence rate of reported viral hepatitis (per 100,000) Agency-wide, 1999- 2009

HIV/AIDS

Four new cases of HIV/AIDS were reported during 2009 from Lebanon Field. The cumulative number of laboratory-confirmed cases of HIV/AIDS among refugees reported Agency-wide up to 2009 was 150, of which 26 from Jordan, 29 from Lebanon and 14 from Syria. Gaza and the West-Bank Fields reported 20 and 61 cases respectively, among refugees and non-refugees.

BRUCELLOSIS

The incidence of brucellosis decreased from 9.3 per 100,000 in 2008 to 5.2 in 2009.The highest incidence rate is still reported, from Syria (42.1/100,000). Incidence rate from other Fields is almost negligible: Jordan and West Bank (1.1/100,000), Lebanon (0.8/100,000) and Gaza Field (0.0/100,000).

TYPHOID FEVER

The incidence of typhoid fever Agency-wide is almost the same of the previous year at 5.7/100,000. However, this may be explained by the low referral of suspected cases to the laboratory. More attention needs to be given to confirmation of and follow up of suspected cases. The highest incidence was observed in Syria (13.2/100,000) followed by Gaza (12.4/100,000) while West Bank Field reported no cases.

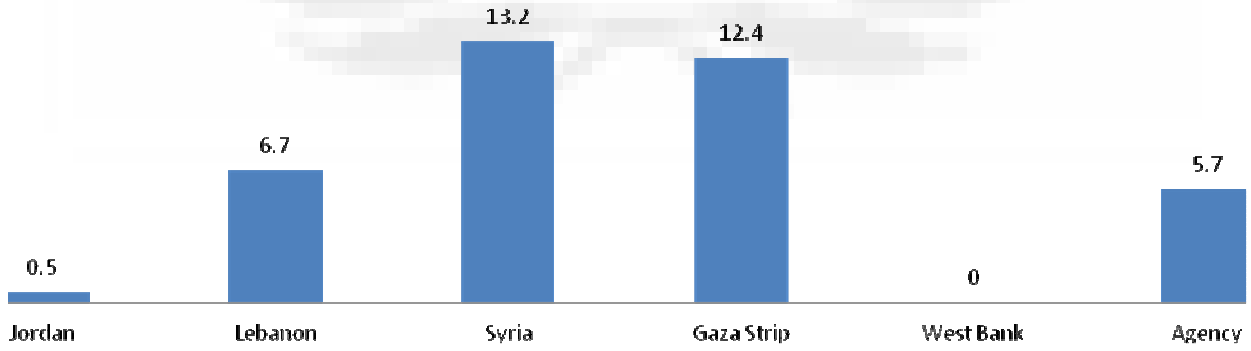


Figure 25 - Incidence rate of reported Typhoid (per 100,000) by Field, 2009

BLOODY DIARRHOEA

The incidence of bloody diarrhoea Agency-wide is 234.0/100,000 with significant variations between Fields. Figure 26 shows the incidence rates of bloody diarrhoea by Field during 2009.

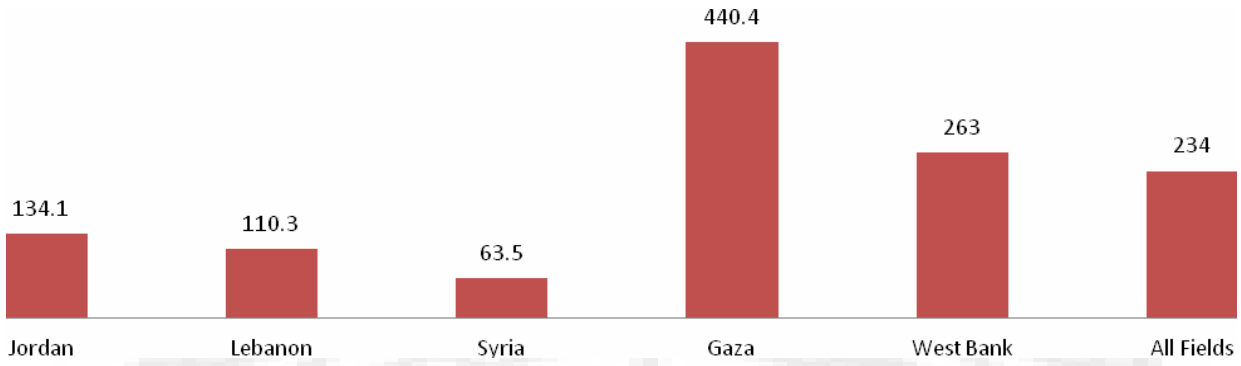


Figure 26 - ***Incidence rate of reported bloody diarrhoea (per 100,000) by Field, 2009***

The highest incidence rate was reported from Gaza Field (440.4/100,000) which may be explained by poor water quantity and quality in addition to the frequent technical problems with water stations and power cuts due to the prolonged closure of borders and lack of fuel and rep;acements., West Bank and Jordan reported 263/100,000 and 134.1/100,000 respectively. The lowest rates were seen in Lebanon and Syria (110.3/100,000 and 63.5/100,000 respectively). Table 33 shows the incidence rates of reported communicable diseases from all Fields.

Table 33 - Incidence rates of reported cases of communicable diseases per 100,000 served population, 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered Refugees	1,98,733	425,640	472,109	1,106,195	778,994	**4,766,671**
Population served	1,110,890	249,459	363,669	90,707	545,296	**3,176,393**
Acute flaccid paralysis	0.0	0.0	0.3	0.0	0.2	**0.06**
Poliomyelitis	0.0	0.0	0.0	0.0	0.0	**0.00**
Cholera	0.0	0.0	0.0	0.0	0.0	**0.00**
Diphtheria	0.0	0.0	0.0	0.0	0.0	**0.00**
Meningococcal meningitis	0.1	0.4	0.0	0.2	0.2	**0.16**
Meningitis - bacterial	0.2	0.8	1.2	0.2	1.5	**0.57**
Meningitis - viral	0.2	0.8	0.9	1.2	19.1	**3.80**
Influenza A(H1N1)	2.2	13.0	9.1	0.0	11.9	**4.79**
Tetanus neonatorum	0.0	0.0	0.0	0.0	0.0	**0.00**
Brucellosis	1.1	0.8	42.1	0.0	1.1	**5.20**
Watery diarrhoea (<3years)	19,821	100,437	12,209	16,400	35,950	**24,752**
Watery diarrhoea >3years)	1,337	2,522	1,491	2,217	2,227	**1,838**
Bloody diarrhoea	134.1	110.3	63.5	440.4	263.0	**234.0**
Viral Hepatitis	14.7	27.7	72.1	75.3	15.9	**39.4**
HIV/AIDS	0.0	1.7	0.0	0.0	0.0	**0.13**
Leishmania	0.0	0.0	96.5	0.0	0.2	**10.5**
Malaria*	0.0	0.0	0.0	0.0	2.1	**0.0**
Measles	1.2	3.4	0.3	0.3	0.0	**1.2**
Gonorrhoea	0.8	0.0	0.6	0.0	0.0	**0.4**
Mumps	3.4	25.2	5.6	4.1	4.5	**5.7**
Rubella	1.5	0.4	1.2	0.0	2.3	**1.1**
Tuberculosis, smear positive	0.2	1.7	6.2	0.1	0.4	**1.0**
Tuberculosis, smear negative	0.0	0.8	1.2	0.0	0.0	**0.2**
Tuberculosis, extra pulmonary	0.0	2.1	10.0	0.1	0.0	**1.3**
Typhoid fever	0.5	6.7	13.2	12.4	0.0	**5.7**
Pertussis	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

** Among children <15 years; ** Include suspected and confirmed cases; no cases of poliomyelitis, cholera, diphtheria, tetanus neonatorum, or pertussis were reported.*

CERVICAL AND BREAST CANCER SCREENING

In order to provide secondary prevention aimed 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 which started in 2006. The level of implementation varied between the Fields according to the availability of funds and operational difficulties. In 2009, this service was outsourced through contracts for the provision of mammography and cytology screening tests in two Fields: Syria and Lebanon.

The low detection rates of cervical cancer, has led the Agency to opt for the discontinuation of this screening activity in 2010. Conversely the utility of breast cancer screening has been confirmed. It is unfortunate that technical and budgetary limitations are preventing the implementation of breast cancer screening in other Fields and that funds are not expected to be secured for the ongoing activities in Syria and Lebanon.

IN LEBANON

During 2009, a total of 1,292 women of the target population (≥50 years and other specific categories at higher risk) were screened for breast cancer by mammography and breast ultrasonography if indicated. 705 (54.6%) had abnormal findings and 26 were diagnosed with breast cancer after breast biopsy. The detection rate for breast cancer was 2% in 2009 compared with 1% in 2008. Cases were distributed as follows: ten in Central Lebanon, seven in North Lebanon, four in Saida, three in Beqa and two in Tyre. Findings indicate that this screening program is cost-effective and should not only maintained but expanded to other Fields. A total of 627 women, 35 to 45 years of age, were screened for cancer of the cervix by using a Pap smear. Only one case was diagnosed with cervical cancer which corresponds to a detection rate of 0.2%.

Table 34 - Cancer screening in Lebanon Field

Breast cancer			Cervical cancer		
Total Screened	Breast Ca.	Detection rate	Total Screened	Cervical Ca.	Detection rate
1 292	26	2%	627	1	0.2%

IN SYRIA

787 women were screened for breast cancer, 24 cases (3%) had abnormal mammography results. Of those, eight were ultimately diagnosed with the disease and they were referred for surgery and further treatment. 531 women underwent pap smears, four of them (0.8%) were screened positive. Of those, two were diagnosed with the disease at a precancerous stage while the other two were diagnosed with cancer and referred for treatment.

Table 35 - Cancer screening in Syria Field

Breast cancer			Cervical cancer		
Total Screened	Breast Ca.	Detection rate	Total Screened	Cervical Ca.	Detection rate
787	8	1%	531	2	0.4%

MEDICAL SUPPLIES

The expenditure during the year 2009 was affected by many factors related to the activation of the new Procurement and Inventory Management System (PIMS), budget cuts and the war on Gaza. Due to this, it was preferred not to compare 2009 expenditures with 2008.

The total value of medical supplies and equipment from all funds (General Fund, in-kind contributions and emergency appeals) in 2009 was approximately USD 16.91 million. The figures in this section reflect the value and quantity of items withdrawn from the central pharmacy at warehouse level during 2009.

The total amount spent from the UNRWA General Fund was approximately USD 11.97 million (71%), while the total value of in-kind and emergency funds spent was approximately USD 4.94 million (29%). In the Gaza Field, 37% of the expenditure was covered through donations to compensate the loss of medical supplies due to the destruction of a warehouse during the conflict (Figure 27). Medical supplies and equipment represented approximately 30% of the total expenditure on medical care services.

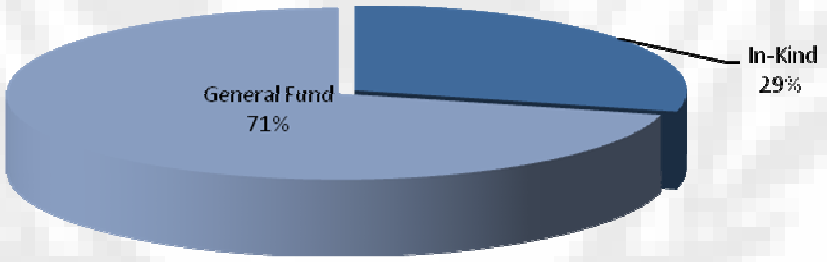


Figure 27 - Proportion expenditure on medical supplies in-kind contributions and general Fund expenditure, 2009

EXPENDITURE BY FIELD

The annual UNRWA assessment of medical supplies utilization for the year 2009 showed that the Gaza Strip was the Field with the highest expenditure at USD 5.1 million (30%), followed by Jordan at USD 4.8 million (29%), West Bank at USD 2.9 million (17%) and Syria at USD 2.24million (13%). The lowest was Lebanon USD 1.87 million (11%) (Figure 28).

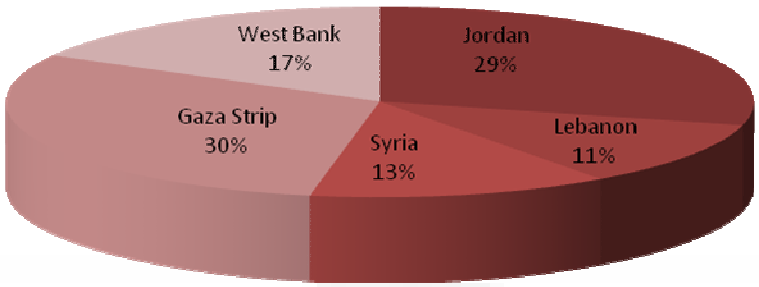


Figure 28 - Proportion expenditure by Field, 2009

EXPENDITURE IN 2009, TECHNICAL CONSIDERATIONS

The expenditure in the Gaza Strip was expected to be high due to the USD 3.6 million worth of damage in medical supplies incurred during the war. It was therefore agreed to exclude this amount from Gaza Field expenditure during 2009.

The expenditure in Syria Field was expected to be low because at the stage of introducing PIMS during 2008, the whole Store Demand notes relevant to third distribution of items from the Central Pharmacy to the Health Centres, were not inserted leading to lower expenditure reports.

Other differences observed are mainly due to the different size of the population served, where Jordan and the Gaza Strip have the highest number of served refugees (see chapter 1 of this report for further details).

Average expenditure on medical supplies per outpatient medical consultation was USD 1.6, Agency-wide (Figure 29). The highest rate per medical consultation was recorded in Syria (USD 2.2), followed by Jordan (USD 2.0), Lebanon (USD 1.8) and the West Bank (USD 1.5). The lowest rate observed was in Gaza (USD 1.2).

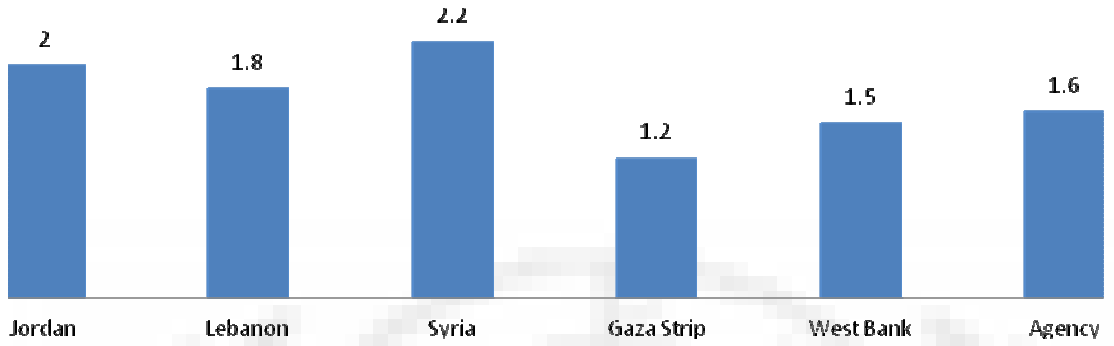


Figure 29 - *Average expenditure (USD) on medical supplies per outpatient medical consultation, 2009*

In 2009, the average expenditure on medical supplies per served refugee was USD 5.3, Agency-wide (Figure 30). The highest rate was recorded in Lebanon Field (USD 7.5), followed by Syria (USD 6.2), Gaza (USD 5.6) West Bank (USD 5.3)and Jordan (USD 4.3).

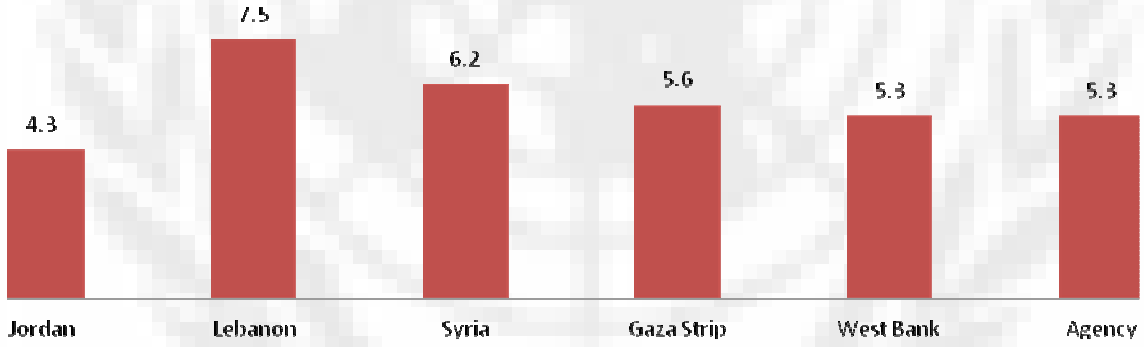


Figure 30 - Average expenditure (USD) on medical supplies per served refugee, 2009

EXPENDITURE ON SERVICES

Figure 31 shows that 19% (USD 3.16 million) of the total expenditure for medical supplies (USD 16.91 million) was for medical equipment and related supplies. The expenditure on medical equipment from all funds was USD 2.02 million . As shown in Table 36, the highest expenditure in 2009 was for general and outpatient equipment (54%), followed by laboratory equipment (22%) and dental equipment (19%). The lowest expenditure was recorded for physiotherapy equipment (5%).

Table 36 – Expenditure on medical equipment, 2009 (GF: General Fund, P: Project Fund) in US$

Field	Laboratory		Dental		Out-patient		Physiotherapy		All equipment	
	GF	P	GF	P	GF	P	GF	P	GF	P
Jordan	80,459	64,025	34,712	0	103,006	178,195	0	0	218,177	242,220
Total	144,484		34,712		281,201		0		460,397	
Lebanon	2,322	31,017	3,399	1,106	800	129,285	0	0	6,521	161,408
Total	33,339		4,505		130,085		0		167,929	
Syria	5,999	21,500	6,000	0	14,645	150,700	0	0	26,644	172,200
Total	27,499		6,000		165,345		0		198,844	
Gaza	18,843	219,526	18,315	275 ,831	58,729	342,833	23,703	77,929	119,590	916,119
Total	238,369		294,146		401,562		101,632		1,035,006	
WB	7,571	0	46,726	0	3,712	100,997	0	0	58,009	100,997
Total	7,571		46,726		104,709		0		159,006	
Subtotal	115,194	336,068	109,152	276,937	180,892	902,010	23,703	77,929	428,941	1,592,944
Grand Total	**451,262**		**386,089**		**1,082,902**		**101,632**		**2,021,885**	

The total expenditure on drugs in 2009 was US$14,41 million, of which 43% was spent on drugs for the treatment of diabetes and cardiovascular diseases, 18% was on antibiotics. Mainly due to budget cuts, priority in expenditure was given to those two drug groups (Figure 32).

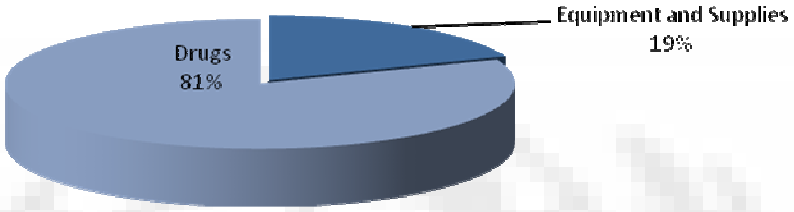


Figure 31 – Proportional Expenditure on drugs and Equippment

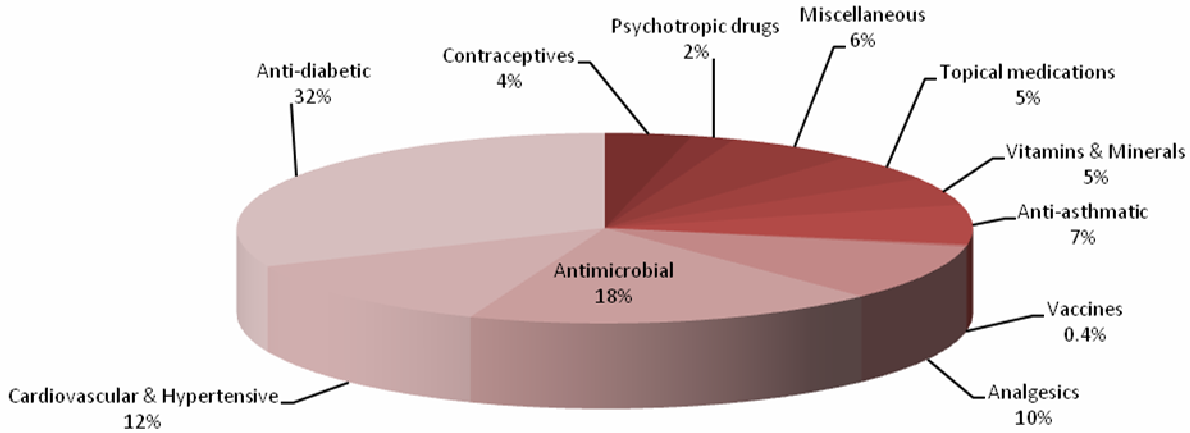


Figure 32 - Proportional expenditure on Drugs per group

During the Board of the Field Chiefs of the Health Proramme of 2008, it was agreed to set new criterion to calculate the Antibiotic prescription rate. This was fully adopted by West Bank, Jordan and Gaza Fields. This year figures will be considered as the baseline for these Fields.

Antibiotic prescription ranged from 19.9 in Lebanon to 34 in the West Bank. As shown in Figure 33, the rate of antibiotic prescription in Gaza was 25.9% mainly tanks to the investment on this issue and intensive follow-up and supervision at Health Centre level. It should be noted that the rate of antibiotic prescription shown for Syria was calculated starting from April 2009. The rate for Lebanon was calculated in a different methodology and is not comparable with other Fields.

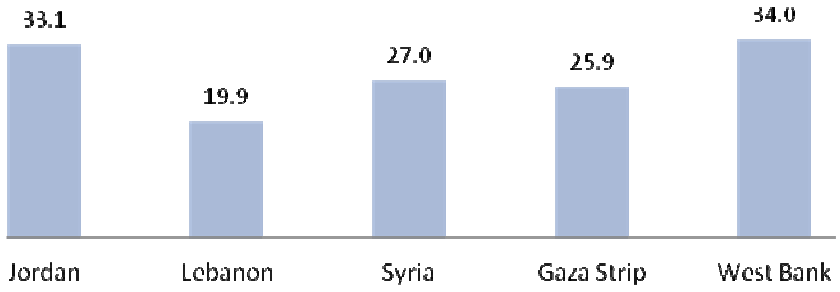


Figure 33 - Antibiotic prescription rate by Field

It is highly recommended that continuous training for all physicians and education campaigns targeting beneficiaries, on rational utilization of antibiotics are carried out and that prescribing habits are controlled, especially in Lebanon.

DONATIONS

As shown in Figure 34, the proportional distribution of donations (in-kind and cash) ranged from 39% (USD 1.91 million) for the Gaza Strip to 11% for Lebanon.

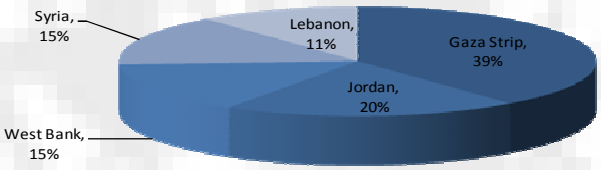


Figure 34 - *Proportional distribution of donations*

Donations of medicines

The following drugs and consumables were donated during 2009:

- The Ministry of Health of the Palestinian Authority and UNFPA provided the West Bank & Gaza Fields with vaccines, iron drops and tablets as well as disposable syringes and needles;
- The Ministry of Health in Jordan provided UNRWA with vaccines and contraceptives;
- UNICEF and Health Care Society, an NGO, provided Lebanon Field with vaccines, medications, disposable syringes and needles; and
- Syria's Ministry of Health and UNICEF provided Syria Field with vaccines, tuberculosis specific and other miscellaneous drugs.

IN- PATIENT HOSPITAL CARE

OUTSOURCED HOSPITAL SERVICES

Utilization trends

UNRWA continued to provide assistance towards essential hospital services either by contracting beds at non-governmental and private hospitals or by partially reimbursing costs incurred by refugees for treatment. Data on utilization of hospital services in 2009 is shown in Table 37.

Table 37 - *Utilization of hospital services, 2009*

Indicators	Jordan	Lebanon	Syria	Gaza Strip	West Bank*	Agency
Patients hospitalized in 2008	22,917	20,978	11,012	4,763	18,725	78,395
Patients hospitalized in 2009	24,114	21,912	9,963	4,590	20,241	80,820
Difference in % from 2008	5.2	4.6	- 9.5	3.6	8.1	3.1
Patients days	46,699	46,138	12,987	14,092	43,272	163,188
Average Stay in Days	1.9	2.1	1.3	3.1	2.1	2.0

**Data includes all hospitalized patients (both coming from the UNRWA managed Qalqilia Hospital and outsourced hospitals in host countries)*

Utilization trends vary significatively between one Field and another. This variation is mainly due to the different resource allocations and reimbursement policies implemented.

The number of patients who benefited from hospital services Agency-wide, increased from 78,395 in 2008 to 80,820 patients in 2009. This represents a 3.1% increase Agency-wide. The average length of stay was 2.0 days across UNRWA's area of operation, almost identical to 2008.

QALQILIA HOSPITAL

In addition to outsourced services, UNRWA managed a 63-bed hospital in Qalqilia, West Bank. Qalqilia Hospital is the only hospital operated by the Agency and accommodates 14 surgical, 12 medical, 20 paediatric, 15 obstetric/gynaecologic and two intensive care beds in addition to a five-bed emergency ward.

The average daily bed occupancy in Qalqilia Hospital increased by 4%: from 53.3 % in 2008 to 57.3% in 2009. A total of 6,142 people were admitted to the hospital compared to 6,026 in 2008, this number includes UNRWA refugees and non refugees from the municipalities. Table 38 provides data on utilization of Qalqilia Hospital in the West Bank and Figure 35 shows the trend in utilization of Qalqilia hospital services during the period 2004-2009.

Table 38 - In-patient care at the UNRWA hospital (Qalqilia, West Bank) in 2009

Indicators	
Number of beds	63
Persons admitted	6 142
Difference in % from 2008	4%
Bed days utilized	13 177
Average daily bed occupancy	57.3
Average stay in days	2.2

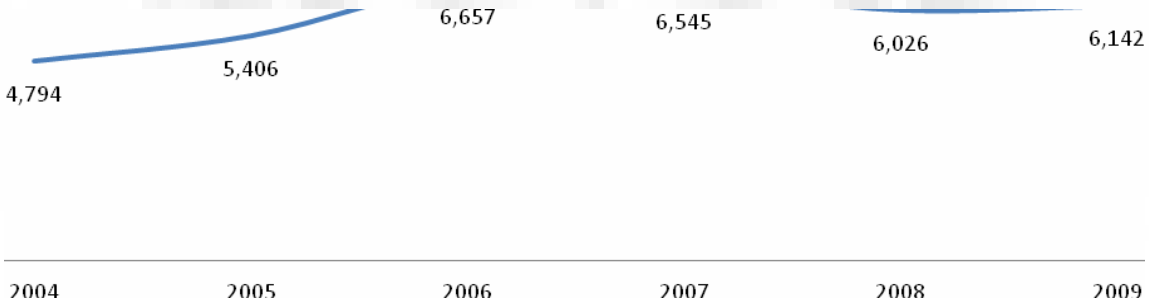


Figure 35 - Trend in utilization rate of Qalqilia hospital services , 2004-2009

DEMOGRAPHIC PROFILE OF HOSPITALIZED PATIENTS

18.8% of the patients hospitalized in 2009 were children below 15 years of age (Table 39). The majority of hospitalized patients were between 15 and 44 years of age.

Table 39 - Age distribution of hospitalized patients in 2009

Field	No. of hospitalized patients	Age group (years) in%				All age groups
		0-4	5 -14	15 - 44	45+	
Jordan	24,114	1.4	4.5	84.4	9.7	100
Lebanon	21,912	15.9	11.9	40.9	31.3	100
Syria	9,963	5.7	8.6	69.5	16.2	100
Gaza Strip	4,590	2.5	16.6	52.7	28.4	100
West Bank	26,368	16.3	7.9	52.1	23.7	100
Agency	86,947	10.3	8.5	60.1	21.1	100

Over 66% of hospitalized patients were women, with the highest rate in Jordan (86.7%) and the lowest in the Gaza Strip (34.3%). This variation is the result of the pattern of resource allocations and the different referral and reimbursement policies in each Field (Table 40).

Table 40 - Distribution of hospitalized patients by sex in 2009

Field	No. of hospitalized patients	Sex	
		Male %	Female %
Jordan	24,114	13.3	86.7
Lebanon	21,912	46.1	53.9
Syria	9,963	41.8	58.2
Gaza Strip	4,590	65.7	34.3
West Bank	26,368	33.0	67.0
Agency	86,947	33.6	66.4

Table 41 shows the wards of admittance by Field. There is significant variation between Fields, with a predominance of surgical cases reimbursed by UNRWA in Syria and the Gaza Strip, internal medicine cases in Lebanon and the West Bank whilst deliveries are the main cases reimbursed by the Agency in Jordan. As mentioned before, variations are not related to major differences in the prevailing morbidity patterns, but are due to implementation of different referral policies and to the level of Agency assistance provided in each Field.

Table 41 - *Distribution of hospitalized patients by ward of admission in 2009*

Field	No. of hospitalized patients	Surgical %	Internal Medicine %	ENT %	Ophthalmology %	Obstetrics %
Jordan	24,114	18.3	18.8	0.8	0.5	61.7
Lebanon	21,912	24.9	58.0	4.0	1.3	11.8
Syria	9,963	55.21	8.99	5.56	10.17	20.06
Gaza Strip	4,590	78.2	21.2	0.00	0.04	0.5
West Bank	26,368	21.0	43.5	3.1	2.6	29.8
Agency	86,947	28.2	35.2	2.8	2.4	31.4

REFERENCES

1. The workload unit method is a standardized counting method for measuring technical workload in a consistent manner. With this method, one work unit is equal to one minute of productive technical, clerical and aide time. Each test has a unit value (UV), that is, the mean number of units involved in performing all activities (except specimen collection) required to complete that test. In 1997, UNRWA calculated the necessary time to perform each test by analysing in detail each step of it and the various persons involved. The analysis was conducted in 25 laboratories in the five Fields (5 laboratories per Field). This resulted in the definition of the standard unit value for each test, for instance: five UV for Glucose test, three for Haemoglobin, seven for stool examination, etc.). The standards UV were consistent with other settings. The workload for each test is then obtained by multiplying the raw count of each test (i.e.: the actual number of tests performed for a year) by its unit value and expressed in minutes. The total number of each test type is then multiplied by its own UV to obtain the total workload attributable to the test. All workload units are finally added together to express the total workload for each laboratory. The productivity at each laboratory is expressed in the ratio of output (total workload units) to input (total available person-hours). In Jordan, for example, a total of 4,518,454 workload units (WLUs) were used to perform 1,120,756 different tests by 54 laboratory technicians during 266 working days (6.25 hours/day). Productivity/Tech./hour=4,518,454/54/(266*6.25)=50.2 WLUs/h, which is within the WHO-recommended limits.

ACTIVE AGING

> *Aging is a privilege and a social achievement. It is also a challenge that will impact all aspects of 21st century society. In developing countries in particular, measures to help older people remain healthy and active are a necessity, not a luxury.*
>
> *UNRWA Long and Healthy Lives, 2009*

The reduction of communicable disease incidence combined with modifications in life style and longevity have led to a change in the Palestine refugees' morbidity profile with the emergence of non-communicable diseases such as cardiovascular diseases, diabetes mellitus and cancer. Moreover the global change in eating habits and lifestyles is also leading to higher caloric intakes and physical inactivity. Obesity is highly prevalent, and mostly affects older refugees.

CONTROL OF NON-COMMUNICABLE DISEASES

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), is early detection of diabetes and hypertension by active screening of individuals at risk of developing diabetes and/or hypertension which include: overweight (BMI>25) or obese (BMI>30) people, those with a family history for diabetes/hypertension/cerebro-vascular/cardiovascular diseases, 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 (Information of screening activities targeting women in reproductive age are found in chapter 3 of this report).

The third element (tertiary prevention) concentrates on effective case-management of patients suffering from diabetes mellitus and hypertension to achieve acceptable blood pressure, glycaemia and lipid control. This also includes educating patients on all aspects relevant to self-care, with concentration on close monitoring and management in accordance with WHO and UNRWA technical guidelines and standard management protocols.

All persons with confirmed diagnosis of diabetes and/or hypertension are referred to be registered in the NCD clinics 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 I and type II), 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 and the frequency of medical consultations is set accordingly. During visits, the patients are subjected to clinical, and laboratory 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 economic and practical reasons, post-prandial plasma glucose tests (2-hr PPG), and blood pressure measurements are 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/l), in some conditions two of the last three fasting plasma glucose (FPG) tests are <140 mg/dl (7mmol/l), then a patient is considered under control. For hypertension, control status is defined by a systolic blood pressure <140 mmHg and a diastolic blood pressure of <90mmHg in the last visit measurement and in one of two measurements taken during the preceding visits.

ACTIVITIES OF THE ACTIVE AGEING SERVICES

By the end of 2009, a total of 188,276 patients were registered at NCDs clinics with diabetes and/or hypertension in the five Fields of UNRWA's area of operations, 59,929 patients were under care in Jordan representing 31.8% of the total patients, while 52,941 (28.1%) in Gaza, 30,666 (16.3%) in West-Bank, 23, 660 (12.6%) in Syria, and 21,080 (11.2%) in Lebanon.

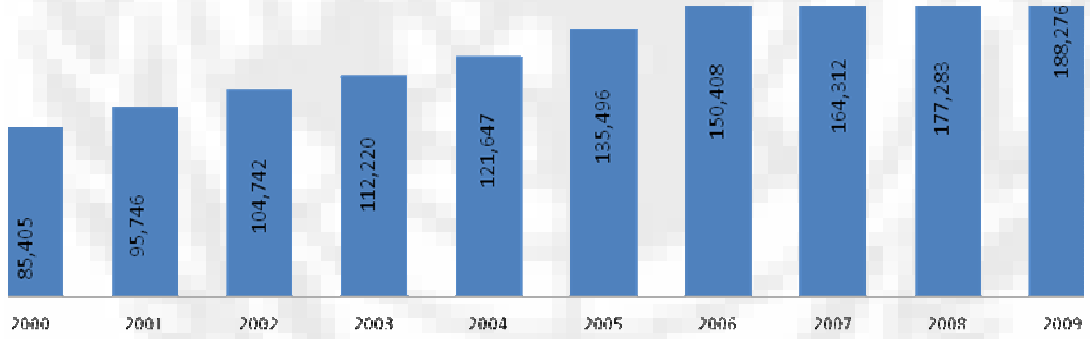


Figure 36 - *Patients with diabetes and/or hypertension under care at the NCD clinics in the five Fields, 2000-2009*

Table 42 - Patients with diabetes and/or hypertension by Field and type of morbidity

Morbidity type	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes mellitus type I	1,115	204	419	932	590	3 260
Diabetes mellitus type II	9,283	2,219	3,363	10,711	5,695	31,271
Hypertension	26,022	11,551	11,675	25,494	12,560	87,302
Diabetes mellitus & hypertension	23,509	7,106	8,203	15,804	11,821	66,443

Total	**59,929**	**21,080**	**23,660**	**52,941**	**30,666**	**188,276**

PREVALENCE OF DIABETES MELLITUS

The prevalence of diabetes mellitus among the served population at ≥40 years of age was 11.2%, an increased compared with 2008. This may be explained by better calculation of population served and improved detection rate. As shown in Figure 34, the highest rates at were reported in Gaza Field (13.1%), followed by the West Bank (11.7%), Syria (11.1%), Lebanon (10.6%) and Jordan (9.9%).

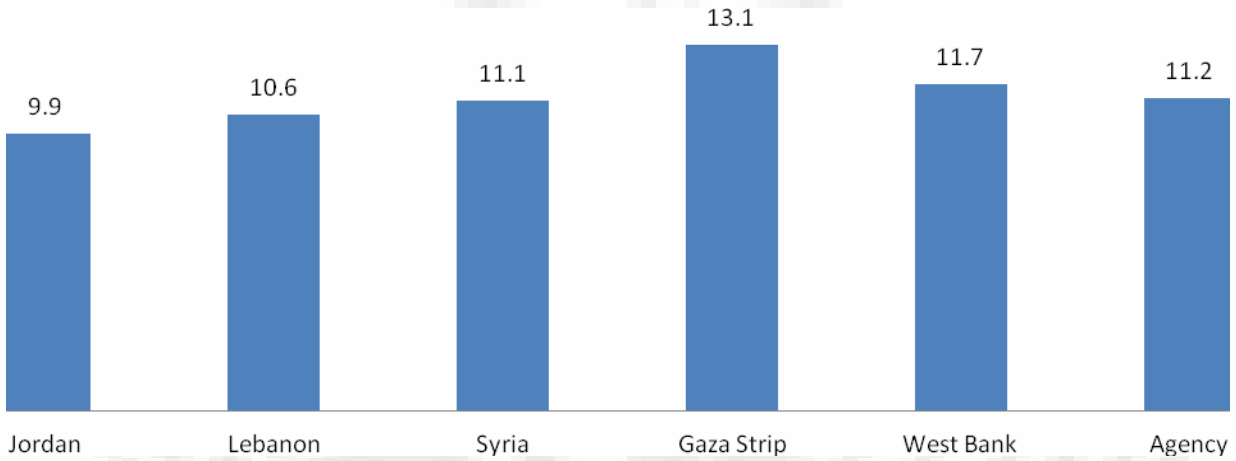


Figure 37 - Prevalence rates of diabetes among served population at ≥40 year of age by Field, 2009

PREVALENCE OF HYPERTENSION

As shown in Figure 38, the prevalence of hypertension among the served population at ≥ 40 years of age in 2009 was 17.2% Agency-wide. The highest rate was reported in Lebanon (20.8%) followed by Gaza (19.7%), Syria (19.0%), the West Bank (16.0%), and Jordan (14.8%).

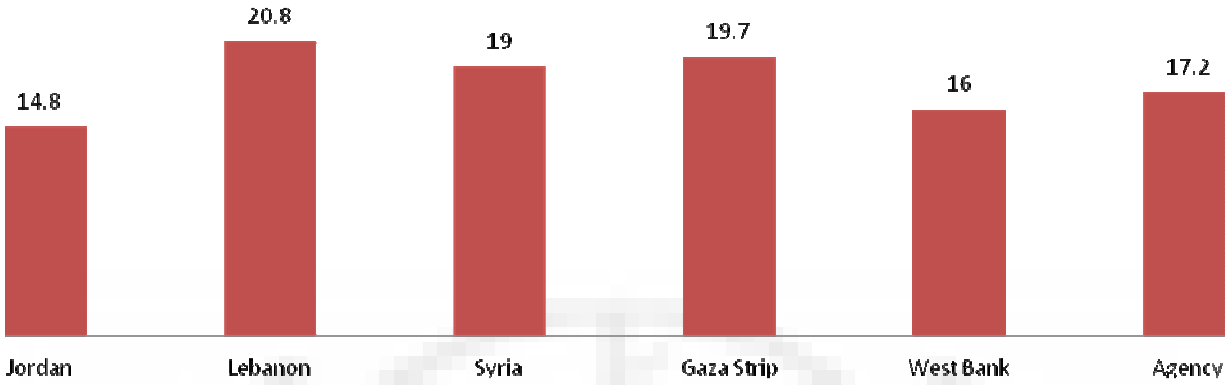


Figure 38 - Prevalence rates of hypertension disease among served population at ≥40 year of age by Field, 2009

It is important to note that the rates refer to diabetes and hypertension detection rates among those refugees attending UNRWA clinics and not the general refugee population.

AGE AND SEX DISTRIBUTION OF PATIENTS UNDER SUPERVISION AT NCD CLINICS

Table 43 provides data on the distribution of patients with diabetes and/or hypertension who were under supervision at the end 2009 by age group and gender. 91% of patients were above 40 years of age, and 63% were females. Gender distribution is largely affected by the attendance pattern in UNRWA health facilities and not by significant variations in morbidity profiles.

Table 43 - Distribution of patients with diabetes & hypertension by age & gender, 2009

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Hypertension	Diabetes& hypertension	All patients
No. of patients at end of 2009	3,260	31,271	87,302	66,443	**188,276**
Age distribution (percentage)					
Below 20 years	31.0%	0.23%	0.17%	0.01%	**1.0%**
20–39 years	53.0%	11.0%	10.0%	3.0%	**8.0%**
40–59 years	14.0%	61.0%	47.0%	43.0%	**47.0%**
60 years & above	1.0%	28.0%	43.0%	55.0%	**44.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Sex distribution (percentage)					
Male	52.0%	44.0%	36.0%	36.0%	**37.0%**
Female	48.0%	56.0%	64.0%	64.0%	**63.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

TYPE OF MANAGEMENT

There are significant variations between the Fields in relation to the type of management of patients with diabetes type II and hypertension.

Management of patients with hypertension

As shown in Table 44, there is an evident variation between Fields in proportion of patients with hypertension on lifestyle only (non-pharmacological) treatment. Decreases in this kind of management were observed in the oPt, while the increase recorded in Lebanon is related to new patients. The highest percentage of non-pharmacological treatmet of hypertensive patients was reported from Gaza Field (6%), followed by Lebanon (4%), Syria (2%), West-Bank and Jordan (1% each).

Table 44 - Percentages of hypertensive patients on non-pharmacological treatment (lifestyle only) by Field, 2008- 2009

Field	% of Lifestyle management only	
	2008	2009
Jordan	1.0	1.0
Lebanon	2.0	4.0
Syria	2.0	2.0
Gaza Strip	8.0	6.0
West Bank	3.0	1.0
Agency	3.0	2.0

The proportion of patients with type I or type II diabetes who were treated with insulin as part of their management shows great variations among Fields (Figure 39).

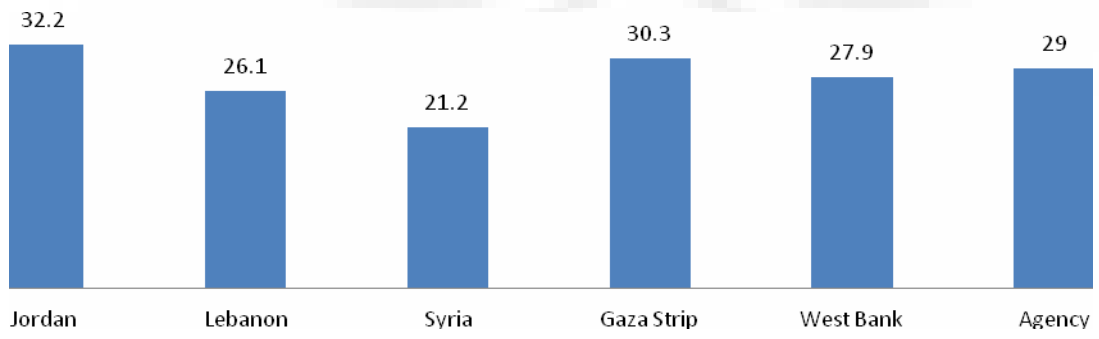


Figure 39 - Percentage of diabetic patients on insulin, 2009

This is explained by two factors. Firstly patients show different levels of acceptance and compliance to this drug, secondly not all medical officers abide to the technical instructions in managing uncontrolled diabetic patients. Jordan has the highest proportion of patients in insulin treatment (32.1%), followed by Gaza (30.3%), the West Bank (27.9%), Lebanon (26.1%) and Syria (21.2%).

Control of diabetic patients is still a source of concern. In 2009, 377,050 postprandial plasma glucose tests and 98,005 fasting plasma glucose tests were performed as follow-up tests for diabetic patients. The detection rate of non-control status among Fields was very high: Lebanon (58.2%), West Bank (58.0%), Jordan (52.1%), Gaza (56.8%) and Syria (43.9%). More efforts need to be done to increase awareness of the importance of glucose control, to promote compliance to treatment and to strengthen control status monitoring.

RISK SCORING

A modified scoring system from WHO-CVD Risk Management Package was used. All patients registered in NCDs clinics were assessed in relation to risk scoring during 2009. The objective behind this is to stratify patients, by level of risk of developing further complications and subsequently develop management protocols for each category. Table 45, shows the results of the assessment. 26.6%, of patients with co-morbidity (diabetes and hypertension) were at high risk followed by patients with hypertension (25.4%) due to the frequency of risk factors such as smoking, hyperlipidemia and physical inactivity following cerebrovascular accidents. 15% of Patients with type II diabetes were at high risk.

Table 45 - Percentages of risk status by type of disease

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Hypertension	Diabetes & hypertension
Low risk	68.9	30.3	18.4	**21.6**
Moderate risk	26.2	54.7	56.2	**51.8**
High risk	**4.9**	**15.0**	**25.4**	**26.6**

Percentage of late complications among NCDs patients

The NCD module of the Management Health Information System was used to assess the rates of late complication among NCDs patients. A sample size of 10% of all registered patients of the diseases was analyzed. Table 46 shows the proportion of patients with reported late complications: CVD (myocardial infarction, stroke and congestive heart failure related to diabetes and/or hypertension), end stage renal failure (ESRF), above ankle amputation and blindness.

Table 46 - Percentages of late complications by Field and type of diseases, 2009

Field	Type of Disease				Total%
	DM 1	DM 2	Hypertension	DM & HTN	
Jordan	4.5	6.4	7.6	14.3	**10.0**
Lebanon	0.0	8.1	7.9	14.1	**9.8**
Syria	6.1	8.1	12.0	19.6	**13.9**
Gaza Strip	3.2	8.2	9.9	20.7	**12.7**
West-Bank	0.0	6.9	8.3	18.0	**11.5**
Agency	**3.1**	**7.4**	**9.0**	**17.1**	**11.5**

The observed rates are still below the expected rates of 12-15%. Variations in the distribution of complication by type of chronic disease follow the same trends observed in previous years.

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 8,899 which represent 5.0% of total patients under supervision.

Table 47 - Distribution of defaulters by Field, 2009

Defaulters	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Number	3,509	986	963	1,757	1,684	**8,899**
Percentages out of remaining 2008	**6.25**	**4.9**	**4.3**	**3.5**	**5.8**	**5.0**

Despite the health staffs' efforts to follow-up on defaulters, utilizing all available means including home visits, telephone calls and notification through family members, there is still space for improvement. The highest rate of defaulters was reported from Jordan and West Bank at 6.25% and 5.8% respectively. The health programme needs to strengthen counselling and education of patients as cornerstones to overcome problems of non-attendance and compliance.

MORTALITY

In 2009, 3,169 NCD patients died, which accounted for 1.8% of all non-communicable disease patients that were under care at the beginning of 2009. 49.6% of them had co-morbidity (diabetes and hypertension), 36% had hypertension, and 14.4% were diabetics. As shown in Table 48, the highest rates were reported in Lebanon and Syria (2.4%, 2.1% respectively) and the lowest in Gaza Field (1.4%).

Table 48 - Mortality rates by Field, 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Number of deaths	869	479	484	704	633	**3,169**
% of all NCD patients	**1.55**	**2.4**	**2.1**	**1.4**	**2.2**	**1.8**

The highest mortality rate was among co-morbid patients (2.4%) followed by patients with hypertension and diabetes at (1.3% each) (Table 49).

Table 49 - Disease-specific mortality rates among reported death cases by Field, 2009

% by disease	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes	0.9	1.5	1.8	1.3	1.9	**1.3**
Hypertension	1.2	1.8	1.8	1.0	1.7	**1.3**
Diabetes with hypertension	**2.2**	**3.6**	**2.8**	**2.2**	**2.9**	**2.4**

The burden of diabetes and hypertension is increasing 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.

The programme future vision is directed to improve the quality of services in line with UNRWA's organizational development main objective (to serve Palestine refugees more effectively and efficiently), increase the percentage of control rate and improve early detection and prevention of complications as much as possible through proper case management.

OTHER NON-COMMUNICABLE DISEASES

Prevalence of a wide range of non-communicable diseases including bronchial asthma, 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.

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.

ADDRESSING THE DETERMINANTS OF HEALTH

Health is of central importance in the human development process, however many major determinants of health lie outside the health sector. In order to aim at improving the health status of Palestine refugees, UNRWA also aims to provide them with a healthy and safe living environment and the highest possible levels of social security.

UNRWA Long and Healthy Lives, 2009

Many factors combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact.

The determinants of health include:

- The social and economic environment;
- The physical environment; and
- The person's individual characteristics and behaviours.

The context of people's lives determine their health, and so blaming individuals for having poor health or crediting them for good health is inappropriate. Individuals are unlikely to be able to directly control many of the determinants of health. These determinants—or things that make people healthy or not—include the above factors, and many others:

- Income and social status - higher income and social status are linked to better health. The greater the gap between the richest and poorest people, the greater the differences in health;
- Education – low education levels are linked with poor health, more stress and lower self-confidence;
- Physical environment – safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health;
- Employment and working conditions – employed people are healthier, particularly those who have more control over their working conditions;
- Social support networks – greater support from families, friends and communities is linked to better health;
- Culture - customs and traditions, and the beliefs of the family and community all affect health;
- Genetics - inheritance plays a part in determining lifespan, healthiness and the likelihood of developing certain illnesses;
- Personal behaviour and coping skills – balanced eating, keeping active, smoking, drinking, and how we deal with life's stresses and challenges all affect health;
- Health services - access and use of services that prevent and treat disease influences health; and

- Gender - Men and women suffer from different types of diseases at different ages.

The UNRWA Health Programme, in collaboration with the Education and Relief and Social Services programmes of the Agency, has set in place a number of activities aimed at reducing poverty, increasing health awareness and fighting environmental conditions that favour the spread of disease. Among those there is the Community Based Initiative, a self-sustaining, community-orientated strategy which aims to address people's basic development needs. Nutritionally vulnerable groups are helped by the supplementary feeding programme that tries to prevent the onset of severe deficiencies. UNRWA's fight to decrease the incidence of communicable diseases among Palestine Refugees has been a great success over the years also thanks to the improvement in environmental conditions in the camps. Finally, the Agency tries to fight gender inequality in particular in relation to employment and income through its gender policy.

NUTRITION

Protein-calorie malnutrition and deficiencies of other nutrients such as iodine, vitamin A and iron are common among Palestine refugees. In an effort to prevent nutritional deficiencies among the most vulnerable population groups, UNRWA has established since 1951 a nutrition and supplementary feeding programme (SFP) targeting children, pregnant women, nursing mothers, refugees affected by tuberculosis and/or hospitalized.

The nutritional status of the Palestine refugee population is periodically assessed through surveys and routine nutritional surveillance systems in place at MCH clinics. The 1990 WHO/UNRWA survey showed that protein-energy malnutrition had been eliminated and that mild to moderate iron deficiency anaemia was still highly prevalent among women of reproductive age and children. Consequently, UNRWA reoriented the objective of the Supplementary Feeding Programme, steering towards providing food safety nets to pregnant women and nursing mothers who have special physiological and nutritional needs in order to improve maternal nutrition and to avoid adverse consequences on the state of nutrition of newborn infants.

THE SUPPLEMENTARY FEEDING PROGRAMME

The Supplementary Feeding Programme (SFP*)* provided food safety net in the form of dry rations (comprising vegetable oil, rice, sugar milk and pulses) to pregnant women and nursing mothers beginning in the third month of pregnancy until six months after delivery. It should be noted that the this is not a feeding programme. Therefore its aim of the SFP is not to provide poor families with food. This aspect is also managed by UNRWA but not directly by the Health Programme. SFP provides supplementary feeding to compensate for the additional caloric need caused by pregnancy and lactation known to be 25% more than the basic nutritional needs. The programme does not intend to comprehensively address anaemia.

During 2009, the SFP was reformed moving towards a poverty-based approach instead of the status based criteria. Entitlement to the programme was based on poverty, after the verification of the registration status, all new applicants to the programme were screened by social workers and their needs assessed based in the utilization of the Proxy Means Testing Formula to determine their eligibility to the programme. Pregnant women and Nursing mothers identified below the poverty line and their families were included in the programme for a maximum of seven months during pregnancy and six months during lactation.

The programme in itself serves as an incentive for the early registration of pregnant women for antenatal care, which is important to ensure better health care, early detection and management of anaemia and other related causes of morbidity. The limitations of the Supplementary Feeding Programme are a direct result of declining financial/in-kind contributions to the regular food aid programme over the recent years. This has led the Agency to assume austerity measures, reducing the food rations and leaving out beneficiary

groups outside the scope of the Programme. In 2009, the efficiency of the programme was improved by introducing the following changes:

- During the school year 2009-2010 nutritional assistance to school children was resumed in Gaza Field; and
- As of 2005, the number of rations/portions for nursing mothers was halved, from twelve portions to six. The entitlement duration for the beneficiaries was also reduced. A start date is set during the third month of gestation (previously five months of gestation were covered) and the end at six months after delivery (previously it was twelve months post-delivery). Linking the number of portions with the months of gestation improved early registration during the first three months of pregnancy for ante-natal care with positive impact on maternal and child health care.

During 2009, a total of 47,000 pregnant women, nursing mothers and their families received preventive health care and supervision at UNRWA primary health care facilities and benefited from the Agency's food aid programme compared with 85,450 in 2008. This decline in the number of beneficiaries is the result of the new programme management.

OTHER INTERVENTIONS

- Enrichment of the food rations basket to include food commodities that provide protein from an animal source such as tuna, luncheon and canned meat;
- Iron supplementation for pregnant women throughout the duration of pregnancy;
- Iron supplementation for children aged 6-24 months in the West Bank and Gaza Strip;
- In coordination with the MoH Palestine Authority, children attending UNRWA Heath Centres are provided with Vitamin A and D supplementation in the West Bank and Gaza Strip; and
- Food commodities, in particular the wheat flour and dry milk which were distributed by the Agency as part of its regular and emergency food aid programmes, were fortified with iron folate, other minerals and vitamins.

ENVIRONMENTAL HEALTH

UNRWA's environmental health sub-programme monitors the quality of water and sanitation and controls rodents and vectors in refugee camps. These services are provided to approximately 1.4 million Palestine refugees residing in 58 official camps.

In 2009, the required standards of sanitation and general environmental health in the Palestine refugee camps Agency-wide was maintained. This was achieved even during difficult circumstances such as the closures of Gaza Strip and war. The sub-programme continued to focus on maintaining acceptable standards of water and sanitation in refugee camps in the five Fields of operations. The services were provided either directly by UNRWA, or in close collaboration with local municipalities or through contractual arrangements. As of 2009, nearly 100% of refugee camp shelters had access to water, and 99.8% to sanitation facilities.

In Jordan and Syria, the Host Country Authorities have historically played a major role in camp development and integrated the camp infrastructures for water, sewerage, and drainage within municipal systems, except in a 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 West Bank are generally poor and UNRWA had to assume a major role in camp development. All camps in the Gaza Strip are connected to the water supply network either from an UNRWA water source or from a municipal water source. The Special Environmental Health Programme (SEHP) is responsible for the operation and maintenance of the ten water wells: five in Jabalia, three in Beach Camp, one in Khan Younis and one in Rafah.

PROGRESS IN 2009

During this biennium, the construction of two water wells for the re-housing projects in Khan Younis was completed: one was funded by the Dutch while the other was funded by the United Arab Emirates.

In the Gaza Strip, funds were secured from Italy to change the operation of water wells from diesel to electricity, reducing noise, pollution and energy cost. Another Italian contribution was secured to construct two water wells: one in Jabalia and the other is in Khan Younis. UNRWA water plants are being upgraded and wells are under construction.

In the West Bank, water safety was the top priority in 2009. A mutual understanding agreement was signed between the Agency and the Ministry of Health stating that water samples from the camps are to be tested in the Central Public Laboratory in Ramallah. Only 25 samples have failed the microbiological tests out of 1,281 water samples. In May 2009, the northern part of Dheisheh refugee camp reported to have water pollution. The Camp Services Officer and the Area Sanitation Officer immediately coordinated with the Water Authority in Bethlehem to take action. There was no outbreak of water-borne diseases during the year. A limited number of incidents where there was a risk of drinking water contamination occurred but were rapidly managed with no risk for the population.

In Syria, bacteriological and chemical analyses of drinking water were regularly performed inside the camps and in all UNRWA installations. The levels of residual chlorine were also monitored to control the quality of tap water.

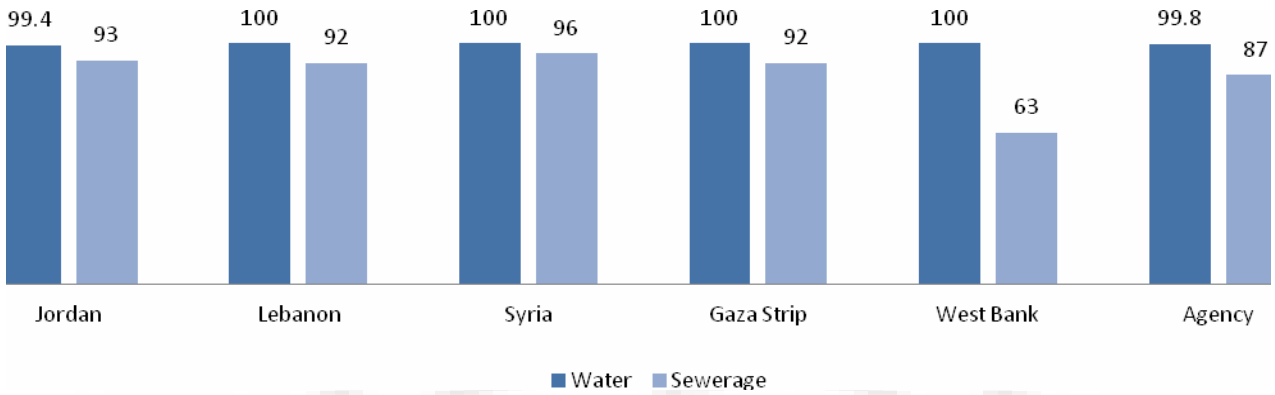


Figure 40 - Percentage of camp shelters with access to safe water and indoor sewerage systems connection, 2009

In Jordan, all camps are connected to the municipal water network. The percentage of camp shelters with access to safe water in 2009 was 99.4%. Two incidents of water contamination took place on in January and September 2009 in Jarash camp and Husn camp, respectively. Wastewater overflow from manholes/percolation pits occurred near old and deteriorated water supply pipes. Corrective measures such as the replacement of the water-pipes were carried out by the Water Authority, the MoH and UNRWA.

Laboratory tests were performed on water samples (109 samples/ month) collected from the network serving all camps in Jordan to monitor the bacteriological quality of water. 99.5 % were found to be bacteria-free in 2009. The remaining 0.5% were bacteria-free after re-testing. Moreover, 250 water samples collected directly from camps and UNRWA installations were microbiologically tested. Almost all gave satisfactory results. Investigations and corrective measures were taken when needed. More than 4,600 water samples were tested for residual chlorine in water distribution networks in all camps. Almost all gave satisfactory results.

DEVELOPMENT PROJECTS

UNRWA's approach to camp development was devised in the late eighties when several development projects were implemented in the Gaza Strip and the West Bank in the context of the Expanded Programme of Assistance to the oPt. This approach was further refined after the establishment of the Special Environmental Health Programme (SEHP) in Gaza Field in 1993, which played a key role in carrying out camp-by-camp needs assessments, preparing detailed feasibility studies, identifying projects, preparing technical designs for the construction of sewerage and drainage systems, and rehabilitating water networks in refugee camps and nearby municipal areas. The Programme has also assisted in the review of feasibility studies and technical designs for development projects in the refugee camps in Lebanon, Syria, and the West Bank.

The Gaza Strip: The Special Environmental Health Programme aims to develop and improve the sewerage system in the refugee camps in the Gaza Strip by increasing the number of refugee shelters connected those systems and by upgrading existing sewage pumping stations or constructing new ones. Solid waste collection should be implemented through an effective mechanized solid waste collection and disposal system and storm water collection should be guaranteed by the pavement of roads and alleys and the construction of culverts. The reduction of stagnant water and a proper management of liquid and solid waste combined with insect and rodent and control campaigns aim at improving the environment where refugees live, hence favouring their health and wellbeing. The programme endeavours to upgrade the water supply systems, connect all camp shelters and monitor the quality of the water provided.

The West Bank: The emergency appeal projects funded by the USA, which started in 2008, were completed by the end of March 2009 without obstacles. New funds were available for EA projects for the year 2009, from Valencia and Zaragoza. This favourable financial situation enabled most of the construction works for rehabilitation of sewer pipes, manholes, storm water channels and concrete pathways (Emergency Infrastructure Projects) to be completed by December 2009. The remaining will be completed at the

beginning of 2010. The outcome is expected to be an improvement of camp infrastructure and consequently of the living environment of refugees.

In Jordan jointly with the Department of Palestinian Affairs (DPA), a USD 56,385 project for the construction/maintenance of concrete drains and pathways in Jarash camp was completed in October 2009.

In Lebanon several environmental health projects were completed during 2009 or are being implemented as shown in Table 50.

Table 50 – Progress of development projects in Lebanon, 2009

Location and Project title	Description and State of activities at the end of 2009
El-Buss Camp–Hydrological Study	This hydrological study aimed to assess the availability of potable water in acceptable quantities in or around El Buss camp. The project is ongoing under the supervision of the Engineering Department.
Mia-Mia Camp - Construction of a Back-up Water Well	This project, funded by UNICEF, aims at constructing a new water well in Mia Mia Camp. The contract was awarded.
Shatila Camp (CLA) – Reconstruction of Infrastructure	Around 66% of activities are completed and full completion is expected by April 2010. More than 5,899 meters of the sewer pipes were laid down and 756 reinforced concrete sewer manholes constructed. More than 4,574 meters of water supply pipes were installed, including 350 service boxes and around 6,700 meters of house connections of 20 mm diameter. More than 3,999 m^2 of concrete pavement was completed so far.
Burj el Barajneh, Reconstruction of Infrastructure	Due to extreme weather conditions, the project could not start as expected in January 2009. Activities started effectively in December 2009 and are ongoing.
Dbayeh Camp, Reconstruction of Infrastructure	The infrastructure project is ongoing, 91% of activities have been completed. More than 7,818 meters of sewer pipes and 295 manholes were installed. 14,722 meters of water supply lines, 325 house connections to manholes, 105 gratings and 95 service connection boxes were installed.

In Syria, two projects are being implemented: the Khan Esheh and Khan Danon project that enabled the water and wastewater network in both camps to be currently in service and the Self Help projects at Deraa and Homs camps. In Deraa three sewage lines were installed with a total expenditure of USD 2,500. The community implemented the projects while UNRWA provided the construction materials.

VECTOR CONTROL

The mosquito campaign in Wadi Gaza was regularly conducted in 2009 in full cooperation with Nuseirat Municipality. Funds came from the emergency appeal.

In West Bank Field, the vector control campaign took place between May and September 2009 in nineteen camps. The campaign included training of staff on the modern approaches in control of disease-causing vectors and the provision of tools, equipment, protective clothing, and chemicals. The routine activities funded through the General Fund continued, however with a stronger focus on rodent control. Training and monitoring of results were conducted in cooperation with Environmental Health Department of the Ministry of Health. The environmental Health Division-UNRWA, Jericho Health Department (PA), and Jericho Municipality conducted two campaigns to control the Leishmaniasis in Jericho and the Jordan Valley.

In Jordan Field, insect control was regularly carried out to control houseflies at refuse collection points within the camps. In addition, cockroaches, bedbugs and fleas were treated and rodent control was regularly conducted. 1,387 shelters in addition to the camps' surroundings were treated.

In Syria Field, UNRWA disinfected the water wells in the Damascus area camps using chlorine and chlorine injector devises. The test for chlorine ratio was held on daily bases on drinking water inside camps, in additional 200 bacteriological and chemical analysis were performed.

In Lebanon, as complementary to the environmental measures, campaigns for insect and rodent control were carried out in all camps and intensified during the hot season using fogging machines and sprayers. In addition rodent baits were distributed in all camps.

Table 51 – Quantities of rodenticides and insecticides deployed for vector and rodent control in the Gaza Strip

Jabalia Kg	Beach Kg	Bureij Kg	Nuseirat Kg	Maghazi Kg	D/Balah Kg	K/Yunis Kg	Rafah Kg	Total Kg
57.4	106.5	38	30.5	34.3	26.55	83.6	30.4	407.25

SOLID WASTE MANAGEMENT

Solid waste management is one of the main activities undertaken by the Environmental Health Programme, and it is the most resource consuming component in terms of finances and staff. The solid waste management aims to enhance the mechanization process for collection and disposal of waste through the procurement of equipment that offsets the increase in solid waste due to population growth. The following is a summary of what has been achieved in 2009 in the various Fields.

In Gaza Field, work on the mechanization of the solid waste collection and disposal system continued. Six out of the eight camps are served by a fully mechanized system. Refuse collection is currently implemented in camps from shelters, roads and markets using labour force and push carts. Within the refugee camps, UNRWA is fully responsible for the collection and disposal of solid waste. With emergency funds, it was possible to procure 13 solid waste trucks. About 160 tonnes/day of solid waste are removed from the eight refugee camps by UNRWA. Transport took place in UNRWA solid waste removal crane trucks and disposal in two municipal dumping sites (Gaza and Rafah) and D/Balah landfill.

Table 52 – Solid waste removed in Gaa Field camps, 2009

Camp	Jabalia	Beach	Bureij	Nuseirat	Maghazi	D/Balah	K/Yunis	Rafah	Total
Total, Tonnes	12 573	8 783	4 907	6 415	3 369	1 706	8 042	12 188	57 983

In Lebanon Field, the domestic waste generated in the camps was collected by sanitation labourers six days a week. The collection of garbage was made manually from door to door using hand carts and emptying these into transit refuse platforms. In an effort to achieve more mechanization of refuse collection and disposal, the Environmental Health Division aims at procuring additional dumpers and refuses bins of different capacities.

In West Bank Field, solid waste collection is the main resource consuming component of the Environmental Health Division. Most of the work load of the 204 staff in the Areas and camps is directed at the collection and transportation of waste. Ten trucks are available for the Field (three in Nablus Area, four in Jerusalem Area -three working and one on standby- and three in Hebron Area). However three trucks are old and need to be replaced. In 2009, almost 67,922 tons of domestic, medical and commercial waste was removed and disposed of in the municipal dump sites.

In Syria Field, three compacter trucks are functioning in Damascus and the South Area. Around 50,000 m^2 of waste were collected in 2009.

Overall, 2009 saw a number of achievements in the waste management area for the Environmental Health sub-programme, and these achievements go towards fulfilling the greater objectives outlined in UNRWA's Medium Term Plan (2005-2009), in particular achieving cost-efficiency gains by reducing the labour-intensive costs of sanitation and improving the general cleanliness of all camps.

OTHER ENVIRONMENTAL HEALTH ACTIVITIES

In each camp in Gaza Field a team composed of a health education worker and participants under the Job Creation Programme were assigned to promote environmental awareness related to the proper handling and disposal of domestic solid waste, the management of the water supply, disposal of wastewater, insect and rodent control in UNRWA schools and women activity centres. They also carried out house to house visits to make residents of these environmental issues. During 2009, the Environmental Health Divisions launched awareness workshops and trainings on environmental health, aiming at raising public awareness in camps and improving understanding of environmental issues such as proper handling of domestic and medical wastes, rationalization of water consumption.

In Jordan Field the environmental health campaign under the slogan "Together towards More Beautiful Camp" was conducted in Suf camp between the 3rd and the 5th of May 2009. The objective of this activity was to involve the community in cleaning common spaces and to enhance community environmental health awareness. A special focus was placed on the role of the community, and particularly school children and women by raising awareness and promoting a change in behaviour in order to improve the environmental health condition of the camp. Various activities were carried out on this occasion through the joint collaboration of UNRWA, DPA, the Suf Camp Services Committee, the local community and the Governmental Authorities.

In Lebanon Field, as a funding component of the infrastructure projects in six camps, awareness campaigns on environmental health issues are being developed by a specialized consultant. The contract was awarded at the end of 2009 for six months. The campaigns will cover the camps of Ein El Helweh, Wavel, Burj el Barajneh, Shatila, Mar Elias and Dbaye.

Overall, the Environmental Health Programme has maintained environmental health standards across the five Fields in 2009 with a 100 % success rate in relation to safe water in Lebanon, Syria, Gaza Strip and the West Bank. A summary of the 2009 environmental health achievements is illustrated in table 53 below.

Table 53 - Environmental Health Services data for 2009

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Water supply						
Percentage of shelters with access to safe water	99.4	100	100	100	100	99.8
Sewerage and drainage						
No. of camps partially or fully connected to sewerage networks	**9**	**11**	**8**	**7**	**16**	**51**
Percentage of shelters connected to sewerage networks	**93**	**92**	**96**	**92**	**63**	**87**
Solid waste management						
No. of camps partially or fully served by UNRWA mechanized systems	6	12	6	8	15	47
No. of camps served by Municipalities	3	5	3	0	14	25
No. of camps served through contractual arrangements	2	0	0	0	2	4

Notes: *In relation to these services, it is not uncommon for camp populations to be served by more than one source/system. All camp shelters Agency-wide are served by private latrines connected to local cesspits or proper sewerage schemes.*

INTEGRATED COMMUNITY BASED INITIATIVES

Poverty is a major problem that camps dwellers face, it is a multidimensional issue and is delaying growth and economic development among Palestine refugees. By exploiting a bottom-up approach envisioning the full involvement and participation of communities, WHO has shown that it is possible to mobilize, empower, and build skills and leadership in order to enable communities to identify and advocate for their basic needs. Currently the community based initiative is taking place in two pilot refugee camps: one in Jordan and one in Syria and specifically targets the mitigation of poverty through the design and implementation of revenue generating activities. Along with these activities is the Community Based Initiative (CBI), a self sustaining, local – orientated strategy which aims to address people's basic development needs.

IMPROVING THE QUALITY OF LIFE IN UNRWA REFUGEES CAMPS USING AN INTEGRATED COMMUNITY BASED ACTIONS FRAMEWORK

UNRWA, as a services provider for Palestine refugees in host countries, especially in camps, has recognized long time ago the crucial role of the refugee communities as partners rather than just service recipients toward the provision of better and more effective services. The community participation is recognized as a powerful tool for UNRWA to achieve maximum levels of effectiveness in

providing its services. There is a specific cluster of issues related to the lives of Palestine refugees who live in camps, which cut across Fields and host countries. Examples of these include ill health, poverty, unemployment and poor living conditions stemming from the 40-60 year history of the refugee presence**.**

The concept of health for all was adopted in/after the International Conference on Primary Health Care held in Alma-Ata, USSR in 1978, and primary health care was adopted as the right approach for achieving the optimum level of health for each individual. The target of health for all by the year 2000, however, could not be achieved due to strategic deficiencies, mainly:

- The weak community role;
- Poor intersectoral actions;
- A top–down approach to development; and
- Investment on physical infrastructure while neglecting the human dimensions of development.

In response to this, WHO's Regional Office for the Eastern Mediterranean introduced the Community-Based Initiatives approach and programmes. These include basic development needs (BDN), healthy cities programmes (HCP), healthy villages programmes (HVP) and women in health and development (WHD). The organized, empowered and actively participating communities, supported through coordinated intersectoral action, manage these initiatives. The objectives of CBIs include facilitating the integration of health policies and programmes in the national strategic development agendas, improving health and environmental conditions, reducing poverty, promoting equity, gender mainstreaming and enhancing the role of women in health, sustainable development, and achieving a better quality of life.

Seeking to improve the quality of the services provided to the camps' community, the Health Department at UNRWA HQ (Amman) sought the technical advice of WHO/ EMRO on the feasibility of the implementation of the CBI framework in model UNRWA camps. Following the Field visits of the Regional advisor for CBI, Dr. Mohammad Assai Ardakhani and Dr Guido Sabatinelli, Health Director in July 2008, UNRWA committed to introduce CBI in refugee camps taking advantage of the comprehensive UNRWA approach to health, education, relief and social services and micro-financing.

The WHO Regional Director, Dr Hussein El Gezairi, has kindly granted a fund to introduce CBI in refugee camps. EMRO assigned Dr Sumaia Al Fadil, National Professional Officer at WHO Office in Sudan, to assist in this regard. To start with, a four-day orientation workshop on CBI concept and implementation tools was conducted for the senior staff of UNRWA Programmes (Health, Relief and Social Services, Education and Micro-finance). Eleven trainees from Jordan Field and seven trainees from Syria Field, in addition to one community member from Jerash camp, attended the workshop. Furthermore, Dr. Al Fadil conducted a series of meetings with Health, Education, Relief and Social Services (RSS) senior staff in HQ (Amman), Jordan Field Office, and with UNRWA staff and community members in Jerash camp, with the objective of exploring the best strategy to launch CBI in the context of existing initiatives and avoiding duplication. A plan of action was developed to introduce CBI under UNRWA, and was adopted as the Integrated Community Based Action (ICBA) sub-programme.

As of 2009, ICBA has been successfully introduced in three camps, two in Jordan (Suf camp, and partially in Jerash camp) and one in Syria (Qaber Essit camp). The plan includes the expansion of health services using community health promoters under the leadership of the PHC centres in refugee camps. In addition, efforts were exerted to encourage the development of a strong intersectoral collaboration with communities, other UNRWA programmes, nongovernmental organizations and the private sector to promote the concept of health and equity as fundamental principles of development through the implementation of ICBA.

STATE OF ICBA IMPLEMENTATION AT MODEL UNRWA CAMPS

As a product of implementing the work plan for 2009, concerned UNRWA staff and model camps' community members are now empowered to practice efficiently ICBA advocacy, development, management, making interventions in addition to conducting monitoring and evaluation.

The major activities that were conducted included:

1. The establishment of UNRWA management and coordination structures at field and camp levels which was achieved through the following activities:

- Coordination meetings for different concerned individuals/ UNRWA staff/ Governmental offices staff.
- Building partnership with DPA (Jordan) and GAPAR (SAR), and with Healthy Villages Programmes at MOH in Jordan and in SAR.
- Orientation and planning workshops for concerned UNRWA staff and concerned camp communities' services providers (Governmental offices and local NGOs)
- Nomination of ICBA focal points from different programmes and ICBA Coordinators within UNRWA at HQ & Field levels.
- Establishment and training of Camps Intersectoral Technical Support Teams (CITSTs).

2. Establishment of community management structures and community-based information system. The following activities were conducted:

- Establishment and training of Camps Development Committees (CDCs).
- Reestablishment and training of the Advisory Committees (AC) for the CITSTs.
- Selection of Community Development Volunteers (CDVs).
- Training of CDVs on ICBA principles and on conducting surveys.
- Development of the questionnaire for the Baseline House-to-House Survey. Completed questionnaires were entered into the database.
- The camps were divided into blocks with assigned number of households to be used for survey and future purposes.
- House-to-house baseline survey was conducted by CDVs.
- Data entry and analysis for the baseline-survey was finished.

3. Advocacy for ICBA implementation and gain of support from all concerned

- Creative ideas for advocacy were explored, and attractive advocacy materials were produced and distributed as required.

4. Implementation of development packages/ community developed interventions addressing needs and priorities through meetings with the community to identify priorities and outlines of plans.

5. Enhancement of Information, Education and Communication (IEC) including advocacy and documentation, sharing experiences and assess progress of the programme

- Design, print and disseminate brochures and advocacy articles about the implemented activities.
- Adapt and translate training and advocacy materials/manuals for the community.
- Finalization of ICBA training material and management tools in series of meetings

6. Establishment, from CDVs, of a network of Community Health Promoters (CHPs), Family, Women & Youth support groups, in addition to:

- Training of assigned PHC workers on communication skills and contents of the HP package.

- Develop TORs and guides (in Arabic) for CDVs and CDCs.
- Training CDVs on communication skills and on identified health promotion packages and investing their efforts as Community Health Promoters (CHPs) to enable them support family members.
- Training of community volunteers of both genders on "Youth life skills" jointly with RSSD.
- Training of selected families on “Entering children's world” package in cooperation with UNRWA RSSD.

7. Community Based Information Centres (ICBA Information Centres), well furnished and equipped, were established to serve the communities and different UNRWA programmes.

8. The Health centre at Suf camp was provided with equipment for health education (television screen and DVD player), two treadmills to be used by NCD patients under medical supervision, and a playing area for children to be used during the waiting time.

9. Both camps were registered at the *“1000 cities, 1000 lives” campaign* launched by WHO as part of the WHD 2010 celebrations.

10. A work plan for 2010 was prepared and sent to WHO/EMRO for the approval of the Regional Director on the providing budget required to cover the expenses of implementing the work plan elements.

The experience gained through modelling ICBA in Jordan and Syria Fields encouraged the Health Programme in HQ to proceed in requesting additional funds from WHO/EMRO for the expansion of ICBA to include two new camps in Jordan and Syria, and in exploring the possibility of piloting it in one camp in each of Lebanon, West Bank, and Gaza Fields. This experience showed also that Palestine refugee, a unique and diversified community, are ready to accept this initiative, even though the approach has to be adapted to the uniqueness of each camp. The experience gained from the expansion of ICBA to include new camps will help in setting flexible guidelines to enable further expansions in the near future.

GENDER MAINSTREAMING

In accordance with the UN policy on gender equality and in accordance with the UNRWA Gender Policy adopted in 2007, the Health Programme adopted in 2008 a Gender Mainstreaming Strategy and a Gender Action Plan that include interventions to achieve the following:

- A more gender balanced workforce;
- Evaluation of gender biases in access to health;
- Gender orientated operational research;
- Inclusion of men in family planning and in preconception care; and
- Management of Gender based violence and related psycho-social problems.

To support the implementation of the gender mainstreaming strategy, Health Gender Focal Points were appointed in headquarters and in all Fields. During the 2008-2009 biennium significant steps were taken by UNRWA Health Programme for the implementation of interventions with a focus on addressing gender based violence. The Technical Instructions Series revised in 2009 included the screening, counselling and referral of victims of domestic violence.

In the Fields, several trainings took place to build the capacity of UNRWA health staff in detecting and counselling victims of violence. Partnerships are being developed to reinforce these capacities when national strategies to end Gender Based Violence are developed. In the Gaza Strip, in coordination with Community Mental Health, Equality in Action and the Health Programme, the

capacity of the frontline staff and counsellors to address Gender Based Violence is being developed. In Syria 23 senior midwifes, in North Lebanon Area 37 health staff and in Jordan 100 health staff were trained in detecting and referring victims of violence.

In all Fields, the UNRWA Health Programme is participating actively in the efforts towards building multi-sectoral referral system for victims of violence. In the West Bank the Health Department has launched the Family Protection Programme and organized an awareness raising workshop with senior staff and workshops in four refugee camps to discuss with representatives from all UNRWA departments the basis and the approach of a referral system.

To address the gender gap in the workforce, the UNRWA Health Department has been encouraging the recruitment of female staff into various positions while remaining mindful of the need for a competitive and transparent selection processes. The percentage of women recruited in all categories and in all Fields passed from 31.6% (2007) to 36% (2009) as shown in Table 54. However the staffing structure in UNRWA Health Centres, similarly to what can be observed in the host countries, reflects stereotypes in gender roles and jobs. Nurses are primarily female and Medical Officers are mostly male.

Table 54 - Percentage of women employed in the Health Programme

Staff categories	Percentage of women staff					
	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Specialists	0	20	60	31	16.6	**26**
Medical Officers	11	30	30	26	7.4	**21**
Dental Surgeons	23	14	21	23	6.3	**18**
Pharmacists	0	100	100	0	33.3	**47**
Asst. Pharmacists	43	28	50	55	78.2	**51**
Lab. Technicians	46	33	52.0	64	61.8	**51**
All categories	**27**	**27**	**52**	**57**	**59.8**	**36**

To tackle these gaps UNRWA is working on ensuring that recruitment procedures do not reflect these gender stereotypes. For instance actions are taken to enhance the capacity of interview panels to carry out gender sensitive interviews. Advertised positions were revised to adopt a gender neutral language. Male nurses' appointment is encouraged and women are encouraged to fill senior positions. This resulted in small yet encouraging changes as shown by the UNRWA gender scorecards (Tables 55 and 56).

Table 55 – Gender distribution of UNRWA staff nurses, in 2008 and 2009

Fields	Percentage of male nurses 2008	Percentage of male nurses 2009
Gaza Strip	21,6%	21,9%
Jordan	2,7%	3,8%
Lebanon	4%	7,7%
Syria	0%	0%
West Bank	11%	11%

Table 56 - Gender distribution of UNRWA medical officers, in 2008 and 2009

Fields	Percentage of female medical officers 2008	Percentage of female medical officers 2009
Gaza Strip	22,4%	24,7%
Jordan	17%	15%
Lebanon	26%	28,5%
Syria	38,6%	39.5%
West Bank	3,5%	6%

The Health Programme will continue the implementation of the gender mainstreaming strategy with a focus on the detection and provision of health services to the victims of domestic violence. Specifically the capacity of the health staff will continue to be built on to address domestic violence and participate actively in the referral system.

The health care staff capacity will also be enhanced to include men in preconception care and in family planning counselling. A success indicator is already set at reaching at least 10% of male clients by the end of 2011. Besides, the Health Programme is committed to sex-disaggregate all data including health facility utilization trends by the end of 2011.

DELIVERING HEALTH TO THE VICTIMS OF CONFLICT

> *The international community must assume its responsibilities to facilitate progress – and, where necessary, insist on it…in the aftermath of the tragic conflict in Gaza, this is more urgent than ever.*
>
> Secretary-General Ban Ki-moon, January 2009

As an Agency working in a chronically unstable environment, UNRWA is continuously challenged by upsurges of violence. Conflicts in Lebanon and more recently in the Gaza Strip have forced the Health Programme to react rapidly in order to ensure continuity of services. New services such as mental health to deal with the consequences of protracted violence and insecurity and physiotherapy and rehabilitation were established.

UNRWA's Health Programme is strongly decentralized and able to adapt rapidly to limits imposed by logistic impediments and security concerns. This has limited the disruption of activities like epidemiological surveillance and treatment of chronic diseases that suffer the most in times of conflict.

CHRONIC EMERGENCY IN THE OPT AND THE GAZA CRISIS

The year 2009 not only saw UNRWA struggling with the effects of socio-economic hardship brought upon refugees by the chronically instable situation in the Near East, but started tragically with a conflict in the Gaza Strip that claimed almost 1400 lives.

SOCIO ECONOMIC CONDITIONS IN THE OPT AND THE CLOSURE REGIME

The occupied Palestinian territory (oPt) is suffering the long-term effects of socio-economic hardship with a progressive isolation of the Gaza Strip and a growing lack of geographic contiguity in the West Bank.

Restrictions on the movement of Palestinian people and goods in and out of the Gaza Strip and within the West Bank are affecting not only access to basic services such as health, but also limiting commercial activities and contributing to worsening socio-economic conditions.

As of 2009, the oPt is still facing the long term effects of socio-economic hardship and the 2009 crisis the Gaza Strip only aggravated its isolation and infrastructural decline. The blockade has also challenged reconstruction, due to the severe limitations in imports within the Strip itself. At the end of 2009, activities have still not reached pre-conflict standards.

The combination of expanding settlements and outposts, limitations to movement of people and goods due to the Barrier and a complex system of physical obstacles and checkpoints is progressively narrowing the possibilities that Palestinian residents of the West Bank have of accessing all services, including health care. There is a comprehensive system of 85 manned checkpoints and more than 460 physical obstacles regulating or preventing Palestinian vehicles from using roads primarily reserved for Israeli use.

This implies long detours and waiting time and is leading to the formation of Palestinian enclaves within the West Bank. These are geographically separated one from the other by some form of Israeli infrastructure (settlements, outposts, military areas, nature reserves and the Barrier) where the road system functions as an adjustable corridor effectively limiting Palestinian movement.

The socio-economic situation in the oPt is deteriorating rapidly. Although refugees in the West Bank are more likely to be unemployed compared with non refugees, the gap narrowed in 2008. The broad unemployment rate rose from 24.5% in 2007 to 25.3% in 2008, with the refugee rate falling from 26.7% to 25.9%. In the Gaza Strip the heightened siege that began in mid-2007 affected both refugees and non refugees. The end of 2008, that saw the most destructive military operation in Gaza's history, also witnessed a dramatic increase in unemployment rates. Adjusted broad unemployment rose to 49% from about 38% in 2007.

CHALLENGES IN PROVIDING HEALTH CARE IN A CLOSURE REGIME

THE GAZA STRIP

Access restrictions for Palestinians and the aftermath of the conflict in the Gaza Strip, has put more strain on health care delivery in the oPt. Difficulties in the movement of UNRWA staff and goods and increases in prices of goods including medicines and food commodities are two of the main issues that affected UNRWA's health programme in 2009, alongside the complication of logistics and consequent increases in operational costs stemming from the closure policy imposed on the oPt.

Both UNRWA and the World Health Organization have repeatedly expressed concern about the consequences that the strict closure policy imposed on the Gaza Strip is having on the health of the population residing there and on their right to enjoy the highest attainable standard of health. Again in 2009 conditions are extremely volatile and led to impositions of complete closure in the first half of the year.

Tertiary health care services are available only outside the Gaza Strip. The frequent closure of borders has made seeking high-level specialized health care increasingly difficult for Gazan patients. *De facto* the referral system can no longer be guaranteed for Palestine refugees. Access to tertiary care for patients residing in the Gaza Strip suffered drastic restrictions in the first half of 2009 as a consequence of concomitant hostilities.

THE WEST BANK

Access restrictions are a major challenge to providing continuative health services to Palestine refugees in the West Bank as they involve patients and UNRWA staff members alike. Over the years, contravening the 1946 Convention on the Privileges and Immunities of the United Nations and the 1967 Comay-Michelmore Agreement, UNRWA health staff members have been denied or delayed access to their work place and there have been increasing demands for searches of UN vehicle. This is complicating operational procedures and ultimately impairing the Agency's service delivery also by reducing its outreach capacity. It has determined the loss of hundreds of person-days each year and is having relevant economic repercussions.

In the West Bank, the movement of staff and beneficiaries is extremely restricted and unpredictable at several Israeli checkpoints, notably those controlling access to East Jerusalem. These restrictions limit the Agency's ability to meet the needs of increasingly vulnerable communities. In 2009, the ability of UNRWA health staff to enter operational areas remained problematic. Health Programme staff reported 31 access incidents affecting 76 staff members and the loss of 56 working hours. This however underestimates the issue as regular difficulties at checkpoints are not always reported and no information is collected from areas UNRWA staff are not accessing anymore because of access difficulties, such as the Bart'a enclave. Moreover the negative effects on service delivery of measures taken to avoid difficult checkpoints, such as preferring longer routes, are not measurable.

Notwithstanding, it is clear that access constraints in 2009 have resulted in increased waiting time for patients and disturbance of routine and regular activities at Health Centres due to the delay or absence of staff. Many pregnant women who had appointments for follow-up in UNRWA Health Centres were unable to reach them in due time because of closures and restriction on movements. The lack of access to UNRWA health services has also undermined the control status of patients affected by chronic diseases who could not be regularly monitored and treated.

THE RESPONSE OF UNRWA'S HEALTH PROGRAMME

The UNRWA Health Programme faced substantial demand for its services in terms of increased primary health care consultations, laboratory, dental and family health services, consumption of medical supplies, and admission of patients to hospitals. Patients, staff members, and the delivery of medical supplies were all severely affected by the access restrictions. The Agency had to face the issue of access to duty stations particularly in the West Bank and of import constraints specifically in the Gaza Strip. However UNRWA, despite the situation, managed to continue to operate effectively by investing in personnel and outreach services .

Part of this increased demand was covered, as in previous years, through the enrolment of emergency programme support staff (EPSS), hired with emergency funding. This enables the Agency to meet the increased demand on the medical care services or to replace staff who is unable to reach their duty stations due to restrictions on movement.

Another coping strategy is the deployment of outreach services. UNRWA Mobile Health teams, comprising a medical officer, practical nurse, laboratory technician, assistant pharmacist and a driver, have operated in the West Bank since February 2003. No mobile teams are deployed by the Programme in the Gaza Strip.

The main objective of these teams is to meet the additional burden on the health system and to facilitate access to health services in locations affected by closures, checkpoints, and the Barrier. 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 necessary.

Visits to the villages are arranged at area level and announced through the mosques, community- based centres, and via word-of-mouth. Since becoming operational, the mobile clinics have played a critical medical role. They have treated an increasing number of Palestine refugees from 69,500 in 2003 to 133,582 in 2009 although the number of visits to villages has decreased quite sharply. This is related to the fact that some mobile clinics have become semi-permanent, and have converted to providing constant services although still managed by “mobile teams”. This has also determined an increase in the number of patients in these localities as beneficiaries have been attracted from neighbouring areas by the prospect of constant delivery of health care.

UNRWA mobile medical team have been unable to access Bart'a village since October 2007. Bart’a is located in the area between the West Bank Barrier and the 1949 armistice line and its entrance that is controlled by Israeli military forces that demand to search UNRWA vehicles and UNRWA personnel. In order to cater to the health care needs of refugees of Barta’ enclave, Dher Al Malih & Um Al Rihan in Jenin Area and overcome accessibility problems, a Memorandum of Understanding with CARE/Palestinian Medical Relief Society (PMRS) has been signed and made effective on December the 1st 2009. UNWRA provides the CARE/PMRS team with medications, replenished according to need.

THE WAR ON GAZA ONE YEAR ON

One year after the Gaza war, the collective punishment of the civilian population of Gaza continues to hurt the innocent and help the extremists. Visitors to Gaza are immediately struck not only by the scale of the destruction and the humanitarian plight of the population arising from the December/January 2009 conflict. The infrastructure of peace, education, the economy and the civilian

housing that was in fact destroyed in the name of the laudable ambition to destroy the infrastructure of terror while the tunnels on the southern border remain largely intact.

One year on, with the exception of certain basic food commodities, medicine and a limited catalogue of other vital supplies needed to prevent a public health crisis, everything else is banned from import through the legitimate crossing points. Listing some of the many items banned gives a sense of the irrationality of the policy: light bulbs, candles, matches, books, musical instruments, crayons, clothing, shoes, mattresses, sheets, blankets, all banned. Pasta, yes that's allowed in now, thanks to the interventions of Senator Kerry, but tea, coffee, chocolate, nuts are among the food items still banned. The ban on Shampoo was lifted, but any two in one Shampoo with conditioner is still barred, simply because there is no mention of conditioner on the approved list.

Except for UNRWA, no petrol or diesel has been allowed into Gaza since November 2008, which means that all of the non UN cars in Gaza are fuelled through the tunnels. The power plant receives only 70% of its weekly fuel requirements and only 50% of the cooking gas needed is allowed in.

No construction materials at all are allowed into Gaza. Not one pane of glass, not a single bag of cement nothing of the essential supplies needed for reconstruction. The scale of the humanitarian need and the urgency for reconstruction is best conveyed in some of the key statistics.

- 52,400 houses damaged or destroyed, affecting 250,000 people;
- 800 industrial properties damaged or destroyed;
- Key buildings, the PLC, Ministry of Foreign Affairs, Ministry of Finance, President's compound, all destroyed;
- 10 schools destroyed, 204 damaged; and
- 14 Mosques destroyed, and 39 Mosques, 2 churches and the British Commonwealth cemetery damaged.

For UNRWA operations, other than reconstruction, access for supplies has improved significantly, almost everything needed for UNRWA daily operations is now allowed into Gaza. The most noteworthy exception is the refusal to allow UNRWA to import armoured vehicles. The shortage of armoured vehicles in Gaza undermines staff security and severely curtails the mobility of international staff in the conduct of installation inspections and other integrity checks that are so important for donor confidence.

The war on Gaza

During the military operation named Operation Cast Lead, launched by the Israeli Defence Force (IDF) in response to the launch of rockets from the Gaza Strip, between 27 December 2008 and 18 January 2009, almost 1,400 people died. Among those, 431 were children and 112 women. At least 5,380 people were injured, including 1,872 children and 800 women.

Fifty-two UNRWA installations were damaged, including seven Health Centres and the Field Office. As the result of severe shelling the warehouses and all stores were destroyed. The estimated cost of repairs to damaged Agency installations exceeded USD three million, and those of supply replacement, of which a relevant proportion were drugs, required an additional USD 3.6 million. During the conflict UNRWA provided temporary shelter to over 50,000 Palestinians who sought refuge in over 50 of the Agency's schools. Although the security constraints severely limited movement of staff, UNRWA managed to continue health service delivery, to adjust to the health needs of displaced people and to the deterioration of environmental health standards. It also continued implementing higher levels of surveillance for communicable diseases throughout the post conflict period. No outbreaks took place among the refugees that are over 70% of the entire population in the Gaza Strip.

POST EMERGENCY IN LEBANON

27,000 Palestine refugees were estimated to have been displaced from Nahr el-Bared camp and its adjacent areas in northern Lebanon in mid-2007 due to the armed conflict between the Lebanese Armed Forces (LAF) and the extremist Fatah Al-Islam group. Infrastructure damage in the camp was devastating, 95% of all buildings and infrastructure were estimated to either have been destroyed or damaged beyond repair. A master plan for the reconstruction was developed with the community participation in order to capture the whole camp's original settings and counting all the residences with their size as remembered. The camp was subdivided into packages where each package would be supported by a donor.

Emergency and then Relief efforts carried out from mid 2007 throughout 2009 have mitigated some of the worst impacts of the crisis on affected families, ensuring access to health, shelter, food, water and sanitation as well as other basic services.

Living conditions for the majority of refugee families displaced from NBC and returned to the adjacent areas remain poor and are assisted under various programs of UNRWA.

In November 2009, UNRWA was given the green light to resume backfilling of the sounding pits in Package one. The first concrete for the reconstruction of Nahr el-Bared camp was poured on the 25th November at 10am, in the Package 1 area of the camp and in the presence of approximately 200 representatives from the displaced refugee community, the popular committee and camp notables.

On Saturday November 22nd UNRWA's contractor began rubble removal works in Prime Area A, adjacent to Nahr el-Bared Camp, after receiving the permits to enter the area. As in the previous prime areas, the contractor began removing the rubble, clearing roads and removing sand barriers in A Prime. The works are ongoing.

While the Construction at Nahr el Bared in package 1 is progressing, UNRWA met with the Directorate General of Urban Planning on the 10th of December to secure the approval for the architectural plans for the UNRWA compound area of the camp. Preparation work to allow for the construction of Package 2 are ongoing and should be completed at the beginning of 2010, in parallel with which UNRWA will have to liaise once more with the Directorate General of Antiquities to ensure any archaeological finding is adequately preserved.

In 2009, the Health Programme maintained access to basic health services, hospital care and life-saving medication for families affected by the crisis in NBC, including returnees to the adjacent areas by applying the North Health Policy (NHP) that provides full coverage of outsourced and contracted services whether hospitalization or specialized investigations. Moreover the NHP covers the patients who need Haemodialysis and cardiac catheterization. By the end of 2009, 3,850 families had returned to the NBC adjacent area and were served by the two temporary clinics, NBC1 and NBC2. The contract that was established with Beddawi camp pharmacy in order to ensure that displaced families were able to secure life-saving drugs not available in UNRWA dispensaries was maintained.

The emergency expenditure for Lebanon in 2009 amounted to almost USD two million, and as shown in Table 58, fifteen daily paid staff were hired to serve as additional staff to the regular health staff working in the clinics.

Table 57 – Expenditure (USD) on emergency in Lebanon, 2009

Budget line	2009 Expenditure (USD)
Staff costs at Health Clinics & Emergency Clinics *	162,341
Medical supplies for Health Clinics & Mobile Clinics	191,538
Equipment for Health Clinics	0
Hospitalization including Open Heart Surgeries	1,251,567
Reimbursement of Drugs - Individual Subsidies	3,926,76.61

Total	**1,998,122**

**This section reports on two Health Centres in Nahr el-Bared Camp (NBC) called NBC1 and NBC 2*

Staff categories	Daily Paid staff recruited
Doctors (Medical Officers and Field Staff)	4
Pharmacists - Assistant Pharmacist	1
Dental Surgeons (including SDS)	0
Nurses (including Area and Field Staff)	5
Other health staff	2
Admin/Support Staff	0
Labour category	3
Total	**15**

Table 58 – Daily paid staff recruited, 2009

PALESTINE REFUGEES FROM IRAQ IN SYRIA

The prolonged war in Iraq has resulted in millions of Iraqis fleeing their country. Among those who were seeking a safer environment, are Palestine refugees who have lived in Iraq for decades. In Syria, the UNRWA Health Department started providing basic health care services to these refugees at the border in 2006 when there were only a few hundred. An UNRWA medical officer and nurse would visit them once a week to provide basic health care services. At the beginning of 2007, a decision was taken by the Syria Field to assist those Palestine refugees who managed to enter Syria from Iraq and to grant them special temporary registration cards which entitled them to full health care services (out-patient, non-communicable disease treatment, hospitalization services etc) in addition to education and relief and social services. Assistance to this group of refugees continued in 2009.

Compared with 2008 the number of assisted families decreased from 812 to 660. Most refugees reside in the Damascus Area while smaller groups are found in the Dera'a and Homs Camps and surrounding areas as shown in Table 59.

Table 59 - Registered Refugees Palestine from Iraq residing in Syria, assisted by UNRWA Health Programme In 2009

Area	Number of families	Number of individuals
Damascus	611	2,112
Dera'a	19	76
Others Areas	30	123
Total	660	2,311

PROGRAMME MANAGEMENT

More efforts are required to ensure that organizational policies and commitments to gender equality and health equity are communicated, understood and integrated at all levels … in particular through learning and development activities.

WHO Medium-term strategy plan 2008-2013

The Department of Health at Headquarters in Amman, Jordan, is managed by the Director of Health and his Deputy, who are seconded from WHO to UNRWA on a non-reimbursable loan basis. The Director of Health reports to the UNRWA Commissioner-General on administrative and policy matters and to the WHO/EMRO Regional Director on technical matters.

The Headquarters team also comprises two Division Chiefs, in charge of the Disease Prevention and Control and Health Protection and Promotion sub-programmes, a Senior Pharmacist, a Head Laboratory and Medical Diagnostics Services, a Maternal and Child Health Officer, a Health Statistics Officer, and a Health Communication & Community Based Initiative Officer. An Epidemiologist/Public Health Specialist was integrated in the team through a special agreement with the Italian government.

In each of the five Fields of the Agency's area of operations, the Health Department is headed by a Chief, Field Health Programme, who reports directly to the Field Director on administrative issues and to the Director of Health on technical matters. The Chief, Field Health Programme is assisted by a Deputy Chief, a Field Disease Control Officer, a Field Family Health Officer, a Field Nursing Officer, a Field Sanitary Engineer, a Field Pharmacist, a Field Laboratory Services Officer and a Senior Dental Surgeon. In addition, the Chief of the Environmental Health Programme in Gaza Strip receives policy guidance from the Director of Health on the strategic orientation of the Programme.

The Health Programme, as would be expected by the nature of its deliverables, has highly standardized technical procedures that reflect WHO standards, international evidence-based criteria, approved UNRWA policies, and best practice guidelines in public health. Regularly updated technical instructions, guidelines, and management protocols are the tools through which the Agency operating procedures are shared across the Health Programme.

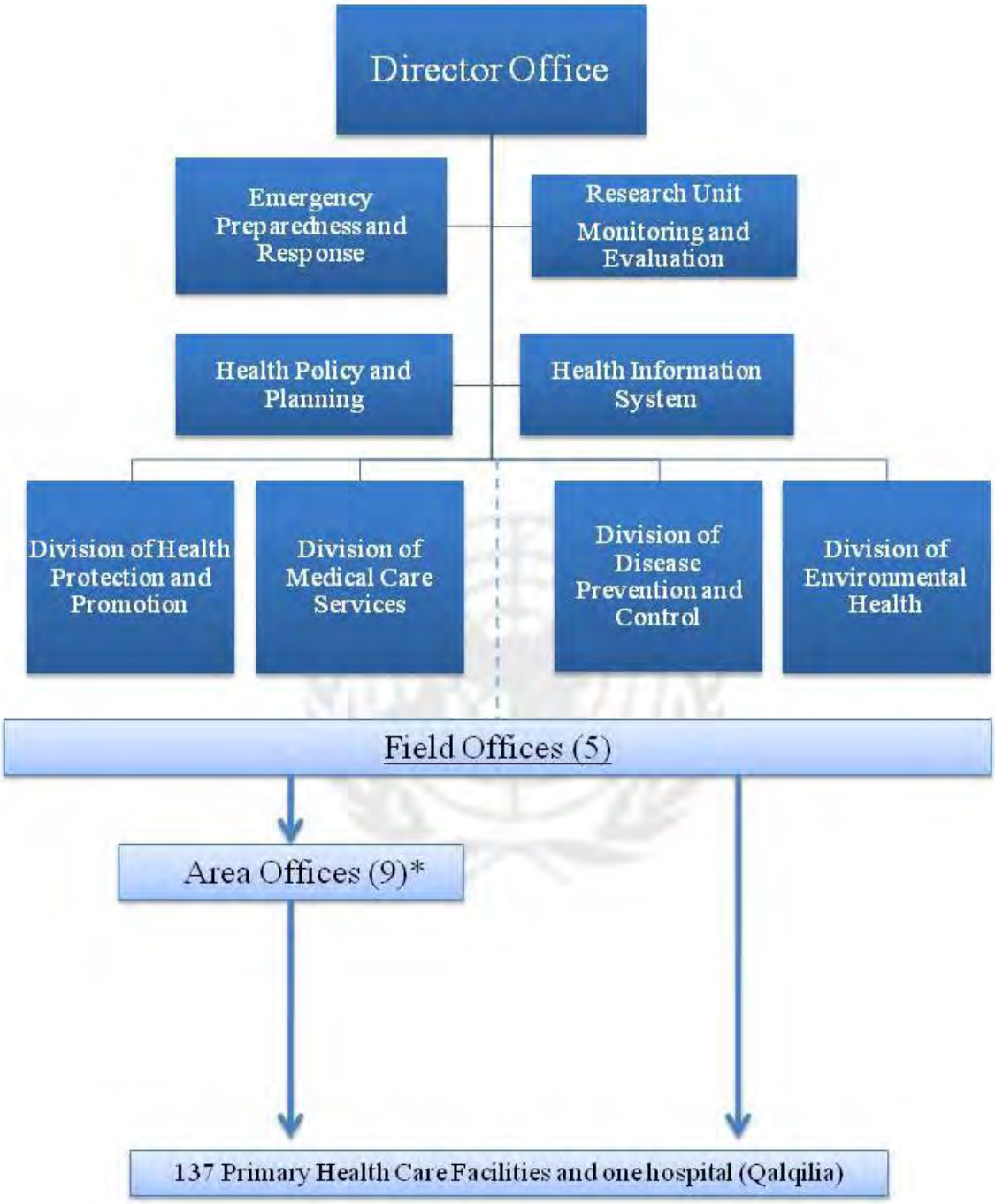
Implementation of the Technical Instructions, guidelines and management protocols is monitored through a systematic assessment of outcomes based on measurable indicators and fostered through regular visits to the Fields by Headquarters staff.

Changes to standing policies, development of plans of action and establishment of targets to achieve them are usually decided on at meetings between the Field Health Programme Chiefs and Headquarters senior staff, and at Divisional meetings between staff from the technical units in Headquarters and the Fields.

During 2009 the following meetings and workshops were held:

- Field Diseases Control Officer meeting, 17-19 March 2009;
- Senior Dental Surgeons meeting, 24-27 March 2009;
- Field Nursing Officers & Midwives meeting, 20-24 April 2009,
- Training on Community Based Health Initiative (TOT), 19-21 May 2009;

- Drug Therapeutic Committee meeting, 28-39 June 2009;
- The Epidemiological Surveillance and Communicable Disease (ESOC) Training in five Fields, April – October 2009;
- H1N1 Workshop, 11-14 October 2009; and
- Chiefs & Deputy Chiefs, Field Health Programme meeting, 14-17 November 2009.



* Areas are present in all UNRWA Fields except Gaza and Lebanon

The functions of the various sub-programmes of the Health Programme (Figure 41) are as follows:

- ***Health Protection and Promotion***: pre-conception care, expanded maternal health, child health services, school health, nutritional surveillance and food safety, mental health, and community based initiatives;
- ***Curative Medical Care Services***: outpatient medical care, pharmaceutical services, laboratory services and medical diagnostic services, oral health services, physical rehabilitation, hospital services and other support services (e.g. radiology);
- ***Disease Prevention and Control***: integrated surveillance and control of communicable and non-communicable diseases and management of the Health Information System;
- ***Environmental Health***: project design, surveys, project implementation and environmental sanitation;
- ***Emergency Preparedness and Response***: provision of emergency health care assistance in response to crises that impact on the Palestine refugees; and
- ***Operational Research***: coordination of the Agency operational research activities and technical assistance to Fields in their specific research projects. The research unit also publishes relevant research conducted by the programme in international medical journals increasing the visibility of the Agency.

Table 60 - Health staff as at end of December 2009

Area Staff	HQ	Jordan	Lebanon	Syria	Gaza Strip	West Bank*	Agency
Medical care services							
Doctors**	3	99	51	55	147	94	449
Pharmacists	1	2	2	1	2	3	11
Dental Surgeons	0	30	19	20	34	17	120
Nurses	0	262	119	130	294	289	1,094
Paramedical***	1	130	28	71	135	171	536
Admin./Support Staff	6	88	48	46	120	97	405
Labour category	0	102	53	65	124	91	435
Sub-total	**11**	**713**	**320**	**388**	**856**	**762**	**3,050**
Environmental health services							
Engineers	0	1	2	1	2	8	14
Admin/Support Staff	0	29	1	11	31	24	96
Labour category	0	299	190	98	385	510	1,482
Sub-total	**0**	**329**	**193**	**110**	**418**	**452**	**1,592**
International	2	0	0	0	0	0	2
Grand total	**13**	**1,042**	**513**	**498**	**1,274**	**1,304**	**4,644**

Including staff of Qalqilia hospital; **Including senior managerial staff, specialists and school medical officer; * Including laboratory technicians, Asst. pharmacists, X-Ray technicians and dental hygienists*

HUMAN RESOURCES

During 2009, 4,644 staff members (all categories) 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.

The staff to population ratios in 2009 continued to be very low compared to national and regional standards, even if calculated based on served population, and not on the total number of registered refugees.

Coupled with high utilization rates, the low staff and population ratios continued to be the reason for the heavy workloads at UNRWA's 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 Health Care facilities. However, achieving these objectives depends on the level of funding the Agency receives in the future. Moreover chronic difficulties in the recruitment and retention of staff, both at the managerial and professional levels, have continued to hamper efforts to maintain the number of human resources in the Health Programme. This is partially due to the low pay scales in UNRWA and the lack of career planning programmes in the past ten years, owing to the discontinuation of external support for the Agency's post-graduate fellowship programme. In spite of regular training to upgrade the skills and capabilities of staff, it has become increasingly difficult to preserve the investment in staff training, and unless additional resources become available to the Programme, the UNRWA health system will suffer, loosing well-trained health care workers.

The Health programme is currently investigating alternative strategies to improve the efficiency of health delivery with present resources through external evaluations and targeted operational research.

Table 61 – UNRWA staff per 100,000 served population

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Physicians	8.9	20.4	15.1	16.2	17.2	14.1
Nurses	23.5	47.7	35.7	32.4	52.9	32.2

FINANCIAL RESOURCES

The total Health Programme expenditure in 2009 amounted to approximately USD 87 million, corresponding to an expenditure per registered refugee of USD 18.3. Even if a more conservative approach was used to estimate the per capita expenditure based on the number of population served by the Agency (approximately three million) rather than the total number of registered refugees (almost five million), the annual per capita expenditure is USD 27.4 per capita per year Agency-wide. Below the USD 30-50 per capita that WHO recommends for the provision of basic health services in the public sector.

Expenditure on supplies (mainly medicines) was USD 13.75 million and outsourced services (mainly hospital services) was USD 15.5 million. Table 62 shows the 2009 budget allocations and expenditure for the Health Programme by sub-programme.

Table 62 - Breakdown of budget and expenditure by sub-programme, 2009 (thousand USD)

Programme	Allotted Budget**	Expenditure	% from allotted budget
Programme Management	3,784	3,723	98.4%
Sub-total	**3,784**	**3,723**	98.4%
Medical Care Services			
Laboratory services	3,748	3,426	91.4%
Out-patient services	36,242	34,169	94.3%
Maternal & child health	3,988	3,865	96.9%
Disease prevention & control	7,088	5,532	78.0%
Physical rehabilitation	1,045	983	94.1%
Oral health	3,504	3,209	91.6%
School health	769	679	88.3%
Hospital services	15,539	15,420	99.2%
Psychosocial Support (Mental Health)	620	451	72.4%
Sub-total	**72,543**	**67,734**	**93.4%**
Environmental Health			
Sewerage & drainage	96	125	130.2%
Solid waste management	14,488	14,663	101.2%
Water supply	1,178	1,183	100.1%
Sub-total	**15,762**	**15,971**	100.2%
Grand Total	**92,089**	**87,428**	**94.9%**

Table 63 shows the health expenditure per refugee per Field in 2009 as per regular budget, the differential has remained unchanged.

Table 63 - *Health expenditure per refugee, 2009 regular budget (USD)*

Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
9.1	**39.9**	**19.6**	**22.2**	**23.2**	**18.3**

Syria is the only Field where the per capita expenditures for health correspond to the Agency-wide average, whereas Lebanon is far above all other Fields. There is a large expenditure gap between Lebanon and Jordan. This is due to the heavy investment in secondary and tertiary care made necessary in Lebanon because Refugees are denied access to public health services and cannot afford the cost of treatment at private facilities. Conversely in Jordan, UNRWA Registered Palestine Refugees have full access to the Government's social and health services and therefore such investments are not necessary.

UNRWA's main focus is on comprehensive primary health care delivery, with very selective use of hospital services that are mostly

contracted for. Allocations for hospital services in 2009 represented only 16.8% of the total Health Programme Budget. This percentage will probably increase in the future because of the increase of chronic non-communicable diseases, often associated with major complications, and of the cost of hospital services in recent years. This will represent a major challenge for the Health Programme, which has to strive to preserve its notable achievements in primary health care while attempting to cope with increased hospitalization costs.

Unlike UNRWA, public health expenditure in host countries is higher in the areas of secondary and tertiary care than in primary health care. This explains the wide disparity between UNRWA expenditure for health and the public health expenditure of host authorities.

PROGRESS IN 2009

Major progress was made during 2009 in improving programme management including data collection and analysis, institutional capacity building, revision of technical guidelines and intervention strategies, operational research and evaluation of system performance and outcomes. Notwithstanding financial constraints, Steps were also taken towards maintenance of infrastructure and development of integrated health information systems.

INFRASTRUCTURE

Ensuring equity in access to health care can be particularly difficult in UNRWA's area of operation due to conflict, movement restrictions and the entitlement refugees have to the host government's health services. In the 1950's, the Agency counted 91 Health Centres run by 75 doctors in its area of operations. Today medical care services are provided through a network of 137 primary health care facilities in which 480 physicians work, and one hospital. The Gaza Strip, Lebanon and the West Bank benefited most from this expansion. This important presence on the ground has decreased significatively the physical and economic barriers precluding access to health care for Palestine refugees.

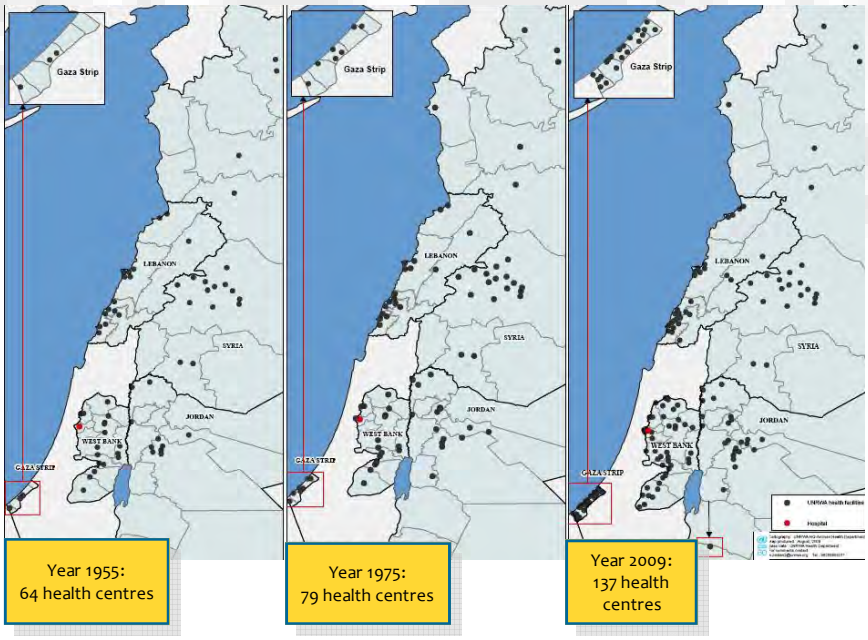


Figure 42 – Expansion of UNRWA's health care facilities from 1950 to 2009

Overall investment on infrastructure in the past six years, both in maintenance of existing facilities and construction of new ones, has been modest due to financial constraints and consequently whereas most old health facilities are rather large buildings, the latest additions are consistently smaller.

In 2009, the following UNRWA facilities were expanded or rehabilitated:

- Jordan: Husn and Baqa'a Health Centres expansion were completed and Taybeh MCH upgraded to Health Centre;
- West Bank: Jenin Health Centre was upgraded; and
- Syria: three Health Centres were reconstructed, namely Khan Eshieh, Sbieneh and Nairab.

THE HEALTH INFORMATION SYSTEMS

The **e-Health System** is being developed in stages by UNRWA's information system's staff and it is deployed in 29 clinics in Lebanon Field and one Clinic in Jordan. At this stage, one package out of three is being used in clinics to automate manual data entry and ensure smooth and simple workflow between different workstations, i.e. Clerk, Nurse, Doctor and Pharmacist.

The health information system streamlines daily operations in the Health Centres, i.e. patient's follow-up, data collection and analysis and dissemination of administrative (e.g. usage, productivity) and public health statistics. The system generates standard reports and combines data as requested without having to extract and transform original data sources. This allows to reduce the amount of paper work, the workload on health staff and subsequently improve the quality of health services, decrease the patient's waiting time and increase the doctor's-patients contact time. Moreover the reduced manipulation of data is conducive to reducing errors and improve the credibility of statistical information, thereby the quality of evidence-based planning and management which is the main objective of UNRWA's Organizational Development.

It is worth mentioning that the establishment of the e-Health system in all Health Centres of Lebanon has been financed by the Danish Government. Deploying the system in all five Fields is currently not affordable and needs additional USD two million to prepare the clinics in terms of Hardware, IT infrastructure and connectivity, recruit support staff and conduct computer training.

REINFORCEMENT OF EPIDEMIOLOGICAL SURVEILLANCE AND ESTABLISHMENT OF EARLY WARNING SYSTEM FOR COMMUNICABLE DISEASE DETECTION

2009 was an important year for the Agency in terms of investment in tools strategies for communicable disease surveillance and control. The training kit on ESOC (Epidemiological Surveillance and Outbreak Control) elaborated jointly with WHO experts in 2008, was the main tool used in five training of trainers sessions conducted in the five Fields between April and October 2009. The ESOC Training is a three-day interactive course composed of three modules: Epidemiological Surveillance, Outbreak Control, and Monitoring and Evaluation that develops around two real-life UNRWA case studies using a combination of learning sessions and group work. The advantages of a practically oriented module such as ESOC is that it offers participants the chance to experience the problems they are likely to face in epidemiological surveillance and outbreak control within the UNRWA system, and help them identify the ways of improving data collection and action using their past experiences in the Field. It promotes dynamic thinking, strengthens and develops leadership capacity and stimulates interaction among participants. 148 staff members directly involved in communicable disease surveillance in Health Centres benefited from the training and their progress was documented through pre and post testing.

The combination of worsening environmental health conditions, overcrowding, loss of shelters and overburdened and overcrowded health facilities in the Gaza Strip, direct consequences of the conflict, led to an increased risk of outbreaks among the resident population in 2009. The need to monitor more closely communicable diseases became immediately evident. UNRWA, in

collaboration with WHO, established an early warning system (EWAR) based on the existing epidemiological surveillance system in place that started functioning in the immediate aftermath of hostilities. As the detainee of historical epidemiological data for Palestine refugees, that constitute the majority of the population in the Gaza Strip, UNRWA started issuing regularly an Epidemiological Bulletin to WHO and all the members of the Health Cluster for the Gaza Crisis. One year later, the UNRWA Bulletin is still the only source of epidemiological information on outbreak prone communicable disease available in the Gaza Strip and is regularly quoted by WHO. Following this successful and sustainable initiative, UNRWA elaborated in 2009 the *UNRWA Early Warning Standard Operating Procedures* that will enable also other Fields to implement the system.

STAFF DEVELOPMENT

In 2009, the Health Department continued to focus on:

- Upgrading the skills and capabilities of the various professional categories;
- Implementing approved intervention strategies; and
- Training staff on technical guidelines and procedure manuals.

During the year, 11,795 staff/days of in-service training were conducted in the five Fields at an average of 7.4 training days per medical officer and 5.3 training days per nurse.

The training covered all the Programme components including: management, maternal and child health and family planning, control of communicable and non-communicable diseases, basic laboratory techniques and rational prescribing of drugs.

In addition to in-service training activities, the Agency supported basic and post-graduate training in Public Health of 38 staff at local universities as outlined in Table 64

Table 64 - Basic and post-graduate training, 2009

Field	Category	No.	Course	Start Date	Sponsor
Jordan	Senior Staff Nurse	2	Master Degree Public Health	Sept. 2007	Own expense
Gaza Strip	Medical Officer	12	Master Degree Public Health	Sept. 2007	UNRWA
	Senior Staff Nurse	2	Master Degree Public Health	Sept. 2008	UNRWA
	Deputy Field Nursing Officer	1	Master Degree Public Health	Sept. 2009	UNRWA
West Bank	Laboratory Technician	1	Master Degree Bacteriology	Sept. 2007	Partially UNRWA
	Laboratory Technician	1	Master Degree Immunology & Microbiology	Sept. 2007	UNRWA
	Medical officer	1	Master Degree Public Health	Sept. 2009	Partially UNRWA
	Medical officer	1	Diploma in Child Health Care	June 2008	Royal College, Juzoor & Alquds Unviersity
	Medical officer	1	Mental Health Course	Oct. 2008	Juzoor
	Medical Officer	1	Diploma in Family Medicine	Nov. 2008	UNRWA
	Midwife	1	Bachelor Degree Midwifery	Oct. 2009	Partially UNRWA
	Midwife	1	Bachelor Degree Midwifery	Feb. 2009	UNRWA
	Midwife	1	Bachelor Degree Midwifery	Sept. 2008	UNRWA
	Pharmacist	1	Master Degree Health Policy and Management	Sept. 2008	Partially UNRWA
	Practical Nurse	1	Bachelor Degree Nursing	April 2009	Partially UNRWA
	Practical Nurse	1	Bachelor Degree Nursing	Oct. 2007	UNRWA
	Senior Staff Nurse	1	Diploma in Child health Care	June 2008	Royal College, Juzoor and Alquds University
	Senior Staff Nurse	2	Mental health Course	Oct. 2008	Juzoor
	Senior Staff Nurse	1	Master Degree Public Health	Oct. 2008	Partially UNRWA
	Senior Staff Nurse	1	Master Degree Public Health, Health Management	Sept. 2008	Partially UNRWA
Syria	Field Disease Control Officer	1	Master in Public health	Jan. 2006	Ministry of Health & UNRWA
	Gynaecologist Obstetrician	1	Master in Public Oral Health	Jan. 2006	Ministry of Health & UNRWA

MONITORING, EVALUATION AND OPERATIONAL RESEARCH

Research is essential to medical assistance as well as to rational planning. It is the production and application of knowledge to improve the organization of resources in order to achieve health goals. In UNRWA it is a tool used from health need assessment and monitoring to evaluation. It allows us to measure our progress in achieving the highest possible level of health for our beneficiaries allowing us to compare the health status of Palestine refugees with that of other populations in and outside UNRWA's area of operation through the identification of common indicators (for example MDGs). Another aspect related to research is the compilation of reviews of current best practices in clinical medicine and in public health, crucial to maintain contact with the evolution of medical science and produce updated and evidence based guidelines for the management of the different aspects comprehensive primary health care delivery.

Historically UNRWA has achieved great clinical and public health breakthroughs thanks its critical and innovative approach to health. In its early years it introduced Oral Rehydrating Solution in the treatment of mild dehydration in diarrheic infants (Najjar salts). The success of this method cemented the widespread use of oral rehydration therapy by international agencies and globally.

Moreover it was highly effective in eradicating malaria with pilot programmes in the Jordan Valley. Research for health is at the same time extremely specialized and vast. It encompasses communicable and non communicable diseases, mother and child health, drug utilization, antimicrobial resistance, but also dwells on health service analysis and evaluation with studies on patient flow and assessment of the quality of health delivery against international standards.

INTERNAL/SELF-ASSESSMENTS

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

- Assessment of trends in utilization and productivity of laboratory services;
- Assessment of trends in utilization and productivity of oral health services at Field level;
- Disease prevention and Control sub-programme review in all Fields;
- Health protection and Promotion sub-programme review in all Fields;
- Assessment of Immunization coverage with TT (tetanus toxoid) among pregnant women;
- Risk status assessment of pregnant women;
- Modern contraceptive method mix assessment; and
- Immunization coverage of children (a joint assessment of the Health Protection and Promotion and the Disease Prevention and Control sub-programmes).

EXTERNAL HEALTH REVIEWS CARRIED OUT IN 2009

During 2009, several Health Programme reviews and evaluations were carried out by external consultants, in particular:

- The Global Health Programme review;
- Three UNRWA Field Health Programme reviews: in Syria, Lebanon and West Bank Fields;
- The review of the Management System for Essential Medicines Including Rational Drug use; and
- The Review of Mental Health Services provided by UNRWA for Palestine Refugees.

OPERATIONAL RESEARCH

The Health Programme has been producing high quality medical research, published internally and in international indexed journals for several years. This is thanks to its technically qualified and highly motivated staff both at HQ and Field level. We can divide the types of research studies conducted in the Health Department in two major categories: periodically conducted surveys to monitor specific health indicators and dedicated studies conducted to find answers to specific questions. In both cases studies have been conducted either exclusively by UNRWA staff or jointly with other research institutions and universities. In 2009, the following periodic surveys were finalized: the UNRWA Infant mortality Survey and the study on current contraceptive practices. Moreover in the West Bank a comprehensive survey on nutrition was conducted in collaboration with Columbia University targeting school aged Palestine refugee children.

ADVOCACY AND SCIENTIFIC PUBLICATIONS

Advocacy for Palestine Refugee health through the scientific community is an important alternative communication channel that the UNRWA Health Programme is pursuing in order to ensure visibility and eventually external relations and fund raising.

In 2009 the following three articles were published in *The Lancet* the most prestigious international medical journal:

- G. Sabatinelli, S. Pace-Shanklin, F. Riccardo, Y. Shahin. "*Palestine refugees outside the occupied Palestinian territory*" The Lancet, Early Online Publication, 5 March 2009 doi:10.1016/S0140-6736(09)60101-X;
- R. Gaicaman, R. Khatib, L. Shabaneh, A. Ramlawi, B. Sabri, G. Sabatineli, M. Khawaia, T. Laurance. "*Health status and health services in the occupied Palestinian territory*" The Lancet, Early Online Publication, 5 march 2009 doi:10.1016/S0140-6736(09)60107-0; and
- Abdulatif Hussein, N. Abu-Rmeileh, N. Mikki, T. Ramahi, H. Abu-Ghosh, N. Barghouti, M. Khalili, G. Ottesen, J. Jervell. "*Cardiovascular diseases, diabetes mellitus, and cancer in the occupied Palestinian territory*" The Lancet, Early Online Publication, 5 march 2009 doi:10.1016/S0140-6736(09)60107-0.

Also in 2009 the following articles were published:

- Khader , H. Madi , F. Riccardo, G. Sabatinelli "*Prevalence of anemia among UNRWA assisted Palestine refugee pregnant women in Gaza Strip and West Bank*" Public Health Nutr. 2009 Dec;12(12):2416-20;
- M. Hindiyeh, Y. Aboudy, M. Wohoush, L. M. Shulman, D. Ram, T. Levin, T. Frank, F. Riccardo, M.Khalili, E.S. Sawalha, M. Obeidi, G. Sabatinelli, Z. Grossman, E. Mendelson "*Characterization of Large Mumps outbreak in Vaccinated Palestinian Refugees*" Journal of Clinical Microbiology 47(3): 560-565, March 2009; and
- A. Khader, Y. Shaheen, Y. Turki, F. el Awa, H. Fouad, C.W. Warren, N.R. Jones, V. Lea, J. Lee "*Tobacco use among Palestine refugee students (UNRWA) aged 13-15*" Prev Med. 2009 Aug-Sep;49(2-3):224-8.

UNRWA also produced internal publications in 2009. These were: the report of the study *Analysis of UNRWA outpatient Services: patient profiles, causes of consultation and antimicrobial prescription in UNRWA Primary Health Care Clinics*; the report of UNRWA *Infant mortality Survey 2008* and *UNRWA Health in a Nutshell*: a review of UNRWA health service delivery and infrastructure. Moreover to commemorate the achievements of UNRWA at its 60 anniversary, the Health Department developed a booklet describing the different activities it carries out to support the human development titled "*The Life Cycle Approach to Health*".

EXTERNAL COOPERATION AND PARTNERSHIPS

Since 1950, under the terms of an agreement with UNRWA, the WHO has overseen the technical aspects of the Agency's Health Programme through the Eastern Mediterranean Regional Office. WHO/EMRO continued to provide on non-reimbursable loan the Director of Health and the Deputy Director of Health and to cover salaries and related expenses of Division Chiefs at UNRWA

Headquarters. WHO regularly includes senior UNRWA programme managers in regional technical meetings, conferences and workshops, and supplies the Agency with technical publications and periodicals. The collaborative links between UNRWA and the WHO Office in Jerusalem were strengthened in 2008 through arrangements that were made to facilitate access of UNRWA Headquarters to the WHO/EMRO intranet.

Seeking to improve the quality of services provided to the camps' community, the Health Department at UNRWA HQ, Amman sought technical advice from WHO/EMRO to pilot the implementation of the Community-Based Initiative (CBIs) framework in UNRWA camps and in 2009 a pilot started in three camps. CBIs are self-sustaining, community oriented, and bottom-up approaches that are dependent on the full involvement and participation of communities in an integrated socio-economic planning, supported by the collaboration of all sectors involved in the development process.

The Agency's Health Programme also maintained close collaborative links with other UN organizations, in particular UNICEF. Cooperation with UNICEF focused on relevant aspects of the Integrated Management of Childhood Illnesses (IMCI) programme, which involved UNICEF continuing 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 and Host Country MoHs with the aim of jointly implementing national immunization campaigns for children. Cooperation with UNICEF was further enhanced to cover the cost of training, development of educational materials and future collaboration in promoting the concepts and principles of the Convention on the Rights of the Child (CRC) and psychosocial support.

The UNRWA Health Department maintained information exchange with UNFPA and UNAIDS. UNFPA sustained UNRWA in the West Bank and Gaza by donating contraceptives and medical equipment. The UNRWA Health Programme also benefited from the help of the Japanese International Cooperation Agency (JICA) to expand the implementation of the MCH Handbook to Syria and Lebanon Fields and to introduce new growth charts.

Joint activities with WHO/EMRO and the Centre for Disease Control Atlanta (CDC) in 2008 resulted in launching to the media and stakeholders the results of the Global Youth Tobacco Survey (GYTS), moreover an agreement was finalized to conduct the Global School Health Survey (GSHS) that will be carried out in all UNRWA Fields of operation.

Among academic collaborations it is necessary to mention that to the effect of understanding the determinants of chronic public health issues such as anaemia in the West Bank, a formal collaboration was established in 2008 with Columbia University. A comprehensive survey on nutrition was conducted during 2009 targeting school aged Palestine refugee children.

UNRWA has historically maintained close working relationships with the public health departments of the Host Authorities. UNRWA senior health staff in the Gaza Strip and the West Bank enjoy membership in many technical committees established by the MoH of the Palestinian Authority to review aspects of health policy and to coordinate action in the health sector. UNRWA also participated in the work of various national committees on nutrition and food to formulate policies and strategies on food security and micro-nutrients. The MoH of the Palestinian Authority has also been supportive of the efforts of the Health Programme by providing all vaccines included in the expanded programme of immunization in the Gaza Strip and the West Bank.

The MoH in Jordan has provided UNRWA with its required quota of contraceptives and vaccines, as per the expanded programme of immunization. Moreover it has established in 2008 ongoing long term contract with UNRWA for the provision of hospital services and has encouraged the participation of UNRWA health professionals in national technical committees.

The MoH in Syria continued to meet UNRWA's requirements for vaccines that are not covered by UNICEF such as Hepatitis-B and *Haemophilus influenzae* type b (Hib) vaccines. In Jordan, Lebanon, and the Syrian Arab Republic the MoHs also met UNRWA's requirements for anti-tuberculosis drugs and provided advanced laboratory facilities for surveillance of vaccine-preventable diseases and HIV/AIDS.

UNRWA's Health Programme maintained and developed the longstanding cooperation with the Palestinian Red Crescent Society (PRCS) especially in Lebanon where the Agency has contractual arrangements for the treatment of refugee patients in the five PRCS hospitals. Cooperation was also maintained with local universities especially the American University of Beirut and Birzeit University in Ramallah for the education and development of science students.

During 2009, the Director of Health, and other senior staff of the Department of Health participated in the following meetings/conferences conducted by WHO and other stakeholders (Table 65).

Table 65 - Meetings/conferences attended in 2009

MEETING	PLACE AND DATES
1243rd Session of the Executive Board of the World Health Organization	Geneva, 19-27 January 2009
24rd Meeting of the Regional Directors with WHO Representatives and Regional Office Staff	Cairo, 21-25 February 2009
Inter-country workshop on strengthening reproductive health monitoring and evaluation	Cairo, 28 March – 1 April 2009
Inter-Country meeting for Ministry of Health Injury focal points to develop & agree on a uniform injury surveillance system at the National level	Cairo, 11-13 May 2009
Nutrition Advisory Committee	Cairo, 1-2 June 2009
Workshop on integrating the WHO Global Strategy on diet and physical activity and health in schools	Tunis, 27 June – 2 July 2009
Regional outbreak alert and response network, regional outbreak/pandemic response training	Cairo, 15-18 June 2009
Inter-Country workshop on DPAS from 27 June to 2 July 2009	Tunis, 27 June to 2 July 2009
Regional Workshop on the Implementation of Best Practices in Family Planning	Amman, 27-30 Sept. 2009
IC meeting on Measles/Rubella Control/Elimination & EMRIW sub-meeting,	Sharm El-Sheikh, 27 Sept. – 2 October 2009

THE UNRWA HEALTH CARE REFORM AND THE HEALTH PROGRAMME STRATEGIC PLAN

THE PRIMARY HEALTH CARE REFORM

Most problems identified in by the programme reviews carried out in at Central and Field level are consequence of the design of the Health Program, that takes what is called a selective Primary Health Care approach. Thus, the services are structured according to components or diseases, along vertical lines. Health conditions (common diseases, NCD) or activities (ANC, EPI), not persons, are the focus. UNRWA health program reproduces a system designed to deal with acute, one-off conditions, a system that has not changed despite the transition that epidemiology and demography have undergone, and which have brought the need for services centered on chronic conditions, and on establishing life-long relationships between health personnel and users.

While keeping the features that have made them a model of quality and efficiency for the host countries where the Agency works, UNRWA PHC services should make efforts to adapt to people's needs and expectations, taking into account the existence of

alternatives for some of the care offered and the imperative need of improving effectiveness and quality of some of its interventions.

UNRWA PHC strategy should focus on those interventions at the core of the program and those for which neither private nor government providers offer an affordable alternative. Therefore, the nucleus of the program should be composed of MCH-related services, NCD screening (including the most common forms of cancer) and expanded NCD management, that includes highly prevalent conditions, such as Smoking, Overweight and Chronic Obstructive Pulmonary Diseases (COPD) to the currently addressed hypertension and diabetes mellitus. At the same time, the Agency should try to free its staff of the burden of referable curative care in favour of strengthening preventive care.

Addressing quality concerns should be part of the same approach. Improving quality indicators is likely to be reached by implementing a combination of strategies.

Prioritization is the key. If the above mentioned areas are defined as the priority, it means that all efforts will be directed towards achieving better performance on their improvement. Defining priorities allows teams to focus and enables them to deal with situations (eg, longer waiting time for general consultations) that can generate complaints and misunderstandings.

Setting targets in terms of screening coverage or control rates helps teams to plan for the necessary amount of time (and work), and distribute resources accordingly, much in the same way as setting coverage targets for EPI.

Incentives should be designed to influence both staff and users behaviour. Incentives do not need to be salary complements, but can take the form of additional budget for Health Centre improvement, signature for scientific journals, or resources to be used in specific training, for example, as long as they are related to a minimum level of performance. Negative incentives can be considered too; in its most basic form, long waiting time can be an incentive (a negative one, since it tries to avoid an action) for people with trivial diseases avoiding consultations or looking for care elsewhere (although incentives need to be well designed to avoid losing patients with important conditions).

Re-define team members' roles. With suggestions from Field programs, the Health Department at HQ should design new job descriptions for the PHC team, increasing the autonomy and level of responsibility attributed to nurses, who should become able to perform without close supervision most activities related to the control of NCD patients, thus freeing medical officers' (MO) time for the most complicated cases.

Increase contact time between staff and users should have a positive impact on the quality of care offered by MOs. However, to increase the average duration of a contact (a strategy) to produce higher quality (a goal), this should be linked to other, complementary tactics, that ensure that "freed time" is devoted to achieve strategic goals. Some approaches can help increase the mean contact time:

- Enforcement of an appointment system. Designing a sound appointment system is relatively easy. The difficult part is making it work in front of complaints and misunderstandings. The key is for both staff and users focus on the gains (in terms of capacity for devoting time to improve quality of care) obtained by its implementation. Also important are support from the field program senior management to organize and shape the system, as well as an adequate information campaign directed to beneficiaries. Any system should be flexible enough to ensure that serious cases, even without an appointment, will be identified and assisted without delay;

- In addition to saving drugs and containing costs, limiting access to (free) non-essential medicines may have an effect on the number of patients visiting the facility and, consequently, on the amount of time available for the remaining users. Of the three ways of reducing consumption of non-essential drugs (charging even subsidized prices, supplying only to specific

users, or removing these medicines from the HC stocks), the easiest to implement and clearest of purpose probably is taking those medicines out of the supply list;

- In addition to these specific measures, UNRWA HQ should begin a far-reaching reform process, in order to transform its health services into a comprehensive, horizontal, population-focused health system. This has been the approach taken by many developed systems, based on government-like provision of health care, and, reportedly, this is the approach that the Jordan MoH envisions in the long term. In this regard, Jordan Field, with strong links to the public sector and a relatively small hospital program, has possibilities barred to other Fields, where UNRWA has to assume the bulk of health care and relations with the host country MoH are less smooth.

THE HEALTH PROGRAMME STRATEGIC PLANNING

2009 was also an important year in strategic planning for the Health Programme with the finalization of the Programme budget 2010-2011. The HQ Implementation Plan (HIP) identified the strategic priorities and approaches within the framework set by the Agency's Medium Term Strategy (MTS) that will translate into UNRWA outcomes, outputs and indicative budgets. A full scale of indicators (outcome, output and impact) were defined to guide monitoring and evaluation of progress and data will be available in the next financial term reports. The results of the HQ and Field Implementation Plans were presented to the Advisory Committee meeting in June 2009 for approval and are now part of the Programme budget 2010-2011.