The Annual Report of the Department of Health

2010

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

The Annual Report of the Department of Health

2010

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FOREWORD OF THE DIRECTOR OF HEALTH

Health services of UNRWA are at the critical juncture. After the decades of remarkable progresses in improving the health status of the Palestine refugees that UNRWA serves, particularly mothers and children, challenges are paramount and overwhelming. There are serious concerns about a possible shrinkage of UNRWA health services in light of the financial constraints facing the Agency.

As a new director of health programme, I would like to emphasize how this report is a reflection of the continued commitment of the UNRWA health programmes, in the midst of a health reform, to improve our health services for the Palestine refugees we serve. For this reason, particularly this year the Annual Report of the Department of Health is very important.

The health status of Palestine refugees has shown sizable improvement. Deaths of mothers and children have been considerably decreased. Progress in the Millennium Development Goals 4 and 5, namely to reduce child and mother deaths, respectively, is on track. Immunization coverage has always been close to 100%, much higher than the WHO Target of 95%. It is worthwhile mentioning that such progress is done with a low level of financing. Health expenditure per registered refugee in UNRWA was only USD 19.8 in 2010. This is significantly lower than the per capita governmental health expenditure of the host countries of UNRWA and also that of other middle income countries. One important reason behind is the commitment of health personnel throughout UNRWA. Based on my 20-year experience in public health, I can say that it is very rare to see such committed health personnel throughout the services.

Still, the challenges in health status and services are paramount. Non-communicable diseases, or so-called life-style illnesses, are becoming predominant. Evidence indicates that non-communicable diseases account for 70% to 80% of deaths among Palestine refugees. These are life-long, difficult to prevent and hard to control health conditions. Health services of UNRWA have yet to cope with such challenges. Health centres are usually overwhelmed with a large number of patients. On average, one physician sees 100 patients per day. The time available for each consultation does not favour quality of care, including care for non-communicable diseases. Increasing cost for hospitalizations is also affecting the health financing of UNRWA. Unfortunately, this has often forced refugees to make considerable out-of-pocket payment for hospitalization care when they do not have access to other financing schemes like a health insurance. Addressing such challenges with low level of financing (i.e. less than USD 20 per registered refugee) is truly a daunting task, particularly in the current global financial crisis.

Prevailing social and economic difficulties and political instability also negatively affect health outcomes. Unemployment is extremely high among productive age groups. Poverty level still remains high. The latest survey in Lebanon, for example, indicated that 67% of the refugees are poor. Such economic and social stress sometimes results in gender-based violence. Continued blockade by Israel against importation of essential materials for health facility infrastructure, has affected health service delivery in the Gaza Strip. Similarly, limitations in access to health care cause a significant health burden in the West Bank.

The health programmes of UNRWA are fully aware of such challenges and difficulties and are committed to address them through a health reform based on the progress made to date. In 2009, comprehensive health systems reviews were conducted in each Field. The Mid Term Strategy of UNRWA (2011-2015) is the foundation of the reform, supported by the life cycle approach. In the reform, addressing the life style illnesses is a key message. This will entail improvement of quality of care in crowded health centres, and outreaching to communities to bring changes in life style. Addressing health needs will also entail increasingly costly hospital payments. In order to make this feasible, fundamental improvements in the health information system through e-health and, most importantly, support to health workforces

through continued education, are required. Partnerships with host countries, donors and all others will remain critical. In reality, the process of reform is now under way as characterized in this year's activities. All Fields have made encouraging innovations along with the reform, and this is highlighted in this report.

UNRWA is at the critical juncture, whether or not to improve its health services. Although there is no shortage of difficulties and challenges in the health reform, we have no choice but to succeed so as to continue to better serve Palestine refugees. This is actually up to all of us in the UNRWA health programme. And because of this, because I know and admire the commitment and dedication of UNRWA health personnel, I am confident of the success in the health reform.

Dr. A. Seita
WHO Special Representative
Director of the UNRWA
Health Programme

MESSAGE OF UNRWA COMMISSIONER GENERAL AND WHO-EMRO REGIONAL DIRECTOR

In this year of considerable change and economic uncertainty, the work of UNRWA has been as relevant as ever. Its role in providing basic services and support to a population of nearly 5 million Palestine refugees helps ensure not only individual, but community well-being.

Health is a critical component of the social and economic development of the refugees. Investments in health directly improve educational outcomes, labour force capacity, and overall economic well-being. The first of four human development goals contained in UNRWA's Medium-Term Strategy for 2010-2015, namely "a long and healthy life," articulates the Agency's focus on health as one of the essential components of its support to the needs and rights of Palestine refugees. Since its establishment in 1949, one of UNRWA's main accomplishments has been the significant improvement in the health status of Palestine refugees, and in particular in the reduction of maternal and child mortality.

A rise in health costs due to inflation, however, combined with the almost exponential rise in the incidence and costs of care for non-communicable diseases, means that UNRWA is increasingly unable to maintain optimal levels of medical care and assistance. With a budget of approximately $18 per registered refugee, it is becoming difficult to assist refugees faced with prohibitive hospitalization expenses. Poverty, unemployment, social discrimination and political instability add to the severity of their situation.

Within this challenging context, UNRWA has embarked on broad reforms to ensure the optimum efficiency and efficacy of services. In health, the Agency must achieve increased efficiencies if it is to meet increasing needs. It must focus where it has real added value and a proven track record: primary health care at the community level. Reforms require new initiatives throughout the Agency, from programme management and resource mobilization at headquarters down to scheduling and medication management at the point of service delivery in the field.

This year's annual report describes a number of achievements despite the difficult financial and operational circumstances: continued progress in mother and child health care, communicable disease control, and non-communicable disease care and prevention. Additionally, field offices have helped lead efforts to innovate and pilot new approaches. We are confident that UNRWA's health care reform, and the collaboration of WHO, host countries, donors and partners, will help guide the Agency in finding effective ways to address the numerous and daunting challenges it is facing. Its mission -- to protect, preserve and promote the health of Palestine refugees -- is as critical in today's Middle East as it was when UNRWA was created.

Filippo Grandi

UNRWA Commissioner General

Dr. H. Gezairy

Regional Director WHO/EMRO

EXECUTIVE SUMMARY

As the main comprehensive primary health care provider for Palestinian refugees in the Near East, UNRWA has been the largest humanitarian operation in the region for 61 years. The Mandate of UNRWA on health is to protect 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 as indicated in the first Human Development Goal, "A Long and Healthy Life", of the UNRWA Medium Term Strategy 2010-2015..

UNRWA currently runs 137 Primary Health Care (PHC) Centres and one hospital. In 2010, UNRWA medical officers in the PHC centres provided almost 10.4 million consultations. These were complemented by about 700,000 dental consultations and almost 260,000 dental screening sessions. About 86,000 people were assisted by the programme to cover hospital care costs, either in contracted secondary/tertiary care facilities or in the UNRWA hospital in Qalqilia (West Bank). By promoting continuative, comprehensive, health care from preconception to old age, focussing on primary health care and prevention, it has reached recognized results in improving the health conditions of refugees.

However, the challenges that UNRWA health services face are paramount. The demand for health care is continuously increasing. The refugee populations increased from 4.8 million in 2009 to 5 million in 2010. The number of medical consultations increased from 10.3 million in 2009 to 10.4 million in 2010 and PHC centres remain extremely busy (101 consultations per physician per day). Non-communicable disease, or life-style illness, becomes predominant, which requires complicated, lifelong care of patients. Containing increasing hospital payment becomes difficult in the fields. At the same time, UNRWA health expenditure has not shown any actual increase as health expenditure pre-registered refugee remains at USD 19.8 since 2008. Containment of increasing hospital payment would

UNRWA health services started responding to these challenges. In 2010, there were a number of activities took place to respond and start implementing the recommendations of its on-going health care reform. This report provides a comprehensive and technical overview of the achievements of the Health Programme throughout 2010 structured according to the life cycle approach to health care that is promoted by the Agency. Specific chapters are dedicated to cross-cutting activities aimed at addressing the social determinants of health and delivering health to the victims of conflict.

The final chapter of this report is dedicated to the Programme Management stream which outlines the accountability and governance mechanisms adopted in 2010 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

The number of registered refugees showed continued increase in 2010: from 4,766,670 in 2009 to 4,966,664. 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 29% 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 33.2% 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 80% 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

The comprehensive preconception care introduced in 2009 was scaled up in 2010 by consolidating services for couples planning a pregnancy whilst continuing its long standing activity in family planning. About 24,000 new couples were enrolled in the family planning programme during 2010, and the total number of continuing users of modern contraceptive methods agency wide increased from 134,729 in 2009 to 139,965 in 2010, a 3.7% increase.

PERINATAL CARE

UNRWA continues to provide perinatal care at the PHC centres to sustain the gains in the health status of mothers and children and further reduce infant, child and maternal morbidity and mortality. Key progress in 2010 were the increased use of health information systems and e-health, the full implementation of the Maternal and Child Health booklet in all Fields and improvements in capacity building. Antenatal care was provided to 101,832 pregnant women, who accounted for 69.0% of all expected pregnancies among the registered refugee population. 96.8% of the pregnant women delivered in hospital, increased from 95.8% in 2009 and 92,754 women received post-natal care, which is a 92.6% coverage rate of expected deliveries.

INFANT AND CHILD HEALTH

Infant and child health focuses on providing paediatric curative and preventive services as well as school health services. A total of 286,343 infants and children below 36 months of age (compared to 282,259 in 2009) received preventive care at UNRWA primary health care facilities including a thorough medical examination, growth monitoring, immunization against vaccine-preventable diseases and screening for disabilities. During the school year 2009/2010, a total of 50,033 new entrants were registered in UNRWA schools of whom 25,016 girls and 25,017 boys. They all benefited from the comprehensive school health services offered by the Agency including medical examinations, immunization, screening for vision and hearing impairment, oral health consultations, vitamin A supplementation, de-worming, health education and promotion activities.

ADOLESCENT AND ADULT HEALTH

In the oPt over 15,000 refugees benefited from individual mental health counselling sessions, almost 30,000 from group counselling and over 4,000 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 ten physiotherapy units in Gaza and six units in West Bank, providing a wide range of physiotherapy and rehabilitation services. In 2010, over 14,000 patients were treated in the oPt. Qalqilia hospital had an average daily bed occupancy rate in 2010 of 61.0% and over 6,000 people were admitted.

ACTIVE AGEING

Non-communicable Diseases (NCD), or life-style illness, become a predominant health problem in Palestine refugees. The reduction of communicable disease incidence combined with modifications in life style and longevity have led to this change in the Palestine refugees' morbidity profile with the emergence of non-communicable diseases such as cardiovascular diseases, diabetes mellitus and cancer. The number of people with NCD assisted increased steadily since 2000 reaching 199,412 in 2010, although proportional mortality among patients affected by diabetes and hypertension followed by UNRWA clinics remained stationary at 1.9% in 2010, the increase confirms the epidemiological trend that is seeing an increasing importance of Non-communicable diseases 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 61 years. Delivery of essential sanitation and water services was maintained in 2010 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, while the Integrated Community Based Initiative Programme is striving to improve living conditions and limit health inequalities in camps.

DELIVERING HEALTH CARE TO THE VICTIMS OF CONFLICT

In the decade since the start of the Al Aqsa Intifada, the West Bank and the Gaza Strip have been in the grip of a protracted humanitarian crisis. In Gaza, despite a partial easing of the blockade announced in June 2010, on-going restrictions severely limit economic recovery, leaving a large majority of the population dependent on UNRWA for food aid and other basic services. In the West Bank the separation Barrier and the hundreds of other physical obstacles and checkpoints continue to have a major impact on the population and on UNRWA's ability to deliver humanitarian services. In Lebanon, three years after the conflict of 2007, the reconstruction of Nahr el-Bared Camp (NBC) not only for health but in general is still being stagnant. UNRWA is acting to mitigate the impact of political instability and conflict on the health of refugees through a combination of interventions that include outreach medical services, institution of provisional health centres, increased coverage of the costs of hospitalization and implementation programmes focusing on mental health and physical rehabilitation.

PROGRAMME MANAGEMENT

The Health Programme's expenditure in 2010 was USD 98.6 million. Around 3,654 staff members work for the Health Department across the five Fields of operation, including the staff employed in Qalqilia hospital. Staff to population ratio (registered population) in 2010 was 9.5/ 100,000 for physicians and 22.3/ 100,000 for nurses. The first steps in implementing the framework of the health reform began in 2010 based on the planning conducted in 2009 as a result of the monitoring and evaluation carried out in 2008. Health Department at headquarters and in fields started the restructure to address health reform. Advocacy, also among the scientific medical community was fostered through the publication in 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.

THE UNRWA HEALTH PROGRAMME: IMPLEMENTING A HEALTH CARE REFORM

UNRWA's mission continues to be of critical importance to refugees, to the Middle East and to the international community. It is regrettable that the Israeli–Palestinian conflict – and the refugee question that is one of its historical consequences – remains unresolved. On the other hand, sixty-one years after UNRWA's establishment, the vital contributions of its work remain undiminished by the passage of time, by the persistence of conflict or by financial difficulties.

Statement by Filippo Grandi to the Special Political and Decolonisation Committee of the General Assembly, 2010

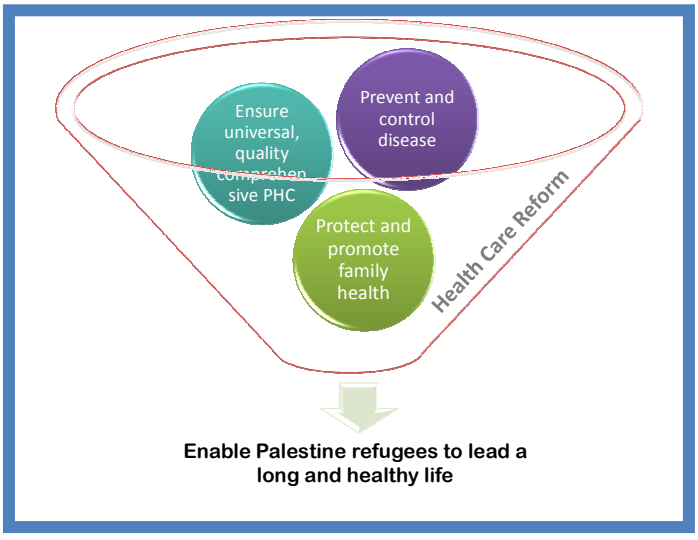
In this introductory overview of the health status of the population served by UNRWA in 2010, we will first of all describe the UNRWA Health Programme as a whole and the health care reform process in particular through the eye of the West Bank Field experience. Then UNRWA beneficiaries in 2010 will be described in terms of their socio-economic profile and of issues of access inequity to health and heath care services in each of the host countries where they reside. Conversely to previous editions of the annual report of the Department of Health, this year this chapter will also present in a fact sheet format, the key issues faced and the main achievements reached in 2010 by the Health Programme as a whole and by each Field of operations.

THE HEALTH PROGRAMME TODAY

As the main comprehensive primary health care provider for Palestinian refugees in the Middle East, UNRWA has been the largest humanitarian operation in the region for over 60 years. By promoting continuative, comprehensive, health care from preconception to old age, focussing on primary health care and prevention, it has reached recognized results in improving the health conditions of refugees [1, 2].

The UNRWA Health Programme is undertaking 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 shiftstarted in 2009 with the life cycle approach to health.

Refugees are assisted from preconception to active ageing through curative and preventive health services that include post-natal follow-up of infants (growth 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.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 2010, the Agency managed a network of 137 clinics, located both inside and outside the refugee camps, serviced by 3,654 health care workers, including 470 doctors who conducted 10.4 million medical consultations.

In 2010, the Health Programme has started to implement the findings of an in-depth evaluation of its activities performed in 2009 with the aim to transform UNRWA's health services into a comprehensive, horizontal, population-focused Primary Health System, to obtain - but not necessarily provide - the best possible Hospital Care at a cost affordable for most beneficiaries, to update its structure and procedures to the new needs, and to become an active actor in all venues where the health of the Palestine refugees is discussed. In order to achieve this, the reform process involves not only health services directly provided by the Agency, but also redefines Secondary and Tertiary Care, usually contracted to other providers, the systemic components of the health program, including management, organization, and the structure of the Health Department and how the UNRWA Health Program interacts with other partners.

HEALTH SECTOR REFORM: THE WEST BANK FIELD OFFICEEXPERIENCE

The UNRWA Health Department is implementing strategic reforms in management, capacity strengthening, and partnerships to improve the quality of its service delivery.

Decentralization of Health System management

Decision-making in the health sector has traditionally been centralized and top-down, resulting in a disconnection between the unique needs of patients at the community level, and service delivery.

In order to improve the quality of its health services, UNRWA has been expanding management responsibilities to the area and health centre levels, allowing health centres to better meet their community's needs. Last year, six health centres in the northern, central, and southern regions of the West Bank began assuming greater management and decision-making responsibilities. Senior staff was trained in management and decision-making, developed work plans, and were allocated funds for activities. As a result, health centres demonstrated greater empowerment, ownership, and innovation in providing high-quality health services. With a budget to manage and decision making authority, health centres engaged with community organizations and leaders in health promotion activities. Communities also increased their involvement in health, donating equipment, space, and materials for the health centres and their programs.

UNRWA strategic partnerships in the West Bank

NGO Health Service Providers

- Palestinian Red Crescent Society
- Palestinian Medical Relief Society
- Palestinian Counseling Center
- Augusta Victoria Hospital
- Union of Health Workers Committee

Local and International NGOs and Societies

- Thalassemia Society
- Women's Center for Legal Aid and Counseling
- Juzoor for Health & Social Development
- Save the Children Sweden
- JICA

UN Agencies

- World Health Organization
- UNDP
- UNICEF
- UNFPA

Local and International Universities

- Royal College of Pediatricians
- Columbia University
- Uppsala University
- Birzeit University
- Al Quds University
- An Najah University
- Bethlehem University
- American University in Jenin
- American University of Beirut

A strategic Approach to Capacity Building

The Health Department adopted a strategic approach to capacity building, based on the guiding principle that every staff member receives the opportunity for professional development. In 2010, a performance improvement officer and committee comprised of division heads, were assigned to oversee the capacity building needs of health staff. Through training, workshops, short-term technical assistance, and strategic partnerships with international education institutions, health and non-health staff was given equal opportunities to strengthen and broaden capacity.

Strategic Partnerships and Cooperation

The Health Department has been an active participant in policy-making, planning, and development of the Palestinian national health sector. It enjoys a strong partnership with the Ministry of Health, working jointly to harmonize and standardize protocols and standards (e.g. child records), and to transfer technologies such as verbal autopsy to monitor maternal mortality. The Health Department also developed strategic partnerships with NGO health service providers, training institutions, local and international and universities, other UN agencies, and international donors and NGOs (see box). For example, and of particular significance, is the mobile mammography and diabetic services being delivered in cooperation with the Augusta Victoria Hospital in East Jerusalem.

The Health Department has also forged strong partnerships with its communities, establishing Health Committees comprised of health staff, community members, and popular committees, in every refugee camp. This has resulted in a full buy-in, participation, and investment by communities in health. For example, Askar and Dheisheh refugee camps donated building space for new UNRWA clinics. Through this community donation, refugees living in these camps have greater access to health services.

The Way Forward

The health department will continue implementing these innovations related to health management reform, capacity strengthening and quality improvement. The six health centres will continue to strengthen their management capacities, through capacity building and the development of management information systems. Next year, six additional health centres will participate in this initiative, with training and capacity building support provided by a Palestinian organizational development consulting firm.

Despite conflict, socio-economic hardship and high fertility rates, Palestine refugees have been shown to have one of the lowest levels of infant mortality in the Arab world.

KEY HEALTH ACHIEVEMENTS AND ISSUES

This section deals with the main health achievements and issues for the UNRWA Health Programme as a whole in 2010.

LOW INFANT MORTALITY AMONG PALESTINE REFUGEES, DESPITE ALL ODDS

Based on the most recent retrospective survey performed by UNRWA, infant mortality among Palestine refugees in 2005-2006, was estimated between 28.2‰ in Syria and 19.0‰ in Lebanon. This evidence places infant mortality among Palestine refugees among the lowest in the Eastern Mediterranean Region[3].

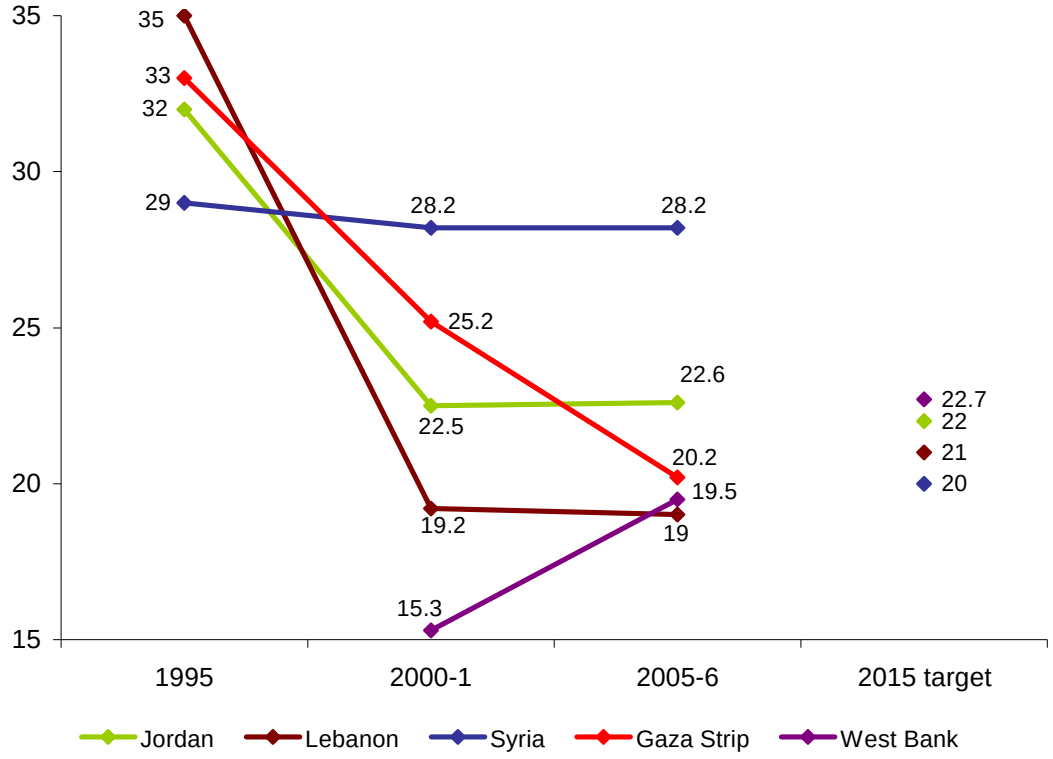


Figure 1 – Infant mortality among Palestine refugees, 1995 - 2006

Main achievements

Achievements in fighting preventable causes of infant death such as communicable diseases and under-nutrition are evident, and point to the efficacy of long term provision of primary health care activities by UNRWA and other health care providers.

Main Challenges

Poor access to health services seems the main factor contributing to neonatal death in the oPt, while medicalization of normal pregnancies is likely to be a more prominent concern in Lebanon. Comprehensive PHC is essential in maintaining a low infant mortality and preventing genetic and pregnancy related determinants of infant death, but it is not enough. If access to high quality maternity and perinatal services is not improved, it is unlikely that infant mortality rates will decrease significativly in the near future, and the fragile results obtained could readily be lost if enduring geopolitical instability jeopardizes continuous access to primary health care (PHC) services in the region.

THE GROWING MORBIDITY AND DISABILITY RELATED TO CHRONIC NON-COMMUNICABLE DISEASES IS ONE OF THE MAIN CHALLENGES FACING

GROWING MORBIDITY DUE TO NON COMMUNICABLE DISEASES

Non communicable diseases (NCD) are increasing, especially among the older population groups. UNRWA's NCD programme is strengthened by a strong coordination and cooperation with the Ministries of Health in host countries, a longstanding technical partnership with WHOand the high commitment of its staff.

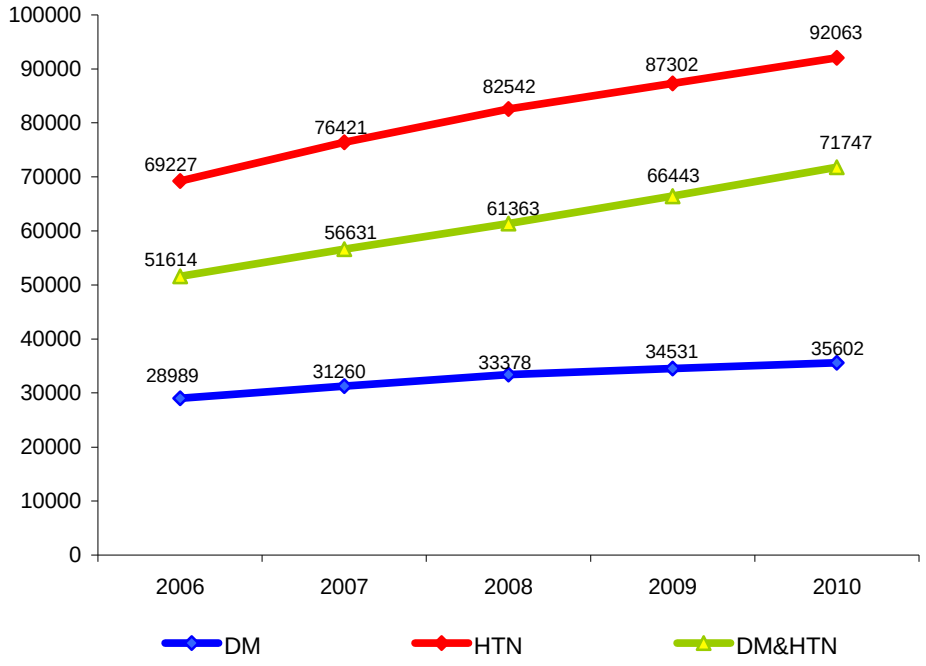


Figure 2 – Patients with diabetes and/or hypertension under UNRWA care, 2006 - 2010

Main achievements

- Introduction of the NCD e-health module in Lebanon and Jordan.
- Establishment of a Community Based Initiative (CBI) Programme.
- Definition of new partnerships with NGOs, the World diabetes Foundation and Nov-Nordisk which resulted, during 2010, in the approval of 2 projects to improve the quality of diabetic care in the West Bank and Gaza Strip.

Main Challenges

The challenge of tackling diseases such as Diabetes, Hypertension, Bronchial Asthma and Cancer is that it implies major investments in diagnostic services, life-long costly treatments and clinical follow up. At the same time efforts to ensure control of communicable diseases cannot be discontinued.

Still today, the coverage of NCD services needs to be increased; diseases other than Diabetes and Hypertension need to be integrated in the Agency's care scheme and patient management needs improvement. Currently NCD care can be provided to a single patient by multiple health care providers, and this may affect adherence of patients to UNRWA management protocols. Access to health services, especially in the West Bank, is at the same time affecting continuity of monitoring and treatment. Also, the high staff turn-over, the lack of a well-developed information system in all Fields and of community participation are considered challenges ahead, given also the inability

of UNRWA to enforce health regulations among beneficiaries.

PROMOTING MATERNAL HEALTH

Pregnancy is a normal, healthy state. Unfortunately this normal process carries with it serious risks of death and disability. Most of these deaths and suffering could be avoided if preventive measures were taken and adequate care available through quality and comprehensive perinatal, antenatal, intranatal, postnatal care and family planning. In UNRWA in order to improve maternal health and decrease maternal mortality we focus on three levels of preventive strategies.

Primary prevention strategies	Secondary prevention strategies	Tertiary prevention strategies
To prevent the condition from occurring through general education, improving reproductive health education, providing family planning services, improving pre-conception care and improving diagnosis and treatment of sexually transmitted infections.	To detect and treat conditions early in order to minimize the effects by increasing community awareness and patient knowledge about the signs and symptoms of possible problems, improve patients' adherence to the recommendations of the health staff and improving antenatal, intra-partum and postpartum care.	To treat identified conditions in an optimal approach in order to reduce mortality and morbidity rates by improving obstetric and medical treatment of complications and by improving practices, facilities and referral services.

Main achievements

- Sharp reduction of maternal mortality and morbidity during the last 30 years,
- Safer delivery by shifting from home delivery to hospital delivery and from deliveries assisted by untrained personnel to deliveries by trained and professional personnel,
- Early identification and control of the preventable causes of maternal mortality,
- In house operational research to improve decision making, and
- Reduction of the total fertility rate.

Main Challenges

- Low antenatal coverage of refugees in some Fields,
- Lack of human and financial resources to address the increased demand for MCH services,
- Lack of coordination with other health care providers and duplication of services,
- Financial and physical accessibility related problems either to UNRWA services or to other subsidized services,
- Limited outreach activities and of community participation,
- Limited inter-sectoral collaboration with other UNRWA departments in particular Education and Relief and Social services,
- Stable total fertility rate and maternal mortality ratio, becoming hard to reduce it further unless additional resources are secured.

SUCCESS STORIES FROM THE FIELDS

SCREENING FOR PHENYLKETONURIA (PKU) AND HYPOTHYROIDISM IN JORDAN FIELD

New-born screening is recognized as an essential, preventive public health program for early identification of disorders in new-borns that can affect their health development. Arab countries have a high prevalence of genetic and congenital disorders, most likely due to high consanguinity rates. Early detection, diagnosis and treatment of certain genetic or metabolic disorders such as phenylketonuria (PKU) and hypothyroidism can lead to significant reduction of death and associated disabilities. The global prevalence of phenylketonuria (PKU) is 1:10,000 to 1:20,000 live births, while in Jordan it is 1:6,000 or more. The worldwide prevalence of congenial hypothyroidism is 1:4,000, while in Jordan it is 1:1,719 [15].

Main achievements

As part of life cycle approach adopted by Health Department in 2009, the screening programme for congenital hypothyroidism and phenylketonuria has been introduced in UNRWA health services in Jordan field in collaboration with the Jordanian Ministry of Health(J MoH) to address the most common treatable causes of mental retardation.

The first phase of the screening program was launched in eight major health centres after concerned laboratory technicians and nurses were trained on how to correctly collect and process neonatal blood samples and on how to raise public awareness.The second phase began in January 2010 with the integration of this essential preventive service in all the 24 health Centres in Jordan Field.

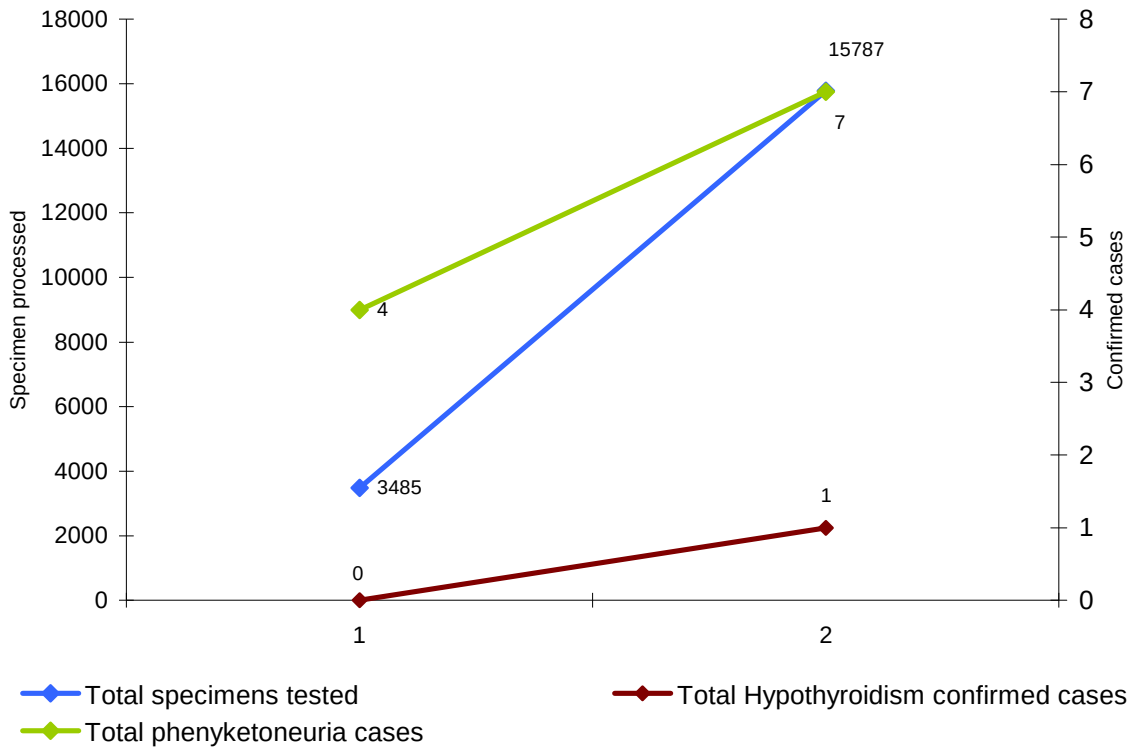


Figure 3 – Hypothyroidism and phenylketoneuria case detection, Jordan 2009 and 2010

During 2009-2010 screening activities, the prevalence rate of Phenylketonuria among refugee new-borns was concordant with global figures, while hypothyroidism rate was concordant with national figures.

It is worth mentioning that following the diagnosis of a new case of PKU in Jarash camp, the UNRWA team visited the child's family and found four mentally retarded adult brothers. All of them were tested for PKU in collaboration with the MoH and found positive.

Through this program, the health department has been quite successful in addressing these treatable diseases. The timely identification of refugee children affected and the prevention of associated mental retardation, were possible by linking screening activities to comprehensive treatment and care provided by the J MoH free of charge.

The experience of this programme run by UNRWA in collaboration with the J MoH, proved to be a success story in building partnership with a host government to improve the quality of services provided by UNRWA in line with the aims of the Agency health reform initiative.

Way Forward

Effective screening of new-born infants for PKU and hypothyroidism requires competence in a number of complex, interrelated activities: specimen collection; specimen transport and tracking; laboratory analysis; data collection and analysis; follow-up of families of infants with abnormal results and public awareness activities. The latter include health education, counselling, production of health education posters and brochures, and media coverage of the launch, which were addressed by UNRWA health programme in collaboration with the Ministry of Health in Jordan in 2009 and 2010.

Future plans include continuous advocacy with the J MoH to ensure its continued support to UNRWA in the field of early screening, detection and treatment of such preventable diseases as well as health education and public awareness to encourage early registration of new-borns and to address these consanguinity related illnesses.

NEW-BORN SCREENING FOR HEARING IMPAIRMENT IN THE GAZA FIELD

Hearing loss is the most isolating disability; it intensifies marginalization and impedes human development in our society. Early identification of deafness, combined with effective early intervention, offers the best chance of language, communication, and speech ability development in deaf children. It is generally assumed that permanent deafness has an incidence of 1 per 1000 live births and 2-3 per 1000 births have hearing problems. It is also estimated that 80-85% of babies referred to ENT doctors suffer from temporary hearing loss and require early intervention services.

Main achievements

In collaboration with the Atfaluna Society for Deaf Children (ASDC), a pilot screening program for hearing impairment among new-borns was implemented in the Gaza Strip with the aim to develop a hearing screening model in primary health care centres. Between June 2010 and January 2011 the implementation of activities took place. ASDC and the UNRWA clinics in Rafah and Beet Hanoon worked together in two phases.

Firstly capacity was built within the two UNRWA centres. The project team conducted two 3-hour workshops for both top administrative and technical staff from ASDC and UNRWA in order to introduce and discuss the screening protocols and the suggested referral and follow-up protocols for new-borns with hearing impairment. A case management information system was installed in ASDC and UNRWA clinics to efficiently track patient status and produce regional automated reports and statistics. Two Otacoustic Emission devices, two Tempanometers and two Otoscopes were purchased and the testing rooms were equipped in a way to prevent sound interference. Finally, an ASDC Audiologist carried out a three week technical training (40 training hours) for six UNRWA staff members on hearing screening protocols, detection techniques, and on the correct use of the equipment.

Table 1 - Number of the screened babies and test results, June 2010 – January 2011

Activities	Number
No. of Screened New-born Babies	2222
No. of Babies had ABR test in ASDC Audiology department	36
No. of babies diagnosed with Hearing Impairment and their parents will be enrolled in early intervention training	14
No. of Babies referred to ENT doctors	53
No. of babies referred to ENT doctors suffering from temporary hearing loss and needed early intervention services.	45

The trained staff in the two UNRWA Clinics carried out the first stage of the hearing screening protocol (Otacoustic Emission Test) using Tempanometer and Otacoustic Emission Devices on all new-borns (0-6 months) who came to the clinics for one of the four immunization sessions. A social worker attended the hearing screening days to raise individual awareness about the program and counsel participants according to test results. A data entry employee used the purchased software to keep track of the patient's status.

All new-borns who failed the first level screening tests were referred to the ASDC Audiological department in order to perform a full diagnostic evaluation. Free ABR tests were provided for all the

referred cases and ASDC Audiology clinic staff and social workers performed recordkeeping and individual counselling. The caregivers of the babies diagnosed with hearing loss, were enrolled in early intervention training. During the reporting period, the program screened and clinically assessed 2,222 new-borns (table 2).

Way Forward

The screening programme for hearing impairment among new-borns will continue to be performed in the two piloted clinics in the Gaza Strip. ASDC will continue to provide the ABR tests free of charge toall referred babies and early Intervention services will be delivered to babies diagnosed with both temporary and permanent hearing loss in all degrees.

ESTABLISHMENT OF A DTC "DRUGS THERAPEUTIC COMMITTEE" IN SAR FIELD

IMPROVING RATIONAL USE OF DRUGS IN THE SYRIAN ARAB REPUBLIC FIELD

Rational drug use is an essential component of good practice in health care. As part of the reform process within the Agency, the Health programme advocated for the establishment of Drug Therapeutic Committees (DTC) in each Field. Such Committees would be charged of:

- evaluating and selecting drugs for the formulary list,
- providing advice on all aspects of drug management,
- developing drug policies,
- overseeing and reviewing the implementation of UNRWA policies and procedures on rational use of drugs,
- promoting effective interventions for rational drug use by patients, prescribers and assistant pharmacists through education and regulatory mechanisms,
- Implementing DTC recommendations.

Main achievements

In 2010, a DTC committee was established in the Field. The essential drug list was reviewed with the participation of all medical officers in health centres, and a list to update the essential drugs in the formulary was proposed. Scientific tools such as the ABC and VEN
Analysis were used to rationalize use of drugs in case of budget cuts.
Awareness on the rational use of drugs was raised by conducting monthly workshops to discuss the best ways for diagnosis and treatment of the most frequent diseases. A newsletter on the proper use of drugs with indications, contra-indications, cautions, drug interaction, side effects and preferred dosage was produced. Finally, supervisory visits to all health centres were made and the patient's cards were checked to ensure proper implementation of UNRWA policies and procedures on rational use of drugs.

Cooperation between UNRWA and the Syrian Ministry of Health takes place in many fields related to drug and immunization management. All annual requirements for contraceptive drugs are provided by the Ministry of Health to UNRWA free of charge. Collaborations are in place within the Expanded Programme of Immunization to increase vaccination coverage, reduce vaccine preventable diseases and achieve measles elimination, and polio and tetanus eradication. A memorandum of understanding was signed between the UNRWA health department and the Syrian Ministry of Health to enable UNRWA to receive the required vaccines on a quarterly basis in addition to cold chain equipment. Similarly, an excellent cooperation between UNRWA's disease prevention and control division and the Syrian National TB and HIV/AIDS control programmes is in place. The Ministry of Health provides UNRWA with anti-tuberculosis drugs and joint training activities for lab technicians and medical officers on sputum smear examination and standard TB case-management have taken place. Support for the diagnosis and treatment of suspected cases of HIV/AIDS is provided by the Ministry of Health to UNRWA and the Agency participates in all meetings/workshops on HIV/AIDS control activities and on the formulation of the national strategic plan on HIV/AIDS control.

In 2010, the SAR Field started shifting from Central Purchasing of drugs (HQ Amman) to local purchase that is expected to save a substantial amount of funds without compromising quality, given the improvement of the local pharmaceutical manufacturing industries. A drug management system was set up in the central pharmacy to control daily activities at health centre level and avoid time consuming paper-work. This access based software is being piloted in Jaramana H.C. and provides, among other voices, information on expenditure and receipt of stock, drug availability, expenditure on date, expiry dates and order preparations. In the pharmacies there is also an excel sheet to determine requirements quarterly according to monthly consumption and available stock.

The Central Pharmacy an Access stock movement system is also used to:

- Issue an update the stores demand note,

- Add newly received items,
- Inform on stock available at the central pharmacy store and on stock movement (receive – issue) per health centre,
- Follow-up stock (inventory and non-inventory items) concentrating on non-inventory items that are not covered by existing systems used by the Agency.

INTEGRATING MENTAL HEALTH AND FAMILY PROTECTION IN PRIMARY HEALTH CARE: A COMMUNITY-BASED MODEL IN THE WEST BANK

INTEGRATING MENTAL HEALTH AND FAMILY PROTECTION IN THE WEST BANK FIELD

Mental health and family protection have traditionally (in the oPt and on a global level) been addressed *after* the detection of a problem. As a result, the focus of mental health has been on illness and clinical psychiatry with a reliance on hospitals and mental institutions that isolate and socially exclude patients. Similarly, family and child protection issues have gone un-addressed due to a misperception that these cases can only be addressed by the judicial and security systems.

Main achievements

The West Bank Field Office (WBFO) is leading the charge in shifting the conceptual paradigm in mental health and family protection through their integration into its primary health care services. With a focus on positive psychology, community participation, human rights, and the comprehensive well-being of individuals and families, UNRWA WBFO's model aims to secure a long and healthy life for all refugees.

UNRWA WBFO's Mental Health model stresses excellent medical care, augmented by a community approach that emphasizes family and community involvement, social acceptance and integration, and opportunities for economic and social protection and livelihood. UNRWA health staff is integrating mental health care into their service provision - including early detection of mental disorders, treatment of common mental disorders, management of stable psychiatric patients, and referrals to other services required both internally and externally to UNRWA. In addition, UNRWA's psychosocial counselling team are working within the primary health care clinics, centres, and mobile units, providing assessment and identification, treatment, and on-going specialist interventions including individual, family and group therapy, rehabilitation and advocacy. All UNRWA departments - Education, Relief and Social Services, Camp Improvement, and Microfinance Departments - are involved in ensuring that patients receive the multi-sectoral and comprehensive care that they need (see box).

WBFO is also promoting mental health and well-being through its family and child protection initiative, which was launched in nine refugee camps and one village in the central and southern areas of the West Bank. Family and child protection committees are established in these camps and villages, and are comprised of staff from the Health, Education and Relief and Social Service Programmes of the Agency, community leaders, and Community Based Organizations. They are implementing community initiatives and activities aimed at preventing unhealthy behaviours, including psychological and physical domestic abuse, child abuse and neglect, and gender-based violence. The protection committees are also raising awareness on social acceptance and integration of vulnerable groups, including the

Addressing Social-Determinants of Health through Interdepartmental Cooperation.

The Health Department is shifting from vertical to horizontal programming, addressing the social determinants of health—such as social, economic, and education—by working with all UNRWA departments. One of the main successes of this approach is the HIV/AIDS prevention initiative, in which Health, RSSP, and Education departments worked together to train 60 trainers and focal persons on HIV/AIDS. As a result, HIV/AIDS programming was introduced across sectors, such as in family planning, mental health, reproductive health education, disabilities and community based rehabilitation, and school health.

elderly and persons with disabilities. Through these prevention and awareness raising initiatives, communities are working together across sectors to build a positive environment for mental health and well-being.

UNRWA's integration efforts over the past year have yielded significant achievements, including improved access to psychological and psychosocial support to children, youth, parents, and vulnerable groups (e.g. the elderly and persons with disabilities). In 2010, more than 10,000 people received counselling services or participated in supportive group activities and awareness-raising sessions - up from approximately 2,000 people in 2009. More than 200 health and psychosocial staff were trained in music and art therapy, conflict resolution, child abuse and gender-based violence, trauma, crisis intervention and stress management.

Way Forward

The WBFO will continue integrating community mental health and family protection into its Primary Health Care services. In addition to staff capacity strengthening in mental health and family protection, the Health Department will continue developing ways to institutionalize this approach within the system. For example, case management information systems for community mental health and gender-based violence are in development and will be completed in the next year. The Health Department is also finalizing its internal referral system for mental health and victims of GBV, child abuse, and family violence, and working closely with local and international partners in developing a national system for external referrals.

TRANSLATING THE HEALTH REFORM INTO ACTION IN LEBANON FIELD, FOCUS ON PRIMARY HEALTH CARE

The Lebanon Field Office Health Department has focused in 2010 on translating the Health Reform into tangible actions in order to improve the overall quality of provided care, ensure the Programme's sustainability and manage efficiently each health clinic.

The primary health care reviews revealed lack of management and control over the patient flow in each health centre. The result of this excessive flow of patients is the risk of drug stock rupture in pharmacies and excessively short patient/doctor contact-time that impact on the quality of care. An effective triage and an appointment system have been identified as the main factors that could distribute patients optimally throughout the working hours.

The provision of health care at the primary level faces the following challenges:

- Improving the Quality of Care provided at the primary care level.
- Improving access to healthcare
- Improving the length of consultation
- Ensuring continuous availability of medications & medical supplies.

Despite the comprehensive services provided at the primary care level, the following gaps can be identified:

- Mental Health Services,
- Elderly Care,
- Disabilities Care,
- Absence of specialists' consultations for the majority of specialties (endocrinologists, rheumatologists, neurologists etc.),
- Partial Coverage of specialized tests or more advanced tests such as CT scan, whereby the patient has to pay 50% of the bill.

Main achievements

The e-health System with its integrated modules has been developed in 2010 in coordination with the IT team from HQ. It is designed to respond to the need to modernize health reporting and produce various informative reports from the data collected at the health centre level. Over all, the system will contribute to the achievement of the main goals of the health program.

The developed integrated modules include modules of appointment systems, of Mother and Child Health and of Non-communicable Diseases in addition to patient electronic medical records and pharmacy modules. Their implementation will contribute to the effective management of patient's appointments and data management. Medical Officers, Nurses, Clerks, and Gatekeepers will be able to access the same data and control the flow of patient smoothly from check-in to discharge. All the health centre staff will be able to know how many people have appointments and for what reasons in any moment, to be prepared for incoming cases and for the type of

services that need to be provided.

Way Forward

The integrated modules will be piloted in two health clinics in the first quarter of 2011. Depending upon the evaluation of the pilot phase, the integrated modules will be employed in six health centres and eight clinics by the end of 2011.

DEMOGRAPHIC AND EPIDEMIOLOGICAL PROFILE OF PALESTINE REFUGEES

SOURCES OF DATA

The data presented in this report originates from two different sources: the registration records kept by the Department of Relief and Social Services (RSS) and the Health Information System that gathers information at health centre level.

Overall refugee population size and demographic stratification are calculated from UNRWA's registration statistical records. As all registration data is acquired on a voluntary basis, this implies that it is potentially incomplete. In particular this is true for crude birth and death rates as no enforced reporting system is in place. For this reason demographic rates and indices are normally calculated on the basis of the hosting country data, based on the assumption that the refugee population has similar birth and death patterns to the population of the host countries. In addition, 2010 was marked by an increased number of registered refugees; this was not due to an increased fertility rate but to the inclusion of refugees married to non-refugees (MNRs) among those registered with the Agency.

The estimation of denominators to calculate access, coverage, and utilization of services using registration records, presents difficulties due to the fact that data refers to the juridical status of individual refugees but not to refugee mobility over time (e.g. if refugees moved in or outside camps, or if they presently reside within or outside the Agency's area of operations). For this reason, registration data is not used to calculate health service use. For this purpose service based data is preferred. Service based data has the advantage of being updated, validated and of providing disease/service specific information, with however the disadvantage of only being representative of the refugees accessing UNRWA's health services, and not the refugee population as a whole.

The number of beneficiaries that used UNRWA services overall, is an estimation based on the number of families accessing those services and the average number of people in each family in each Field. This mode of estimation will be changed with the introduction of individual access monitoring functions in 2011.

DEMOGRAPHIC OVERVIEW

Almost five million [4] Palestine refugees are registered with UNRWA, an ageing but still predominantly young population with decreasing but still high fertility rates and increasing life expectancies. Across UNRWA's area of operation 33.2% of refugees are children below 18 years of age. The UNRWA calculated 2010 dependency ratio, measured as the proportion of the population below 15 and above 65 years of age, was 80% 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 demographic pyramids are difficult to analyse due known distortions related to a delay in the registration of new-borns 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. However notwithstanding this, they show in their general pattern signs of a shift from an early demographic transition to an intermediate one.

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].

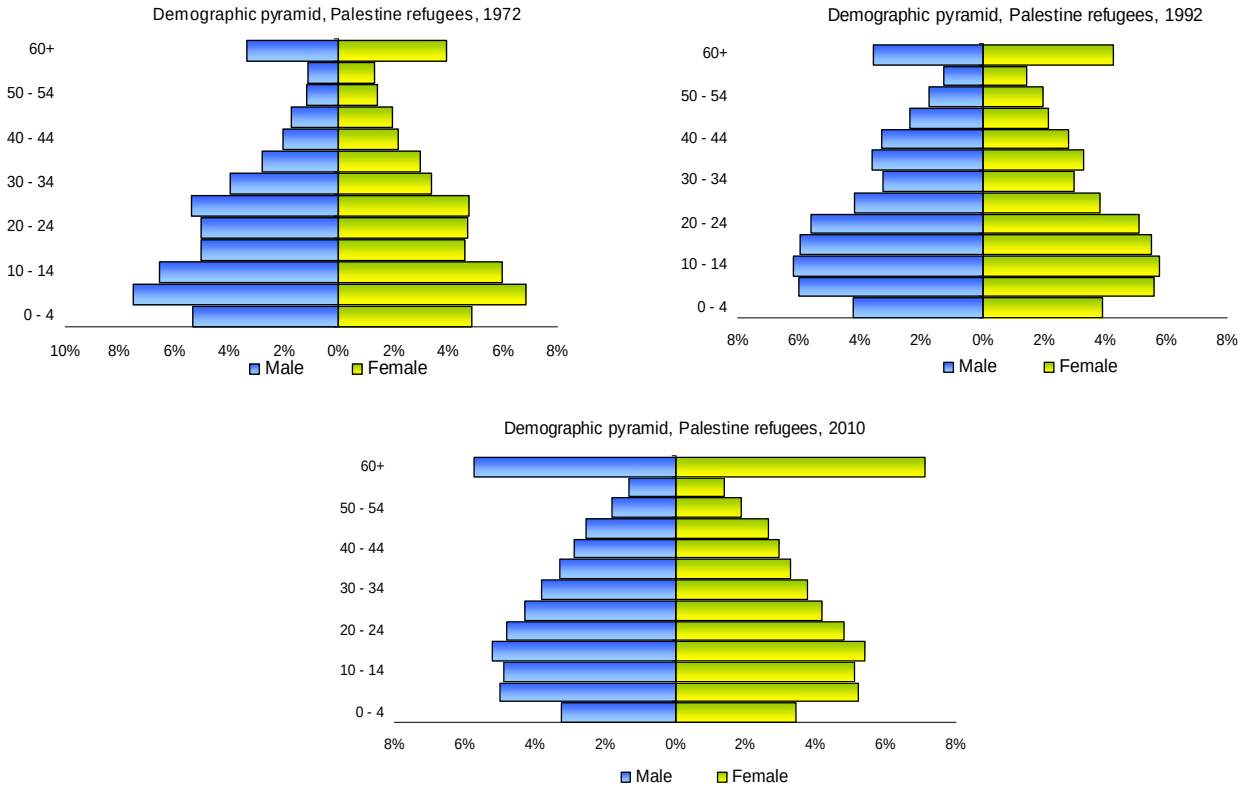


Figure 4 – Demographic pyramids of Palestine refugees, 1972, 1992 and 2010

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 and Lebanon due to high unemployment and poverty, the expected evolution is towards an ageing refugee population which could be even more vulnerable and dependant on external aid.

Approximately 29% of registered refugees live in the 58 existing official UNRWA camps. The remaining refugees live in unofficial camps, towns and villages side to side with host country population. The distribution of the refugee camp population varies significantly from one Field to another, with the highest rates 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 neighbouring Arab countries has increased by more than six times since 1948, the 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. However population density is still cause of concern, and not only in refugee camps. The Gaza Strip is the most populated area on Earth with 1.6 million people living on an area 365 sq. Km, with a population density 4,395 people/sq. km.

Over three million refugees accessed UNRWA primary health care services, both preventive and curative, during 2010, a slight increase compared with 2009. The proportion of refugees accessing UNRWA health services increased in all Fields except in Jordan where it remained stable. This is suggestive of an unchanged, continuative dependency on the Agency.

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. Non-communicable diseases (NCDs) such as cardiovascular diseases, diabetes mellitus and cancer have become today's main emerging health concerns. The high cost of providing

continued and affordable access to high quality care and treatment of NCDs is aggravated by the chronically harsh living conditions and long-term political instability, violence, and uncertainty in which Palestine refugees live. The scenario that is defining itself is a very challenging one for the UNRWA health programme and given the financial restrictions it is unlikely that the Agency will be able to meet all the beneficiaries' expectations.

The change in eating habits and lifestyles whilst leading to increasing caloric intakes and physical inactivity 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. This is why if on one side obesity is highly prevalent among Palestine refugees, reaching 53.7% among women in Jordan [6], moderate stunting among children in the occupied Palestinian territory [7] and iron-deficiency anaemia remain severe public-health problems [8, 9].

In 2010, again, the number of patients with hypertension and diabetes under UNRWA care increased. The highest prevalence of diabetes mellitus among Palestine refugees above 40 was observed in the West Bank reaching 11.5% and the highest prevalence of hypertension in Lebanon (18.2%).

Mental disorders are imposing themselves as a major factor to address in ensuring the refugees enjoy the highest attainable level of health. There is scientific evidence of high prevalence of mental distress in Lebanon [10, 11] and an increasing prevalence in most mental disorder categories in the oPt [12]

POPULATION SERVED IN 2010

By the end of 2010, the total number of Palestine refugees registered in the Agency's area of operation was 4,966,664. Although the Agency started operating in a classic post-conflict situation in 1950, the socio- economic profile of its beneficiaries today reflects the political and economic opportunities for social stratification given to them in their host countries such as the recognition of refugee status and the level of access to Government services.

Although the epidemiological profile of Palestine Refugees is comparable across UNRWA's area of operation, the level of access to health services defines diverse needs and health priorities across Fields. Poverty, unemployment and poor social security are constant issues among Palestine Refugees. In addition, the chronically volatile security context in some Countries and Territories and the relative stability of others has let 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, such as during the "Cast Led" operation in the Gaza Strip in 2009.

A total of 455,371 Palestine refugees are registered with UNRWA in Lebanon, of whom 50% live in refugee camps. The precarious conditions of Palestine Refugees in this Country have been frequently described. Still today, however, notwithstanding recent modifications in labour regulations, little changes have been observed. As of 2010, Palestine Refugees in Lebanon remain excluded from key aspects of social, politicaland economic life in the Country; they are barred from owning property or practicing in more than30 professions, among which all liberal professions.56% of Palestine refugees in Lebanon are joblessand only 37% of the working age population is employed. Consequently poverty levels are high with 66.4% of Palestine refugees in Lebanon found to be poor (<6 USD/person/day) and 6.6% to be extremely poor (2.17 USD/person/day) in 2010.Refugee mobility is restricted by the Lebanese army that controls access to Palestine refugee camps, which are enclaves outside the authority of the Lebanese state. The surface area of the camps has not increased with population, leading to a deterioration of living conditions [13]. Within camps UNRWA provides housing, water, waste disposal, and electricity in addition to education and health services. 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.

Syria and Jordan host 495,971 and 1,999,485 refugees respectively [14]. Palestine refugees in these countries enjoy full social rights [15]. 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. Palestine refugees, whilst remaining a potentially fragile population overall, have in these countries been allowed to enter the labour market and have social mobility. An exception to this, are the 120,000 refugees originally from the Gaza Strip living in Jordan who are eligible only for temporary Jordanian passports. This poses restrictions to full citizenship rights such as the right to vote and employment with the government [16].

The year 2010 did not witness major improvements in the humanitarian and health conditions of Palestine refugees in the occupied Palestinian territory. 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 continuity 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 2010, the oPt is still facing the long term effects of socio-economic hardship and of the 2009 crisis in the Gaza Strip that aggravated isolation and infrastructural decline. The blockade has challenged reconstruction, due to the severe limitations in imports within the Strip itself, and more than one year after the end of hostilities, the quality of infrastructures is still not comparable to pre-conflict standards.

Table 2 - Demographic indicators by Field, 2010

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Population of host countries in 2010*	6,407 ,085	4,125,247	22,198,110	1,604,238	2,514,845	**36,849,525**
Registered refugees	1,999,485	455,371	495,971	1,167,360	848,477	**4,966,664**
Proportion (%) of refugees in host countries	31.2	11.0	2.2	72.8	33.7	**13.5**
Proportion (%) of refugees accessing UNRWA health services in 2010 (absolute number)	52.5 (1,050,035)	55.9 (254,604)	83.5 (414,291)	85.9 (1,002,329)	55.7 (472,513)	**64.3 (3,193,772)**
In camps (%)	17.6	50.0	30.2	43.9	24.3	**29.1**
Aging index	50.4	85.3	46.8	30.0	60.5	**47.9**
Fertility rate	3.5	3.2	2.5	4.3	3.9	**3.5**
Male/female ratio	0.9	0.94	1.04	0.94	0.95	**0.95**
Dependency ratio	60.2	55.6	60.3	80.5	70.5	**65.9**

Sources UNRWA Registration Statistical Bulletin of 2010, and CIA World Fact-book June 2010 population estimates (https://www.cia.gov/library/publications/the-world-factbook/ last accessed on 23/2/2011)

FUTURE DIRECTIONS

Financial constraints are a serious concern for UNRWA. In 2010, 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. The UNRWA health services are overstretched, with each doctor seeing on average 101 patients a day.

The high use of UNRWA health services is the expression of the continued dependency of Palestine refugees on external aid as a consequence of the social and economic inequalities to which they are subjected. UNRWA has been a stabilizing element and has mitigated the effects of discrimination on health through the provision of the best possible comprehensive primary health care services to its beneficiaries.

2010 has been a year of choices and hard decisions. The winning cross-cutting approach to comprehensive primary health care, that has placed UNRWA until today in the unique position to implement targeted preventive and curative services and to address the social determinants of health, cannot be maintained in the current financial situation. The support of the international community is not sufficient to fuel UNRWA's tailored package of measures to mitigate the effects of the conflict on Palestine refugee communities. The health reform of the Agency is underway and is leading to a programmatic shift from curative to preventive care, to the definition of areas of intervention as opposed to comprehensive approaches and to a search of complementarity with other health care providers in the host countries. 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 is now stimulating a redefinition of roles and responsibilities ,in a team effort to enable refugees to live healthy, full and productive lives.

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PRECONCEPTION CARE

Prenatal care, which usually begins at week 11 or 12 of a pregnancy, comes too late to prevent a number of serious material and child health problems in the U.S. The fetus is most susceptible to developing certain problems in the first4-10 weeks after conception; before parental care is normally initiated. Because many women are not aware that they are pregnant until after this critical period of time, they are unable to reduce the risks to their own and to their baby's health unless intervention begins before conception.

US National Centre on Birth Defects and Developmental Disabilities

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 wellbeing 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 2010

Preconception care services became an integral component of the UNRWA health offer and services in 2010 and were operational and fully implemented in all Fields. The preconception care program is now part of the maternal health care and fully integrated within the primary health care system.

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 new-borns through identification and counselling of parents with increased genetic risks, providing 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*

ACTIVITIES OF THE FAMILY PLANNING SERVICE

A total of 23,931 new family planning acceptors were enrolled in the family planning programme during 2010. The total number of continuing users of modern contraceptive methods Agency-wide increased by 3.9% from 134,729 in 2009 to 139,965 in 2010.

Table 3 - Family planning services, 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
No. of new Family Planning acceptors	8,115	1,734	2,399	9,256	2,427	23,931
Total No. of continuing users at end year	37,307	13,269	18,778	49,797	20,814	139,965
Distribution of FP users according to method						
IUD	40.0%	42.5%	43.8%	52.5%	58.3%	**48.1%**
Pills	30.9%	25.0%	26.6%	22.8%	23.0%	**25.7%**
Condoms	25.6%	31.5%	25.8%	20.4%	15.6%	**22.7%**
Spermicides	1.0%	0.3%	1.0%	0.7%	0.8%	**0.8%**
Injectables	2.5%	0.7%	2.9%	3.6%	2.3%	**2.7%**

It is worth noting, that the number of new family planning acceptors in the Gaza Strip increased markedly during the last five years, from 1,365 in 2005 to 9,256 in 2010. This could be attributed to improved counselling at service delivery level. The number of continuing users in the Gaza Strip dropped after the intifada from 30,466 in 2001 to 29,540 in 2003. Since then, there was continuous increase in the number of clientsreaching 49,797 in 2010. There was also an increase in the number of continuing users in all Fields compared with 2009: 6.2% in Jordan, 4.9% in the Gaza Strip, 2.5% in Lebanon, 1.9% in West Bank and 0.1% in Syria.

The distribution of family planning acceptors according to the contraceptive method used is shown in Table 3. The contraceptive method mix preferred did not change during 2010; IUDs continued to be the most popular method of contraception among Palestine refugees 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 UNRWA dispensed contraceptives. During 2010, through the Agency's family planning services, 122,334 CYP were provided with variations between the Fields as shown in Table 4. The Table also shows that the CYP provided during 2010 increased in Jordan and Lebanon Fields. It decreased in Syria, West Bank and Gaza Strip in spite of an increase in the number of users.

Table 4 - Couple Years of protection provided through the family planning programme, 2000-2010

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
During 2010	30,032	9,963	15,211	43,061	24,067	122,334

Data from the Maternal and Child Health/Family Planning module of the Management Health Information System (MHIS) revealed that the overall discontinuation rate of modern contraceptives Agency wide was 7.6% ranging from 9.4% in the Gaza Strip to 7.6% Jordan, 6.5% Lebanon, 4.3% in the Syrian Arab Republic and 4.1% in the West Bank.

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 5.

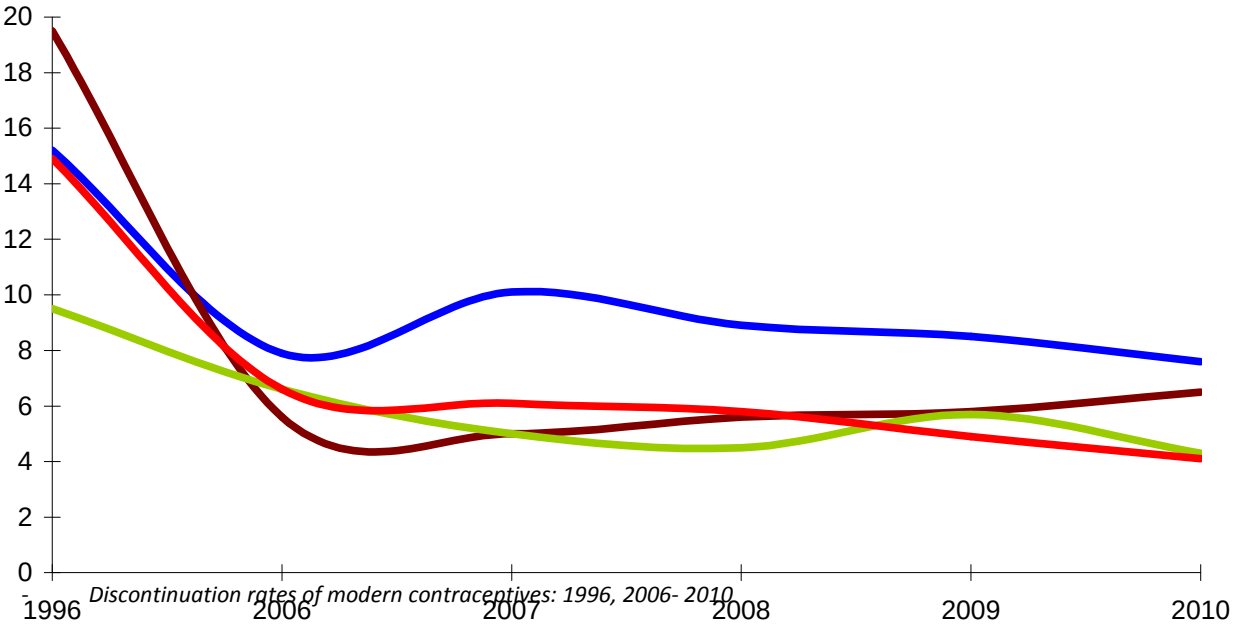


Figure 5 - Discontinuation rates of modern contraceptives: 1996, 2006- 2010

The success of the family planning programn ıer of family planning 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 two-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.

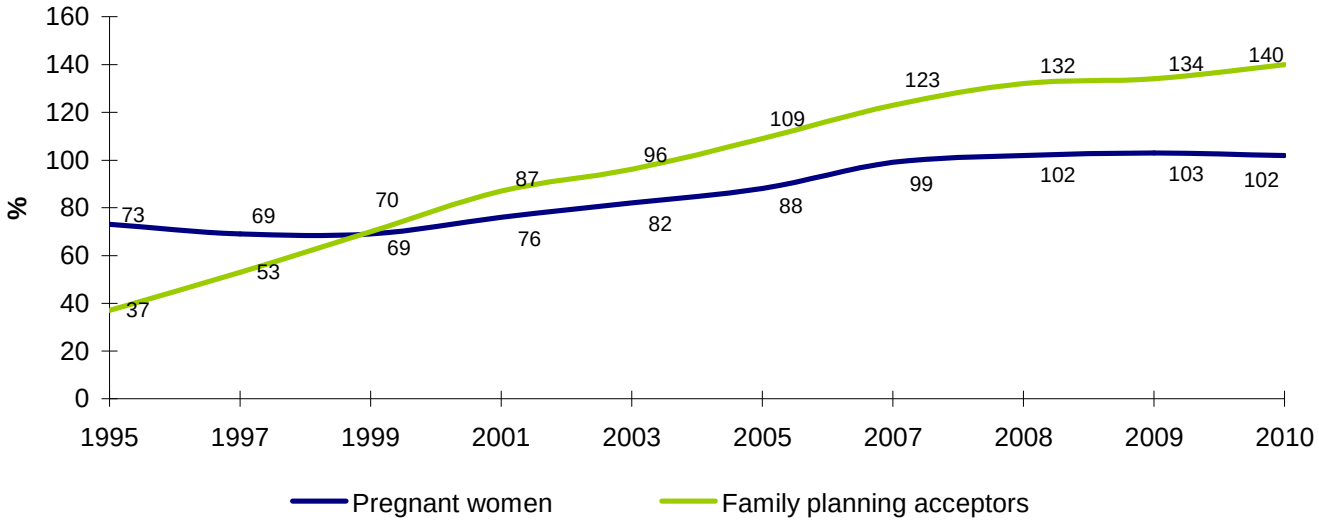


Figure 6 - Total number of pregnant women and FP acceptors in thousand, 1995-2010

The last UNRWA study on current contraceptive practices was conducted in 2010. It showed that the total fertility rate among mothers of children 0 to 3 years of age who attended the Maternal and Child Health clinics has been constant for the last 10 years (Figure 7).The highest fertility rates in 2010 were in the Gaza Strip and in the West Bank.

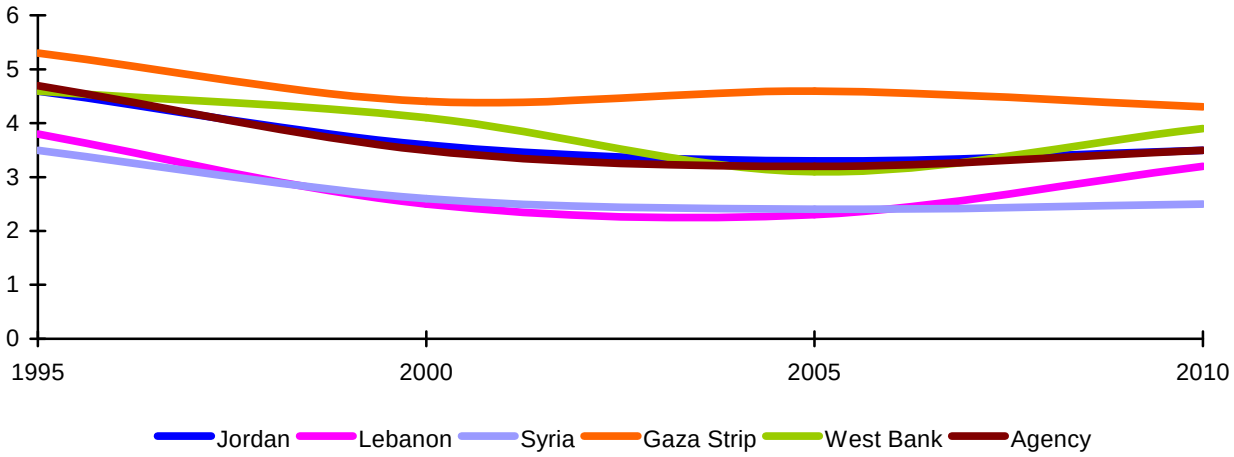
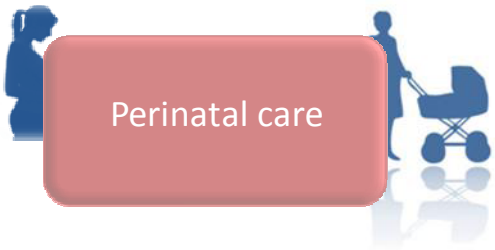


Figure 7 - Total fertility rates trends: 1995, 2000, 2005 and 2010



PERINATAL CARE

"While in most cases having a baby is a positive and fulfilling experience, pregnancy and childbirth can also be associated with suffering, ill health or even death. Interventions that can prevent maternal and new-born mortality from major causes are known and can be made available even in resource-poor settings".

WHO Regional Office for the Eastern Mediterranean, Making Pregnancy safer website, 2011

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 new-born deaths particularly in low-income communities.

The described socio-economic vulnerability and/or limitation to health access of Palestine refugees make them particularly dependant on UNRWA health services and this is particularly true for maternal and child health. This explains the 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 haemoglobin level, 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, powder milk and pulses) for those with haemoglobin level below 12 grams, 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 moderate and high-risk pregnancies. Mothers and new-borns are then clinically followed up after childbirth either in the UNRWA health facilities or at home.

PROGRESS IN 2010

The Management Health Information System (MHIS) 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 now use the available computers to enter process and analyse data and they are well acquainted on how to use the indicators obtained from the MHIS to identify areas for further improvement in their work. The indicators generated by the MHIS during the second quarter of 2010 with those collected during the same period in 2009 are compared in the relevant maternal health and family planning sections of this report.

The maternal health modules of the e-health project were developed jointly with the Information System Department team. The module is currently being tested in one health centre in Jordan and Lebanon.

The Maternal and Child (MCH) Hand Book was fully implemented in Jordan, Syria and Lebanon Fields. The MCH handbook is therefore operational in all the five Fields of the Agency.

The new updated technical guidelines on provision of maternal health were made fully operational in all Fields in 2010 and a standardized training plan covering both in-service and on-the-job training was implemented to enhance institutional capacity building at the service delivery level. A training package to be followed by competency-based assessments on the Technical Instructions on provision of maternal health care and Family Planning and other standard protocols were developed jointly with fields as a tool to improve staff performance.

Screening for domestic violence was integrated into the maternal and child health services. Women attending preconception, antenatal, post-natal and family planning services are screened counselled and are provided with the necessary support and help. The West Bank Field Office is leading this shift in the conceptual paradigm of domestic violence by focusing on community participation, human rights, and on the comprehensive well-being of individuals and families.

To ensure good oral health during preconception, pregnancy and lactation, oral health services were integrated in MCH services and reoriented to focus on the preventive aspects of oral health. Women are counselled by MCH staff about following a healthy diet, and on the importance of daily tooth brushing andof using fluoride toothpaste. They are also advised on their children's oral health and referred to the dental clinic for screening, further advice and possible treatment.

Community participation and outreach activities were strengthened during 2010. Nurses participated in health education programmes for preparatory girl students, in health exhibitions in camps, in woman and gender focussed activities, in screening and health education/promotion campaigns and in training on Breast Self-Examination and psychosocial activities. They were also involved as active members of the different women's committee.

The “maternal health services” annual assessment was conducted during 2010 in all Health Centres for the seventh consecutive year to monitor 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 aspects analysed included the appointment system, waiting times, privacy, counselling, completeness of records, and proper management of cases, risk assessment and cold chain. Corrective actions to improve the provided services were implemented.

During the period 7-13 March 2010, the 14th Field Family Health Officers meeting, the 3rd Field Nursing Officers meeting, the 2nd School Health Services meeting and the 3rd Senior Dental Surgeons meeting were jointly conducted with the participation of the Education Department.

ACTIVITIES OF THE PERI-NATAL CARE SERVICE

Comprehensive maternal health care to women of reproductive age including:

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

As shown in Table 5, during 2010 a total of 2,027 staff training days were conducted for staff in various categories. This heavy investment in training was to acquaint health staff with the new Technical Instructions on Maternal and Child care.

Table 5 - Family health training activities, 2010

Training subjects	Staff-days training by staff category			
	Medical	**Nursing**	**Others**	**Total**
Domestic violence	42	102	97	**241**
Training of newly recruited medical officers & nursing on maternal and child health care	31	48	0	**79**
Global school health survey	8	0	11	**19**
National Action plan with HPC 2008-2012	1	0	0	**1**
Family Planning contraceptive use study	48	64	0	**112**
Gender problem solving	4	4	0	**8**
Monitoring and evaluation	11	0	0	**11**
Review the role of Laboratory Technician integrated MCH programmes	0	0	53	**53**
Training on breast self-examination	0	0	19	**19**
Training on Implant contraceptive method in coordination with SHOPS "USAID"	5	0	0	**5**
Health tutors Training	0	0	109	**109**
Defining Internal referral system for Jordan Field.	4	2	0	**6**
Training on New technical instruction of maternal and family planning health services	70	100	03	173
Training on New technical instruction of child health care services	149	305	2	456
Training on integration of oral health in family health program	19	0	0	19
Training of speech therapist in SCSN program for school speech problems management	0	0	216	216
Ultrasound Applications in Antenatal Care	42	0	0	42
Anaemia prevention among children and women in reproductive age	0	65	0	65
Training on curves and child health records 0-5 years with UNICEF	19	73	0	92
Training in MCH hand book	28	26	0	54
WHO Anthropometric Training	9	13	0	22
Prevention of prohibited behaviour and sexual exploitation and abuse	4	8	12	24
Emergency child birth &home delivery	8	14	0	**22**
Training for psycho-social counsellors	0	0	72	**72**
Sexual transmitted diseases training	17	43	0	**60**
TOT Training of Reproductive Health	8	4	8	**20**
Psychosocial Training (FTO)	4	0	0	**4**
ToT in Reproductive health, sexuality and AIDS(UNDP)	3	8	12	**23**
Total	**534**	**879**	**614**	**2027**

ANTE-NATAL CARE

During 2010, UNRWA primary health care facilities cared for 101,832 pregnant women which accounted for 69.0% of all expected pregnancies among the registered refugee population. The number of expected pregnancies is calculated by multiplying the total number of registered refugees (as per UNRWA registration system) by the crude birth rates published by the Host Authorities (2.8% in Jordan, 2.0% in Lebanon, 2.8% in Syria, 3.69% in the Gaza Strip and 3.01% in the West Bank).

Conversely to what has been observed in previous years, the demand for UNRWA antenatal services has not continued to increase. In 2010, the number of pregnant women registered for antenatal care Agency wide decreased by 1.1%. This drop was inconsistent between Fields. An increase of 3.4 % in the Gaza Strip and of 1.5% in Lebanon was observed while in Syria, West Bank and Jordan the number decreased by 9.6%, 7.2% and 2.2% respectively. The increase in the number of pregnant women registered in the Gaza Strip and Lebanon is mainly due to increased demand among refugees in places where UNRWA is almost the only provider of this service.

Table6 - Coverage of UNRWA's antenatal care, 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered refugees	1,999,485	455,371	495,971	1,167,360	848,477	4,966,664
Expected No. of pregnancies	55,986	9,107	13,887	43,076	25,539	147,595
Newly registered pregnancies	30,822	5,535	8,968	43,395	13,112	101,832
Coverage rate	**55.1**	**60.8**	**64.6**	**100.0**	**51.3**	**69.0**

Coverage rates decreased in all Fields except in the Gaza Strip compared with 2009. Coverage remains highest in the Gaza Strip and Syria as shown in Table 6. Notwithstanding efforts exerted in order to improve quality and encourage early registration for ante-natal care, low rates in the West Bank are probably the result of a combination of factors among which restricted access to services imposed by frequent closures, checkpoints, curfews and the Separation Barrier. In Jordan, low coverage is possibly the consequence of limited accessibility of underserved refugee communities residing outside camps, who seek services from other health care providers.

RISK ASSESSMENT

During 2010, according to the UNRWA rapid assessment technique for risk scoring, there were no significant changes in the risk status of pregnant women attending UNRWA health centres. Thirteen per cent (14.7% in 2009) were classified in the high-risk category and 24.6% (24% in 2009) were at moderate risk. Therefore 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 rates recorded in the Gaza Strip and Jordan (13.8% each) and in the West Bank (12.9%). This could be largely attributed to high parity, early marriage, too early and too late pregnancies, and the high prevalence of anaemia. The lowest rates were recorded in Lebanon and Syria 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, 2010

Field	Risk Status		
	High	Alert	Low
Jordan	13.8	24.5	61.8
Lebanon	7.8	25.6	66.6
Syria	9.6	31.5	58.9
Gaza Strip	13.8	24.5	61.8
West Bank	12.9	21.7	65.4
Agency	**13.0**	**24.6**	**62.4**

Based on the Maternal and Child Health/Family Planning module of the MHIS, the following indicators for quality of antenatal care were calculated.

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, 2010*

No. of antenatal visits	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
	%	%	%	%	%	%
1	3.5	0.7	3.2	0.6	1.5	1.9
2 – 3	11.3	7.0	17.2	5.7	15.0	9.9
4 – 6	43.3	36.5	56.7	34.3	49.8	41.7
7 – 9	34.3	47.5	22.0	46.8	30.1	38.1
10+	7.6	8.4	0.8	12.6	3.7	8.4
Total	**100**	**100**	**100**	**100**	**100**	**100**

In 2010, the percentage of pregnant women who paid at least four antenatal visits to UNRWA maternal health services was comparable to 2009 (88.2%). The proportion was highest in the Gaza Strip (93.7%), followed by Lebanon (92.3%), Jordan (85.2%), West Bank (83.6%), and Syria (79.5%) as shown in Table 8.

The average number of antenatal visits showed variations among Fields ranging from 5.6 visits in Syria and in Jordan, to 7.9 visits in the Gaza Strip, with an Agency-wide average of 6.8 antenatal visits per pregnancy compared to an average of 7.1 during 2009.This decrease is probably due to the change introduced in the technical guidelines were antenatal appointments for normal pregnanciesare recommended at intervals of six weeks instead of four as previously stated.

b) Early registration for ante-natal care

This is a quality indicator which measures the proportion of pregnant women who registered during the first trimester of pregnancy. As shown in Table 9, during 2010 74.8% of pregnant women Agency-wide registered during the first trimester of pregnancy compared with 77.3% during 2009. 22.4% registered during the second trimester compared to 20.3% and only 2.9% registered during the third trimester.

Table 9 - Maternal health indicators, 2010

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Distribution of pregnant women according to time of registration						
During 1st trimester	71.1	84.6	76.6	76.6	76.4	74.8
During 2nd trimester	23.8	12.6	22.3	22.3	21.0	22.4
During 3rd trimester	5.1	2.7	3.2	1.2	2.6	2.9
Percentage of pregnant women who paid 4 visits or more	92.3	92.3	79.5	93.7	83.6	88.2
Average No. of antenatal visits	6.1	6.1	5.6	7.9	6.6	6.8
Percentage of pregnant women who delivered assisted by trained personnel	100	100	99.7	100	99.9	99.9
Percentage of deliveries in health institutions	98.7	98.7	96.5	99.9	99.6	99.4
Overall discontinuation rate among family planning users (%)	7.6	6.5	4.3	9.4	4.1	7.1

Figure 8 shows that the trend for early enrolment in ant-natal care. The proportion of women who registered during the first trimester of pregnancy increased consistently in all Fields during the period 2003 to 2009 and decreased in 2010. This drop in early registration could be attributed to changes introduced to the entitlement criteria for the supplementary feeding programme during 2010. Supplementary feeding is considered not only useful in supporting the additional nutritional needs of pregnant and nursing mothers, but also an incentive for early registration in the antenatal care because women registered earlier are eligible for a higher number of food rations.

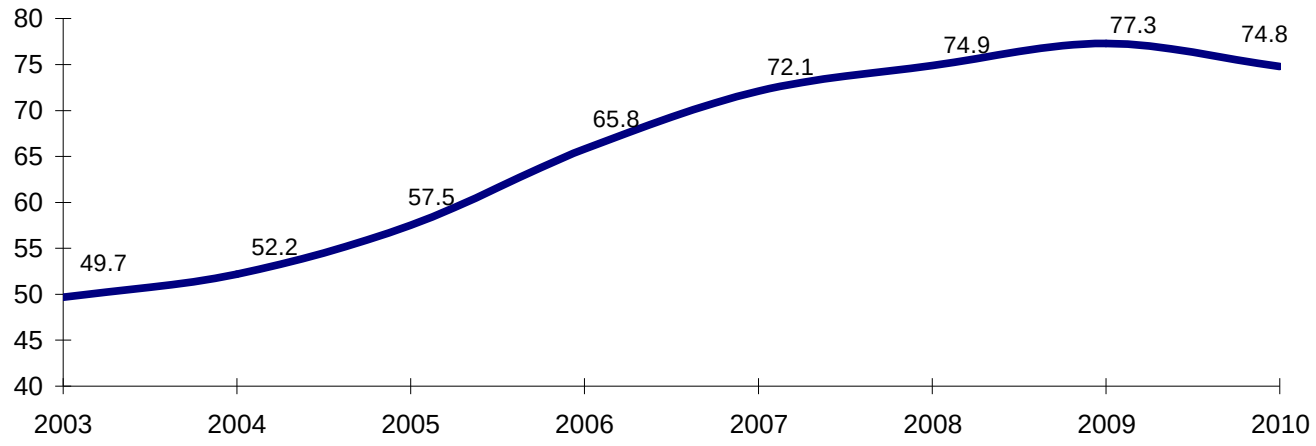


Figure 8 - *Trend of early registration (first trimester)for ante-natal care, 2003-2010*

DISEASE PREVENTION

TETANUS IMMUNIZATION

Similarly to previous years, a rapid assessment survey was carried out to ascertain 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 during 2010, when 99.9% of pregnant women were protected with immunization. As a result of the optimal immunization coverage maintained, no cases of *tetanus* were reported during the last decades among mothers or new-borns (t*etanus neo-natorum)*.

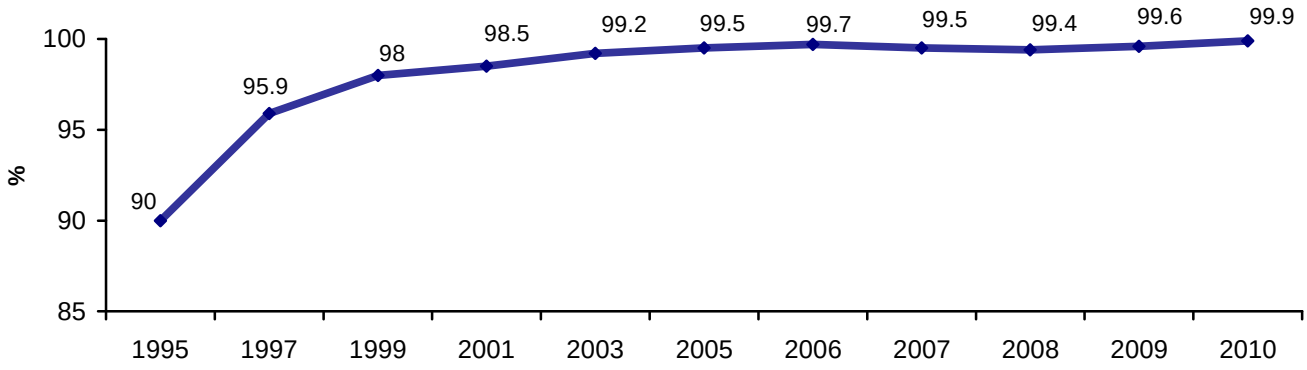


Figure 9 - ***Pregnant women protected against tetanus, 1995-2010***

INTRA-PARTUM CARE

UNRWA subsidises the hospital delivery of pregnant women classified as high-risk either by their direct referral to contracted hospitals or through the reimbursement of costs. As shown in Figures 10 and 11 and table 12, hospital delivery was the main choice of delivery during 2010. Almost 97% of all reported deliveries Agency-wide took place in hospitals compared with 85.4% in 2002, 90.6% in 2005, and 95.8% in 2009. This increase in the proportion of hospital deliveries was mainly due to the shift from private clinics and home delivery to hospitals.

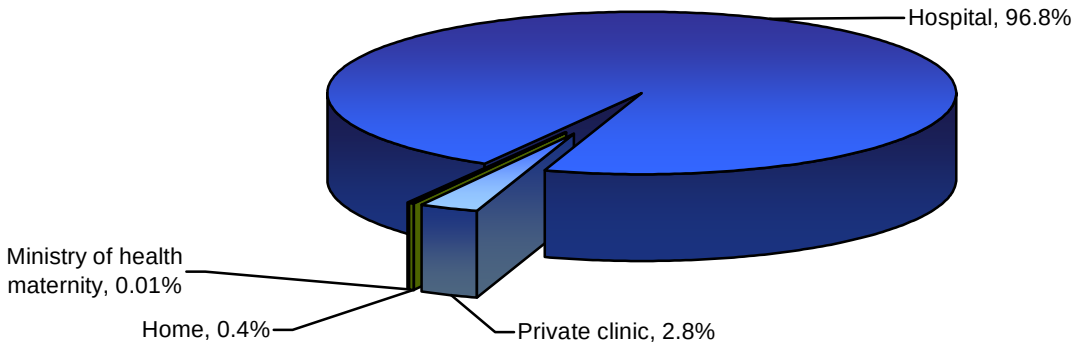


Figure 10 - *Distribution of deliveries according to place, 2010*

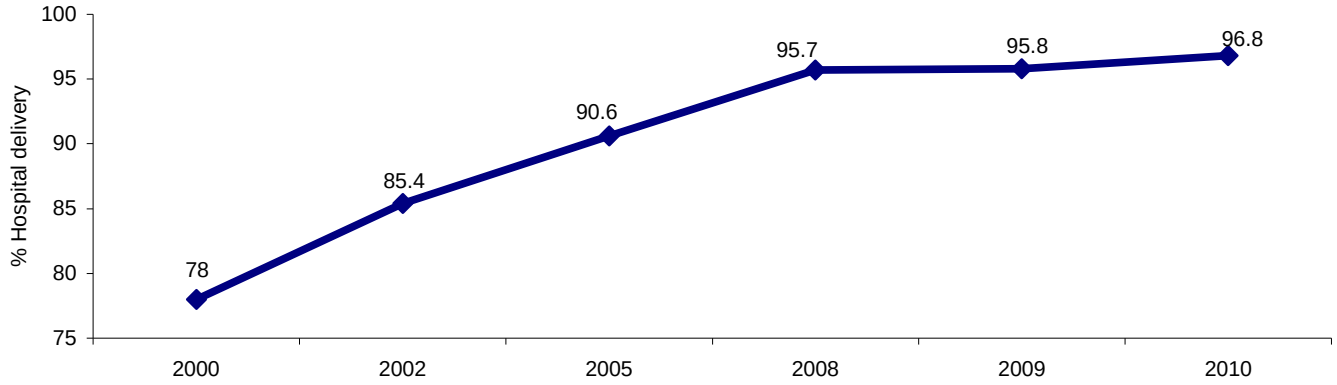


Figure 11 – Trends in hospital delivery, 2000-2010

As shown in 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, where however the percentage of home deliveries followed the same decreasing trend observed in other Fields. The vast majority of these home deliveries were attended by either qualified midwives or physicians, and data collected in 2010 through the MHIS indicates that the percentage of women who delivered with assistance from trained personnel Agency-wide was 99.9%.

Table 10 - Proportional distribution of deliveries according to place, 2010

Deliveries/Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Total No. of reported deliveries	28,922	4,705	8,902	42,369	12,510	97,408
Distribution of deliveries according to place (%)						
At home	0.1	0.1	2.8	0.1	0.4	0.4
At MOH maternity	0.0	0.0	0.0	0.03	0.0	0.01
In hospitals	99.8	99.7	95.8	93.8	99.4	96.8
At private clinics	0.03	0.26	1.38	6.05	0.14	2.8

Overall, 99.4% of deliveries Agency-wide were institutionalized deliveries, including hospitals, maternities and private clinics, as shown in Figure 12. This trend could be reverted if budget cuts and financial constraints continue to compromise the subsidy of hospital deliveries. Of particular concern, although rare, is the home delivery of high risk pregnant women.

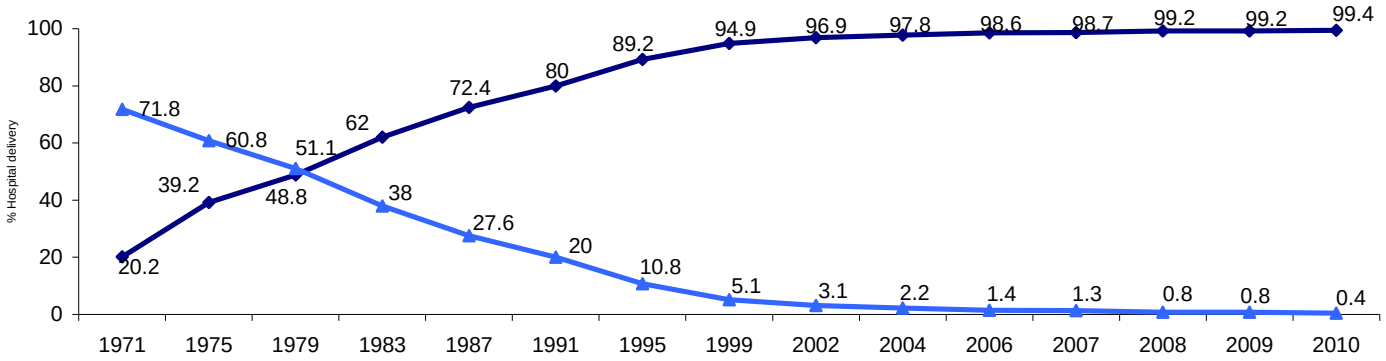


Figure 12 - Trends of home and institutionalized deliveries, 2010

OUTCOME OF PREGNANCY

The total number of pregnant women who were expected to deliver during 2010 Agency-wide was 107,062. Active surveillance of the outcome of pregnancy among those women indicated that 99,763 delivered (93.2%) and 7,100 aborted (6.6%). The outcome of 199 pregnant women (0.2%) who received antenatal care at UNRWA health care facilities remained unreported or unknown as shown in Table 11. This proportion did not change compared with 2009. The percentage of unknown outcomes dropped from 2.8% in 2002 to 0.2% in 2010. The highest proportion of unknown outcomes was found in the West Bank at 1.3%. Although there have been reductions in this Field, the proportion observed in 2010 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, 2010

Field	No. of expected deliveries 2010	Known outcome								Unknown	
		Deliveries		Abortions		Maternal Deaths	Total (deliveries and abortion)				
		No.	%	No.	%		No.	%		No.	%
Jordan	31,842	29,543	92.8	2,299	7.2	7	31,842	100		0	0.0
Lebanon	5,424	4,831	89.1	593	10.9	2	5,424	100		0	0.0
Syria	9,452	8,948	94.7	490	5.2	4	9,438	99.9		14	0.1
Gaza Strip	45,838	42,890	93.6	2,948	6.4	8	45,838	100		0	0.0
West Bank	14,506	13,551	93.4	770	5.3	2	14,321	98.7		185	1.3
Agency	**107,062**	**99,763**	**93.2**	**7,100**	**6.6**	**23**	**106,863**	**99.8**		**199**	**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. It should be noted that these rates relate to women in the high-risk category and not to all reported deliveries. Caesarean section rate among all reported deliveries during 2010 (19.0%) was higher than in 2009 (17.8%). As shown in Table 12, the

highest rate was reported by Syria (38.3%) while the lowest from the Gaza Strip (12.7%). This could reflect a combination of client preference and prevailing medical practice in hospitals.

Table 12 - Caesarean section rate among UNRWA-assisted and all MHIS reported deliveries, 2010

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	13,125	10,127	77.2	2,998	22.8	19.1
Lebanon	2,879	1,810	62.9	1,069	37.1	28.8
Syria	1,882	733	38.9	1,149	61.1	38.3
Gaza Strip	13	13	100	0	0	12.7
West Bank	8,070	6,058	75.1	2,012	24.9	19.8
Agency	**25 969**	**18,741**	**72.2**	**7,228**	**27.8**	**19.0**

DIABETES MELLITUS AND HYPERTENSION DURING PREGNANCY

Agency-wide, the prevalence of diabetes mellitus (DM) during pregnancy in 2010 was stable compared with 2009 (3.2% and 3.1% respectively) but has increased compared with previous years (1.9% in 2006). This is probably due to the establishment of new cut-off point to perform the Oral Glucose Tolerance Test (OGTT) for pregnant woman from 110mg/dl to 85mg/dl during the 12th Field Family Health Officers meeting in 2007. As shown in Table 13, the prevalence of diabetes was 4.8% in West Bank, 4.6% in Lebanon, 4.0% in Jordan,2.7% in Syria and 2.2% 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.

Almost 20% of women with diabetes during pregnancy had pre-existing diabetes, 45.9% had gestational diabetes and recovered after delivery, 8.2% were diagnosed during pregnancy and did not recover after delivery and 26.5% were still pregnant at the end of 2010.

Table 13 - *Prevalence of diabetes and hypertension during pregnancy, 2010*

Prevalence rate (%)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes during pregnancy	4.0	4.6	2.7	2.2	4.8	**3.2**
Hypertension during pregnancy	7.6	7.4	6.4	13.0	3.9	**9.3**

The prevalence of hypertension during pregnancy including pre-existing and pregnancy-induced hypertension was 9.3% in 2010 compared to 8.9% in 2009 with wide variations between Fields as shown in Table 13. Approximately 47.3% of hypertension cases were pregnancy-induced and recovered after delivery, 23.8% of women had pre-existing hypertension, 9.2% were identified during pregnancy and the condition persisted after delivery, while 14.9% were still pregnant at the end of the year.

POST-NATAL CARE

A thorough medical examination of each mother and the new-born is performed, either at UNRWA health care facilities or at home based on family access and convenience. Table 14 shows that during 2010 a total of 92,754 women received post-natal care compared to 87,578 in 2009 representing a 92.6% coverage rate of expected deliveries. The highest coverage rates were recorded in Gaza (98.7%) and Syria (95.6%), and the lowest in Jordan (87.5%) and West Bank (81.9%). The continued restriction on movement due to the prevailing situation in the West Bank, could partly explain this difference while in Jordan, a general tendency at poor attendance of clients after the post-natal period has been consistently observed.

Table 14 - Post-natal care coverage, 2010

Field	No. of deliveries	No. women who received care 2010	Post-natal care coverage (%)
Jordan	29,543	25,847	87.5
Lebanon	4,831	4,596	95.1
Syria	8,976	8,579	95.6
Gaza Strip	42,890	42,329	98.7
West Bank	13,921	11,403	81.9
Agency	**100,161**	**92,754**	**92.6**

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 timely 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 2010, a total of 23 maternal deaths were reported from the five UNRWA Fields resulting in a maternal mortality ratio of 23.0 compared to 31.0 per 100,000 live births in 2009. Eight deaths were reported from Gaza, seven deaths were reported from Jordan, four deaths from Syria and two deaths from each of West Bank and Lebanon.

All cases of maternal mortality were registered in UNRWA antenatal care services, Out of the 23 deaths, 13 were registered during the first trimester and 10 during the second trimester.Three women were nulliparous, six had one parity, five had two and nine were para three or more. Five of these women were 35 years or older, 11 were between 25 and 34 years and seven were between 20 and 24 years of age. None of the maternal deaths was among women younger than 20 years. Five women died during pregnancy and one during labour. Seventeen deaths occurred during the postnatal period. Twenty one cases died in hospital while 2 cases died at home (all in the Gaza Field). It is noteworthy that seven 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 2010*

Cause of death	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Pulmonary embolism	3	1	1	2	1	8
Cardiac cause	2		1	1		4
Haemorrhage				2		2
DIC			1		1	2
Septicaemia				2		2
Bronchial asthma	1					1
Sickle cell disease			1			1
Toxaemia	1					1
Swine Flu, H1N1				1		1
Cancer colon		1				1
Total	**7**	**2**	**4**	**8**	**2**	**23**

Five maternal deaths (21.7%) were due to preventable causes of which two due to haemorrhage, two due to septicaemia and one due to toxaemia/hypertension. Pulmonary embolism was the main reported cause of death in eight cases (34.8%), and 7 women (30%) had underlying morbidities (four cases of heart failure/disease and one case of each sickle cell disease, colon cancer and bronchial asthma). Five women died of iatrogenic complications in the hospital (three cases of cardiac arrest and 2 of septic shock) two died of disseminated intravascular coagulation and one due to influenza A/H1N1v infection.

INFANT AND CHILD HEALTH

Children represent the future, and ensuring their healthy growth and development ought to be a prime concern of all societies. Newborns are particularly vulnerable and children are vulnerable to malnutrition and infectious diseases, many of which can be effectively prevented or treated.

WHO Child Health topic website, 2011

Prevention starts early in UNRWA during the preconception and prenatal care. During the postnatal period, infancy and childhood special attention is given to health education and counselling of mothers on appropriate feeding practices and baby care. Infants and children below 60 months of age, then receive care at UNRWA health centres. Services include thorough medical examinations, growth monitoring, immunization and screening for disabilities. Micronutrient deficiencies are prevented through supplementation of iron, Vitamin A and D and UNRWA clinics offer paediatric oral health and general preventive services. Sick children receive health care from general practitioners, paediatricians and cardiologists.

Screening for disability, a thorough medical examination and immunizations are also carried out when refugee children are enrolled in UNRWA schools. Particular attention is given to diseases and disabilities that can negatively impact their learning capacity such as hearing and vision impairment. 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 2010

In collaboration with the Education Department and with the financial and technical support of the WHO-EMRO and CDC Atlanta (USA), the Global School Personnel Survey was conducted among a representative sample of UNRWA schools in the five Fields of operation. The report will be released during 2011.

The “child health care programme review exercise” was undertaken in all Health Centres for the seventh 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 aspects analysed included the appointment system, waiting times, privacy, counselling, completeness of records, and proper management of cases, risk assessment and cold chain.

The implementation of the Maternal and Child Health (MCH) Handbook was completed in Jordan, Syria and Lebanon Fields. The MCH handbook is now fully operational in the five Fields. A new Child Health Record was developed to be consistent with the MCH handbook and other changes introduced to the program;
In Jordan, full scale implementation of a screening program for congenital hypothyroidism and phenylketonuria in cooperation with the MoH, was implemented in all health centres (see the first section of this report for a comprehensive fact sheet on this activity)

The Technical Instructions on the provision of Child Health Care were updated and revised. Preparatory trainings, record printing and distribution of hard and soft copies, for wide scale implementation in all Fields were carried out;
The new WHO growth monitoring standards were introduced to replace the old growth monitoring system, the span of growth monitoring was therefore expanded to 5 years of age.

INFANT AND CHILD HEALTHCARE

The number of infants and children under care continued to increase in 2010. A total of 286,343 infants and children below 36 months of age (compared to 282,259 in 2009) received preventive care at UNRWA primary health care facilities including a thorough medical examination, growth monitoring, immunization against vaccine-preventable diseases and screening for disabilities. These activities were supported by health education and counselling of mothers on appropriate feeding practices and baby care.

Table 16 - Infant and child healthcare, 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered Refugees	1,999,485	455,371	495,971	1,167,360	848,477	4,966,664
Estimated No. of surviving infants *	54,720	8,934	13,496	42,193	25,041	144,384
Infants below 1 year registered	30,657	5,143	9,711	42,713	11,492	99,716
% regular attendance	79	100	80	100	100	94
Child health coverage rate	**56.0**	**57.6**	**72.0**	**100**	**45.9**	**69.1**
Children 1-<2 years registered	30,122	4,985	9,843	36.542	11,837	93,329
% regular attendance	66	81.5	69.6	73.3	85	72.6
Children 2-<3 years registered	32,592	4,591	9,435	34,546	12,134	93,298
% regular attendance	39	71.4	52	54.4	74.2	49
Total children 0-3 years registered	**93,371**	**14,719**	**28,989**	**113,801**	**35,463**	**286,343**

** 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 new-born 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, 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 94% of all infants registered Agency-wide with the highest rate of 100% in the Gaza Strip, Lebanon and West Bank while it was close to 80% in Jordan and Syria. The attendance rates Agency-wide were 87% during the second year and 85% 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.

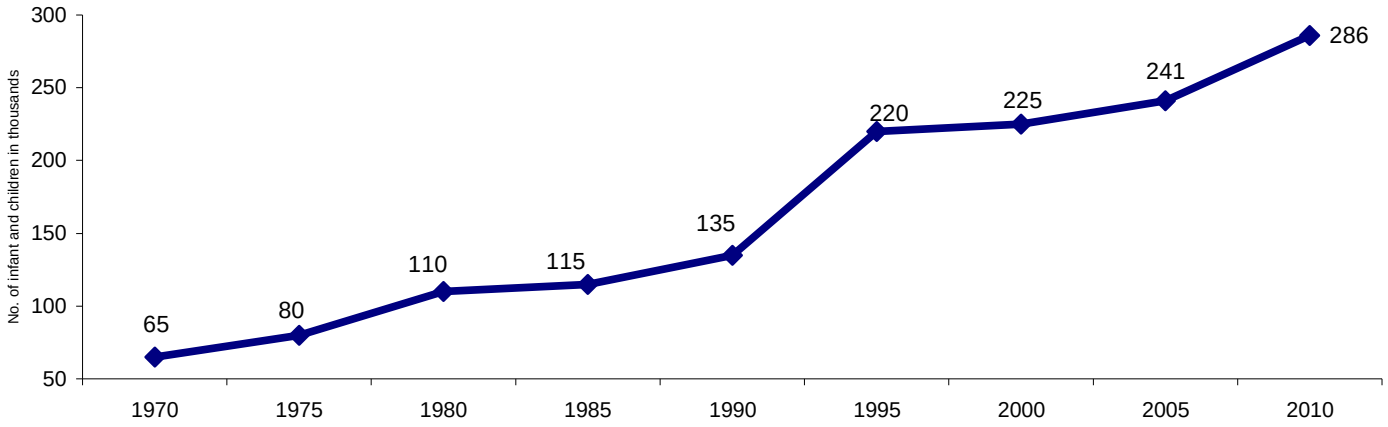


Figure 13 - ***Infant and children below 36 months under care, 1970-2010***

Service coverage increased from 62.3% in 2002, to 75.2% in 2008 and was 69.4% in 2009. It slightly decreased to 69.1% in 2010. It is worth noting that the change in crude birth rates reported by Host Authorities could have affected estimations. The highest rate of coverage at 100% was reported from the Gaza Strip and the lowest from West Bank (45.9%) and Jordan (56.0%) 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.

INFANTS AND CHILDREN WITH GROWTH RETARDATION

Efforts to strengthen UNRWA's nutritional surveillance continued in 2010, 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.

During 2010, a new growth monitoring system was introduced using the new WHO growth monitoring standards to identify and monitor for the four main growth related problems namely underweight, wasting, stunting and obesity until the age of five years. The system also monitors the head circumference of infants and children up to 3 years of age to identify cases of microcephaly and macrocephaly.

The incidence rate of growth retardation was 3.4% in 2010 compared to 3.6% in 2009. 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 rates the lowest (Table 17). No disparity between sexes was observed.

Table 17 - *Prevalence of growth retardation among children 0-3 years of age, 2010*

Field	Incidence	Prevalence during 2010 (period prevalence)	Prevalence at year end, 2010	Recovery rate (%)
Jordan	2.5	5.5	2.1	43.2
Lebanon	3.6	6.2	2.4	56.9
Syria	3.3	6.5	3.0	46.6
Gaza Strip	5.1	9.5	5.3	29.7
West Bank	0.3	1.6	0.9	41.2
Agency	**3.4**	**6.8**	**3.3**	**36.5**

REDUCING INFANT MORTALITY AND CHILD MORTALITY

INFANT MORTALITY

The latest retrospective survey to assess infant mortality was performed by UNRWA in 2009. Due to the method adopted, the rates were retrospective, assessing the period 2005-2006.

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 occurred on the first month of life (neonatal mortality) and almost half 43.2% of those deaths were 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 2008 survey, during 2010, the routine mortality surveillance data (Figure 14) indicated that the three main causes of infant deaths among Palestine refugees were related to Low Birth Weight/Prematurity, Congenital Malformations and Respiratory Infections.

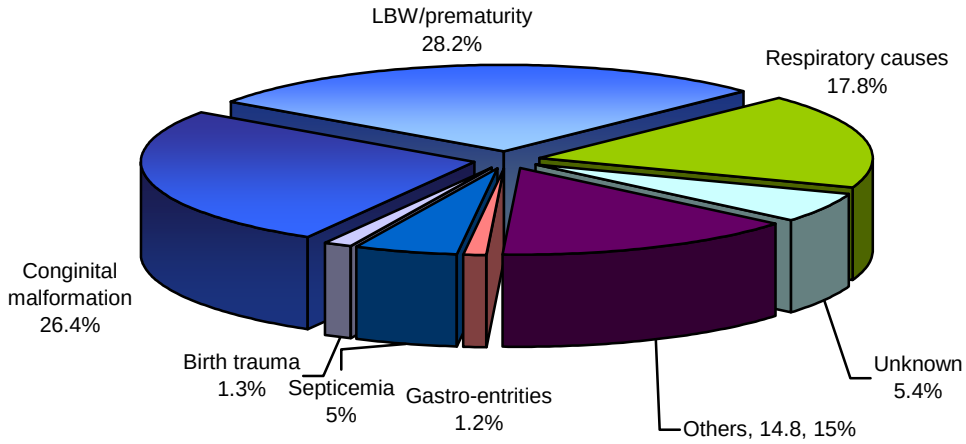


Figure 14 - Leading causes of infant mortality – routine surveillance, 2010

Over the last four decades (Figure 15), the causes of infant death have changed substantially. In 1969, the two main causes of infant death were gastroenteritis and respiratory infections contributing to 36.0% and 35.0% of infant deaths respectively. This change in the pattern can 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.

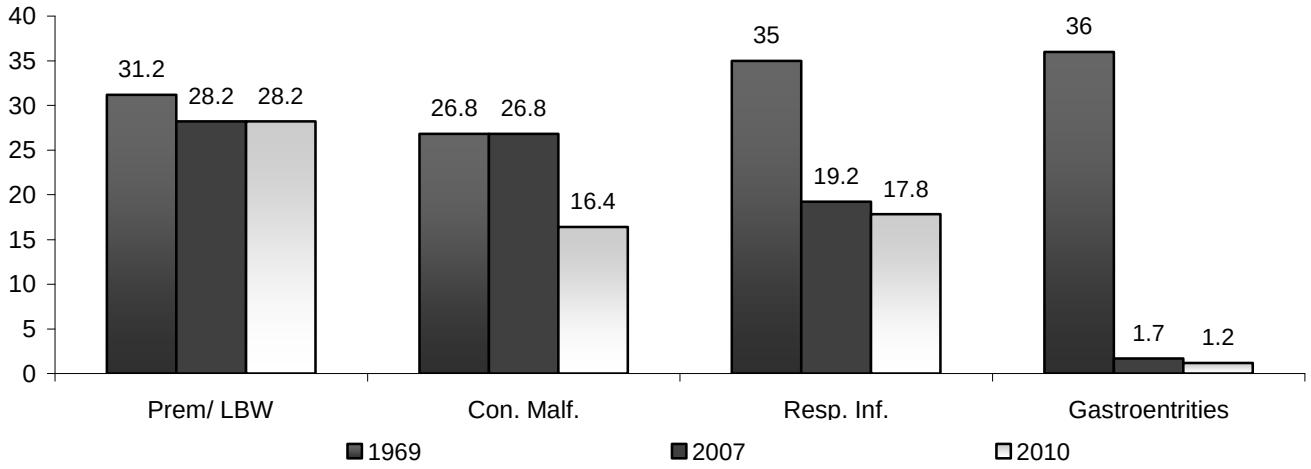


Figure 15 - *Main causes of infant mortality 1969, 2007 and 2010*

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 reduce further preventable infant deaths through Primary Health Care by establishing new well known effective interventions and consolidating existing ones. 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)

During 2010, a total of 106 cases of death were reported among children aged 1-3 years. Compared to previous years there is no change in the pattern of child mortality. As shown in Figure 16, congenital malformations ranked first among the leading causes of early child deaths (20.8%) followed by respiratory infections and accident (17%),heart diseases (12.3%), gastroenteritis (0.9%), and unknown causes (2.8 %).

About 70% of deaths occurred during the second year of life, while approximately 30% occurred during the third year. It is worth noting that 17% of the reported child deaths during 2010 were due to accidents and respiratory infections respectively, some of these deaths might be preventable if immediate medical treatment is sought.

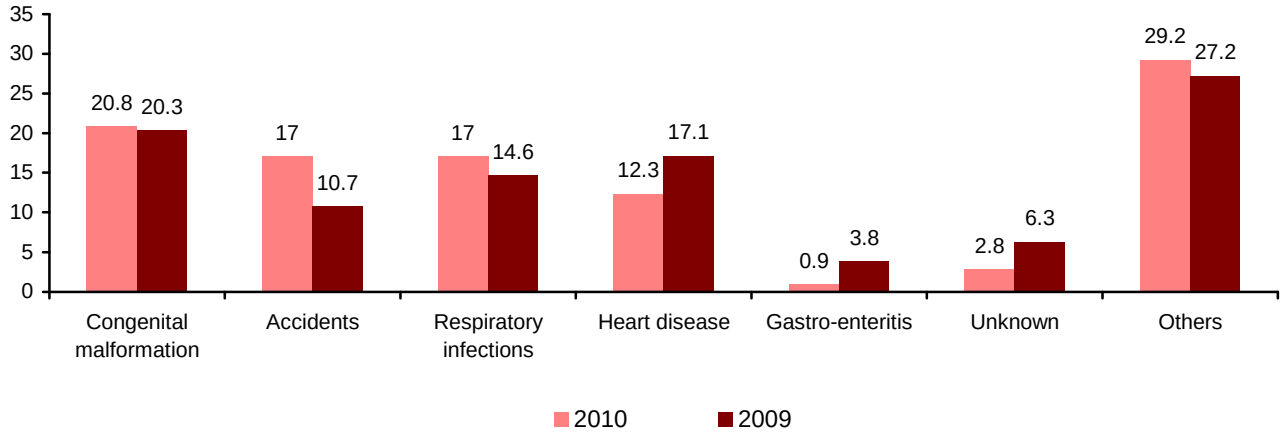


Figure 16 - Causes of child mortality (1-3 years), 2009 and 2010

In terms of the distribution of deaths by sex, child mortality was higher among males than females at 53.8 % and 46.2% respectively, however there is no direct correlation between the sex of the child and the cause of death.

About 26% of the children, who died during 2010, died at home and were not hospitalised. Limited funds allocated to subsidize hospitalization, might be discouraging refugees' timely access to hospitals.

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 a considerable mortality reduction has been observed among Palestine refugees. This reduction has largely been possible thanks to UNRWA's implementation of 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, 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 25.0 per 1000 live births in 2003 and to 20.2 per 1000 live births in 2008 in the Gaza Strip (Figure 17).

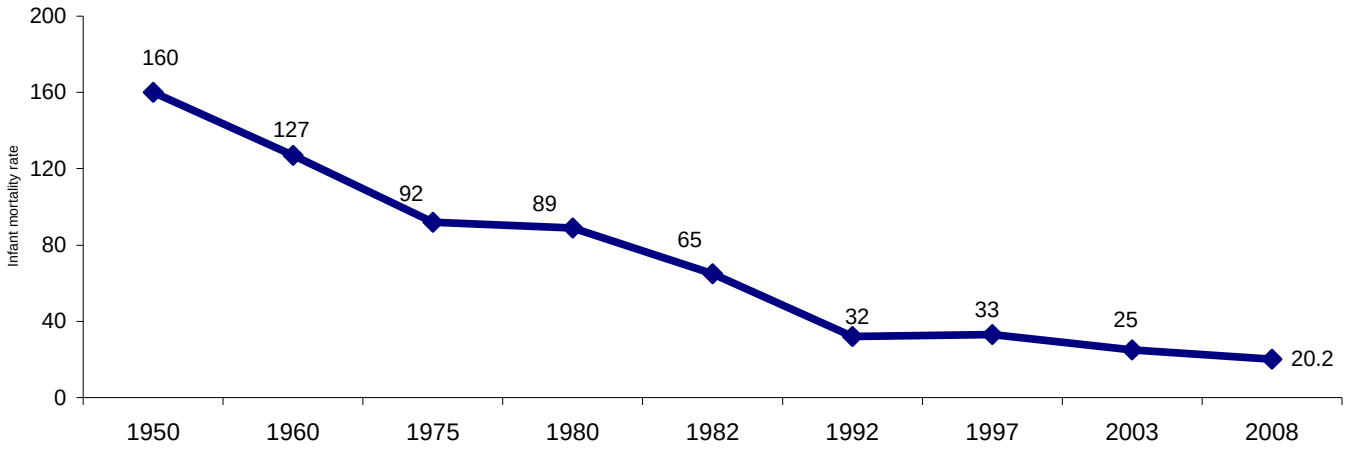


Figure 17 - ***Infant Mortality Rate in Gaza Field, 1950 - 2008***

IMMUNIZATION COVERAGE

UNRWA's vaccine programme provides immunization for ten diseases: tetanus, diphtheria, pertussis, tuberculosis, measles, rubella, mumps, polio, Hib and hepatitis. Today the programme'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.

Immunization coverage, Agency wide, for infants at 12 months of age was maintained over the WHO target of > 95%. All Fields achieved global coverage rates close to 100% coverage except Gaza Field. In the latter, this was due to the lower coverage for the Polio (IPV) vaccine are all other vaccinations presented coverage rates close to 100%.

Immunization coverage of children at 18 months was close to the rate of 2009 with 99.3%. The main reasons behind this achievement were the availability of the vaccines throughout the year, the enforcement of an appointment system and continuous follow up of defaulters by the health centre staff.

Table 19 - Coverage of the expanded programme on immunization 2010 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	100	99.5	99.5	99.9	99.9	**99.7**
Poliomyelitis(IPV)	99.7	NA	99.8	90.2	100	**90.3**
Poliomyelitis(OPV)	99.6	99.8	99.5	99.9	99.9	**99.7**
Triple (DPT)	99.7	99.8	99.5	99.9	99.9	**99.8**
Hepatitis B	99.7	99.8	99.5	99.8	99.9	**99.7**
Hib	99.7	99.8	99.5	99.8	99.9	**99.7**
Measles	99.2	99.5	99.4	99.8	99.9	**99.6**
All vaccines	99.2	99.5	99.4	90.2	99.9	**95.3**
Coverage rates as percentage of children 18 months old, for booster doses						
Poliomyelitis(OPV)	98.6	99.0	99.4	99.8	99.9	**99.3**
Triple (DPT)	98.6	99.0	99.4	99.8	99.9	**99.3**
MMR	**98.7**	**99.0**	**99.4**	**99.8**	**99.9**	**99.3**

As observed in previous years, no cases of poliomyelitis, tetanus, diphtheria, or pertussis were reported among the refugee population during 2010 (Table 30).

SCHOOL HEALTH

During the school year 2009-2010, a total of 481,672 pupils were enrolled in UNRWA schools. Of those, 241,183 were girls and 240,489 boys. Pupils were distributed between elementary grades (311,477) and preparatory grades (165,667). About 4,500 were enrolled in secondary schools in Lebanon, where Palestine refugees do not have alternative affordable options for higher education.

Collaboration with the UNRWA Education Department was further enhanced in 2010. 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 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 2009/2010, a total of 50,033 new entrants were registered in UNRWA schools of whom 25,016 girls and 25,017 boys. They received a thorough medical examination, immunization, and follow-up. Oral health problems, mainly dental caries (35.1%) and gingivitis (2.3%), were among the most common health conditions among new entrants. Vision defects were found in 5.5% of new pupils, squint in 1.2%, hernia in 1.1%, bronchial asthma in 1.0%, heart disease in 0.8%, undescended testes in 0.7%, hearing impairment in 0.5%, chronic otitis media in 0.5%, haemolytic anaemia in 0.4%, congenital malformations in 0.3%, epilepsy in 0.3%, thyroid enlargement in 0.1%, arthritis in 0.1%, physical disabilities in 0.1% and 23 children were diagnosed with type I Diabetes Mellitus.

Health problems related to personal hygiene are still prevalent among school children. Pediculosis was found in 1.9% and scabies in 0.2% 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 2009 - 2010 targeted pupils in the fourth and seventh grades in all Fields, and involved testing for vision and hearing impairment, for thyroid enlargement and for oral health problems. Of the 48,804 students enrolled in the seventh grade, 44,553 were screened with a coverage rate of 91.3%. The main morbidity conditions detected were vision defects in 14.5% and hearing impairment in 0.9%. Of the 53,403 students enrolled in the fourth grade, 49,398 were screened with a coverage rate of 92.5%. The main morbidity conditions detected were again vision defects in 12.7% and hearing impairment in 1.3%.

Oral Health screening was also conducted for the seventh and ninth grades in all Fields and for the fourth grades in West Bank and the Gaza Strip. A total of 43,531 students were screened in the seventh grade with a coverage rate of 81.6% (compared to 78% in 2008) and 38,234 students were screened in the ninth grade with coverage rate of 83.8% (compared to 80% in 2008).In addition 28,432 students in the fourth grade in the Gaza Strip and West Bank were screened with a 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 the school year 2009 - 2010, 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 2009-2010 a total of 3,992 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, 282 students were affected by juvenile diabetes mellitus and 1,057 had bronchial asthma. 257 showed behavioural problems, 398 had heart diseases, 754 epilepsy and 478 suffered major physical disabilities. A total of 17,600 were assisted towards the cost of eye glasses and 1,029 towards the cost of hearing aids.

11,340 students were referred to UNRWA health facilities for treatment and 2,907 were further referred to either a medical specialist or to a hospital.

IMMUNIZATION

During the school year 2009-2010, 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.The coverage rate 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.
- Sixth grade girls in the Gaza Strip and the West Bank 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 98%. The highest coverage was reported from the Gaza Strip and West Bank with 99% 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 among school children enrolled in UNRWA schools in all Fields. This programme applies a single dose of an effective wide-spectrum anti-helminthic drug 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 2009-2010 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 98%. 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 2009-2010 school year, two doses of 200,000 International Units (IU) of Vitamin A at a six month interval were administered to school children from grade one to grade six in all UNRWA schools with high coverage rates.

THE GLOBAL SCHOOL HEALTH SURVEY (GSHS) IN UNRWA SCHOOLS

Schools are recognized places of learning with existing structures and systems that provide opportunities for integrating new knowledge and skills into the regular curriculum in a way that is both acceptable and cost-effective. Furthermore, informal learning experiences in school can significantly influence students' attitudes and behaviours.

At school, social relations influence the way young people live, their norms and values. Research suggests that young people are most at risk for unhealthy and risky behaviour when they make the transition from primary to secondary school and come in contact with older students in whose groups they try to be accepted.

Various behaviours of youth have long-term implications for health. These include smoking, drinking alcohol, overeating, and risky sexual behaviour. Risk taking is considered to be a characteristic of youth, and experimentation and exploration are valuable parts of growing up.

The WHO and Centre for Disease Control and Prevention in Atlanta (CDC), developed and implemented, the Global School Health Survey over the world. To provide reliable data on students' knowledge, attitude and practices regarding their health and to facilitate through the regular repetition of surveys a systematic generation of updated information. Worldwide many countries have completed the survey including countries in the Eastern Mediterranean Region. Consistent with this strategy, UNRWA Health & Education Departments adopted this methodology to compare results and design appropriate interventions.

The GSHS was conducted with the assistance of WHO-EMRO and CDC during 2010 in UNRWA's girls and boys schools in the five Fields of the Agency's area of operations. School children 13-15 years of age were enrolled in the seventh, eighth and ninth grades.

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. UNRWA GSHS is a school-based survey that measured dietary behaviours; drug use; hygiene; mental health; physical activity; protective factors; tobacco use; violence and unintentional injury. A two-stage cluster sample design was used to produce representative data for each Field of operation. Schools were selected with probability proportional to enrolment size.

Given the fact that GSHS 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 2010, data analysis and release of results took place in 2011.

THE 2010 UNRWA - JORDAN GLOBAL SCHOOL HEALTH SURVEY (GSHS)

To measure dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, tobacco use, violence and unintentional injury among school children 13-15 years in UNRWA schools, a two-stage cluster sample design was used to produce data representative of all students in grades 7th, 8th, and 9th in UNRWA - Jordan. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate. The school response rate was 100%, the student response rate was 93%, and the overall response rate was 93%. A total of 1,529 students participated in the UNRWA Jordan GSHS. Students self -reported their responses to each question on a computer-scanned answer sheet. For comparison purposes, only students aged 13-15 years were included in the analyses.

- Dietary Behaviours: the survey revealed that 4.6% of students (5.6% males, 3.5% females) were underweight , 23.9% overweight (27.5% males, 20.1% males), 6.6% obese (9.2% males, 3.7% females) and 56.6% of students (58.2% males , 54.8% females) usually drank carbonated soft drinks one or more times per day during the past 30 days.
- Drug Use: the percentage who first used drugs before age 14 years was 86.0% and 4.2% used marijuana one or more times during their life.
- Hygiene: the survey indicated that 32.5% of students (40.1% males, 24.1 females) usually cleaned or brushed their teeth less than one time per day during the past 30 days. 5.8% of students (7.4% males, 4.2% females) never or rarely washed their hands after using the toilet or latrine during the past 30 days.
- Mental Health: the percentage of students who ever seriously considered attempting suicide during the past 12 months amounted to 21.3%, (20.0% males, 22.2% females). 8.6% of students (8.6% males, 7.9% females) had no close friends.
- Physical Activity: the survey indicated that only 25.9% of students (31.4% males, 20.1% females) were physically active for a total of at least 60 minutes per day on five or more days during the past seven days. 46.5% of students (49.8% males, 43.4% females) went to physical education (PE) class on three or more days each week during the school year and the percentage of students who spent three or more hours per day during a typical or usual day doing sitting activities reached 33.5% (35.4% males, 31.6% females).

- Protective Factors: 39.1% of students (40.7% males, 37.2% females) missed classes or school without permission on one or more of the past 30 days. 38.5% of students (36.4% males, 41.4% females) stated that their parents or guardians understood their problems and worries most of the time or always during the past 30 days and 42.9% of students (43.0% males, 43.3%females) stated that their parents or guardians really knew what they were doing with their free time most of the time or always during the past 30 days.
- Tobacco Use: the percentage of students who smoked cigarettes on one or more days during the past 30 days reached 20.8% (32.3% males, 8.3% females). Among students who ever smoked cigarettes, the percentage who first tried a cigarette before age 14 years was 79.9% (82.9% males, 69.9% females) and the percentage of students who reported that people smoked in their presence on one or more days during the past seven days reached 68.1%, (66.9% males, 69.5% females).
- Violence and Unintentional Injury: the percentage of students who took part in a physical fight one or more times during the past 12 months reached 41.8% (57.8% males, 23.7% females). 38.0% of students (47.1% males, 27.7% females) stated they who seriously injured one or more times during the past 12 months and the percentage of students who were bullied on one or more days during the past 30 days was 58.4% (59.8% males, 56.6% females).

THE 2010 UNRWA LEBANON GLOBAL SCHOOL HEALTH SURVEY (GSHS)

To measure dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, tobacco use, violence and unintentional injury among school children 13-15 years in UNRWA schools, a two-stage cluster sample design was used to produce data representative of all students in grades 7th, 8th, and 9th in UNRWA Lebanon. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate. The school response rate was 100%, the student response rate was 96%, and the overall response rate was 96%. A total of 2,187 students participated in the UNRWA Lebanon GSHS. Students self-reported their responses to each question on a computer-scanned answer sheet. For comparison purposes, only students aged 13-15 years were included in the analyses.

- Dietary Behaviours: the survey revealed that 4.7% of students (6.0% males, 3.5% females) were underweight, 28.1% overweight (28.6% males, 27.6% males), 8.7% obese (10.7% males, 6.9% females) and that 70.9% of students (74.2% males, 67.8% females) usually drank carbonated soft drinks one or more times per day during the past 30 days.
- Drug Use: 3.5% of surveyed students (7.3% males, 0.6% females) used marijuana one or more times during their life.
- Hygiene: the survey indicated that 18.1% of students (22.6% males, 13.8% females) usually cleaned or brushed their teeth less than one time per day during the past 30 days.4.3% of students (6.4% males, 2.5% females) reported that they never or rarely washed their hands after using the toilet or latrine during the past 30 days.
- Mental Health: the percentage of students who ever seriously considered attempting suicide during the past 12 months amounted to 14.9%, (17.8% males, 12.1% females). 6.0% of students (6.8% males, 5.2% females) had no close friends.
- Physical Activity: the survey indicated that only 17.3% of students (24.8% males, 10.6% females) were physically active for a total of at least 60 minutes per day on five or more days during the past seven days. 34.6% of students (43.8% males, 26.1% females) went to physical education (PE) class on three or more days each week during the school year and the percentage of students who spent three or more hours per day, during a typical or usual day, doing sitting activities reached 27.0% (29.1% males, 24.9% females).
- Protective Factors: 24.7% of students (28.8% males, 20.6% females) missed classes or school without permission on one or more of the past 30 days. 46.5% of students (40.8%males, 51.6% females) stated that their parents or guardians understood their problems and worries most of the time or always during the past

30 days and 43.8% of students (41.6% males, 45.9%females) stated that their parents or guardians really knew what they were doing with their free time most of the time or always during the past 30 days.

- Tobacco Use: the percentage of students who smoked cigarettes on one or more days during the past 30 days was 10.2% (19.0% males, 2.5% females). Among students who ever smoked cigarettes, the percentage who first tried a cigarette before age 14 years, was 86.2% and the percentage of students who reported people smoked in their presence on one or more days during the past seven days reached 63.6%, (59.0% males, 67.7% females).
- Violence and Unintentional Injury: the percentage of students who took part in a physical fight one or more times during the past 12 months reached 31.6% (48.2%males, 16.5% females). 23.7% of students(34.1%males, 14.6% females) reported that they were seriously injured one or more times during the past 12 months and the percentage of students who were bullied on one or more days during the past 30 days was 38.4%(49.1%males, 28.6% females).

THE 2010 UNRWA - SYRIA GLOBAL SCHOOL HEALTH SURVEY (GSHS)

To measure dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, tobacco use, violence and unintentional injury among school children 13-15 years in UNRWA schools, a two-stage cluster sample design was used to produce data representative of all students in grades 7th, 8th, and 9th in UNRWA – Syria. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate. The school response rate was 100%, the student response rate was 94%, and the overall response rate was 94%. A total of 2,120 students participated in the UNRWA Syria GSHS. Students self -reported their responses to each question on a computer-scanned answer sheet. For comparison purposes, only students aged 13-15 years were included in the analyses.

- Dietary Behaviours: the survey revealed that 52.0% of students (53.5% males, 50.3% females) usually drank carbonated soft drinks one or more times per day during the past 30 days.
- Drug Use: 2.3% of surveyed students (3.6% males, 0.9% females) used marijuana one or more times during their life.
- Hygiene: the survey indicated that 26.9% of students (33.3% males, 19.8% females) usually cleaned or brushed their teeth less than one time per day during the past 30 days.2.4% of students (2.0% males, 2.4% females) reported that they never or rarely washed their hands after using the toilet or latrine during the past 30 days.
- Mental Health: the percentage of students who ever seriously considered attempting suicide during the past 12 months amounted to 22.0%, (19.7% males, 24.3% females). 7.0% of students (6.0% males, 8.2% females) had no close friends.
- Physical Activity: the survey indicated that only 23.1% of students (29.3% males, 16.3% females) were physically active for a total of at least 60 minutes per day on five or more days during the past seven days. 43.1% of students (47.5% males, 38.3% females) went to physical education (PE) class on three or more days each week during the school year and the percentage of students who spent three or more hours per day during a typical or usual day doing sitting activities reached 30.2% (30.9% males, 29.4% females).
- Protective Factors: 34.7% of students (36.2% males, 32.9% females) missed classes or school without permission on one or more of the past 30 days. 41.1% of students (39.8%males, 42.7% females) stated that their parents or guardians understood their problems and worries most of the time or always during the past 30 days and 46.8% of students (48.2% males, 45.4%females) stated that their parents or guardians really knew what they were doing with their free time most of the time or always during the past 30 days.
- Tobacco Use: the percentage of students who smoked cigarettes on one or more days during the past 30 days reached 11.4% (17.0% males, 5.4% females). Among students who ever smoked cigarettes, the percentage who first tried a cigarette before age 14 years was 79.9% and the percentage of students who reported people smoked in their presence on one or more days during the past seven days was 71.7%, (71.3% males, 72.1% females).

- Violence and Unintentional Injury: the percentage of students who took part in a physical fight one or more times during the past 12 months reached 42.8% (60.5%males, 24.0% females). 35.8% of students(45.7%males, 24.5% females) reported that they were seriously injured one or more times during the past 12 months and the percentage of students who were bullied on one or more days during the past 30 days reached 59.9%(64.7%males, 55.0% females).

THE 2010 UNRWA - GAZA GLOBAL SCHOOL HEALTH SURVEY (GSHS)

To measure dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, tobacco use, violence and unintentional injury among school children 13-15 years in UNRWA schools, a two-stage cluster sample design was used to produce data representative of all students in grades 7th, 8th, and 9th in UNRWA - Gaza. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate. The school response rate was 100%, the student response rate was 95%, and the overall response rate was 95%. A total of 2,122 students participated in the UNRWA - Gaza GSHS. Students self-reported their responses to each question on a computer-scanned answer sheet. For comparison purposes, only students aged 13-15 years were included in the analyses.

- Dietary Behaviours: the survey revealed that 5.9% of students (8.0% males, 3.5% females) were underweight ,20.2% overweight (18.1% males, 22.6% males), 4.0% obese (4.5% males, 3.5% females) and that 41.6% of students (42.2% males 40.6% females) usually drank carbonated soft drinks one or more times per day during the past 30 days.
- Drug Use: the percentage who first used drugs before age 14 years was 88.5% and 3.5% used marijuana one or more times during their life (5.1% males, 1.6% females).
- Hygiene: the survey indicated that 32.7% of students (41.2% males, 23.5 females) usually cleaned or brushed their teeth less than one time per day during the past 30 days.5.3% of students (7.9% males, 2.5% females) stated that they never or rarely washed their hands after using the toilet or latrine during the past 30 days.
- Mental Health: the percentage of students who ever seriously considered attempting suicide during the past 12 months was 18.1%, (20.0% males, 16.1% females). 8.7% of students (9.0% males, 8.2% females) had no close friends.
- Physical Activity: the survey indicated that only 21.7% of students (26.2% males, 16.6% females) were physically active for a total of at least 60 minutes per day on five or more days during the past seven days. 49.1% of students (49.3% males, 49.0% females) went to physical education (PE) class on three or more days each week during the school year and the percentage of students who spent three or more hours per day during a typical or usual day doing sitting activities reached 25.6% (27.1% males, 23.7% females).
- Protective Factors: 38.0% of students (38.9% males, 36.7% females) missed classes or school without permission on one or more of the past 30 days. 38.0% of students (35.0%males, 41.3% females) stated that their parents or guardians understood their problems and worries most of the time or always during the past 30 days and 42.7% of students (41.6% males, 43.6%females) stated that their parents or guardians really knew what they were doing with their free time most of the time or always during the past 30 days.
- Tobacco Use: the percentage of students who smoked cigarettes on one or more days during the past 30 days was 10.4% (16.5% males, 3.9% females). Among students who ever smoked cigarettes, the percentage who first tried a cigarette before age 14 years was 85.6% and the percentage of students who reported people smoked in their presence on one or more days during the past seven days reached 53.0%, (55.4% males, 50.3% females).
- Violence and Unintentional Injury: the percentage of students who took part in a physical fight one or more times during the past 12 months reached 40.7% (51.3%males, 28.7% females). 25.5%of students(34.9%males, 15.1% females) stated that they were seriously injured one or more times during the past 12 months and the percentage of students who were bullied on one or more days during the past 30 days reached 58.2%(62.5%males, 53.3% females).

THE 2010 UNRWA – WEST BANK GLOBAL SCHOOL HEALTH SURVEY (GSHS)

To measure dietary behaviours, drug use, hygiene, mental health, physical activity, protective factors, tobacco use, violence and unintentional injury among school children 13-15 years in UNRWA schools, a two-stage cluster sample design was used to produce data representative of all students in grades 7th, 8th, and 9th in UNRWA - West Bank. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate. The school response rate was 96%, the student response rate was 93%, and the overall response rate was 90%. A total of 2,015 students participated in the UNRWA – West Bank GSHS. Students self -reported their responses to each question on a computer-scanned answer sheet. For comparison purposes, only students aged 13-15 years were included in the analyses.

- Dietary Behaviours: the survey revealed that 3.7% of students (5.6% males, 2.3% females) were underweight , 25.6% overweight (22.6% males, 27.8% males), 7.0% obese (7.6% males, 6.6% females) and that 60.3% of students (62.5% males , 58.4% females) usually drank carbonated soft drinks one or more times per day during the past 30 days.
- Drug Use: the percentage who first used drugs before age 14 years was 82.6% and 4.5% used marijuana one or more times during their life (8.2% males, 1.5% females).
- Hygiene: the survey indicated that 31.8% of students (37.6% males, 27.4 females) usually cleaned or brushed their teeth less than one time per day during the past 30 days.4.4% of students (7.9% males, 1.7% females) stated that they never or rarely washed their hands after using the toilet or latrine during the past 30 days.
- Mental Health: the percentage of students who ever seriously considered attempting suicide during the past 12 months amounted to 20.9%, (22.0% males, 19.8% females). 6.0% of students (6.9% males, 5.3% females) had no close friends.
- Physical Activity: the survey indicated that only 23.5% of students (30.9% males, 17.9% females) were physically active for a total of at least 60 minutes per day on five or more days during the past seven days. 46.8% of students (49.8% males, 44.6% females) went to physical education (PE) class on three or more days each week during the school year and the percentage of students who spent three or more hours per day during a typical or usual day doing sitting activities reached 33.6% (34.4% males, 33.0% females).
- Protective Factors: 36.5% of students (40.5% males, 33.1% females) missed classes or school without permission on one or more of the past 30 days. 35.7% of students (35.3%males, 35.8% females) stated that their parents or guardians understood their problems and worries most of the time or always during the past 30 days and 39.5% of students (40.4% males, 39.0%females) stated that their parents or guardians really knew what they were doing with their free time most of the time or always during the past 30 days.
- Tobacco Use: the percentage of students who smoked cigarettes on one or more days during the past 30 days reached 20.2% (32.8% males, 10.6% females). Among students who ever smoked cigarettes, the percentage who first tried a cigarette before age 14 years was 87.2% and the percentage of students who reported people smoked in their presence on one or more days during the past seven days reached 65.4%, (62.2% males, 67.9% females).
- Violence and Unintentional Injury: the percentage of students who took part in a physical fight one or more times during the past 12 months reached 38.0% (53.0%males, 26.5% females). 29.5% of students(44.4%males, 17.9% females) stated that they were seriously injured one or more times during the past 12 months and the percentage of students who were bullied on one or more days during the past 30 days reached 54.8%(58.3%males, 51.9% females).

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 2010, the number of UNRWA medical consultations reached 10.42 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 of charge medicines 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, 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 and Gaza Strip 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 those, 66 are inside camps and 71 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 18 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 -Delivering health to the victims of conflict).

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

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: over 120,000 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 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 Agency-wide was higher with approximately 10.4 million consultations compared to 10.36 million in 2009, of these consultations 301,335 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 decreased from 3.8 in 2009 to 3.6 in 2010. This ratio has a very wide variation among Fields, and among health centres in the same Field. The highest ratio was in Lebanon, 4.7 and the lowest was in Syria 1.9 (Table 20). The distribution by sex of patients is largely affected by the attendance pattern to UNRWA health facilities and not to significant variations in morbidity profile.

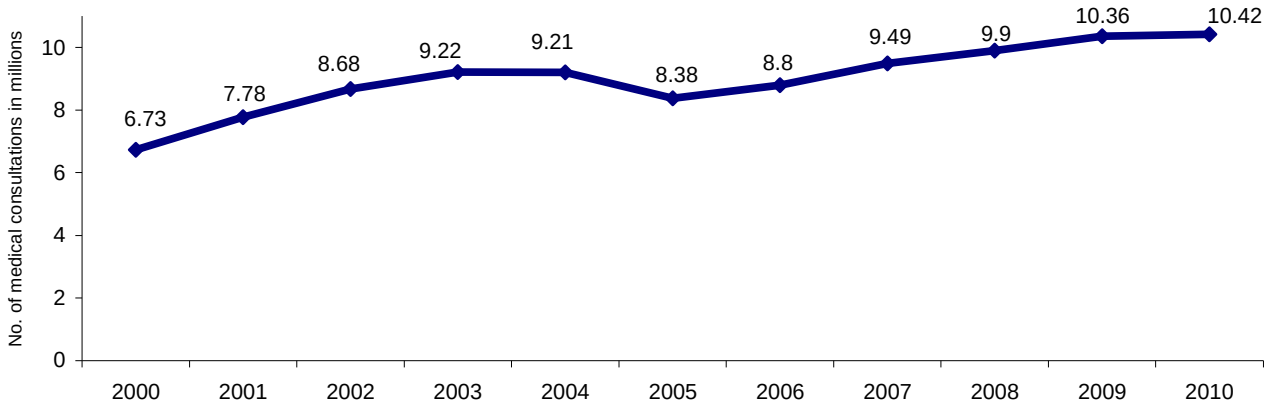


Figure 18: UNRWA medical consultations conducted in millions, 2000-2010

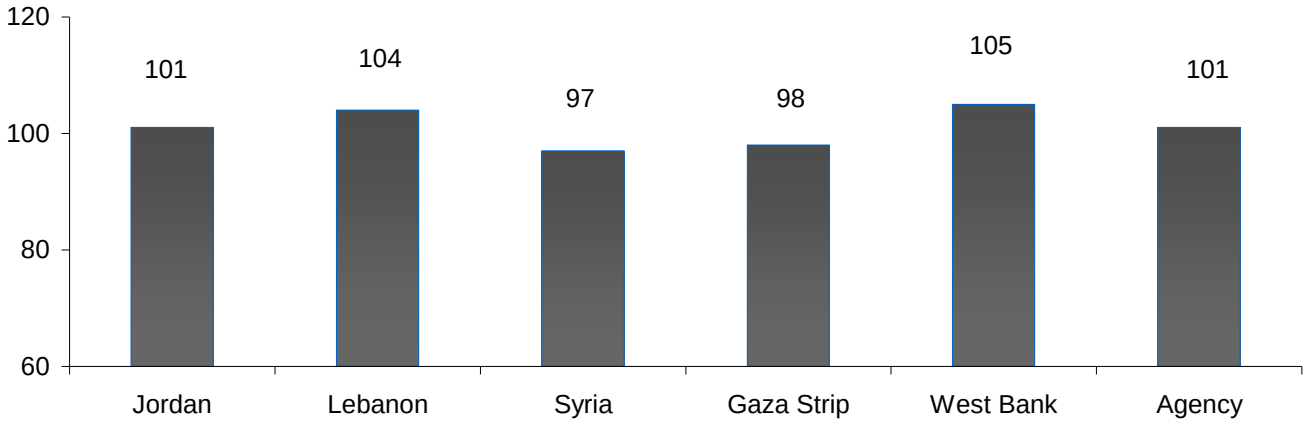
Table 20 - Utilization of outpatient services, 2010

Field	Jordan		Lebanon		Syria		Gaza Strip		West Bank		Agency		
Gender	M	F	M	F	M	F	M	F	M	F	M	F	T
(a) Medical consultations													
- First visits	174,960	289,302	75,256	102,535	156,223	190,003	330,843	492,485	164,997	241,013	902,279	1,315,338	2,217,617
- Repeat visits	662,145	1,238,332	337,360	501,962	278,752	381,380	1,304,645	2,010,390	461,496	721,685	3,044,398	4,853,749	7,898,147
Ratio repeat to first visits	3.8	4.3	4.5	4.9	1.8	2.0	3.9	4.1	2.8	3.0	3.4	3.7	3.6
Sub-total (a)	837,105	1,527,634	412,616	604,497	434,975	571,383	1,635,488	2,502,875	626,493	962,698	3,946,677	6,169,087	10,115,764
(b) Specialist care													
- Gyn.& Obst.	0	47,215	0	21,267	0	14,499	0	85,764	0	7,212	0	175,957	175,957
- Cardiology	2,071	3,656	4,519	6,225	262	222	6,070	9,924	57	74	12,979	20,101	33,080
- Others	2,070	3,074	7,423	10,013	0	0	28,289	37,907	1,386	2,134	39,168	53,128	92,296
Sub-total (b)	4,141	53,945	11,942	37,505	262	14,721	34,359	133,595	1,443	9,420	52,147	249,186	301,333
Grand Total (a) &(b)	841,246	1,581,579	424,558	642,002	435,237	586,104	1,669,847	2,636,470	627,936	972,118	3,998,824	6,418,273	10,417,097

STAFF WORKLOADS

The number of consultations per medical officer per working hour per day at UNRWA primary health care facilities, increased from 98.5 in 2009 to 101 in 2010. The highest workload was reported from the West Bank Field with 105 patients per medical officer per day and the lowest in Syria Field with 97. The workload is still high and far from the UNRWA's target of 70 patients per Medical Officer per day.

Figure 19 - Average daily medical consultations per doctor, 2010



LABORATORY SERVICES

UNRWA provided comprehensive laboratory services in 120 out of 137 health facilities. The remaining 17 facilities (12 in Lebanon, 2 in Syria and 3 in the Gaza Strip) continued to provide basic laboratory support (blood glucose, blood haemoglobin and urine tests by dipstick) through competent nursing staff using basic laboratory equipment. Figure 20, shows the number of laboratories in the five Fields from 2000 to 2010.

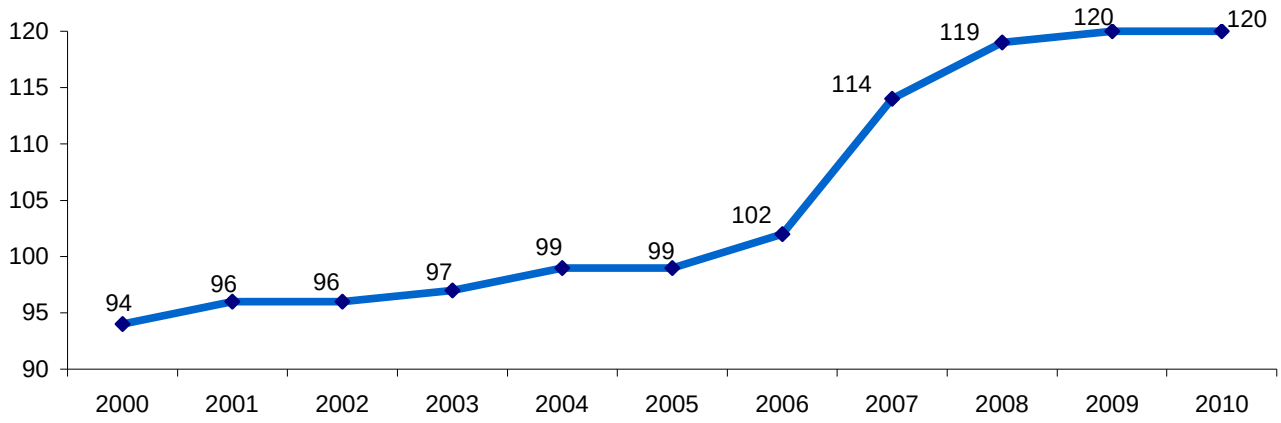


Figure 20 - Number of laboratories within UNRWA health facilities, 2000-2010

UTILIZATION TRENDS

The number of tests performed increased by 3.5% Agency-wide in 2010 compared with 2009. The rates of increase were 19.8% in the Gaza Strip, 3.3% in Syria, 1.9% in Lebanon, while a decrease of 20.5% was observed in the West Bank and 0.9% in Jordan. The increase of utilization on laboratory services in the Gaza Field is attributed to:

- Current political situation and the deterioration of health services in the MoH,
- Population growth,
- Accessibility of service, and
- Well-equipped laboratories within UNRWA clinics.

The decrease of 20.5% observed in the West Bank Field is mainly ascribable to the interruption of services as a consequence of three strikes that took place during 2010. Thisresulted in health centres being closed for 50 days.

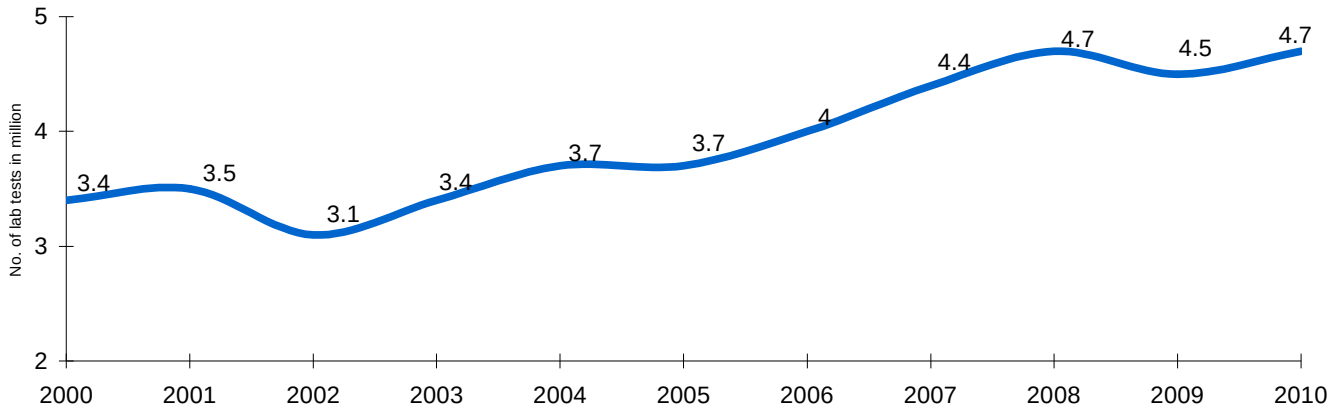


Figure 21 - Utilization trend of laboratory services, 2000-2010

PERIODIC SELF-EVALUATION

A comparative assessment of workloads and efficiency of the laboratory services was carried out based on the 2010 statistical data, as part of UNRWA's periodic self-evaluation of the programmes. The WHO approach for workload measurement [1] was used. Table 21 shows the actual productivity in Work Load Units (WLUs)/hour during the period 2001-2010. The productivity target of 45 to 55 WLUs/hour was almost 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 52 laboratory technicians under THE emergency programme during 2010 as part of the "job creation policy". 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, 2001-2010

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
2010	49.9	38.9	41.2	33.5	43.6	42.0

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

EXPENDITURE FOR LABORATORY SERVICE

The cost of laboratory supplies procured under UNRWA's General Fund, through the cyclic review indents, for the year 2010 amounted to USD 632,025.

Table 22 - Expenditure on Laboratory Services and Equipment in 2010

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Supplies	157,938	44,343	66,079	180,355	183,310	632,025
Equipment-GF	460,261	8,684	0	4,987	70,582	544,514
Equipment-P	0	560	0	171,489	9,850	181,899
Equipment-Total	460,261	9,244	0	176,476	80,432	726,413

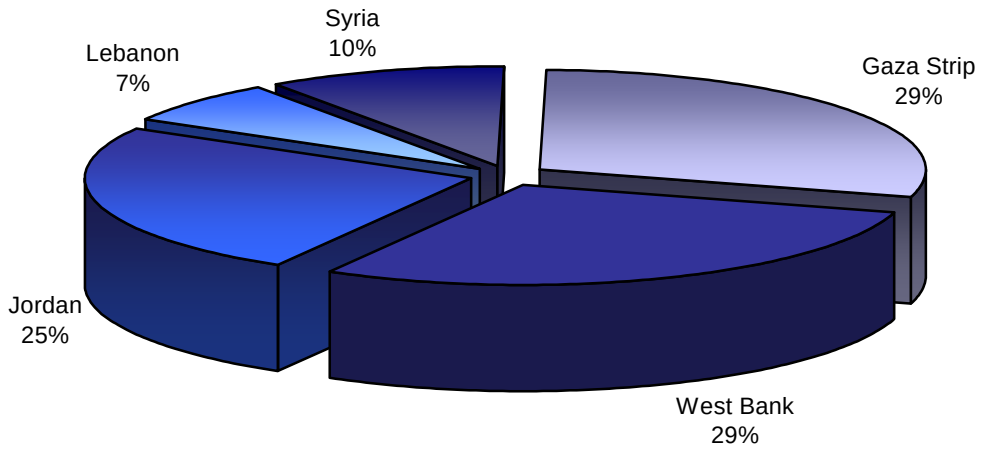


Figure 22 - Expenditure on laboratory supplies (%)

The expenditure on laboratory equipment during 2010 amounted to USD 726,413, out of which USD 544,514 (75.0%) were secured through General Fund whereas USD 181,899 (25.0%) through emergency funds, project funds and/or donations (Table 22 and Figure 23).

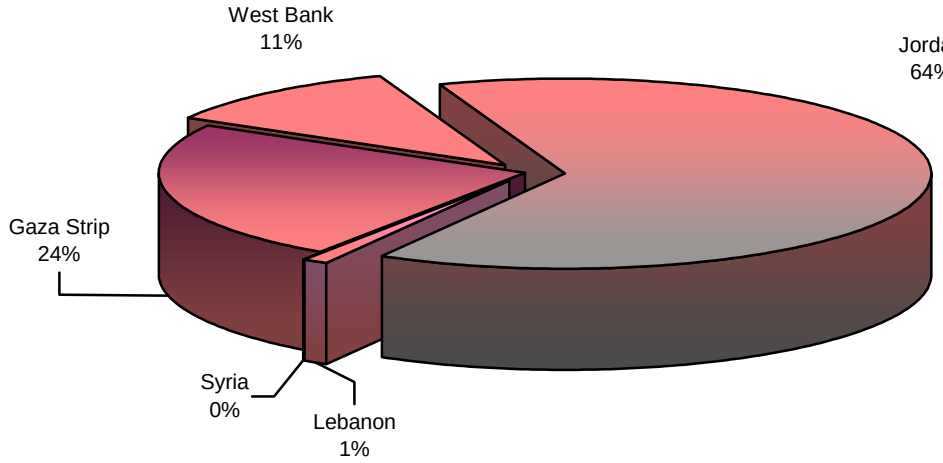


Figure 23 - Expenditure on laboratory equipment (%)

In 2010, 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.
- The quality of laboratory services was followed up on a daily basis through an internal quality control system in place at 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 with RANDOX, UK at a reasonable cost.
- Annual assessment of the trends in utilization and productivity of laboratory services at health centre level was conducted in each Field as part of a self-internal assessment policy according to a standard assessment protocol.
- The quality of laboratory supplies was checked on a regular basis in coordination with relevant staff at the procurement division.
- Arrangements were made with the public health laboratories of the host countries with respect to referral of patients or samples for surveillance of diseases of public health importance.

Analysis of data collected from all UNRWA laboratories in 2010 revealed that:

- A total of 93,329 Children at one year of age were screened for anaemia. The percentage of anaemia among Hb tests performed on this group varied from 66.6% in the Gaza Strip, 45.0% in Jordan, 41.4% in the West Bank, 39.4% in Lebanon and 36.8% in Syria. Most of the results ranged from moderate to mild types of anaemia.

- A total of 101,832 pregnant women were screened for anaemia at registration and at 24 weeks of gestation. The percentage of anaemia among Hb tests performed on pregnant women at 24 weeks varied from 57.6% in the Gaza Strip, to 42.9% in Lebanon, 38.3% in Jordan, 36.1% in the West Bank and to 33.7% in Syria. The majority were mild to moderate forms of the disease.

- A total of 101,832 pregnant women were screened for diabetes mellitus at registration and at 24 weeks of gestation to improve the detection rate of gestational diabetes. Borderline results were subjected to the oral glucose tolerance test for confirmation of gestational diabetes.

- A total of 101,832 pregnant women were screened once during their course of pregnancy for urinary tract infection using cumber nine dipstick.

- A total of 382,102 postprandial plasma glucose tests and 98,460 fasting plasma glucose tests were performed as follow-up tests for diabetic patients. The percentage of results indicating a non-control status varied between 58.2% in Lebanon, 54.8% in the West Bank, 53.1% in Jordan, 43.1% in the Gaza Strip and 41.9% in Syria.

- A total of 102,061 plasma glucose tests were performed to screen individuals, at 40 years of age and above, for diabetes mellitus to improve diabetes detection rates.

- A total of 238,442 Creatinine tests to screen diabetic patients for nephropathy and 185,721 cholesterol tests to screen them for hypercholesterolemia were performed.

- Out of 95,356 stool examinations performed, 16,527 (17.3%) were positive for intestinal parasites, of which 64.4% were *Entamoeba histolytica*, 25.2% *Giardia lamblia* and 3.0% *Ascaris lumbricoides*.

ORAL HEALTH SERVICES

Oral health services were provided through 108 fixed and 10 mobile dental clinics. Figure 24, below, shows the number of dental clinics in the five Fields from 2000 to 2010.

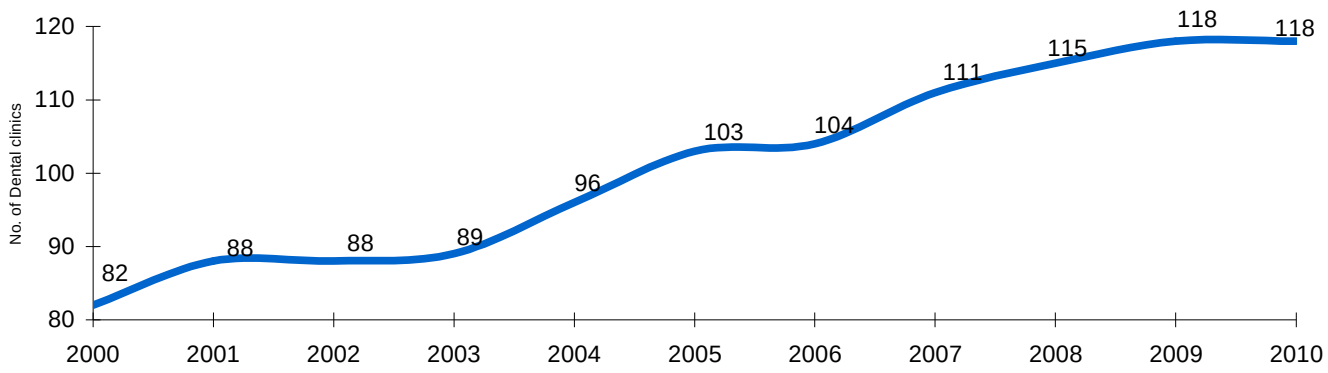


Figure 24 – Number of UNRWA dental clinics, 2000 - 2010

The analysis of the utilization trends of dental services in 2010 showed that there was an average decrease of 2.2% Agency-wide. The decrease was 23% in the West Bank Field to 7.2% in Syria, 3.8% in Lebanon and 2.5% in Jordan while an increase 10.2% was observed in the Gaza Field as a consequence of the high demand for services owing to the deterioration of the health service provided by MoH, to the current political situation and the population growth. The major decrease in utilization of oral health services observed in the West Bank is attributed to the interruption of services because of aforementioned strikes that took place in 2010.

The trends of screening activities conducted for the different target groups are shown in Table 24, where the detailed screening coverage and outcome of each target group is illustrated.

Table 23 - Utilization of dental services in 2009 and 2010

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Dental consult. 2009-Total	193 691	75 519	77 159	255 105	122 846	724 320
Dental consult. 2010-Total	188 782	72 681	71 592	281 144	94 061	708 260
Dental consult. 2010-Male	66 506	27 448	29 772	117 600	35 915	277 241
Dental consult. 2010-Female	122 276	45 233	41 820	163 544	58 146	431 019
Variance %	-2.5	-3.8	-7.2	+10.2	-23.4	-2.2
Dental screen. 2009-Total	58 212	21 939	46 760	109 158	20 180	256 249
Dental screen. 2010-Total	61 651	23 064	46 481	97 768	27 392	256 356
Dental screen. 2010-Male	15 626	6 372	18 901	27 736	7 568	76 203
Dental screen. 2010-Female	46 025	16 692	27 580	70 032	19 824	180 153
Variance %	+5.9	-1.9	-0.6	-10.4	+35.7	+0.04
Productivity WLUs/hr.	50.1	42.5	41.5	88.5	41.4	55.6

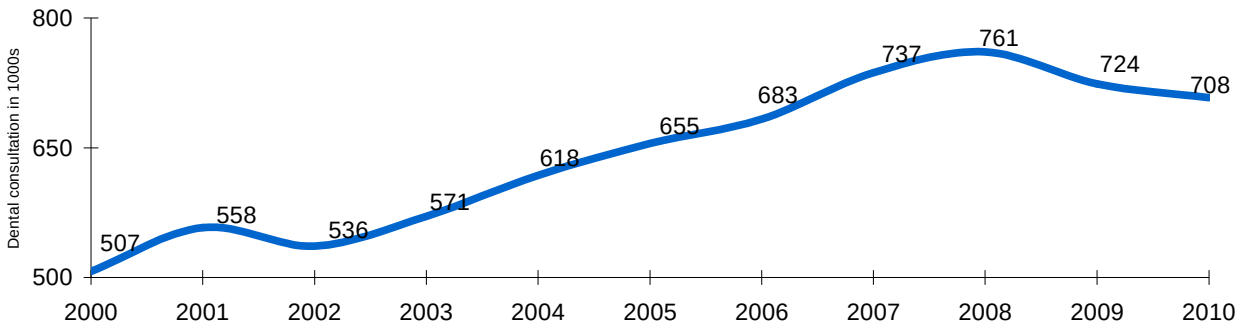


Figure 25 – Utilization trend of dental services, 2000-2010

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 2009 and 2010 of productivity ratios in relation to the defined target of 50 workload units per hour is shown in Figure 26.

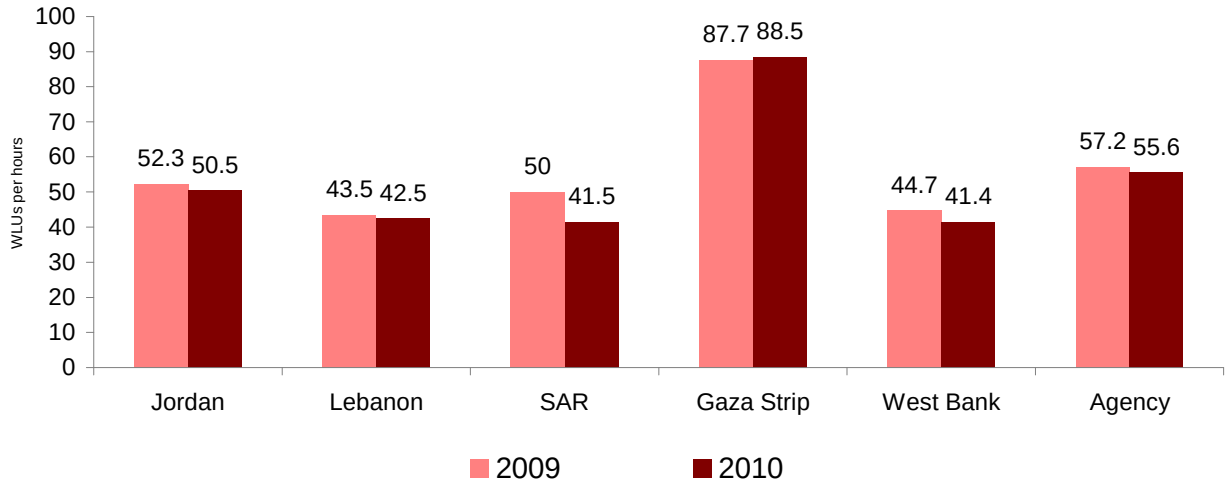


Figure 26 - Productivity of dental services by Field, 2009-2010

The acceptable average actual productivity per Dental Surgeon per hour (45-55 WLUs/hr.) was achieved in Jordan, exceeded in the Gaza Strip which continued to report the highest workload (88.5 WLUs/h) while it was slightly below the target in Lebanon, Syria and the West Bank Fields. The expenditure on dental supplies and equipment during 2010 amounted to USD 628,229, out of which USD 520,707 on dental supplies and USD 107,522 on dental equipment. All expenditure on dental equipment was secured through general funds.

In line with the strategic reform of the oral health services towards prevention, the following activities were conducted during 2010.

INTEGRATION OF THE ORAL HEALTH SERVICES INTO PREVENTIVE CHILD HEALTH CARE

- Training of mother and child health (MCH) staff on oral health preventive practices.
- Performance of an oral health risk assessment for children after one year of age (based on criteria such as the mother education, the socioeconomic status, the health status of the child and mother and the oral health status),
- Training of MCH staff on the application of Fluoride varnish to children 2-3 years of age.
- Education on oral health education as part of the existing network activities of MCH staff and families,
- Production of educational material.

INTEGRATION OF THE PREVENTIVE ORAL HEALTH SERVICES INTO THE SCHOOL HEALTH SERVICES

- Enforcement of technical instructions for food items available in school canteens,
- Application of Pit & fissure sealant to school children in the 2nd elementary grade (6-7 years),
- Monitoring of fluoride concentration in water at some camps,
- Implementation of a pilot project on hand washing and tooth brushing with fluoridated toothpaste in one girl and one boy school in each Field.

BALANCE BETWEEN CURATIVE AND PREVENTIVE APPROACHES

- Revision of treatment priorities to allow more resources for community dentistry,
- Revision of the policy of providing the costly and time consuming root canal treatment,
- Provision of training and links to scientific publications on community dentistry to oral health staff.

CROSS INFECTION CONTROL

- Revision and update of Technical Instructions on Infection Control Procedures.
- Increase in the stocks of hand pieces (turbines and micro-motors) for each Dental Clinic,
- Availability of disposable plastic film to cover handles, lamp and cods,
- Training and supervision on Cross Infection Control management.

EPIDEMIOLOGICAL RESEARCH PROCEDURES

- Survey methodology was standardized according to WHO guidelines; in this regard 10 Dental surgeons were trained by experts from the WHO collaborating centre in Milan Italy.
- A baseline survey on the DMFT index will be conducted in 2011. Subsequent surveys will be conducted every four years.

PHYSIOTHERAPY SERVICES

Physiotherapy services were provided to 15,260 patients through 17 physiotherapy units (ten units in the Gaza Strip, six in the West Bank and one in Jordan). The 3,329 new patients who were treated at physiotherapy units in the West Bank benefited from 46,442 sessions provided through 21 staff members (11 regular employees and 10 recruited under emergency programme) and the 11,237 new patients treated in the physiotherapy units of the Gaza Field received 153,974 sessions provided through 58 staff members (26 regular employees and 32 recruited under emergency programme. These units delivered 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 the provision of therapeutic exercise, manipulation massage, functional training, hydrotherapy, electrotherapy and self-training.

Table 24 - Distribution of patients treated in physiotherapy units, 2010

Field	Patients treated in 2009			Patients treated in 2010		
	Trauma	Non-Trauma	Total	Trauma	Non-Trauma	Total
West Bank	652	3 266	3 918	593	2 736	3 329
Gaza Strip	2 831	7 014	9 845	3 415	7 912	11 237
Jordan	0	566	566	0	604	604
Total	3 483	10 846	14 329	4 008	11 252	15 260

The outcome of the treatment sessions provided at UNRWA physiotherapy units, and through home visits in Gaza Field, was the discharge of 83% of treated patients without any disability (full recovery) and of 14% with a mild disability. Only 3% remained with permanent disability due to the nature of their injury or disorder. The patients with permanent disability together with their family members were educated on how to handle the physical aspect of the disability in the daily lives. This will certainly lead to more independence and self-reliance and consequently will release the professional staff to devote more time for other patients. The outcome of the treatment sessions provided in the West Bank Field was the discharge of 80.8% of treated patients without any disability (full recovery) and 15.8% with a mild disability. Only 3.4% remained with permanent disability due to the nature of injury or disorder.

The Number of patients utilizing the physiotherapy services in the Gaza Strip, increased from 9,845 in 2009 to 11,260 patients in 2010, this increase is mainly attributed to:

- Increased refugee awareness of the importance of physiotherapy services at preventive and curative level,
- Deterioration of health services in MoH in the Gaza Field,
- The current political situation,
- Population growth,
- Accessibility of the service, and
- Well-equipped physiotherapy clinics.

The decrease in the utilization of physiotherapy services in the West Bank Field, from 3,918 in 2009 to 3,329 in 2010, is mainly attributed to the interruption of services during several strikes that took place in 201

Community-based initiatives were observed during 2010 and included the following activities:

- Conducting several educational sessions to different groups of people, to raise awareness on types of disabilities, preventive measures of avoidable disabilities, care of people with disabilities and on physiotherapy services provided at UNRWA physiotherapy units,
- Conducting home visits during which the family of the patients were provided with necessary advices and trained on assisting during needed exercises,
- Strengthening the cooperation between Physiotherapists and School supervisors, this reflected positively on the performance of students with disabilities.
- Creating partnerships between UNRWA physiotherapy units and non-governmental organizations/ potential donors of rehabilitation aid equipment.
- Launching a preventive physiotherapy programme aimed at examining the feet of diabetic patients annually for skin colour, ulcers, colloids, nails, deformities, pulse, leg temperature, superficial and deep sensation and shoes suitability in the West Bank.
- Screening of school children, in the 1st elementary class, 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 2010 amounted to USD 403,435 out of which USD 121,579 on equipment and the remaining USD 281,856 were on patient subsidies. More than half of the funds (USD 213,232) were secured through projects raised by the Fields and USD 190,203 through the General Fund. Table 26 shows the distribution of expenditure.

Table 25 - Expenditure on Physiotherapy Services, 2010

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Supplies	0	0	0	0	0	0
Equipment	0	0	0	121 579	0	121 579
Subsidies	66 345	0	37 785	91 653	86 073	281 856
Total	66 345	0	37 785	213 232	86 073	403 435

RADIOLOGY SERVICES

UNRWA operates 21 radiology units (nine units in the West Bank, six in the Gaza Strip, four in Lebanon, and two in Jordan). These units provide plain x-ray services to patients attending the health centres. Other plain x-rays and specific types of diagnostic radiology services such as mammography, urography, and ultrasounds are provided through different contractual agreements with hospitals and private radiology clinics to patients, to newly recruited UNRWA staff, during staff periodic medical examinations and as part of medical board examinations. Table 26 shows the number of radiographs provided in all Fields during 2010.

Table 26 - Number of radiographs carried inside and outside UNRWA health facilities, 2010

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	3,016	3,428	2,450	2,442	12	2,454	5,882
Lebanon	17,780	25,261	0	0	0	0	25,261
Syria	0	0	2,381	873	1,508	2,381	2,381

Gaza Strip	38,892	43,228	0	0	0	0	43,228
West Bank	21,166	23,496	0	0	0	0	23,496
Agency	80,854	95,413	4,831	3,315	1,520	4,835	100,248

The radiology services performed 100,248 X-rays to 85,685 patients. Of those, 95,413 were plain X-rays provided to 80,854 patients through UNRWA X-ray facilities and 4,835 were other radiographs performed for 4,831 patients by contracted X-ray facilities, Table 27. The expenditure on radiology equipment during 2010, amounted to USD 66,278, and was secured from the General Fund. No new X-ray equipment was procured during the year.

Table 27 - Patients requiring radiographs by sex and age, 2010

	Female	Males	0-14 years	15-44	≥ 45 years	Total patients
Patients	41,000	44,685	25,840	36,007	23,838	85,685

THE COMMUNITY MENTAL HEALTH PROGRAM

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 terms of a 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 2010 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 COMMUNITY MENTAL HEALTH PROGRAMME (CMHP) IN THE GAZA STRIP

The year 2010 continued to be another difficult year for refugees in the Gaza Strip with the devastating effects of the chronic siege-like conditions which has led to an increased need for psychosocial support, especially among children.

COUNSELLING AND MENTAL HEALTH EDUCATION ACTIVITIES

A total of 165,019 persons benefited from the Community Mental Health Programme (CMHP) activities at the three main departments of UNRWA (Health, Education, Relief and Social Services) in the Gaza Strip in 2010. Counselling and awareness were themajor activities carried out by counsellors. The target groups were children, youth, parents, elderly, disabled, local committees, local organizations (CBOs), professionals (mainly health and mental health practitioners, teachers, Camp Service Officers) and university students. The counsellors hold individual and group counselling sessions using a variety of techniques. Topics addressed in 2010 included music therapy, trauma and expressive therapy, how to deal with children, stress management, crisis intervention, clinical supervision, psychological assessment for special needs and life skills training courses. In addition 11 people benefited from the external referral system and 480 from the internal referral at UNRWA. Table 28 shows the main activities conducted during year 2010.

Table 28 - Number of sessions of counselling and beneficiaries, 2010

	Individual counselling sessions	Group counselling	Group guidance (awareness)	Home visits
Sessions	21,498	6,088	13,882	2,348
Beneficiaries	14,217	23,162	36,952	4,220

Health awareness activities were also conducted in 2010, these benefited:78,525 persons from 6.546 one time group intervention,2,188 persons from 125 supportive group sessions, and5,275 persons from 84 open days activities.

Table 29 – Counsellors working in the Gaza Strip Community Mental Health programme, 2010

Staffing		
	Planned	**Working**
Clinic counsellors working at UNRWA clinics	21	20
School counsellors working at UNRWA schools	64	58
Community organizers working at community based centres	30	30

TRAINING AND EMPOWERMENT OF STAFF:

During 2010, six supervisors attended 8 training courses and 235 counsellors attend 15 training course. In addition 437 teachers attended trainings conducted by CMH counsellors.

THE COMMUNITY MENTAL HEALTH PROGRAMME (CMHP) IN THE WEST BANK

The distress experienced by refugees in the West Bank has been further heightened by on-going 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 hardship has contributed to a deepening sense of dissatisfaction and hopelessness which manifests as depression and other forms of psychological

distress. 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.

Within the overall strategic objectives for UNRWA Health Department in West Bank to ensure universal access to quality comprehensive primary health care; maintain and improve the family health and mental health through care, prevention and behavioural change communication; and to control and prevent diseases by maintaining good environmental infrastructure, safe and health shelter and implementing disease surveillance, the goal of the Community Mental Health Programme (CMHP) is to enrich and promote the mental health and well-being of Palestinian Refugees.As such, UNRWA is implementing a holistic and multi-sectoral approach to its Community Mental Health program. UNRWA's model emphasizes on excellent medical care by integrating community mental health services into its Primary Health Care. This is enhanced by a community approach that emphasizes family and community involvement, social acceptance and integration, and opportunities for economic and social protection and livelihood.

THE CMHP ACTIVITIES AND ACHIEVEMENTS

UNRWA's approach to community mental health focuses on prevention as well as curative mental health services and support. During 2010, very good links with the other UNRWA programmes as well as with external organizations such as NGOs working in the same domain were established.Below is a brief summary of the activities conducted over this reporting period by the Health Department, in close coordination with the Education and Relief and Social Services Departments.

PROMOTING MENTAL HEALTH AND WELL-BEING THROUGH FAMILY AND CHILD PROTECTION:

In 2010, UNRWA launched the family and child protection program in nine refugee camps and one village in the central and southern areas of the West Bank. Family and child protection committees established in these camps and village are implementing community initiatives and activities aimed at preventing unhealthy behaviours, including psychological and physical domestic abuse, child abuse and neglect, and gender-based violence. The protection committees are also raising awareness on social acceptance and integration of vulnerable groups, including the elderly and persons with disabilities. Through these prevention and awareness raising initiatives, communities are working together across sectors to build a positive environment for mental health and well-being.

INTEGRATING MENTAL HEALTH IN PRIMARY HEALTH CARE SERVICES:

UNRWA health staff are integrating mental health care into their service provision—including early detection of mental disorders, treatment of common mental disorders, management of stable psychiatric patients, and referrals to other services required both internally and externally to UNRWA. UNRWA's psychosocial counselling team are working within the primary health care clinics, centres and mobile units, providing assessment and identification, treatment and on-going support using specialist interventions including individual and group therapy, psychological therapies, psychological support, rehabilitation and advocacy. They also are providing advice, education and training to other primary health care professionals in the management of mental health issues, and helping to enable appropriate referrals to specialized services when needed.

PSYCHOSOCIAL COUNSELLING ACTIVITIES:

CMHP continued to offer its psychosocial counselling services to the refugee community. Through 21 psychosocial counsellors working in the health clinics, health centres and mobile units, over 10,000 people received counselling services (individual, family, or group counselling), or participated in supportive group activities and awareness-raising

sessions. Target groups for CMHP activities and services remain children, youth, parents, and vulnerable groups including the elderly and persons with disabilities.

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. During 2010, the following counselling activities were conducted:

- 3,170 Individual counselling sessions benefiting 1,354 persons,
- 437 group counsellingsessions benefiting 5,686 persons,
- 357 family counselling 357 sessions benefiting 446 persons,
- 90 sessions of supportive group activities benefiting 516 persons, and
- 100 group awareness activities benefiting 2,637 persons.

PROFESSIONAL SUPERVISION

CMHP professional supervisors continued to provide the psychosocial counsellors with supervision and training both individually and in groups.

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 different NGOs and institutions specialised in the field of mental health as referral bodies. 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.

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 Community Based Organizations (mainly from Women's Centres and Disability Programmes) and representatives of the community. Other organisations intervening in the camp may be invited.

TRAINING AND 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.Twenty-one psychosocial counsellors working in health centres participated in training and workshops in 2010. Trainings conducted during the reported period included music therapy, trauma, expressive art therapy, how to deal with child victims of violence, dealing with women victims of gender based violence, crisis Intervention and stress management.

PREVENTION AND CONTROL OF DISEASE

COMMUNICABLE DISEASES

Activities in prevention and control of communicable diseases in 2010, continued to focus on strengthening the surveillance of emerging and remerging diseases including the expected second wave of the H1N1 Influenza. Efforts also continued on improving the detection rate of tuberculosis in all fields. In the future the programme will strive to expand the early warning system's implementation in other fields rather than Gaza.

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/H1N1

During 2010, some cases of H1N1 influenza were reported by some host countries, mainly Jordan, but no cases were reported from UNRWA Fields of operations to Head Quarters.

TUBERCULOSIS

Close cooperation between UNRWA and national tuberculosis programmes in host countries was maintained. A total of 78 cases were newly diagnosed in 2010 Agency-wide,an increase of three cases compared with 2009. Thirty three (42.3%) were pulmonary and 45 (57.7%) were extra pulmonary cases. Most detected cases were reported from Syria with a total of 50 cases (64.1%), followed by Lebanon with (13 cases), the Gaza Strip (9 cases), Jordan (5 cases) and West Bank (1 case).

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

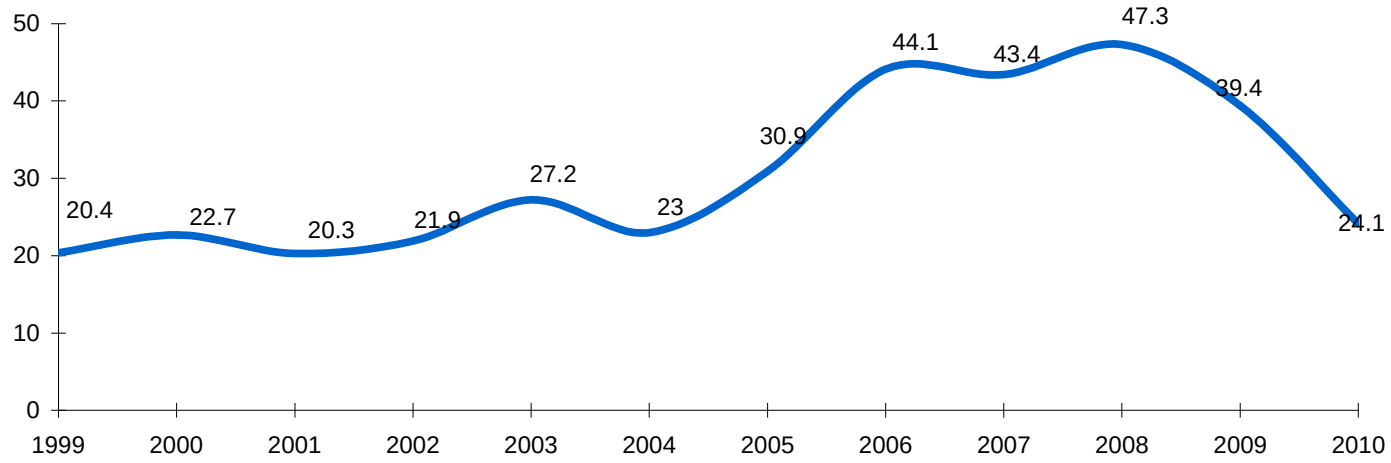


Figure 27 - Incidence rate of reported viral hepatitis (per 100,000) Agency-wide, 1999- 2010

BRUCELLOSIS

The incidence of brucellosis increased from 5.2 per 100,000 in 2009 to 6.0 in 2010.The highest incidence rate is still reported from Syria (39.8/100,000). Incidence rates from other Fields are 1.9/100,000 in Jordan, 1.6/100,000 in Lebanon, 0.2/100,000 in the Gaza Strip and 0.0/100,000 in the West Bank.

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 not reflect the true epidemiological picture, due to 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 the Gaza Strip (14.3/100,000) followed by Syria (7.7/100,000) while West Bank Field reported no cases. The cases observed in the Gaza Strip in 2010 were sporadic, no outbreak took place.

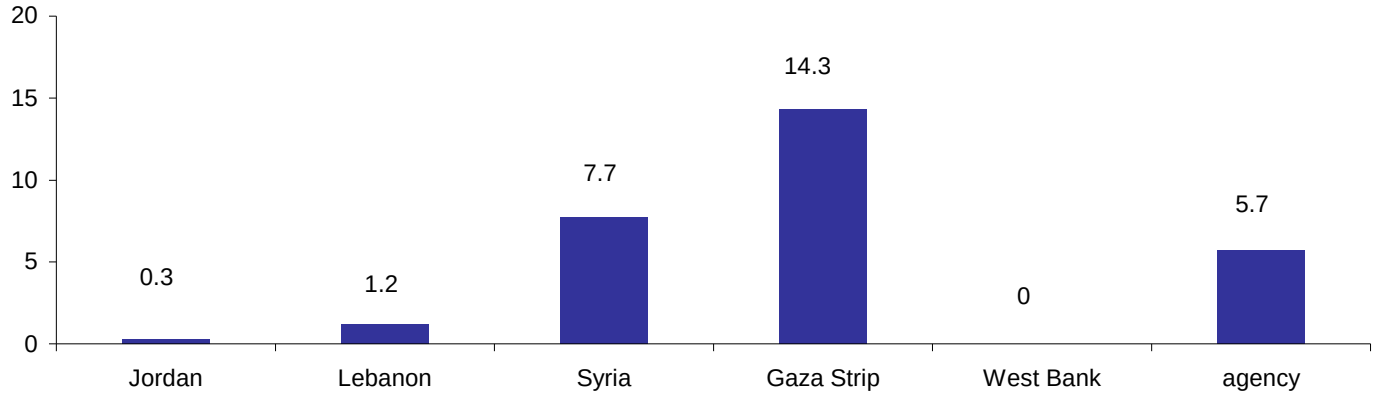


Figure 28 - Incidence rate of reported Typhoid (per 100,000) by Field, 2010

BLOODY DIARRHOEA

The incidence of bloody diarrhoea Agency-wide is 182.5/100,000 with significant variations between Fields. Figure 29 shows the incidence rates of bloody diarrhoea by Field during 2010.

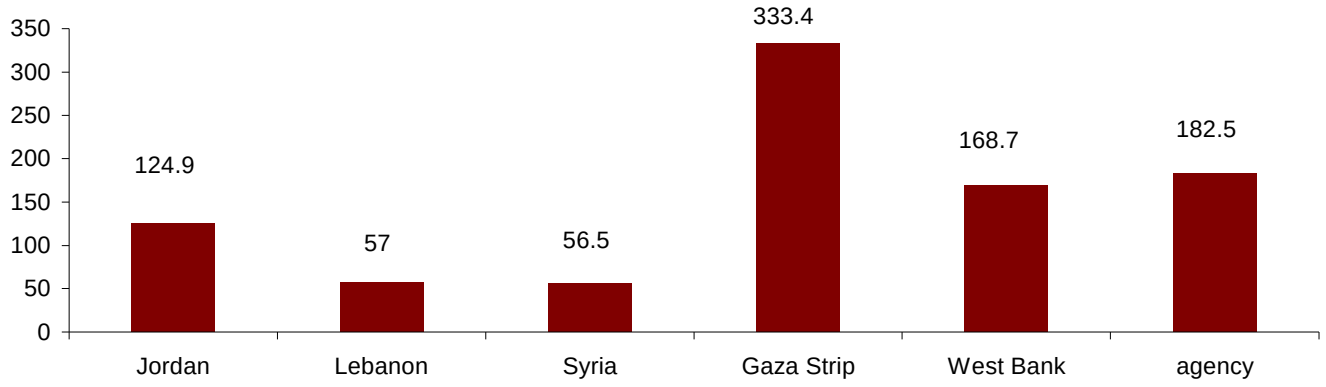


Figure 29 - Incidence rate of reported bloody diarrhoea (per 100,000) by Field, 2010

The highest incidence rate was reported from Gaza Field (333.4/100,000) which may 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 replacements. West Bank reported 168.7/100,000 and Jordan, 124.9/100,000. The lowest rates were seen in Lebanon and Syria with 56.5/100,000 and 57/100,000 respectively. Table 30 shows the incidence rates of reported communicable diseases from all Fields.

Table 30 - Incidence rates of reported cases of communicable diseases per 100,000 served population, 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered Refugees	1,999,485	455371	495,971	1,167,360	848,477	**4966664**
Population served	1,050,053	254604	414,291	1,002,329	472,513	**3193772**
Acute flaccid paralysis*	0.0	0.0	0.0	0.1	0.0	**0.03**
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	0.0	0.0	0.0	0.9	0.2	**0.3**
Meningitis - bacterial	0.2	0.4	0.7	0.5	1.1	**0.5**
Meningitis - viral	0.2	0.8	0.2	4.2	5.5	**2.3**
Influenza A(H1N1)	0.0	0.0	0.0	0.0	0.0	**0.0**
Tetanus neonatorum	0.0	0.0	0.0	0.0	0.0	**0.00**
Brucellosis	1.9	1.6	39.8	0.2	0.0	**6.0**
Watery diarrhoea (<3years)	40818	79483	21965	23659	53856	**34299**
Watery diarrhoea >3years)	1097	3262	509	1459	1634	**1385**
Bloody diarrhoea	124.9	57.0	56.5	333.4	168.7	**182.5**
Viral Hepatitis	21.4	7.1	34.8	34.1	8.7	**24.1**
HIV/AIDS	0.0	0.0	0.0	0.0	0.0	**0.0**

Leishmania	0.2	0.0	35.0	0.0	0.0	**4.6**
Malaria	0.0	0.0	0.0	0.0	0.0	**0.0**
Measles**	0.8	0.0	1.2	0.0	0.8	**0.5**
Gonorrhoea	0.1	0.0	0.0	0.0	0.0	**0.0**
Mumps	5.1	5.9	7.2	7.0	7.0	**6.3**
Pertussis	0.0	0.0	0.0	0.0	0.0	**0.0**
Rubella**	1.4	0.0	1.4	0.0	1.7	**0.9**
Tuberculosis, smear positive	0.1	1.2	2.7	0.3	0.2	**0.6**
Tuberculosis, smear negative	0.2	0.4	1.7	0.4	0.0	**0.4**
Tuberculosis, extra pulmonary	0.2	3.5	7.7	0.2	0.0	**1.4**
Typhoid fever**	0.3	1.2	7.7	14.3	0.0	**5.7**

** 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 2010, 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 on-going activities in Syria and Lebanon.

IN LEBANON

During 2010, a total of 1,810 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. 365 (20.2%) had abnormal findings, 27 (1.5%) were diagnosed with breast cancer and 16 cases are considered as precancerous condition, after breast biopsy. The detection rate for breast cancer was 1.5% in 2010 compared to 2% in 2009 and with 1% in 2008. Findings indicate that this screening program is cost-effective and should not only be maintained, but expanded to other Fields. All precancerous and cancer cases were referred to hospital for further treatment.

A total of 680 women from different age categories 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 0.15%.

Table 31 - Cancer screening in Lebanon Field

Breast cancer			Cervical cancer		
Total Screened	Breast Ca.	Detection rate	Total Screened	Cervical Ca.	Detection rate
1810	27	1.5%	680	1	0.15%

IN SYRIA

904 women were screened for breast cancer, out of them 153 (17%) were with abnormal mammography results and 18 cases (2.0%) were ultimately diagnosed with the disease and they were referred for surgery and further treatment.

MEDICAL SUPPLIES

In 2010, the total value of medical supplies and equipment from all funds (General Fund - GF, in-kind contributions and emergency appeals) was approximately USD 21.19 million, an increase of 25% compared with 2009. The increase in total expenditure (USD 4.28) is mainly due to an increase of the Gaza Field expenditure. In 2010, the total expenditure in the Gaza Strip was USD 8.34 million, while in 2009 it was only USD 5.1 million. This USD 3.24 difference is mainly the result of carrying 2009 budget residues into 2010, as in 2009 a high proportion of the Gaza Strip expenditure was covered by donations received after the war. In addition, the savings made in 2010 from the GF budget of Jordan Field (about USD 0.5 million) were utilized to procure essential laboratory and dental equipment.

The total amount spent from the UNRWA General Fund was approximately USD 14.28 million (67%), while the total value of in-kind and emergency funds spent was approximately USD6.94 million (33%). In the Gaza Field, 30% of the expenditure was covered through donations (Figure 30). Medical supplies and equipment represented approximately 10% of the total expenditure on medical care services.

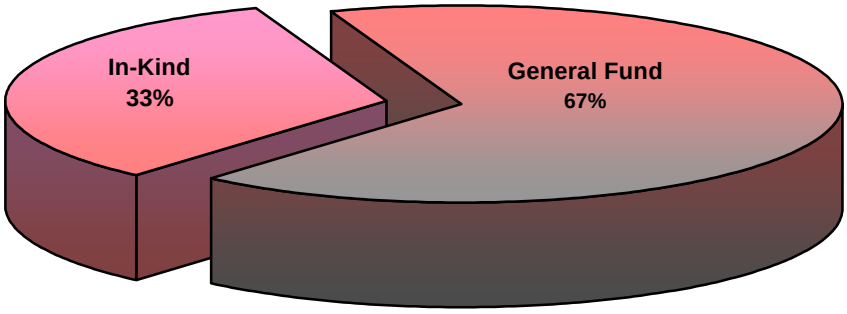


Figure 30 - Proportional expenditure on medical supplies, in-kind contributions and general Fund expenditure 2010

EXPENDITURE BY FIELD

The annual UNRWA assessment of medical supplies utilization for the year 2010 showed that the Gaza Strip was the Field with the highest expenditure at USD 8.34 million (39%), followed by Jordan at USD 5.3 million (25%), West Bank at USD 3.7 million (17%) and Syria at USD 1.9 million (10%). The lowest was Lebanon USD 1.8 million (9%) (Figure 31).

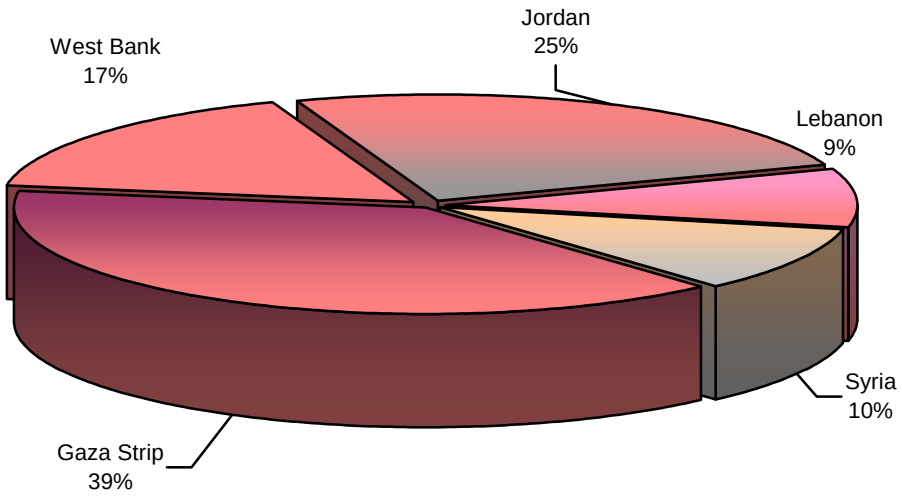


Figure 31 - Proportion expenditure by Field, 2010

EXPENDITURE IN 2010, TECHNICAL CONSIDERATIONS

The differences noted among the Five Fields, is the consequence of an increase in expenditure of some Fields (such as Gaza), and a slight decrease in the number of medical consultations in other Fields(such as West Bank). This resulted in an overall increase of the average expenditure on medical supplies per outpatient consultation compared with 2009 (USD 1.6).

Despite the differences in the size of the population served, the expenditure was highest in the Gaza Strip resulting in an increasein the average expenditure (USD) on medical supplies per served refugee in the Gaza Strip from (USD 5.6) in 2009 to (USD 8.3) in 2010 This divergence is made more evident by the fact that in 2009 the money used to replenish medical supplies damaged during the war was not included in the Gaza Strip expenditure.

Average expenditure on medical supplies per outpatient medical consultation was USD 2.0, Agency-wide (Figure 32). The highest rate per medical consultation was recorded in West Bank (USD 2.3), followed by Jordan (USD 2.2), Syria (USD 2.0), and the Gaza Strip (USD 1.9). The lowest rate observed was in Lebanon (USD 1.7).

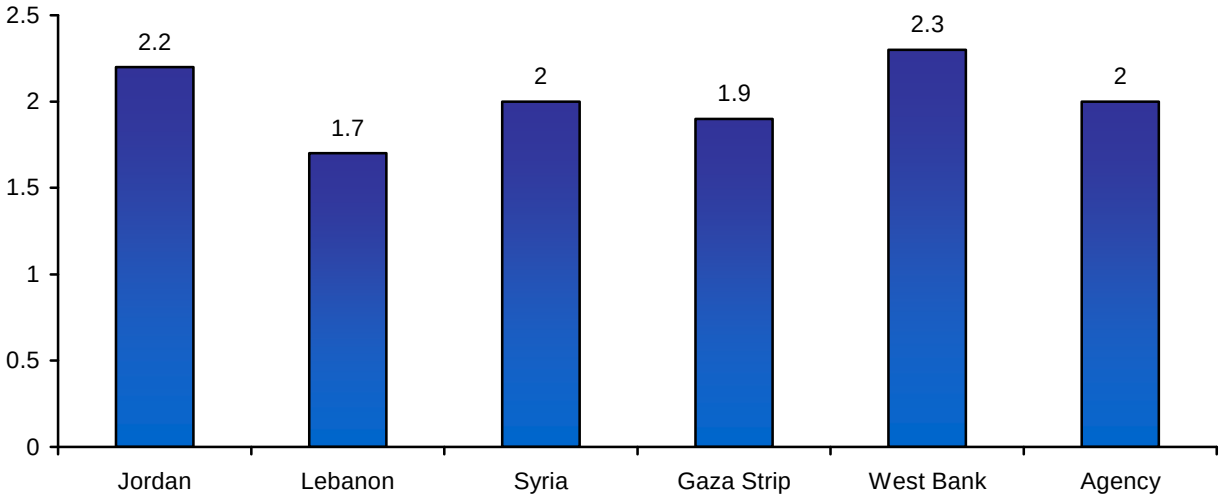


Figure 32 - Average expenditure (USD) for medical supplies per outpatient medical consultation, 2010

In 2010, the average expenditure on medical supplies per served refugee was USD 6.6 Agency-wide (Figure 33). The highest rate was recorded in the Gaza Strip (USD 8.3), followed by the West Bank (USD 7.8), Lebanon (USD 7.2), Jordan (USD 5.1) and Syria (USD 4.8).

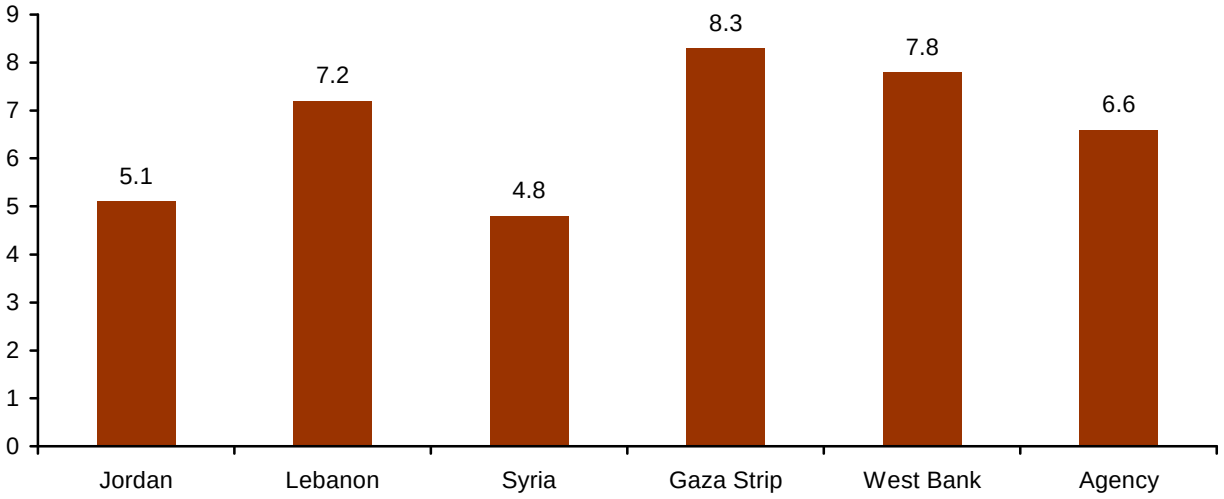


Figure 33 - Average expenditure (USD) on medical supplies per served refugee, 2010

EXPENDITURE ON SERVICES

Figure 31 shows that 13.6% (USD 2.88 million) of the total expenditure for medical supplies (USD21.19 million) was for medical equipment and related supplies. The expenditure on medical equipment from all funds was USD 2.11

million. As shown in Table 36, the highest expenditure in 2009 was for general and outpatient equipment (55%), followed by laboratory equipment (34%) and physiotherapy equipment (6%). The lowest expenditure was recorded for dental equipment (5%). It is worth mentioning that the expenditure on medical equipment includes all service contract and maintenance.

Table 32 – Expenditure on medical equipment, 2010 (GF: General Fund, P: Project Fund) in USD

	Laboratory		Dental		Out patient		Physiotherapy		Radiology		All equipment	
	GF	P	GF	P	GF	P	GF	P	GF	P	GF	P
Jordan	460,261	0	27,144	0	212,459	87,947	0	0	0	0	699,864	87,947
Lebanon	8,684	560	0	0	46,344	22,607	0	0	0	0	55,028	23,167
Syria	0	0	0	0	16,655	71,499	0	0	0	0	16,655	71,499
Gaza	4,987	171,489	24,511	0	131,492	320,350	0	121,579	0	0	160,990	613,418
West Bank	70,582	9,850	55,867	0	106,005	143,499	0	0	0	0	232,454	153,349
Total	544,514	181,899	107,522	0	512,955	645,902	0	121,579	0	0	1,164,991	949,380
Grand total	**726,413**		**107,522**		**1,158,857**		**121,579**		**0**		**2,114,371**	

The total expenditure on drugs in 2010 was USD 18.31 million, of which 42% was spent on drugs for the treatment of diabetes and cardiovascular diseases and 14% on antibiotics (Figure 34).

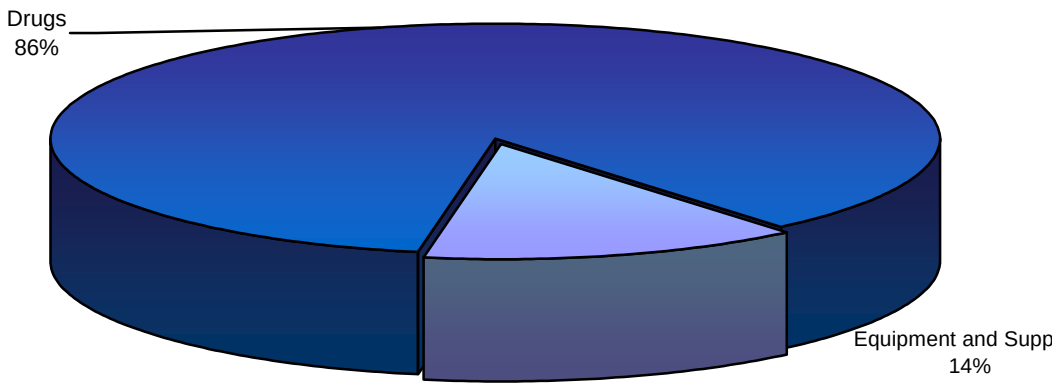


Figure 34 – Proportional Expenditure on drugs and Equipment

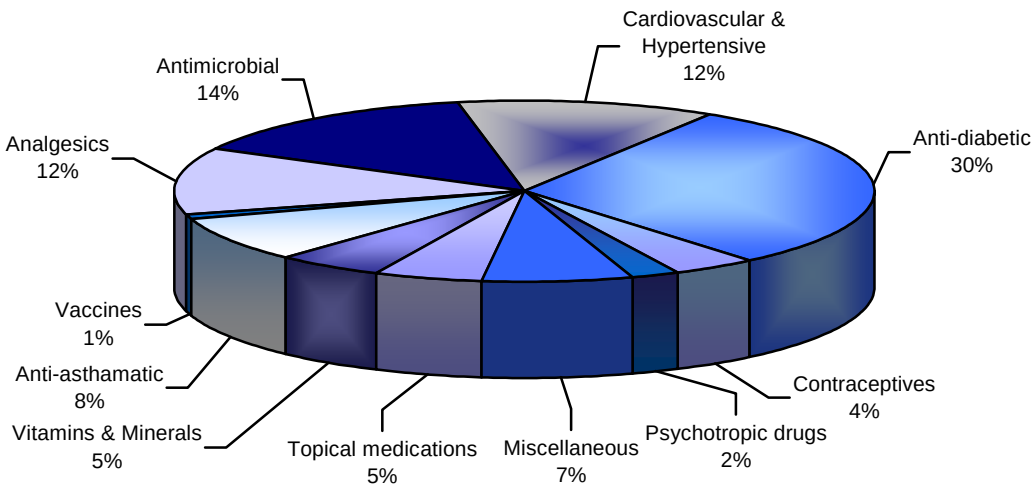


Figure 35 - Proportional expenditure on Drugs per group

Antibiotic prescription rates ranged from 20% in Lebanon to 30% in both West Bank and Syria. As shown in Figure 36, the rate of antibiotic prescription was sustained in the Gaza Strip and Lebanon. There was an obvious decline in both Jordan and West Bank mainly due to the investment on this issue and intensive follow-up and supervision at Health Centre level carried out by the Field Drug therapeutic committee. It should be noted that the rate of antibiotic prescription shown for Syria has increased in comparison with 2009. This is because in this Field the antibiotic prescription rate was calculated starting from April 2009.

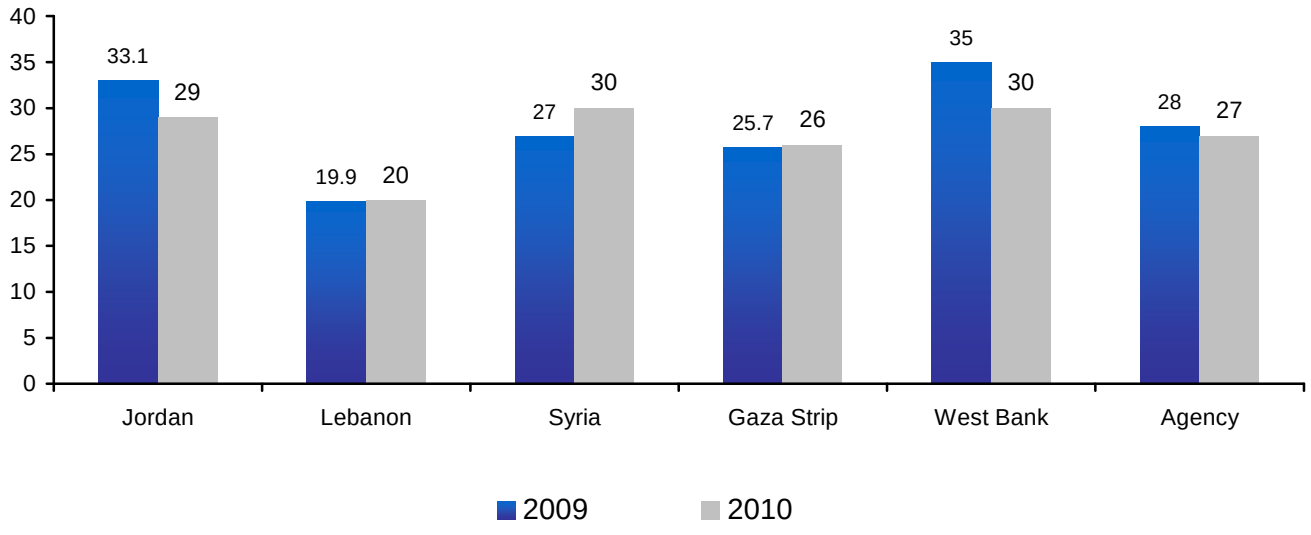


Figure 36 - Antibiotic prescription rate (%) by Field

Continuous training for physicians and education campaigns targeting beneficiaries on rational utilization of drugs are highly recommended in order to change prescribing habits.These should target not only antibiotic use but also analgesics, as they are becoming more relevant and should be analysed in depth.

In May 2010, a comprehensive review of UNRWA list of drugs was conducted by HQ jointly with all Fields. The aim of this exercise was to come up with a cost effective list of drugs. Fields will start purchasing their annual requirements using this list starting from 2011 to cover their needs for 2012.

A joint meeting was held between the Health department and Procurement and Logistics department during the period 19-21 September 2010. The objective of this meeting was to set clear strategies, establish a frame-work for the central pharmacy management, and to reach consensus among the different Fields.

DONATIONS

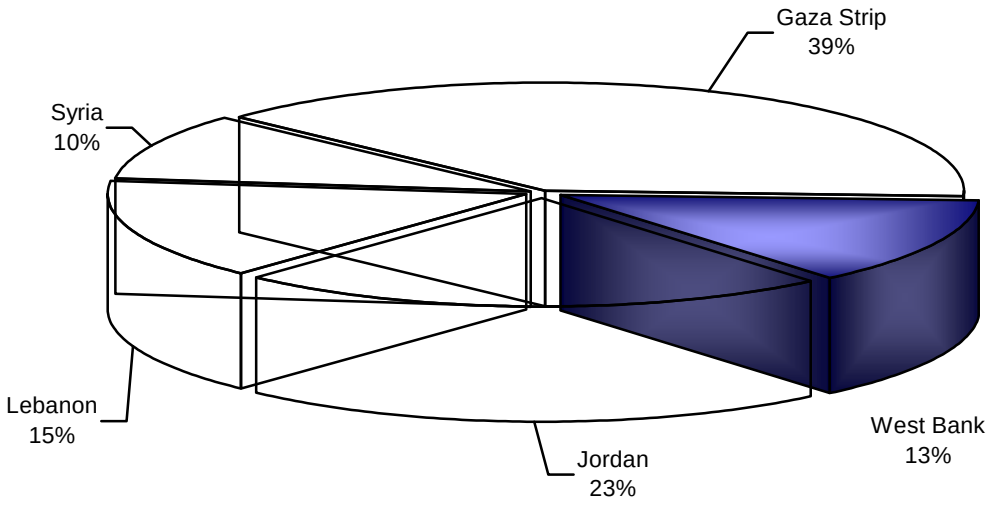


Figure 37 - ***Proportional distribution of donations***

As shown in Figure 37, the proportional distribution of donations (in-kind and cash) ranged from 39% (USD 2.7 million) for the Gaza Strip to 10% for Syria.

DONATIONS OF MEDICINES

The following drugs and consumables were donated during 2010:

- The Ministry of Health of the Palestinian Authority and UNFPA provided the West Bank and Gaza Fields with vaccines, iron drops and tablets as well as disposable syringes and needles and modern contraceptives;
- The Ministry of Health in Jordan provided UNRWA with vaccines and contraceptives;
- UNICEF and the NGO Health Care Society provided Lebanon Field with vaccines, medications, disposable syringes and needles; and

– Syria's Ministry of Health and UNICEF provided Syria Field with vaccines, tuberculosis treatment and other miscellaneous drugs.

IN- PATIENT HOSPITAL CARE

OUTSOURCED HOSPITAL SERVICES

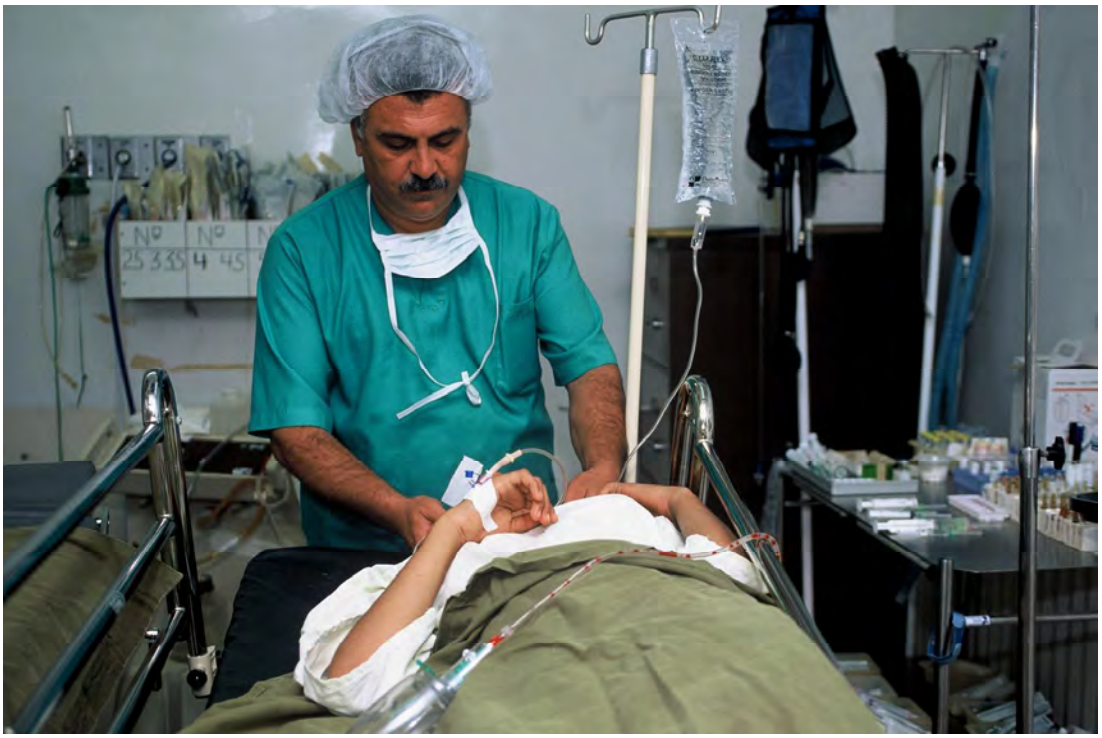
UNRWA continued to provide assistance towards essential hospital services either by contracting beds at non-governmental and private hospitals or through partial reimbursement of costs incurred by refugees on their treatment at governmental or non-governmental hospitals.

Utilization trends

The analysis of the trends of utilization of hospital services in 2009 and 2010 revealed a significant variation between Fields. This variation is mainly due to the different resource allocations and reimbursement policies implemented in each Field. The number of patients who benefited from hospital services Agency-wide, decreased from 80,820in 2009 to 79,820 patients in 2010. This represents a 1.2% decrease Agency-wide. The average length of stay was 2.1 days across UNRWA's area of operation, almost identical to 2009.Data on utilization of hospital services in 2010 is shown in Table 33.

Table 33 - Utilization of hospital service in 2010

Indicators	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Patients hospitalized in 2010	19,859	25,763	8,543	4,575	21,080	79,820
Patients hospitalized in 2009	24,114	21,912	9,963	4,590	20,241	80,820
Variance %	- 17.6	+ 17.6	- 14.3	- 0.3	+ 4.2	-1.2
Patients days	37,619	62,618	11,820	13,848	41,090	166,995
Average Stay in Days	1.9	2.4	1.4	3.0	1.9	2.1



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 3.7%, from 57.3 % in 2009 to 61% in 2010. A total of 6,133 people were admitted to the hospital compared to 6,142 in 2009, this number includes UNRWA refugees and non-refugees from the municipalities. Table 34 provides data on utilization of Qalqilia Hospital in the West Bank and Figure 38 shows the trend in utilization of Qalqilia hospital services during the period 2004-2010.

Table 34 - In-patient care at the UNRWA hospital (Qalqilia, West Bank), in 2010

Indicators	
Number of beds	63
Patients admitted	6 133
Bed days utilized	14 091
Average daily bed occupancy	61.0 %
Average stay in days	2.3

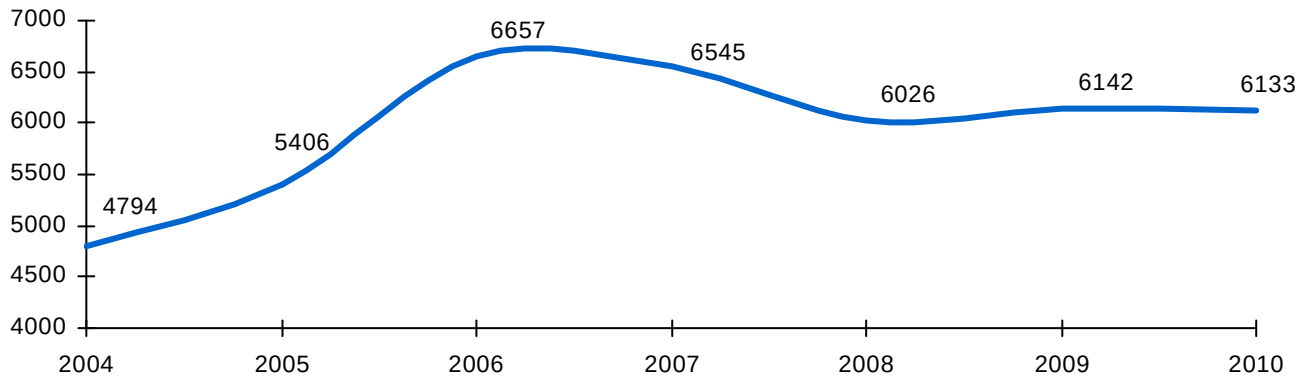


Figure 38–Patients admitted at Qalqilia hospital, 2004 – 2010

DEMOGRAPHIC PROFILE OF HOSPITALIZED PATIENTS

Age distribution of patients

The analysis of the age distribution of patients hospitalized during 2010 showed that 30.7% were children below 15 years of age (Table 35). The majority of hospitalized patients were between 15 and 44 years of age.

Table 35 - Age distribution of hospitalized patients in 2010

Field	No. of hospitalized patients	Age group (years) in%				Allage groups
		0-4	5-14	15-44	45+	
Jordan	19,859	0.5	4.6	87.7	7.2	100
Lebanon	25,763	17.7	9.6	37.1	35.6	100
Syria	8,543	11.4	8.1	51.8	28.7	100
Gaza Strip	4,575	1.4	8.5	61.3	28.8	100
West Bank	27,213	16.1	43.5	28.1	12.3	100
Agency	85,953	11.7	19.0	48.7	20.6	100

Distribution of patients by sex

Almost 66% of hospitalized patients were women, with the highest rate of (89.0%) in Jordan and the lowest rate of (31.8%) in the Gaza Strip. This variation is the result of the pattern of resource allocations and the different referral and reimbursement policies in each Field (Table 36).

Table 36 - Distribution of hospitalized patients by sex in 2010

Field	No. of hospitalized patients	Sex

		Male %	Female %
Jordan	19,859	11.0	89.0
Lebanon	25,763	45.2	54.8
Syria	8,543	39.4	60.6
Gaza Strip	4,575	68.2	31.8
West Bank	27,213	33.3	66.7
Agency	85,953	34.2	65.8

Distribution of patients by ward of admission

There is a significant variation between Fields in the distribution of patients by ward of admission. A predominance of surgical cases are reimbursed by UNRWA in the Gaza Strip and Syria while internal medicine cases are more commonly reimbursed in Lebanon and the West Bank and 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 the implementation of different referral policies and to the level of Agency assistance provided in each Field. Table 37 shows the distribution of hospitalized patients by wards of admittance and by Field in 2010.

Table 37 - Distribution of hospitalized patients by ward of admission in 2010

Field	No. of hospitalized patients	Surgical %	Internal Medicine %	ENT %	Ophthalmology %	Obstetrics %
Jordan	19,859	17.4	16.1	0.3	0.2	66.1
Lebanon	25,763	22.0	62.0	3.1	1.7	11.2
Syria	8,543	56.14	7.70	2.93	11.20	22.03
Gaza Strip	4,575	91.7	5.20	2.82	0.0	0.3
West Bank	27,213	21.8	42.6	2.8	3.1	29.7
Agency	85,953	28.0	36.8	2.3	2.6	30.2

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 266working 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

In almost every country, the proportion of people aged over 60 years is growing faster than any other age group, as a result of both longer life expectancy and declining fertility rates.This population ageing can be seen as a success story for public health policies and for socioeconomic development, but it also challenges society to adapt, in order to maximize the health and functional capacity of older people

WHO Health Topics website, 2011

By the end of 2010, a total of 199,412 patients were registered at Non Communicable Disease (NCD) clinics with diabetes and/or hypertension in the five Fields of UNRWA's area of operations. 63,953 patients were under care in Jordan representing 32.1% of the total patients, 56,819 (28.5%) were assisted in the Gaza Strip, 31,800 (15.9%) in the WestBank, 24,883 (12.5%) in Syria, and 21,957 (11%) in Lebanon.

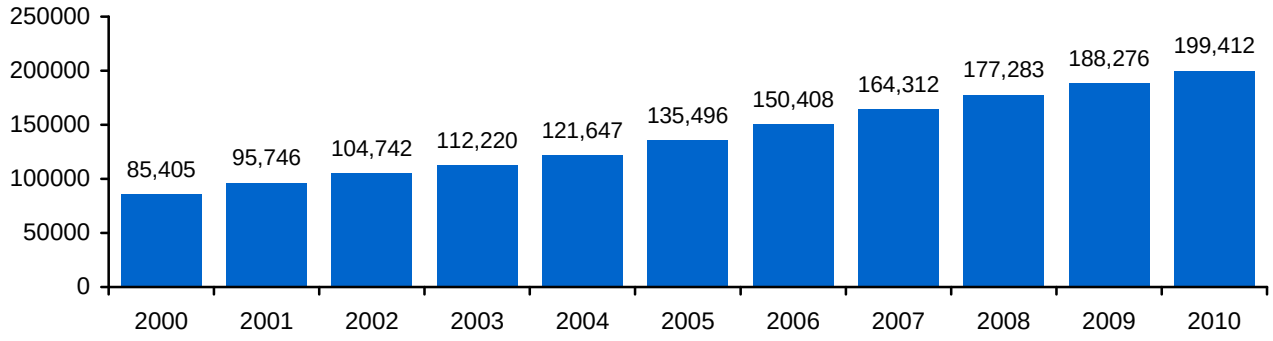


Figure 39 - *Patients with diabetes and/or hypertension under care in NCD clinics in the five Fields, 2000-2010*

Table 38 - 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	1157	208	429	986	594	3,374
Diabetes mellitus type II	10,002	2,268	3,409	10,845	5,704	32,228
Hypertension	27,487	11,887	12,265	27,506	12,918	92,063
Diabetes mellitus & hypertension	25,307	7,594	8,780	17,482	12,584	71,747
Total	**63,953**	**21,957**	**24,883**	**56,819**	**31,800**	**199,412**

PREVALENCE OF DIAGNOSED DIABETES MELLITUS

The prevalence of diagnosed diabetes mellitus among the served population 40 years of age or older, was 10.5%, a decrease compared with 2009(11.2%). This may be explained by an improved calculation of the population served which decreased from that in 2009 despite the increase in number of patients detected or registered during the year. As shown in Figure 40, the highest rates were reported in the West Bank Field (11.5%), followed by the Gaza Strip (11.3%), Jordan (10.4%), Lebanon (9.3%) and Syria (8.8%).

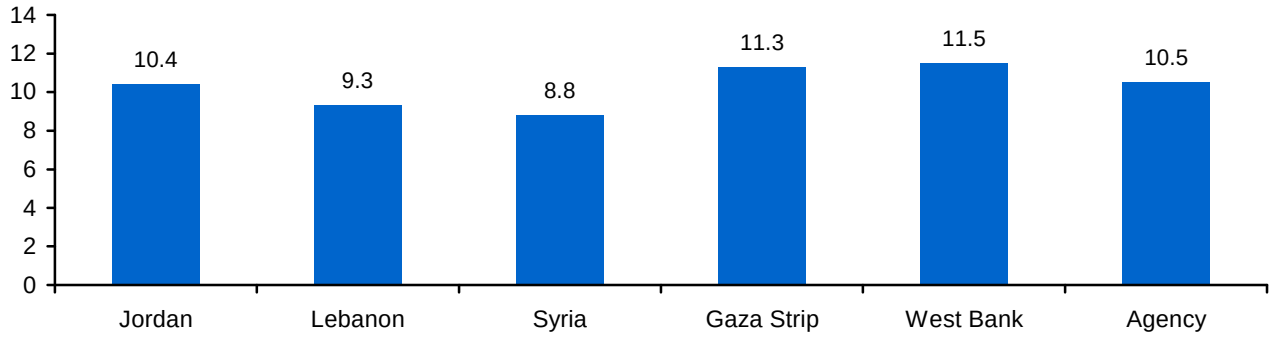


Figure 40 - Prevalence rates of diagnosed diabetes among served population 40 years of age or older, by Field, 2010

PREVALENCE OF HYPERTENSION

As shown in Figure 41, the prevalence of diagnosed hypertension among the served population 40 years of age or older in 2010, was 16.2% Agency-wide. This also represents a decrease when compared with 2009 (17.2%). The highest rate was reported in Lebanon (18.2%) followed by the Gaza Strip (17.3%), the West Bank (15.8%), and both Jordan and Syria at (15.2%).

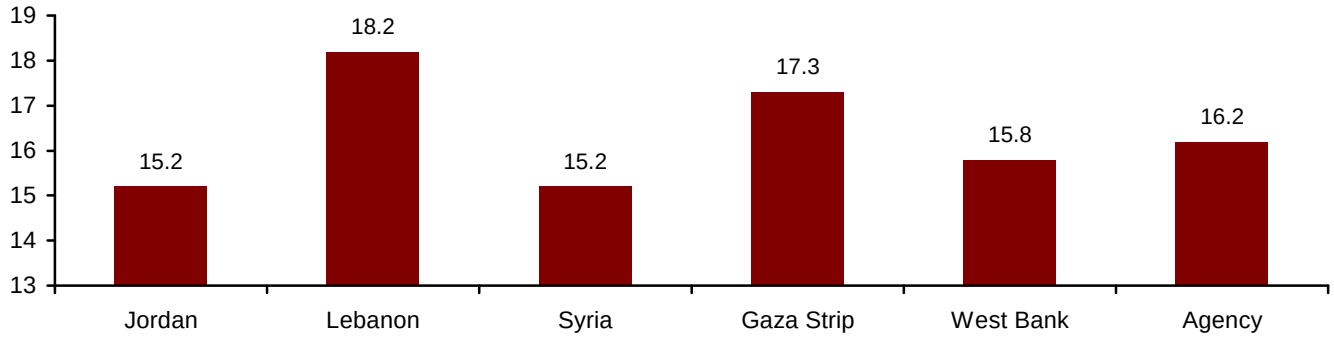


Figure 41 - Prevalence rates of diagnosed hypertension disease among served population at ≥40 year of age by Field, 2010

It is important to note that all data 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 39 provides data on the distribution of patients with diabetes and/or hypertension who were under supervision at the end of 2010 by age group and gender. 91% of patients were above 40 years of age, and 62% were females. Gender distribution is largely affected by the attendance pattern in UNRWA health facilities and not by significant variations in morbidity profiles.

Table 39 - Distribution of patients with diabetes and hypertension by age and sex, 2010

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Hypertension	Diabetes& hypertension	All patients
No. of patients at end of 2010	3,374	3,228	92,063	71,747	**199,412**
Age distribution (percentage)					
Below 20 years	32%	0.19%	0.15%	0.02%	**1.0%**
20–39 years	53.0%	11.0%	10.0%	3.0%	**8.0%**
40–59 years	14.0%	62.0%	48.0%	43.0%	**48.0%**
60 years & above	1.0%	27.0%	42.0%	54.0%	**43.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Sex distribution (percentage)					
Male	52.0%	44.0%	36.0%	37.0%	**38.0%**
Female	48.0%	56.0%	64.0%	63.0%	**62.0%**
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.

As shown in Table 40, 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 treatment of hypertensive patients was reported from Lebanon Field (8.0%) followed by the Gaza Strip (5%), Syria (2%), Jordan (1%).andthe West-Bank (0.0%).

Table 40 - Percentages of hypertensive patients on non-pharmacological treatment (lifestyle only) by Field, 2009- 2010

Field	% of Lifestyle management only	
	2009	2010
Jordan	1.0	1.0
Lebanon	4.0	8.0
Syria	2.0	2.0
Gaza Strip	6.0	5.0
West Bank	1.0	0.0
Agency	2.0	4.0

The proportion of patients with type I or type II diabetes who were treated with insulin as part of their management also shows great variations among Fields (Figure 42).

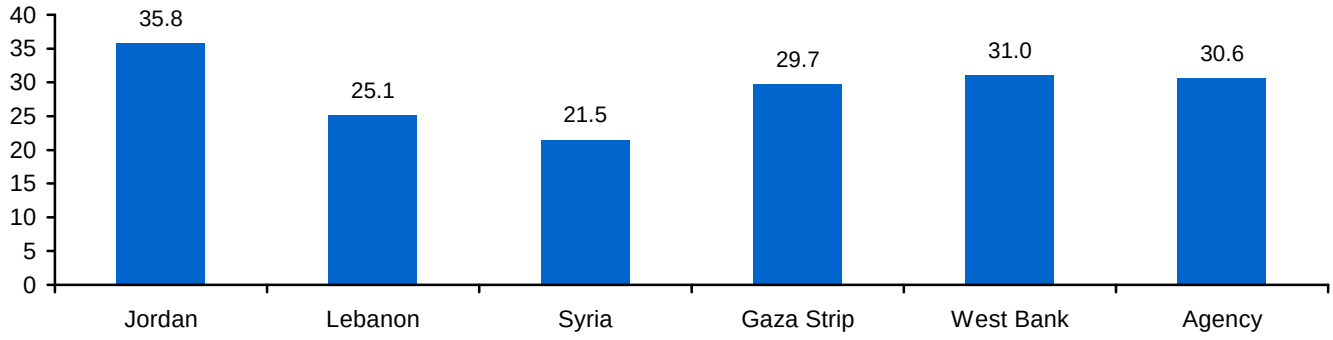


Figure 42 - Percentage of diabetic patients on insulin, 2010

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 (35.8%), followed by West Bank (31.0%), the Gaza Strip (29.7%), Lebanon (25.1%) and Syria (21.5%).

Control of diabetic patients is still a source of concern. More efforts need to be done to increase awareness of the importance of glucose control and the use of insulin for uncontrolled patients with highest dose of oral hypoglycaemic agents, and to promote compliance to treatment and to strengthen control status monitoring.

RISK SCORING

A modified scoring system from the WHO-CVD Risk Management Package was used. All patients registered in NCD clinics were assessed in relation to risk scoring during 2010. The objective behind this was to stratify patients by their level of risk of developing further complications and subsequently develop management protocols for each category. Table 41, shows the results of the assessment. 35.6%, of patients with co-morbidity (diabetes and hypertension) were at high risk followed by patients with hypertension (20.9%) due to the frequency of risk factors such as smoking, hyperlipidaemia and physical inactivity following cerebrovascular accidents. 14.5%of Patients with type II diabetes were at high risk.

Table 41 - Percentages of risk status by type of disease

Type of disease	Diabetes mellitus Type I	Diabetes mellitus Type II	Hypertension	Diabetes & hypertension
Low risk	64.1	30.7	23.9	**14.3**
Moderate risk	31.1	54.8	55.2	**50.1**
High risk	**4.8**	**14.5**	**20.9**	**35.6**

PERCENTAGE OF LATE COMPLICATIONS AMONG NCD PATIENTS

The NCD module of the Management Health Information System was used to assess the rates of late complication among NCD patients. A sample size of 10% of all registered patients was analysed. Table 42 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 42 - Percentages of late complications by Field and type of diseases, 2010

Field	Type of Disease				Total%
	DM 1	DM 2	Hypertension	DM & HTN	All
Jordan	3.8	6.5	10.2	15.6	**11.6**
Lebanon	0.0	15.4	8.5	18.1	**12.3**
Syria	1.6	9.4	14.5	20.7	**15.7**
Gaza Strip	1.9	9.0	9.4	20.5	**12.6**
West-Bank	4.2	7.0	9.4	18.8	**12.5**
Agency	**2.7**	**8.5**	**10.1**	**18.3**	**12.6**

The observed rates improved from those recorded in 2009 due to efforts performed by all staff to detectreport and record all late complications in the patient registrations files and the figures are within the expected range 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 clinics for a calendar year for follow up and/or collection of medicines personally or via relatives) amounted to 9,087, which represent 4.8% of the total number of patients under supervision.

Table 43 - Distribution of defaulters by Field, 2010

Defaulters	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Number	3,359	1,039	948	2,288	1,453	**9,087**
Percentages out of remaining 2008	**5.6**	**4.9**	**4.0**	**4.3**	**4.7**	**4.8**

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 although the overall rate went down from 5.0% to 4.8%. The highest rate of defaulters was reported from Jordan at 5.6%. The health programme needs to strengthen counselling and education of patients as cornerstones to overcome problems of non-attendance and compliance.

MORTALITY

In 2010 3,530 NCD patients died, which accounted for 1.9% of all non-communicable disease patients that were under care at the beginning of 2010. 50.9% of them had co-morbidities (diabetes and hypertension), 36.3% had hypertension, and 12.8% were diabetics. As shown in Table 44, the highest rates were reported in Syria and Lebanon (2.2%, 2.1% respectively) and the lowest in Jordan Field (1.6%).

Table 44–Case fatality by Field, 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Number of deaths	976	443	509	1059	543	**3,530**
% of all NCD patients	**1.6**	**2.1**	**2.2**	**2.0**	**1.8**	**1.9**

The highest mortality rate was among co-morbid patients (2.5%) followed by patients with hypertension and diabetes at (1.4% and 1.3 respectively (Table 45).

Table 45 - Disease-specific mortality rates among reported death cases by Field, 2010

% by disease	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes	0.9	1.5	1.5	1.4	1.5	**1.3**
Hypertension	1.2	1.6	1.8	1.7	1.3	**1.4**
Diabetes with hypertension	**2.4**	**3.1**	**2.9**	**3.0**	**2.4**	**2.5**

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 early on to avoid the need to meet the high cost of treating their complications and disabling effects.

The programme's future vision is directed to improve the quality of services in line with the main objective of UNRWA's organizational development plan: to serve Palestine refugees more effectively and efficiently. This translates in an effort to increase the percentage of control rate and improve early detection and prevention of complications.

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 a need-basis.

ADDRESSING THE DETERMINANTS OF HEALTH

> *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...*
>
> *WHO The Determinants of Health website, 2011*

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. These factors 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, andthe person's individual characteristics and behaviours.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 such as:

- 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 – people in employment 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
- Gender - Men and women suffer from different types of diseases at different ages.

To this effect, 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.

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

NUTRITION

Protein-calorie malnutrition and deficiencies in 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 establishedsince 1951 a nutrition and supplementary feeding programme (SFP) targeting children, pregnant women, nursing mothers, refugees affected by tuberculosis and/or hospitalized.

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 this is not a feeding programme. Therefore its aim is not to provide poor families with food. This aspect is also managed by UNRWA through the Relief and Social Services Department. 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 2010, the SFP was reformed moving towards a health vulnerability-based approach instead of the poverty based criteria implemented during 2009. Entitlement to the programme was based on the haemoglobin level. After the verification of the registration status, all newly registered pregnant women are screened for anaemia at the time of registration in the antenatal or postnatal care. Pregnant women and Nursing mothers with haemoglobin level below 12gms/dl 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. For obvious financial limitations facing the Agency it is expected that the programme will be phased out beginning 2011

During 2010, a total of 59,284 pregnant women and nursing mothers who received preventive health care and supervision at UNRWA primary health care facilities and benefited from the Agency's food aid programme. Of them 21,457 from Jordan, 9934 from Syria, 5615 from Lebanon and 22,278 in the West Bank. In Gaza all pregnant women and nursing mothers are included in the general distribution food programmes either through UNRWA social safety net or emergency food programme. TB patients in the five Fields still receive food rations during the course of their treatment.

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 Lebanon, 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, vegetable oil 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.

During 2010, and in order to promote healthy food habits and to improve the nutritional status of the community, an anti-anaemia campaign was conducted in Lebanon, with the participation of health centre staff, patients, mothers of children and community.

THE SCHOOL FEEDING PROGRAMME (SFP)IN THE GAZA STRIP

UNRWA in the Gaza Strip has adopted a school feeding program to provide healthy meals for every student. The program started in the second semester 2007/2008 targeting students of 23 UNRWA schools that showed impaired academic achievement. After finding that it had a positive impact on the students' academic achievement, motivation to learn and absenteeism rates, it was expanded to all schools during the school years 2008/2009 and 2009/2010. During the school year 2009/2010, the School Feeding Programme included all students enrolled in all UNRWA schools from the 1st grade to the 9th grade, in addition to children of the summer learning programme.

Through this programme a total of 29,747,755 meals, composed of six items "yoghourt, fortified biscuits, cheese sandwiches, fruits, juice and cake", were distributed to 206,214 school children.

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 2010, the standards of sanitation and general environmental health in the Palestine refugee camps Agency-wide were maintained. This was achieved even during difficult circumstances such as the closures of the Gaza Strip and the infrastructural damage that followed the 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 2010, almost all refugee camps shelters had access to water, and 99.8% of them to sanitation facilities.

In Jordan, 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, the environmental conditions in 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. It is worth mentioning that following the decentralization policy inherent to the Agency reform, the management of the environmental health programme in Lebanon and Syria was moved to other departments and/ordivisions. The Health Department in those Fields is still responsible for some activities related to water quality and vector control.

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 West Bank.

THE GAZA STRIP

The Special Environmental Health Programme aims to develop and enhance the sewerage systems in the refugee camps in Gaza Strip by:

- Increasing the number of refugee shelters connected to the sewerage systems;
- Upgrading existing sewage pumping stations or constructing new ones;
- Upgrading the water supply systems, connecting all camp shelters to them and monitoring the quality of the water provided;
- Developing the solid waste collection and disposal system including its mechanization;

- Developing of the storm water drainage system through the pavement of roads and alleys and the construction of culverts;
- Enhancing the implementation of the rodent and insect control campaigns; and
- Developing Capacity building within the SEHP.

Due to the continued closure of the Gaza Strip, most of planned projects were suspended. However minor projects such as the construction of water wells at Jabalia and Khan Younis camps are on-going.

THE WEST BANK

The programme's emergency appeal projects are aiming to improve the environmental health conditions in the camps and subsequently public health. These projects include the rehabilitation of concrete pathways and the rehabilitation and maintenance of sewerage and storm water drains as well as ofwater networks. In addition to this, water awareness campaigns were conducted in the three areas of the West Bankat the beginning of 2010. The topics of these campaigns included: reducing water consumption, water pollution and water disinfection. These lectures were carried out in schools and women centres.During the last few years no significant change has been recorded in the number of new shelters connected to water or sewerage systems, as all these infrastructure improvement projects were aimed at the rehabilitation of existing structures with very strict implementation timing.

JORDAN

With the aiming to improve the refuse collection process at Jarash camp, a project funded by the European Commission was initiated. Two small vehicles (mini tippers) to mechanize the refuse collection processwere purchased and the project will start in January 2011.

VECTOR CONTROL

The mosquito campaign in Wadi Gaza was regularly conducted in 2010 in full cooperation with Nuseirat Municipality. Funds were secured through the emergency appeal.

RODENT CONTROL IN THE WEST BANK

A work plan was prepared for every camp by dividing it into zones according to the rodents'diffusion and concentration areas. The development and execution of work in the camps was supervised by Sanitation Foreman and followed-up monthly.A public campaign for people and associations on rodent control was carried out in each camp, either by using posters or by announcingmessages in the mosques. Health committees in camps also contributed to this campaign.

Illegal solid waste disposal sites in the camps were removed, contributing significatively to preventing the appearance of rats.Other factors were the intensive use of baits and rodent pesticide use. Traps were used and distributed in every camp according to the need. The campaign was successful and had positive results on all the camps of the three areas. The effects on people were striking and everyone showed a great satisfaction as a result of the disappearance of rodents from between houses and in camp pathways.

INSECT AND RODENT CONTROL IN JORDAN

Insect-control activities were regularly carried out targeting the proliferation of houseflies at refuse collection points within the camps. In addition, cockroaches, bedbugs and fleas were treated and rodent control was regularly conducted. 1161,157 and 26 shelters, respectively.

Rodent control was also regularly carried out. 1,938 shelters in addition to the camps' surroundings were treated.In line with the mutual cooperation between UNRWA and government authorities, the Municipality of Irbid carried out a two-day rodent control campaign in Husn camp on the 29 and 30 March 2010.

RODENTICIDE AND INSECTICIDE USE IN GAZA FIELD

Table 46 describes the quantities of rodenticides and insecticides used to control flies, insects and rodents in all refugee camps in 2010.

Table 46 – Quantities of rodenticides and insecticides deployed for vector and rodent control in the Gaza Strip, 2010

Jabalia Kg	Beach Kg	Bureij Kg	Nuseirat Kg	Maghazi Kg	D/Balah Kg	K/Yunis Kg	Rafah Kg	Total Kg
89	109.5	56.5	51.5	30.7	30.6	102.9	73.65	544.35

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 2010 in the various Fields.

IN GAZA FIELD

Inthe Gaza Strip, work on the mechanization of the solid waste collection and disposal system continued. Six out of the eight existing camps are now served by a fully mechanized system. In the 2009-2010 biennium, with budget secured from the emergency funds, it was possible to procure 13 solid waste trucks to upgrade the existing fleet. Furthermore, thanks to Italian funds, the LOR was raised to procure two road sweepers, to serve Khan Yunis and Rafah camps, and two tractors for solid waste management collection.

The following quantities of solid waste were transported by UNRWA's solid waste removal crane trucks and disposed in the two municipal dumping sites (Gaza and Rafah) and in the D/Balah landfill during 2010. It is estimated that around 213tons/day of solid waste were removed from the eight refugee camps.

Table 47 – Solid waste removed in Gaza Field camps, 2010

Camp	Jabalia	Beach	Bureij	Nuseirat	Maghazi	D/Balah	K/Yunis	Rafah	Total
Total, Tonnes	15,503	12,295	5,394	8,322	5,839	2,262	10,679	15,783	76,077

IN WEST BANK FIELD

In 2010, almost 68,228 tons of domestic, medical and commercial waste have been removed and disposed in the municipal dump sites. Medical waste generated by UNRWA clinics is not managed properly according to the minimum health and environmental guidelines. In the clinics, although separate bags are used for the collection of medical waste, they are then disposed of through the ordinary refuse containers in the camps. The process is posing public health risks especially to sanitation labourers in the camp and scavengers at the dumpsite.

The environmental Health division is still suffering from the significant increase in the costs related to solid waste disposal as imposed by service providers. The changes introduced are positive from an environmental and health point of view, as more sanitary dump sites are introduced. The Hebron and Jerusalem areas are expected to have “sanitary " landfills in the future while in the Nablus area, the Jenin land fill is already operational. It was agreed with Jericho and Hebron municipalities to sign service contracts to enable the disposal of solid wastein the three municipal dumping sites at an annual cost of USD 15,000and USD 25,000 respectively.

IN JORDAN FIELD

The collection of solid waste from shelters, markets, roads and alleys was carried out by 306 Sanitation Labourers, with manual transport to designated collection sites/containers within the camps. A small compactor was used to help the labourers in Baqa’a camp for the collection process.Removal of solid waste from the point of collection to the point of final disposal at municipal dumping sites was carried out by private contractors for one camp, namely Baqa’a, by Municipalities for Zarqa, J/Hussein and Amman New Camp and by UNRWA for Irbid, Husn, Suf, Jarash, Marka and Talbieh camps.

Overall 279,296M^3 (765 M3/day) of solid waste were removed from the ten camps in 2010. The daily average volume of refuse collected by a sanitation labourer was 2.5M^3. UNRWA concluded an agreement with a private contractor to remove refuse in Baqa'a camp.

OTHER ENVIRONMENTAL HEALTH ACTIVITIES

IN GAZA FIELD

In each camp, a team composed by one health education worker and participants under the Job Creation Programme (JCP)were assigned to promote and disseminate environmental awareness related to: the proper handling and disposal of domestic solid waste, water supply, disposal of wastewater, insect and rodent control at UNRWA schools and women activity centres. They also carried out house to house visits to raise awareness of residents on such environmental issues.

Table 48 - Number of environmental awareness campaigns carried out through house visits during 2010

Camp	Jabalia	Beach	Bureij	Nuseirat	Maghazi	D/Balah	K/Yunis	Rafah	Total
No. of campaigns	32	24	15	25	13	18	30	28	185

IN WEST BANK FIELD

The Environmental Health Divisions launched awareness workshops and trainings on environmental health issues, aiming at raising public awareness in camps and improving the general understanding of aspects such as the proper handling of domestic and medical waste andthe rationalization of water consumption. In 2010 the following activities were performed:

- The three Area Sanitation Officers attended a workshop about Food and Water Safety on the 22nd of February 2010 at the Red Crescent Society Office in Ramallah. Food and Water laboratories were discussed in this workshop.

- A cleaning campaign under the name “I like my camp clean” was conducted in Al ‘Arrub camp on the 15th of April 2010. The campaign was arranged by health committee in the camp and sanitation labourers and other volunteers from the camp participated. It included several activities such as cleaning the streets after dividing the participants into working groups.Hats, gloves and masks were distributed to participants and lectures about personal hygiene and environmental health were given.

- A voluntary cleaning campaign was conducted in Aqbat Jaber camp on the 8th of May 2010.

- The first Leishmaniasis campaign started on the 18th of May 2010 and was completed on the 22nd of June 2010. 323 litres of insecticides were consumed. The campaign was carried out jointly with the Jericho municipality and in cooperation with the Health Department of the Palestinian Authority (PA) in Jericho.

- The second Leishmaniasis campaign started on the 12th of July and was completed on the 17th of August 2010. 292 litres of insecticides were consumed. The campaign was carried out jointly with Jericho municipality and in cooperation with the Health Department of the PA in Jericho. The campaign was successful and carried out satisfactorily according to the schedule and the understanding outlined in the last meeting with the municipality and PA Ministry of Health.

IN JORDAN FIELD

A health awareness and cleaning campaign was conducted in the Jarash camp from the 26th of June to the 1st of July 2010. Its aim was to raise community awareness on summer seasonal diseases and to enhance community cooperation and involvement in the cleaning process. Various activities, such as health awareness lectures and meetings, distribution of posters and brochures, joint cleaning and rodent control campaigns, painting and removal of debris,were carried out througha joint collaboration between UNRWA, community associations, Municipalities and the Department of Palestinian Affairs.

An in-service training seminar for Sanitation Foremen and Inspectors was conducted on the 22nd and 23rd of November 2010 at Baqa'a Environmental Health Office. Twenty-three Foremen and three Inspectors attended this seminar which covered the subjects of Environmental Health School Inspection and the New Method of Cockroaches Control. The seminar was facilitated by the Field Sanitary Engineer and the Sanitation Supervisor.

A hygiene awareness training workshop was conducted for 36 food handlers working at UNRWA installations on the 9th and 10th of June 2010 in the Jordan Field Office. It was facilitated by the Field Sanitary Engineer and the Sanitation Supervisor.

Fifteen cleaners at HQ, Amman were trained on hygiene awareness to improve their cleaning activities. The training was facilitated by the Field Sanitation Supervisor on the 26th of October 2010 in the HQ's training room.

Table 49 - Environmental Health Services data for 2010

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Water supply						
Percentage of shelters with access to safe water	99.4	100.0	100.0	100.0	100.0	99.9
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	93.0	91.7	96.1	93.4	62.5	87
Solid waste management						
No. of camps partially or fully served by UNRWA mechanized systems	5	12	6	8	15	46
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

Many of the inequalities in health, both within and between countries, are due to inequalities in the social and economic conditions in which people live and work. These social determinants of health have an important effect on health status and general wellbeing. Tackling these underlying causes of poor health can contribute to improving health and health equity.

The Eastern Mediterranean Regional Office for the World Health Organization (WHO EMRO) has made considerable progress in implementing the community-based initiatives (CBI) programmes in many countries of this region. CBI is in line with Alma Ata Declaration including issues of equity in access to health services; economic and social development; community's right and duty to participate in health; access and utilization of primary health care; and intersectoral collaboration for health and development.

The community-based initiatives (CBI) programmes adopt a broad comprehensive approach to achieving health objectives through an integrated bottom-up strategy for socio-economic development aiming at achieving better quality of life for people, especially those who live underprivileged communities. CBI is based on community involvement supported by intersectoral collaboration between those who practically or potentially offer their services to the community. The implementation of community-based initiatives programmes creates a world of self-dependent communities where people are playing an active role and employ multi-sectoral collaboration to improve their quality of life and have all the necessary information, skills and power to build and preserve healthy lives for all. Under the CBIs, there are four programmes, these include basic development needs (BDN), healthy cities programmes (HCP), healthy villages programmes (HVP) and women in health and development (WHD).

UNRWA'S INTEGRATED COMMUNITY BASED ACTIONS (ICBA) FRAMEWORK

The growing concentration, isolation, and persistence of poverty in Palestine refugee camps, and their social and economic consequences, have created an urgency to address the needs of these communities. More than one year has

passed since the introduction of the Community Based Initiative (CBI) framework to two model Palestine refugee camps, namely Suf camp/ Jordan and Qaber Essit camp/ Syria. The technical and financial support kindly provided by WHO/EMRO was invested to establish a strong basis for further actions to be taken toward the improvement of the quality of life of people in the two communities, through socioeconomic development, community empowerment, ownership and intersectoral collaboration, all which constitute the core of the CBI.

The strategies that UNRWA's ICBA follows in addressing the needs of refugees include:

1. Empowering the camp community and developing intersectoral collaboration between different UNRWA programmes;
2. Addressing of the needs of women, children and youth;
3. Strengthening health, nutrition and environment;
4. Improving economic status and local self- sufficiency;
5. Targeting poor and underprivileged;
6. Encouraging networking and partnership by the community with potential stakeholders; and
7. Creating links between health-related programmes.

MAJOR MILESTONES IN ICBA IMPLEMENTATION

Aiming to share, celebrate, and build on the outcomes of the implementation of CBI in both camps, UNRWA's Health Programme at UNRWA's HQ (Amman) conducted a meeting for representatives from the two camps, the Directors of Healthy Villages Programmes in the MoH of the two host countries, concerned UNRWA staff, and potential stakeholders and donors. Participants were invited to share experiences and ideas for potential cooperation, aimed at supporting the efforts exerted to improve the quality of life of Palestine refugees at UNRWA camps in all Fields of operations. The main areas of support explored were those aimed at helping the expansion of CBI to all Palestine refugee camps.

The meeting was held on the 18th of October 2010 in Amman, Jordan. Lessons learned from the modelling of ICBA in Suf and Qaber Essit camps and those learned from the implementation of the Healthy Villages Programme (HVP) in Jordan and Syria were reviewed. These inputs are essential to achieve further progress, strengthen partnerships with concerned stakeholders and expand the implementation of ICBA to new camps in UNRWA Fields. Dr. Mohammad Assai, CBI Regional Advisor/ WHO-EMRO, attended the meeting and expressed his full support for the efforts of UNRWA in strengthening its capacity to expand the implementation of ICBA in new Fields and new camps.

A webpage on ICBA in UNRWA's website has been published. This was an important visibility step to attract the interest of potential stakeholders willing to help communities develop all over the world. The ICBA webpage is available at http://www.unrwa.org/etemplate.php?id=672

UNRWA's HD at HQ/ Amman also succeeded in securing financial support (USD 50,000) from WHO/ EMRO to help sustain the implementation of ICBA in current camps and expand its implementation to new Fields and camps.

The Regional Director (RD) of WHO/ EMRO, Dr. Hussein A. Gezairy, expressed through Dr. Assai his support, financial and technical, for UNRWA in its efforts to strengthen its ICBA implementation plans. In addition, he agreed to sign MoUs with UNRWA and other stakeholders to support further steps in this regard.

FUTURE PROSPECTIVE FOR ICBA IMPLEMENTATION

It is auspicable that UNRWA will help Palestine refugee communities through ICBA implementation, in the creation of links between ICBA camps and potential stakeholders and donors and in the development of long-term partnerships seeking the improvement of the quality of life in Palestine refugee camps.

A delegation from Jordan will conduct a field visit to Qaber Essit camp and selected healthy villages in Syria with the aim of exchanging experiences and witnessing the fruits of the implementation of ICBA and HVP. The delegates will include some of the Suf camp community members and concerned UNRWA staff. The process of introducing ICBA to two new camps in each of Jordan and Syria, and to one camp in Lebanon, West Bank, and in the Gaza Strip is on-going.

GENDER MAINSTREAMING

THE HEALTH GENDER MAINSTREAMING STRATEGY AND THE GENDER ACTION PLAN

In accordance with the UNRWA Gender Policy adopted in 2007, and to achieve the strategic objectives of long and healthy life for Palestine refugees, the Health department developed in 2010 a Gender Action Plan (GAP) for the current biennium (2010 – 2011) based on the Health Gender Mainstreaming Strategy adopted in 2008.

The following activities were defined in the GAP to achieve the outcomes of the Gender Mainstreaming Strategy:

- Staff in the Fields receive adequate technical guidance and training on including men in preconception care and family planning;
- All concerned staff in the Fields receives adequate training on detecting and counselling women victims of violence;
- Health Information System id strengthened and includes gender disaggregated data;
- Data in all health operational research, projects and studies are gender disaggregated;
- A more gender balanced workforce is promoted; and
- Evaluation of gender biases in access to health is conducted.

ACHIEVEMENTS:

At the policies and guidelines level:

To support the implementation of the gender mainstreaming strategy and gender action plan the Technical Instructions on Provision of Maternal Health and Family Planning Services were revised (including the screening, counselling and referral of victims of domestic violence).

Building capacities:

Several workshops were conducted during 2010, on two main focuses: gender based violence and inclusion men in preconception care and family planning.

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. Forty-five health professionals in the West Bank, 37 in the North Lebanon Area and 100 in Jordan were trained

in detecting and referring victims of violence.In all Fields, the UNRWA Health Programme is participating actively in the efforts towards building a 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 process. The percentage of women recruited in all categories and in all Fields passed from 36% (2009) to 47% (2010) as shown in Table 50. 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.

In July 2010 a workshop was organized on including men in pre-conception care and family planning, The challenges were discussed as well as the ways to overcome them. Gaza Field also presented a leading experience where men's committees aimed at supporting their wives' health were created. The workshop ended by setting an indicator targeting 10% male clients in pre-conception care and family planning for 2011.

As shown in the table below, UNRWA is still facing gender gaps in its workforce.

Table 50 - Percentage of women employed in the Health Programme, 2010

Staff categories	Percentage of women staff				
	Jordan	Lebanon	Syria	Gaza Strip	West Bank
Specialists	10	20	70	55	14
Medical Officers	16	26	24	29	8
Dental Surgeons	23	25	26	38	8
Pharmacists	0	100	100	0	33
Asst. Pharmacists	43	32	41	55	36
Lab. Technicians	49	17	40	64	62
Dental Hygienists	NA	100	0	0	0
All categories	**30**	**46**	**50**	**58**	**53**

To tackle these gaps UNRWA is working on ensuring that recruitment procedures are gender bias free. 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 in senior positions. This resulted in small yet encouraging changes as shown by the UNRWA gender scorecards (Tables 51 and 52).

Table 51 – Gender distribution of UNRWA staff nurses, in 2008, 2009 and 2010

Fields	Percentage of male nurses 2008	Percentage of male nurses 2009	Percentage of male nurses 2010
Gaza Strip	21,6%	21,9%	22.1%
Jordan	2,7%	3,8%	4.1%
Lebanon	4%	7,7%	14%
Syria	0%	0%	0%
West Bank	11%	11%	7.8%

Table 52 - Gender distribution of UNRWA medical officers, in 2008, 2009 and 2010

Fields	Percentage of female medical officers 2008	Percentage of female medical officers 2009	Percentage of female medical officers 2010
Gaza Strip	22,4%	24,7%	29%
Jordan	17%	15%	16%
Lebanon	26%	28,5%	26%
Syria	38,6%	39.5%	24%
West Bank	3,5%	6%	8%

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.

THE WEST BANK AND THE GAZA STRIP – A PERSISTENT HUMANITARIAN CRISIS

In the decade since the start of the Al Aqsa Intifada, the West Bank and the Gaza Strip have been in the grip of a protracted humanitarian crisis. The occupied Palestinian territories (oPt) have suffered recurrent episodes of violent conflict, repeated destruction of homes and infrastructure and longstanding restrictions on movement. These conditions have eroded coping mechanisms and driven hundreds of thousands of Palestinians into poverty.

2010 saw a decrease in violence and conflict-related casualties in Gaza compared with the escalations of 2009. However, in the absence of a just and lasting peace and an end to Israeli occupation, Palestinians remain extremely vulnerable.

Palestinians continue to face a range of security threats, including conflict-related violence, settler violence, Palestinian inter-factional violence and unexploded ordnance. Between January and September 2010, there were 65 conflict-related civilian deaths and 1,199 injuries throughout the oPt. In Gaza 3,415 new injury cases were admitted to UNRWA physiotherapy services during 2010. Access to quality health care has become severely constrained. The effects of the on-going conflict, human rights violations and enforced isolation have had a debilitating effect on the mental health of the refugee population in the Gaza Strip and in the West Bank and in particular on children and young people. Symptoms reported include intense fear, eating and sleeping disorders, hyperactivity and, in the long term, increased anti-social behaviour during adolescence and neurotic problems during adulthood. Violence against women and girls is also on the rise.

Financial constraints remain a serious concern for UNRWA's work in the oPt. Since 2009, the health program was not able to reimburse costs for all deliveries taking place in hospitals, opting to select only 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. Furthermore, restrictions to movement of health staff and goods continued to complicate logistics and consequently contributed to increasing operational costs within the oPt. This, combined with increases in already high prices of goods

(including medicines), was one of the main challenges to the UNRWA health program during 2010. Despite the difficult circumstances, UNRWA continued to provide primary health care, support for access to secondary and tertiary care, and community mental health care to the populations of the Gaza Strip and the West Bank.

THE WEST BANK

In the West Bank, UNRWA operates a healthcare network of 24 health centres and several health points, plus a hospital in Qalqilia. However, the separation Barrier and the hundreds of other physical obstacles and checkpoints continue to have a major impact on the population and on UNRWA's ability to deliver humanitarian services.Eighty five percent of the barrier is constructed in West Bank land, creating zones that leave communities cut off from services and/or their means of livelihood. Particularly affected are residents of Area C, herding communities, Bedouins and remote communities in the seam zones of Hebron, parts of Salfit, Ramallah, Bethlehem governorate and Barta'a. During 2010, there were on average 608 permanent checkpoints and 411 flying checkpoints dividing and controlling movement in the West Bank. UNRWA staff reported 523 incidents of delayed or denied access at checkpoints.

UNRWA health services are experiencing a significant increase in demand for primary, secondary and tertiary care services, both as a result of the socio-economic situation and well as the limitations of physical access to other health care providers. The number of refugees using UNRWA primary care services increased by 68% between 2000 and 2009; between 2009 and 2010, the increase was 4.9%, in spite of a month long strike affecting UNRWA activities during that same year.

Between 2005 and 2009, the demand for hospital services increased by nearly 40%. An UNRWA assessment conducted in 2010 found that, in addition to the physical barriers to health care access, 18% of refugees reported that they had been forced to reduce their health expenses and were facing great difficulty in financial access to specialized treatment. Furthermore, access to East Jerusalem referral facilities, which constitute the only option across the oPt for a range of specialized care such as oncology, cardiology and neurology, also poses on-going challenges.During 2010, the UNRWA health programme maintained contracts with twelve hospitals, of which six were concluded to overcome the restriction of access to Jerusalem hospitals and NGO facilities. The six facilities are: Al Razi Hospital, Nablus Specialty Hospital, Al Zakat Hospital in Tulkarem; Bethlehem Arab Society Hospital; Patients Friends Society Al Ahli Hospital; and the Palestinian Red Crescent Hospital.

In order to further mitigate the impacts of the access difficulties on the health of refugees and non-refugees living in 78 isolated or remote areas of the West Bank, UNRWA provides monthly mobile health services. During 2010, five mobile health teams visited remote villages in Area C, Jerusalem periphery, the seam zone, Bedouin/herders encampments and those displaced by demolitions, providing a range of curative services to refugees and non-refugees alike.In addition, the mobile teams offered curative, preventive and psychosocial services at three fixed locations: Beit Awwa Health Point in Hebron Area, Budros Health Point in Jerusalem Area, and Hableh Health Point in Nablus Area. Approximately 11,000 patients were treated every month. The UNRWA health department also reinforced coordination with other health care providers rendering similar mobile services to avoid duplication and to ensure that needy populations are reached. During 2011, UNRWA plans to add a sixth mobile team, increase the frequency of visits, and expand mobile mental health services.

THE GAZA STRIP

In Gaza, despite a partial easing of the blockade announced in June 2010, on-going restrictions severely limit economic recovery, leaving a large majority of the population dependent on UNRWA for food aid and other basic services. In 2010, 52% of households were food-insecure and there is on-going concern about the nutritional status of children and pregnant women in the Gaza Strip.

UNRWA provides primary health care through a network of 18 health centres and two sub-centres. With many people no longer able to pay the nominal consultation fees at NGO or Palestinian Authority (PA) clinics, the demand for UNRWA health services has escalated. There was an increase of over 6% in the total number of consultations at UNRWA facilities between 2009 and 2010.

The quality of functioning medical services in the Gaza Strip is generally in decline due to the blockade and the internal divide between Gaza city and Ramallah**.** As a result of the blockade, the PA was unable to replenish medicines and supplies at its clinics, thus necessitating patients to seek essential care at UNRWA facilities.

The persistent restrictions on importation of medical supplies and equipment, and on the movement of health staff between West Bank and the Gaza Strip, hinder the provision of quality health services. Supplies of electricity, fuel and other consumables for the maintenance of the basic health infrastructure have not significantly improved since the adjustment to the blockade. Hospital treatment is increasingly curtailed because of the inability of hospitals to run procedures when they have limited access to electricity supplies, spare parts and equipment.

Referrals for specialized care also remain a challenge. Despite an improvement in the flow of patients able to exit through Egypt following the flotilla incident, permits to access specialist treatment outside the Gaza Strip continue to be bureaucratically and often arbitrarily administered. In 2010, 650 (5.6%) requests to cross Erez were refused as opposed to 149 (2%) in 2009.

LEBANON – NAHR EL-BARED CAMP: THREE YEARS SINCE THE CRISIS

Three years after the conflict of 2007, the effects of the devastation of Nahr el-Bared Camp (NBC) are still being felt. The violence resulted in the destruction of an estimated 95% of buildings and infrastructure within the camp and caused the displacement of approximately 27,000 Palestine refugees from the camp and its adjacent areas. Since 2007 UNRWA has met the basic needs of the secondarily displaced refugees through the provision of shelter, food security, water and sanitation, health services and education.

The reconstruction of the camp began in December 2009 and should have been completed by the end 2012. By October 2010 UNRWA had started work on two out of the eight construction packages. However, the pace of renovation and long-term recovery of the camp has been slow and the 2012 deadline will not be met. More than three years after the conflict, only 20% of the displaced Palestine refugees have returned to their own homes in the areas adjacent to the camp. By mid-2010, over 10,000 refugees were still living in temporary accommodations in these adjacent areas, some renting accommodation, others living in collective centres rented by UNRWA or in UNRWA-constructed temporary shelters. A further 10,000 people remain in other locations, mainly in the Beddawi camp.

The on-going displacement of the majority of Palestine refugees from their original homes in NBC and its surrounds continues to present a significant humanitarian challenge. Many refugees now live in difficult, overcrowded housing conditions and are dependent on UNRWA for their daily living needs. The situation is compounded by the slow economic recovery of the NBC displaced areas, largely the result of movement restrictions imposed by the Lebanese Armed Forces.

As a result of the total destruction of the UNRWA health centre in NBC, the Agency established two temporary health centres in the area adjacent to the camp: one facility was donated by USA and the other rented by UNRWA. Rebuilding of the health centre in its former site will commence in 2011 and the facility is expected to be operational by the beginning of 2012, at which time it will replace the services offered in the temporary health centres.

The situation of overcrowding in the temporary shelters and the poor conditions in some of the rented accommodations increase the risk of outbreaks of communicable and other diseases. Additionally, because of continued economic hardship, many families are unwilling and/or unable to seek effective and timely medical treatment at their own expense.

Therefore, UNRWA continues to provide free basic health services and additional subsidies to help NBC families cover the cost of hospitalization and medications not usually covered by UNRWA through its regular health program. This includes the subsidy of up to 100% of the hospital bills for displaced refugees.

The continued displacement has also resulted in a very negative impact on the mental health of the population. The barely tolerable living conditions of many families, as well as the uncertainty about the delivery of the reconstructed camp (much slower than originally promised, and many doubt that it will be successful), have increased stress levels both in Nahr el-Bared Camp's adjacent areas and in the Beddawi Camp. The consequences are seen in the high numbers of patients presenting at UNRWA health centres, the high number of referrals, the over-consumption of unnecessary medication, and in the general demeanour and behaviour of the camp residents. The situation is further illustrated by the high proportion of stress related conditions seen among patients seeking help for mental health problems: of 424 clients with mental health case files active in December 2010, 46% were diagnosed with depression, 21% with somatoform disorders and 11% with anxiety.

Despite the escalating problems, Medicine du Monde (MDM), the NGO previously providing outpatient mental health services, was forced to withdraw from the camps in 2010 as a result of funding constraints. Mental health services have subsequently been taken over by UNRWA, building on the work of MDM. During their project implementation period of almost three years, MDM trained three medical officers and four nurses to manage mild and moderate cases of mental illness. The UNRWA health department has also contracted a psychiatrist to support the services and UNRWA continues to subsidize the purchase of mental health drugs for the refugees displaced from NBC.

PROGRAMME MANAGEMENT

Health can be a trailblazer in increasing efficiency and equity. Decision-makers in health can do a great deal to reduce leakage. They can also take steps, including regulation and legislation, to improve service delivery and the overall efficiency of the system- steps that other sectors could then follow.

From World Health Report 2010

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 aHealth Communication & Community Based Initiative Officer, a Health Policy & Planning Officer and a Senior Health Nutritionist.

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 the 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 2010 the following meetings and workshops were held:

- Field Nursing Officers meeting, 7-9 March 2010;
- Field Family Health officers Meeting, 8-12 March 2010;
- School Supervisors Health Education Meeting , 10-11 March 2010;
- Senior Dental Surgeons meeting, 12-13 March 2010;
- Field Sanitary Engineers meeting, 15-17 March 2010 ;

- Field Laboratory Services Officers Meeting, 28-30 March 2010;
- Chiefs Field Health Programme meeting, 2 September 2010;
- First Meeting on the Integrated Community Based Initiative (ICBA), 18-19 October 2010
- Senior Dental Surgeons Meeting; 5-7 December 2010

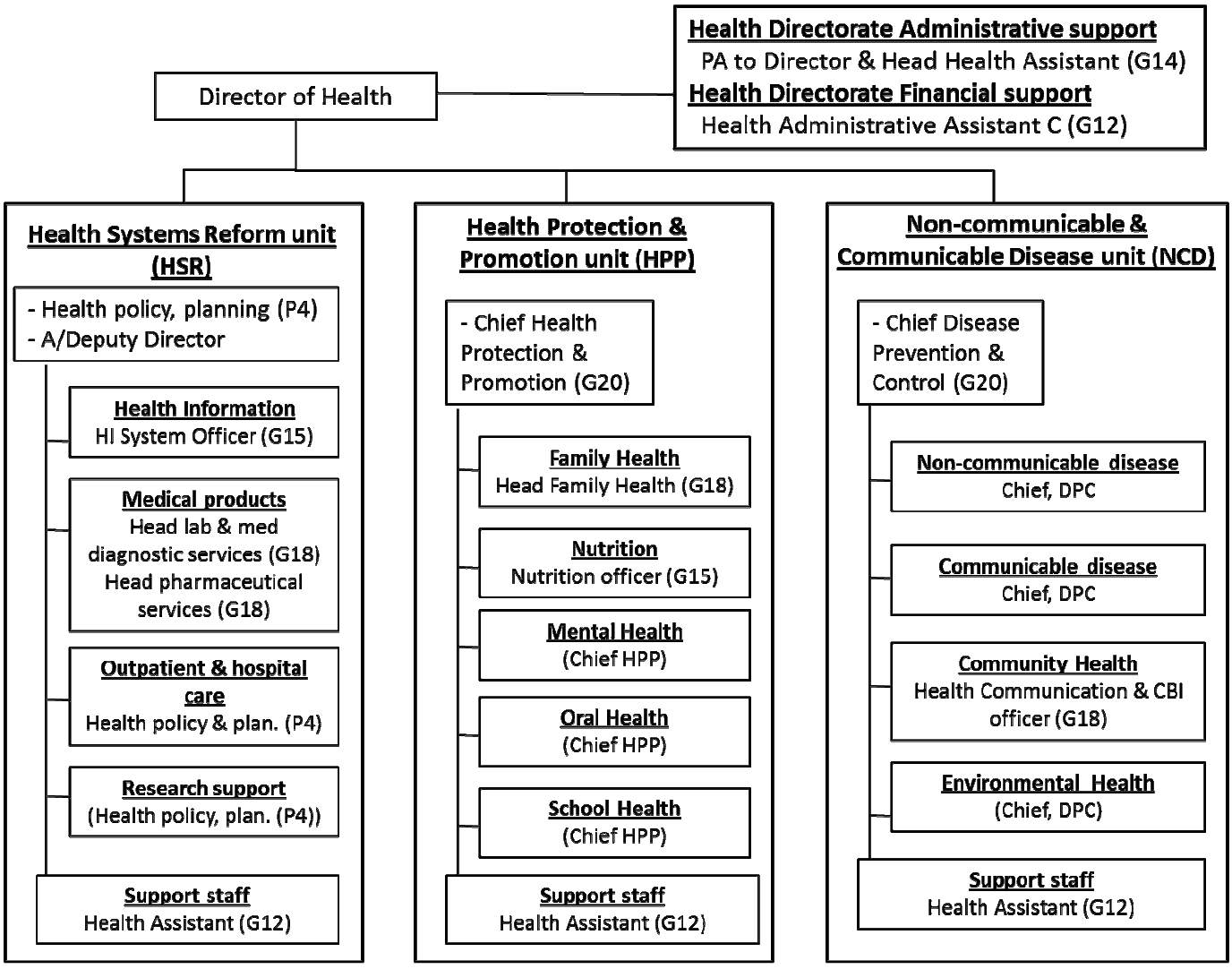


Figure 43 - Functional chart of the UNRWA Health Programme in 2010

The functions of the various sub-programmes of the Health Programme (Figure 43) 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 53 - Health staff as at end of December 2010

Area Staff	HQ	Jordan	Lebanon	Syria	Gaza Strip	West Bank*	Agency
Medical care services							
Doctors**	4	101	56	60	150	99	470
Pharmacists	1	2	2	1	4	2	12
Dental Surgeons	0	30	19	19	30	26	124
Nurses	0	265	119	135	294	296	1,109
Paramedical***	1	130	28	75	149	198	581
Admin./Support Staff	6	89	47	39	118	90	389
Labour category	0	100	53	65	122	86	426
Sub-total	**12**	**717**	**324**	**394**	**867**	**797**	**3,111**
Environmental health services							
Engineers	0	1	0	0	0	1	14
Admin/Support Staff	0	29	0	0	0	23	96
Labour category	0	296	0	0	0	190	1,482
Sub-total	**0**	**326**	0	0	0	**214**	**1,592**
International	2	0	1	0	0	0	3
Grand total	**14**	**1043**	**325**	**394**	**867**	**1,011**	**3,654**

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; Environmental health services staff in Lebanon, Syria and Gaza Strip are no more under health department. In Jordan the decision was taken to handle this programme to the Procurement and Logistics Department*

HUMAN RESOURCES

During 2010, 3,654 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 2010 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 qualified 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 54 – UNRWA staff per 100,000 served population

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Physicians	9.6	21.5	14.4	14.9	20.9	14.7
Nurses	25.2	48.5	32.6	29.3	62.7	34.7

FINANCIAL RESOURCES

The total Health Programme expenditure in 2010 amounted to approximately USD 99 million, corresponding to an expenditure per registered refugee of USD 19.8. 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 on outsourced services (mainly hospital services) was USD 16.7 million. Table 55, shows the 2010 budget allocations and expenditure for the Health Programme by sub-programme.

Table 55 - Breakdown of budget and expenditure by sub-programme, 2010 (thousand USD)

Programme	Allotted Budget**	Expenditure	% from allotted budget
Programme Management	4,136	4,281	103.5%
Sub-total	**4,136**	**4,281**	103.5%
Medical Care Services			
Laboratory services	4,063	4,212	103.6%
Out-patient services	38,126	40,845	107.1%
Maternal & child health	4,987	5,153	103.3%
Disease prevention & control	6,039	6,036	99.9%
Physical rehabilitation	1,508	1,250	82.9%
Oral health	3,875	3,255	84.0%
School health	728	775	106.4%
Hospital services	17,251	16,484	95.6%
Psychosocial Support (Mental Health)	1,123	253	22.5%
Sub-total	**77,700**	**78,263**	**100.7%**
Environmental Health			
Sewerage & drainage	259	199	76.8%
Solid waste management	15,344	15,197	99.0%
Water supply	940	665	70.4%
Sub-total	**16,543**	**16,061**	97.0%
Grand Total	**98,379**	**98,605**	**100.2%**

Table 56 shows the health expenditure per refugee per Field in 2010 as per regular budget, the differential has remained unchanged.

Table 56 - Health expenditure per registered refugee, 2010 regular budget (USD)

Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
10.5	35.0	18.6	26.2	25.2	19.8

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.

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 2010 represented only 17.4% 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 2010

Major progress was made during 2010 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 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 470 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.

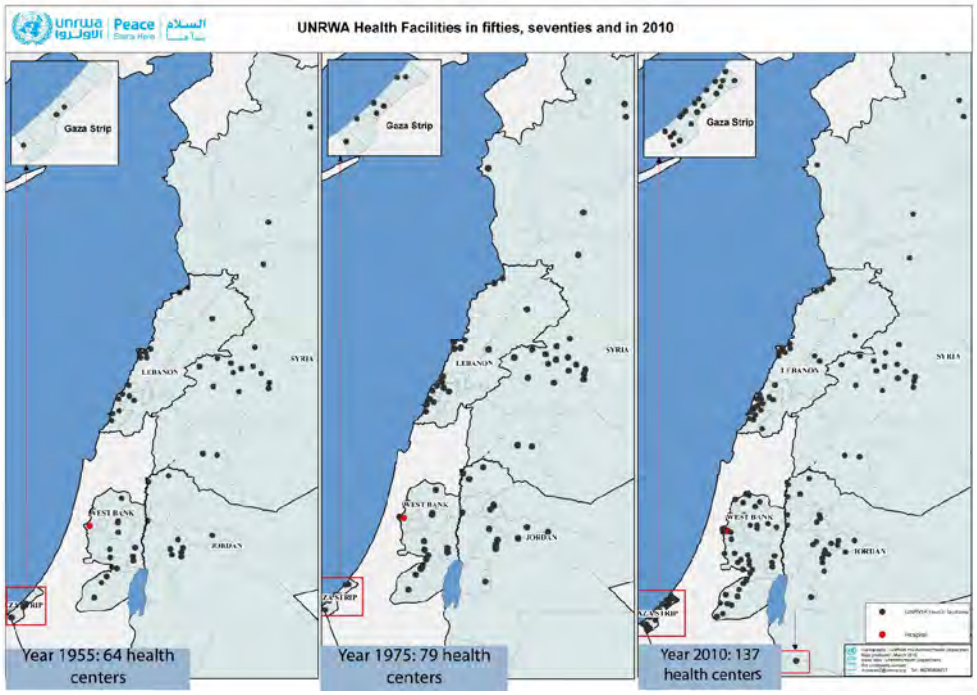


Figure 44 – Expansion of UNRWA's health care facilities from 1955 to 2010

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 2010, the West Bank Jenin Health Centre expansion and upgrading was completed.

THE HEALTH INFORMATION SYSTEM

The current system in UNRWA for gathering and processing these statistics is mainly paper-based in the clinics and computer spread sheet-based in the UNRWA field offices and headquarters. The main problems of which are that:

- Gathering, consolidating and reporting on this data is time-consuming, costly, heavily manual and cumbersome with data re-written, re-calculated, re-entered, couriered, emailed and copied and pasted many times;
- Less time can be allocated to direct patient care (doctors spend an average of 3 minutes per patient due high doctor / patient ratios);
- Data is not adequately validated at point of entry resulting in inaccuracies;
- Data is consolidated into electronic format at the field offices, but :
    - Inefficiently stored into spread sheet formats with related data held in hundreds of distinct and unlinked files making data use beyond the original purpose difficult;
    - Aggregated during consolidations causing loss of detail;
    - Not readily accessible; and
    - Unsecured - changes can be made without adequate controls.

In response to this need, UNRWA responded with a multiphase project (e-Health),financed by the Danish government, aimed at creating an automated and integrated health ICT system, automating to the most practical extent, patient medical records, clinical orders and dispensation of medicines. With effective computerisation, the flow of statistical information from the clinics to the regional field offices in Lebanon, Syria, Jordan, West Bank and Gaza and further processing in UNRWA headquarters in Amman, will also be streamlined making data more rapidly available and accurate.

The e-Health vision is long-term and applies to the whole Agency. The first phase of the vision, and the objectives of this project, was focused solely within Lebanon. Systems and processes developed in Lebanon would be later applied in subsequent phases throughout UNRWA. The key objectives of this project, in 'phase 1', were:wq

1. Piloting a **Clinic Information System** (CIS) in three clinics to automate all clinical and administrative processes and establish a life-long updatable electronic health record for every refugee patient. The extension to all UNRWA clinics and Palestine refugees would be separate phases following evaluation and successful completion of the pilot.
2. Establishment of a Field **Health Information System** (HIS) to streamline and automate statistical gathering processes and consolidate all statistical heath data, including historical data, into a single repository. This system would be designed so that it could be deployed in 'phase 2' to all UNRWA fields.

In the long-term, the HIS would automatically 'mine' the data from each clinic's CIS. As the CIS was beyond UNRWA financial means, it was decided to develop a semi clinical information system that consists of several data screens and a workflow within the system to be used by health clinics staff for automating most of their daily operations which will result into the health care data that would be utilised for the HIS. To achieve their full potential for streamlining of processes, the HIS and the semi CIS data would be held in a central repository, achieved through automated data replication technologies and ICT infrastructure.

PROJECT IMPLEMENTATION IN 2010

The project management was moved to the UNRWA Information System's Division at HQA, Information Systems Division which allocated three internal staff for this project. Accordingly, the e-Health team in coordination with HQA Health

Department and Lebanon Field health management have discussed and agreed on an approach that will add more value to e-Health by establishing a semi clinical information system that serves the health staff at the health clinic, the field office and HQA level.Moreover, it was decided to establish a pilot clinic in Jordan for testing and delivering mature system software packages in order to be gradually implemented in Lebanon clinics with minimum travel missions from HQA to Lebanon Field.

The Non Communicable Diseases package (NCD) was developed and piloted at Nuzha Health Clinic in Jordan first. Accordingly, the refined NCD package was deployed at 3 Health clinics in Lebanon and rolled out to all 29 Health clinics in Lebanon by end of April 2010. The implementation of this system package has faced many challenges mainly:

1. Frequent Power cuts; due to the instability of the electricity in Lebanon and the inadequate /insufficient power replacements.
2. Lack of computer literacy among health clinics staff.
3. Clinics overloaded staff, which caused delays in entering the patient's files records which are the base of the system deployment.

The Child Health Care (CHC) was developed and piloted at Nuzha Health Clinic in Jordan first. Accordingly, the refined CHC was deployed at 3 Health clinics in Lebanon and rolled out to five Health clinics in Lebanon. The implementation of this system package is facing the same challenges faced during NCD deployment.

The NCD system package users have the ability to generate the standard reports and assessments for any desirable period and location. The child health module automates the process needed to examine the new born babies and follow up on child growth and development according to the latest WHO standards in order to detect timely any deviation from normality; moreover it will record and follow up with identified disabilities among screened children. This system package also records the child's immunizations and detects any delays according to a predefined schedule. It includes a simple workflow for child's curative process until the medicines are dispensed automatically by the pharmacist. It also generates many daily and statistical reports.

During summer, 2010, the maternal health sub-package was developed and is being piloted at the Jordan pilot health clinic in Nuzha. This sub-package consists of five modules that automates the process needed for women preconception health care, ante-natal care including details of all midwifes' and doctors' visits with special alerts, post-natal care including registration of new deliveries and family planning with tracking of used methods. It also includes a simple workflow for women's curative process until the medicines are dispensed automatically by the pharmacist. It generates standard daily and statistical reports.

The project is planned to continue in its phase III in 2011 provided that additional funding is procured.

STAFF DEVELOPMENT

In 2010, 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 7,092 staff/days of in-service training were conducted in the five Fields at an average of 4.3 training days per medical officer and 2.2 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 29 staff at local universities as outlined in Table 57

Table 57 - Basic and post-graduate training, 2010

Field	Category	No.	Course	Start Date	Sponsor
Jordan	Medical Officer	1	Master Degree Public Health	Sept. 2008	Own expense
West Bank	Deputy Field Pharmacist Officer	1	Master Degree Public Health	Sept. 2008	Partially UNRWA
	Health Educ. Supervisor	1	Master Degree Public Health	Sept. 2008	Partially UNRWA
	Senior Medical Officer	1	Master Degree Public Health	Sept. 2009	Partially UNRWA
	Medical Officer	1	Family Medicine	Nov. 2008	Partially UNRWA
	Midwife	1	Bachelor Degree Midwifery	June 2008	Partially UNRWA
	Midwife	1	Bachelor Degree Midwifery	Feb. 2009	Partially UNRWA
	Midwife	1	Bachelor Degree Midwifery	Oct. 2009	Partially UNRWA
	Practical Nurse	2	Bachelor Degree Nursing	Feb. 2009	Partially UNRWA
	Laboratory Technician	1	Master Degree in Biotechnology	July 2010	Partially UNRWA
	Acting Field Lab. Service Office	1	Master Degree Public Health	August 2010	Partially UNRWA
	Practical Nurse	2	Master Degree Mental Health	Sept. 2010	Partially UNRWA
	Senior Staff Nurse	3	Mental Health Course	Sept. 2010	Juzoor
	Staff Nurse	2	Mental Health Course	Sept. 2010	Juzoor
	Senior Medical Officer	1	Mental Health Course	Sept. 2010	Juzoor
	Area health Officer	1	Mental Health Course	Sept. 2010	Juzoor
	Midwife	1	Mental Health Course	Sept. 2010	Juzoor
	Senior Medical Officer	1	Child Health Diploma	June 2010	Juzoor
	Medical Officer	2	Child Health Diploma	June 2010	Juzoor
	Staff Nurse	1	Child Health Diploma	June 2010	Juzoor
	Medical officer	1	Master Degree Community Mental Health	Sept. 2010	Partially UNRWA
	Laboratory Technician	1	Master Degree Health Policy & Administration	Oct. 2010	Partially UNRWA
Syria	Medical Officer	1	Master in Public health	Sept. 2009	Ministry of Health SAR

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 to 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;
- Risk status assessment of Non-Communicable Disease patients;
- 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).

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 2010, 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. The Global School Health Survey (GSHS) was conducted, during 2010 in the five Fields, in collaboration with WHO/EMRO- and CDC Atlanta USA.

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 2010 the following three articles were published in international medical journals:

- Mousa HS, Yousef S, Riccardo F, Zeidan W, Sabatinelli G. *Hyperglycaemia, hypertension and their risk factors among Palestine refugees served by UNRWA*. East Mediterr Health J. 2010 Jun;16(6): 609-14.
- F. Riccardo, A. El Jaish, Y. Shahin, M. Maqadma, M.R. Malik, A. Pinto, G. Sabatinelli. *Early Warning System in Gaza Strip, post conflict 2009.* International Journal of Infectious Diseases 2010; Vol 14, Suppl 1: e285.
- G. Sabatinelli, F. Riccardo, A. Khader, Y. Shahin, S. Pace-Shanklin, A. Ahmed. "*Health of Palestine Refugees in the Eastern Mediterranean: Determinants and Challenges*" Giornale Italiano di Medicina Tropicale2010, Vol. 15.

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 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 the Gaza Strip 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 during 2010 Global School Health Survey (GSHS) was carried out in all UNRWA Fields of operation.

The Health Department established a long standing collaboration with the WHO collaborating Centre for Oral Public Health in Milano Italy to support the Health Department reform to shift oral health services towards prevention, to conduct jointly the DMFT survey among 7th grade school children during 2011 and to train a core team of dental surgeons on the survey methodology.

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 during 200 8-2010 with the

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 enjoys 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 since 2008 an on-going 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 2010, Andalusian International Cooperation for Development Agency (AACID), Spain, has contributed to UNRWA's Perinatal Care Component of the Health Program with a total ammount of 1, 8 million Euros. This contribution has been fully intended to support health care to pregnant women and their children under one year old.

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 centred 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 prevention and management, that includes highly prevalent conditions, such as Smoking, Overweight and Chronic Obstructive Pulmonary Diseases (COPD) which needs to be integrated after the establishment of database and exploring the needed resources in 2011, to the currently addressed hypertension and diabetes mellitus. Besides that,the Health department in cooperation with ISD, developed and piloted three computerized modules, the NCD, the Maternal Health and the Child Health modules. Work is on-going to finalize the development, testing and implementation of a comprehensive computerized health system operational in all Fields. The expansion of the ready developed e-health module on NCDs to other Fields rather than Lebanon largely depends on the available human and technical resources including infrastructure and staff training on computer skills. 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 (e.g., 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 user 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 to avoid consultations or look 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 Medical Officers. 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 to focus on the gains (in terms of capacity for devoting time to improve quality of care) obtained by its implementation. Also important is the 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

2010 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.

Annex

Contents

The annexes to the UNRWA annual report of the department of health are grouped in four sections:

1. Health Fact sheets, 2010;
2. Health Maps, 2010;
3. Contacts of Senior Staff of the UNRWA Health Programme; and
4. Abbreviations.

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
A- DEMOGRAPHIC INDICATORS						
- Registered refugee population in thousands	1999	455	496	1167	848	4967
- Percentage of camp population to total registered refugees	17.6	50.0	30.2	43.9	24.3	29.1
- Percentage of refugees to total country/district population	31.2	11.0	2.2	72.8	33.7	13.5
- Growth rate of registered refugees (%) [1]	0.8	7.0	5.1	5.5	8.9	4.2
- Total fertility rate [2]	3.5	3.2	2.5	4.3	3.9	3.5
- Percentage of children below 18 years of age	31.5	24.3	31.3	41.4	32.0	33.2
- Percentage of women of reproductive age (15-49 Years)	28.6	27.8	26.3	25.5	25.7	27.1
- Percentage of population 40 years and above	30.8	39.4	32.0	23.7	32.3	30.3
- Aging index	50.4	85.3	46.8	30.0	60.5	47.9
- Average family size [2]	5.5	5.2	4.5	6.3	5.9	5.5
'B- UNRWA's HEALTH INFRASTRUCTURE						
Primary health care (PHC) facilities :						
a- Inside official camps	12	14	10	11	19	66
b- Outside camps	12	15	13	9	22	71
Total	24	29	23	20	41	137
c- Ratio of primary health care facilities per 100,000 population	1.2	6.4	4.6	1.7	4.8	2.8
Services integrated within PHC facilities :						
a- Laboratories	24	17	21	18	40	120
b- Dental clinic						
· Stationed units	29	19	18	19	23	108
· Mobile units	4	2	1	3	0	10

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
c- Family planning	24	29	23	20	40	136
d- Special care for non-communicable diseases	24	29	23	18	41	135
e- Specialists	10	11	8	16	5	50
f- Radiology facilities	2	4	0	6	9	21
g- Physiotherapy clinics	1	0	0	10	6	17
h- Hospitals[3]	0	0	0	0	1	1
C- BUDGETARY AND HUMAN RESOURCE INDICATORS						
- Health personnel per 100,000 registered refugees						
· Doctors	5.1	12.3	12.1	12.8	11.7	9.5
· Dental surgeons	1.5	4.2	3.8	2.6	3.1	2.5
· Nurses	13.3	26.1	27.2	25.2	34.9	22.3
- Annual per capita budget allocations on health US $	10.1	35.8	22.2	24.4	26.2	19.8
- Total allocations on health as percentage from approved regular budget	17.7	22.1	20.8	14.2	23.1	16.5
- Average expenditure on pharmaceuticals per out-patient medical consultation US$	2.2	1.7	2.0	1.9	2.3	2.0
D- HEALTH STATUS INDICATORS						
-Infant mortality rate per 1000 live births [1]	22.6	19.0	28.2	20.2	19.5	22.0
- Infant mortality rate per 1000 live births by sex [1]						
- Neonatal mortality rate per 1000 live births [1]	15.1	14.1	17.4	12	15.4	
- Child mortality rate (below 3 years) per 1000 live births[1]	25.4	20.8	29.6	22.6	21	
- Mean birth interval (months) [1]	32.7	36.9	35.1	29.3	32.8	33.3
- Percentage of women married by the age < 18 years [2]	22.2	18.9	18.5	33.0	30.2	24.6
- Percentage of women with birth intervals ≤ 24 months [2]	42.2	37.9	40.5	48.9	43.7	42.7
- Prevalence of modern contraceptives among women of reproductive age utilizing UNRWA MCH services	60.6	74.7	67.4	47.1	59.1	61.7

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
- Mean marital age (women) [2]	20.5	21	21	19.2	19.4	20.2
- Percentage of infants breastfed for at least one month [3]	75.9	87.2	78.3	65.0	87.1	78.9
- Prevalence of exclusive breast feeding up to 4 months [3]	24.0	30.2	40.3	33.3	34.5	32.7
- Prevalence of anaemia among children < 3 years of age[4]	28.4	33.4	17.2	54.7	34.2	33.8
- Prevalence of anaemia among pregnant women[4]	22.5	25.5	16.2	35.6	29.5	26.3
- Prevalence of anaemia among nursing mothers[4]	22.2	26.6	21.7	45.7	23.0	28.6
- Prevalence of anaemia among school children[4]						
- 1st grade	14.4	22.3	9.1	36.4	14.6	19.5
- 9th grade	11.6	16.9	6.0	11.4	14.9	12
- Percentage of pregnancies at high or moderate risk	40.0	41.7	40.4	44.4	39.7	41.8
- Prevalence of diabetes among population served, 40 years and above (%)	10.4	9.3	8.8	11.3	11.5	10.5
- Prevalence of hypertension among population served, 40 years and above (%)	15.2	18.2	15.2	17.3	15.8	16.2
- No. of cases of communicable diseases reported						
· Pulmonary TB smear positive	1	3	11	3	1	19
· Measles	8	0	5	0	4	17
· Rubella	15	0	6	0	8	29
· Mumps	54	15	30	70	33	202
· HIV/AIDS	0	0	0	0	0	0
E- INDICATORS OF COVERAGE WITH PRIMARY HEALTH CARE						
- Percentage of pregnant women who received antenatal care	55.1	60.8	64.6	100	51.3	69.0
- Percentage of pregnant women who paid at least four *	85.2	92.3	79.5	93.7	83.6	88.1
-Average No. of antenatal visits	5.6	6.1	5.6	7.9	6.6	6.8
- Proportion of pregnant women registered during the first trimester *	71.1	84.6	72.2	76.6	76.4	74.8

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
- Percentage of pregnant women protected against tetanus	99.8	99.5	99.9	100	99.8	99.9
- Percentage of pregnant women delivered by trained personnel *	100	100	99.7	100	99.9	99.9
- Percentage of deliveries in health institutions *	99.6	98.7	96.5	99.9	99.6	99.4
- Percentage of pregnant women who received postnatal care	87.5	95.1	95.6	98.7	81.9	92.6
- Percentage of surviving infants who received regular care and monitoring	56.0	57.6	72.0	100	45.9	69.1
- Percentage of infants 12 months old fully immunized	99.2	99.5	99.4	90.2	99.9	95.3
- Percentage of children 18 months old who received all booster doses of EPI vaccines	98.6	99.0	99.4	99.8	99.9	99.3
- Percentage of camp shelters with access to safe water	99.4	100	100	100	100	99.8
- Percentage of camp shelters with access to sewerage facilities	93.0	91.7	96.1	93.4	62.5	87.0
'F- PERFORMANCE INDICATORS						
	Jordan	Lebanon	Syria	Gaza	West Bank	Agency-wide
- Average daily medical consultations per doctor	101	104	97	98.1	105	101
- Average daily consultations per dental surgeon	32.6	27.2	29.7	61.2	27.3	37.4
- Actual laboratory productivity rate compared to the target of 50 workload units /hour	49.9	38.7	41	34.2	43.6	41.5
- Actual productivity of dental services compared to the target of 50 workload units per hour	50.5	42.5	41.5	88.5	41.4	55.6
- Average stay (days) among hospitalized patients	1.9	2.4	1.4	3.0	1.9	2.1
- Average daily bed occupancy (%) in Qalqilia hospital	0	0	0	0	61.0	61.0

Table 58 – 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	17	19.0	12	28.2	14	19.5	20.2	24.0
		% infants 12 months immunized against measles	99.2	95.0	99.5	53.0	99.4	81	99.9	99.8	96
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	99.1	100	98.0 (1995)	99.7	93.0 (2006)	99.6	99.9	99.9
		Maternal mortality ratio/ 100,000 births#	24.0	59	42.1	26	44.7	46	15.8	18.7	
		Contraceptive use among married women in reproductive age (%)	62.0	57.1 (2007)	76.3	58.0 (2004)	68.3	58.3 (2006)	61.3	49.1	63.4
MDG 6	Combat HIV, Malaria, TB and other diseases	Incidence rate of TB/ 100,000#	0.5	7.3	5.1	16.0	12.1	27.0	0.9	0.2	23.0
MDG 7	Environmental sustainability	% population with sustainable access to an improved source of water##	99.4	96.0	100.0	100.0	100.0	89.0	100	100	91.0
		% population with access to improved sanitation##	93.0	98.0	91.7	98	96.1	96..0	63.0	93.0	98.0

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 2010 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.

1. CIA World Fact book. Accessed at https://www.cia.gov/library/publications/the-world-factbook/23 February 2011

2. UN MDG statistics. Available at http://unstats.un.org/unsd/mdg/Default.aspx, accessed 23 February 2011

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Peace Starts Here السلام يبدأ هنا
Number of doctors per 100,000 registered refugees, 2010
LEBANON
SYRIA
WEST BANK
JORDAN
GAZA STRIP
0 25 50 100 Kilometers
No. of doctors per 100,000 registered refugees
5.1
5.2 - 11.7
11.8 - 12.1
12.2 - 12.3
12.4 - 12.8
Cartography: UNRWA HQ, amman Health Department
Map produced : March 2011
Base data: UNRWA Health Department
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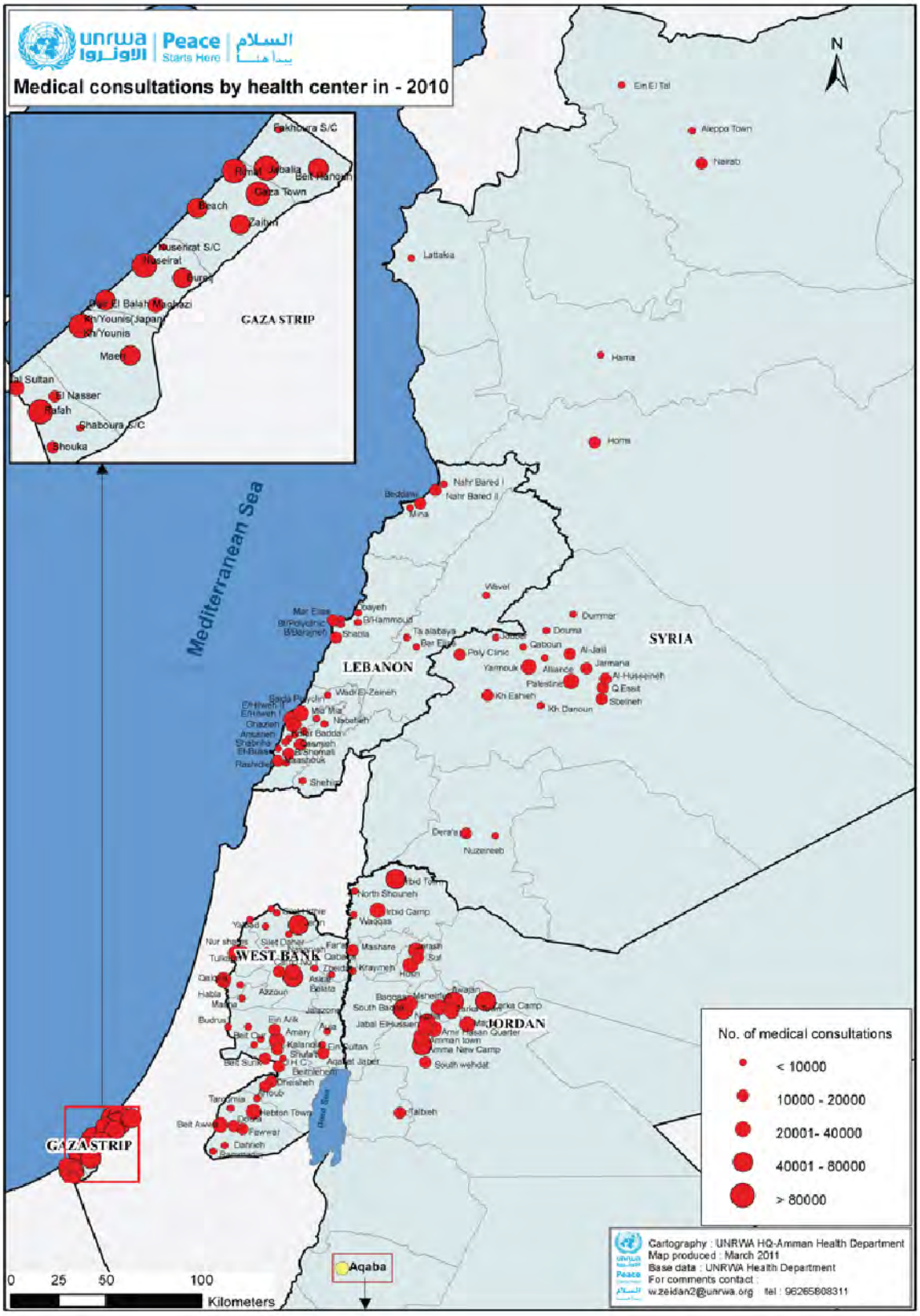
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Medical consultations by health center in - 2010
GAZA STRIP
Mediterranean Sea
LEBANON
SYRIA
WEST BANK
JORDAN
Ein El Tal
Aleppo Town
Nairab
Lattakia
Hama
Homs
Nahr Bared I
Nahr Bared II
Beddawi
Mina
Wavel
Douma
Jaramana
Yarmouk
Alliance
Palestine
Q.Esait
Sbeineh
Kh Eshieh
Kh Danoun
Shehin
Dera'a
Nuzeineeb
Talbieh
Aqaba
No. of medical consultations
< 10000
10000 - 20000
20001- 40000
40001 - 80000
> 80000
0 25 50 100
Kilometers
Cartography : UNRWA HQ-Amman Health Department
Map produced : March 2011
Base data : UNRWA Health Department
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