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The Annual Report of the Department of Health

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

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The Annual Report of the Department of Health

2011

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FOREWORD OF THE DIRECTOR OF HEALTH

It is my great pleasure to present the Annual Report of the Department of Health for 2011. This report is a summary of the hard work done by all staff in Fields and Headquarters, for the health of 5 million Palestine refugees we serve. I would like to express my sincere appreciation to the staff for their hard work, and also to our partners such as host countries, donors and all others, for their continued support. We try to respond, in the report, to the core question of our services: i.e. whether we are providing better services to the Palestine refugees in the changing environment. Refugee populations continue to increase and get older, while their health and environment are changing with the increase of non-communicable diseases.

I think the report indicates our answer to the core question is in principle yes. Of course, we still have considerable way to go to realize our Human Development Goal, i.e. "A Long and Healthy Life." We, at least, have started improving our services to the refugees. The report highlights two important notions in this regard. First is the innovation. The family health team approach is the best example. This is a family-centered approach, aiming at providing comprehensive, continuity of care for family members. This approach is widely used in developed countries, and we adopted it to modernize our primary health care services, in particular to address the ever-increasing burden of non-communicable diseases. The approach started in two health centres as pilot in late 2011. I was truly thrilled, when I visited the centres, with the excitement shared by communities and health centre staff. The approach is expanding rapidly, covering 11 health centres with 500,000 refugees (as of March 2012), with clear signs of improvement of performance of our health services. Our vision is to expand the family health team approach to all 138 health centres of UNRWA by 2015.

All Fields also continue to take innovations in different, and important areas. I am always encouraged with the fact that such innovations are often initiated by our frontline health centre staff and also by the community. There are many other innovations that took place in 2011 and which are mentioned throughout the report.

A major aspect concerns innovation in data and information management. E-health has been expanding steadily. A few health centres are now fully equipped with e-health and paperless in their work. E-health allowed us to generate and analyse the data extensively. Along with the family health team approach, we are upgrading our e-health as one-integrated e-health to service family-centred health services. Data management capacity has also improved, as reflected in the report. There is one full chapter on data, illustrating the extensive sets of important data and their trends. I think the chapter is self-explanatory and the data speak by themselves.

Still, we need to work harder for the health of Palestine refugees. There are many refugees unnecessarily suffering from ill-health. Access to care, both in geographical and financial terms, is problematic. Increased cost for specialized care, particularly for non-communicable diseases is a financial burden for the refugees. Among many issues, mental health is emerging as a priority. We provide, with other departments in UNRWA, psychosocial counselling, and the number of refugees under counselling is increasing. However, I have no doubt that many more refugees need such care. I will nevertheless remain positive. I have full trust and respect to the staff working for health. Their commitment and capacity are self-evident in the report. We will continue to work hard and make innovations for the better health of the Palestine Refugees.

Dr. A. Seita

WHO Special Representative
Director of the UNRWA
Health Programme

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

The 2011 report of the UNRWA Health Department comes at a critical juncture in the Middle East. Demands for political and social change, conflict, and economic uncertainty are transforming the region where UNRWA operates. The resulting volatility and uncertainty amplify the profound stresses of the unresolved Israeli-Palestinian situation on Palestine refugees in the Middle East.

The role of UNRWA, as this population's main health care provider, is to buffer the effects on health of such critical transitions, while maintaining delivery of its regular, comprehensive primary health services. Non-communicable diseases have become the main threats to the health of Palestine refugees, both in terms of morbidity and mortality. The number of refugees affected by hypertension and diabetes has more than doubled in the past ten years and mental health is emerging as a public health priority especially among women and youth. This growing number of beneficiaries have specific health needs. Non-communicable diseases, in particular, require long-term and costly treatments, enhanced follow-up and early diagnosis and management of complications. However UNRWA's resources have not kept pace with needs, and when it comes to resources per beneficiary the Agency is constantly required to do more with less.

Against this backdrop, UNRWA's Health Programme is addressing the challenges through cooperation and innovation. UNRWA is establishing partnerships with other health providers, including the private sector, to avoid duplication and promote service efficiency. At the same time, the Health Programme has heavily invested in the design and implementation of innovative reforms to achieve greater internal cost effectiveness. An example is the introduction of the "family health team" approach which promotes continuity of treatment and person-centred care, particularly important in the prevention and management of chronic diseases. Other areas of innovation have been in the field of e-Health with an aim to improve UNRWA's health information system, and in the engagement of youth on disease prevention and promotion of healthy life styles.

These innovations complement but do not substitute the comprehensive life-cycle approach to health that has always characterized UNRWA's health services. Health is a critical component of the social and economic development of the refugees and in this moment of regional uncertainty the work of UNRWA is as relevant as ever. We are conscious that in helping Palestine refugees lead long and healthy lives we increase their chances to improve their educational outcomes, labour force capacity, and overall economic well-being while a just and durable solution to their predicament is found.

Filippo Grandi

UNRWA Commissioner General

Dr Ala Alwan

Regional Director, WHO/EMRO

EXECUTIVE SUMMARY

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) is the main comprehensive Primary Health Care provider for Palestine refugees in the Near East and has been the largest humanitarian operation in the region for over 60 years. UNRWA's mandate on health is to protect and promote the health of Palestine refugees registered in the Agency's five Fields of operation (Jordan, Lebanon, Syria, Gaza and the West Bank). It aims 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. Under this goal UNRWA has three strategic objectives: to ensure universal access to quality, comprehensive primary health care; to protect and promote family health and to prevent and control diseases.

UNRWA works toward achieving these objectives through a range of services that address the needs of refugees across the lifecycle phases of an individual. A healthy life is a continuum of phases from infancy to old age. Each one of these phases has specific needs for the maintenance of good health. UNRWA therefore adopts a Life Cycle Approach to health care, providing packages of prevention and care that are best suited to each phase of an individual's life. In 2011, the UNRWA Health Department was confronted with a situation of changing health care needs, increasing demand for services and rising health care costs, while at the same time facing a stagnating resource base. New approaches to health services provision had to be found to meet the needs of Palestine refugees in the 21st century. This report summarizes the main achievements of UNRWA's Health Programme in 2011 and is structured in three sections: Section 1 reports on the innovation strategies being implemented to provide quality health services to Palestine refugees in a changing environment, Section 2 provides information on the performance of health service delivery programmes and activities in 2011 and Section 3 contains self-explanatory data tables and trends on major indicators for each service delivery area.

Section 1 – Responding to a changing environment

UNRWA has implemented an extensive health care reform and is adopting new approaches to health services provision to meet the needs of Palestine refugees in the 21st century. In 2011, UNRWA implemented two major health service reform initiatives: the Family Health Team approach and E-health. In addition, major health programme's Field innovations are presented: preparatory actions for the introduction of the Family Health Team approach in the Gaza Strip, programming and testing health centre appointment and queue systems in Jordan, fighting anaemia and building capacity of health staff in Lebanon, improving hospitalization and medical supplies management in the Syrian Arab Republic and NCD care and family and child protection in the West Bank.

Section 2 – Maintaining quality health services across the life cycle

The performance of UNRWA health services in 2011 is presented in this report according to the 2010-2025 Medium Term Strategy and to the health service priorities identified for each biennium by the Field Implementation Plans (FIP). This section is divided in

strategic objective areas: ensure universal access to quality, comprehensive primary health care; protect and promote family health and prevent and control disease. In addition a section is dedicated to cross-cutting activities.

Services under the first objective include outpatient care, inpatient care, community mental health, oral health and physical rehabilitation. Services under the second objective include reproductive health, child health and initiatives to address gender-based violence and services under the third objective include Non Communicable Diseases (NCDs), communicable diseases and environmental health.

Highlights for 2011 include the persistence of excessively high workloads and the emergence of NCDs and mental health as public health priorities among Palestine refugees. UNRWA is strengthening its approach to primary prevention through health education and by improving the quality of foods served in school canteens. The Agency is also intensifying its screening programmes and assistance through the patient-centred new Family Health Team approach. The implementation of E-Health and the introduction of a cohort monitoring system are also improving the quality of care in UNRWA health centres.

Crosscutting service areas support all three strategic objectives and include: nutrition, disability care, laboratory, radiology, medical supplies, health information systems, integrated community based activities, emergency preparedness and response, human resources and gender mainstreaming.

Section 3 – Data

The data section is structured in five parts: Agency wide trends for selected indicators, Field Implementation Plans 2012/13 - indicator trends, 2011 data tables, selected survey indicators and Health Department financial data. In this section all updated data for UNRWA performance and management indicators are provided.

SECTION 1 – RESPONDING TO A CHANGING ENVIRONMENT

THE CHALLENGES OF A CHANGING HEALTH CARE CONTEXT

The UNRWA health programme has delivered comprehensive primary health care (PHC) services to Palestine refugees for over 60 years. These years have seen some remarkable health gains, particularly in relation to maternal and child health. However, the context in which the health program operates is changing, bringing with it a range of new challenges. UNRWA's beneficiary population continues to grow. During 2011, the population utilizing (or "served by") UNRWA health facilities numbered an estimated 3.2 million in the five Fields of operation, while the total registered refugee population reached 5.1 million. Along with the increase in the population size, the demographic profile is also evolving. Populations are aging, resulting in an increasing proportion of older people with increasing health care needs. Demand for UNRWA health services continues to expand steadily, with almost 11 million medical consultations during 2011 and doctors serving as many as 100 patients per day. Under these circumstances, clinicians are increasingly challenged to deliver services of appropriate quality.

Furthermore, changes in lifestyle have resulted in increases in the prevalence of non-communicable diseases (NCD) among Palestine refugees, in keeping with similar trends observed globally. NCD include diabetes, cardiovascular diseases, cancer and chronic lung diseases. These diseases are now the leading causes of death among Middle East populations, including Palestine refugees. Management of NCD is complex, requiring lifestyle modifications and costly medications, as well as lifelong medical follow up.

High patient loads and increasing numbers of NCD patients needing long-term care require a well-functioning patient record system. In addition, the resource implications associated with high numbers of chronic patients on costly medications require appropriate health management information systems to monitor the efficiency of care. Current UNRWA information systems are inadequate to meet these complex information needs. In order to enable evidence-based decision-making in the future, substantial investment is needed in health information systems.

While demand for health services increases, the costs of delivering health care continue to rise in all of UNRWA's Fields of operation, commensurate with global trends. UNRWA has experienced substantial increases in the costs of medicines and hospitalization fees in recent years. At the same time, the global financial crisis has negatively impacted the availability of donor funding. Funding for UNRWA health services has therefore not increased at the same pace as the needs. In 2011 the UNRWA Health Department was therefore confronted with a situation of changing health care needs, increasing demand for services and rising health care costs, while at the same time facing a stagnating resource base. New approaches to health services provision had to be found to meet the needs of Palestine refugees in the 21st century. In response, UNRWA implemented two major health service reform initiatives: the Family Health Team approach and E-health.

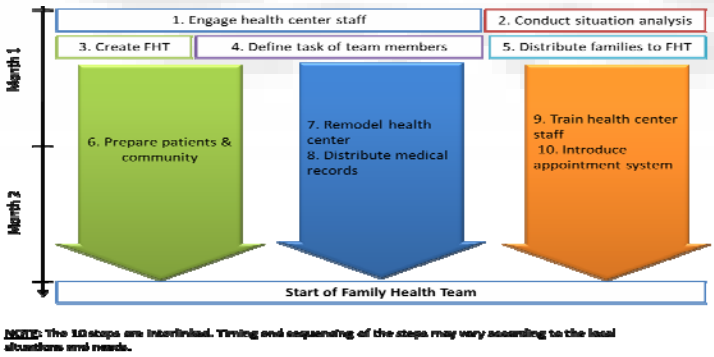
INTRODUCING THE FAMILY HEALTH TEAM APPROACH

Confronted by the challenges of the changing environment, the UNRWA Health Department commenced implementation of a major health service reform initiative in 2011. UNRWA's traditional Primary Health Care (PHC) delivery model, based on a vertical approach, is no longer optimal to manage current health care needs. In keeping with trends in the Middle East and globally, UNRWA introduced a new, modern PHC service delivery model – the Family Health Team (FHT) approach.

The FHT approach offers comprehensive PHC services emphasizing care of the entire family. In the FHT approach, families are registered with a team consisting of a doctor, a midwife and one or more nurses. This team is responsible for all the health care needs of the families registered with them. The patient sees the same team each time they visit the health centre. The approach is person-centred rather than disease-centred, focusing on the comprehensive health needs of the patient and family over time. Strong patient-provider relationships and long-term continuity of care, particularly important in the management of the increasing number of non-communicable disease patients, are central elements of the approach. The notions of "my doctor" and "my patient", hitherto unknown in UNRWA facilities, capture the essence of the new FHT approach.

After an extensive consultation and preparation process, FHT pilots commenced in two health centres in the Gaza Strip and Lebanon during late 2011. UNRWA adopted a "learning by doing" approach and, based on the experience gained through the pilots, a 10-step Family Health Team introduction package was developed (Figure 1).

Introduction of the FHT approach requires that changes are made to the way the services are organized within the health centre. The physical arrangement and workflow of the facility are re-organized, teams are created, and roles and responsibilities of staff members are adapted to the FHT approach. A specific area within the health centre is allocated to each team and patient records are arranged according to teams. In order to effectively manage the change process, staff buy-in and community support are essential. All health centre staff members are therefore included in the planning and preparation process. Careful preparation of the patients and the community through consultation and information campaigns are also crucial. The 10-step introduction package guides the staff through the process of starting the FHT approach in their facilities.



NOTE: The 10 steps are interlinked. Timing and sequencing of the steps may vary according to the local situations and needs.

Figure 1 – The ten steps to start FHT

By the end of 2011, the FHT approach was operational in the two pilot health centres. Preliminary assessments in the pilot health centres found a very positive response to the approach from both staff and patients. Equitable workload distribution, a consequence of the new teamwork structure, was one of the key positive factors perceived by all cadres of staff. Staff also stated improved professional satisfaction that resulted from having responsibility for the comprehensive health care of patients registered with them, as well as the opportunity to build relationships with patients over time. Patients appreciated having a "personal" doctor for their family and perceived the health centre to be more organized and less congested since introduction of the FHT approach.

The early success of the FHT pilots generated much enthusiasm in UNRWA. Field staff members are motivated to begin implementing the approach in their health centres. Consequently, the implementation of the FHT approach will be able to proceed much more rapidly than initially anticipated. During 2012, the FHT approach will be expanded to health centres in all UNRWA Fields of operations (hereafter referred to as Fields)[1], building upon the lessons learned from the pilots. At the same time, the Health Department will continue to work toward achieving the key outcomes of the health reform: improving the quality and efficiency of primary health care services for Palestine refugees.

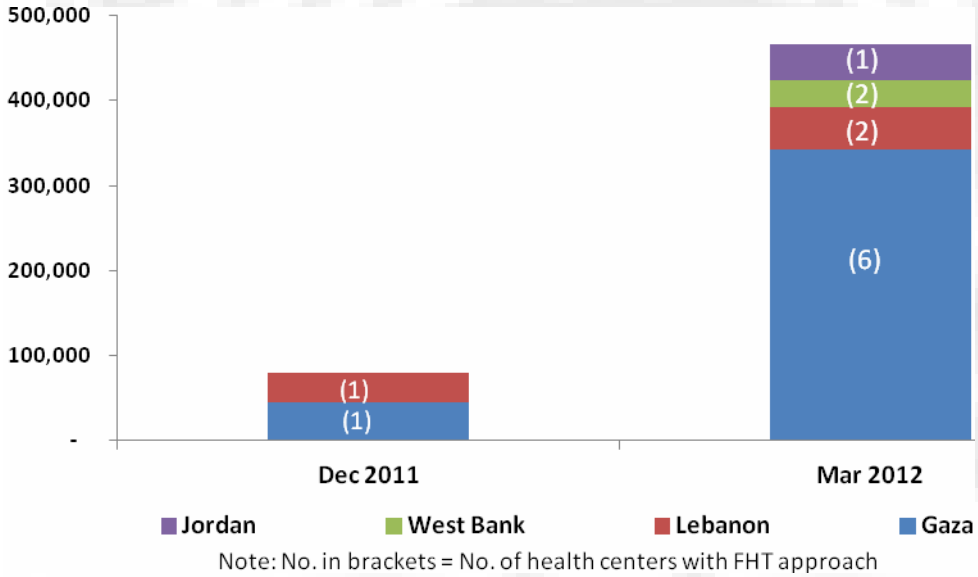


Figure 2- Registered refugee population with Family Health Team

[1] UNRWA operates in Jordan, Lebanon, the Gaza Strip, West Bank and the Syrian Arab Republic

DEVELOPING UNRWA'S E-HEALTH

UNRWA's health service has for decades relied on a labour intensive system of hand-written patient records, prescriptions and registers. The Health Department recognized that an electronic system could strengthen both the quality and efficiency of health services. In response, UNRWA's E-health was developed: an electronic medical record system for primary health care, with all patient records in electronic format, accessible from multiple service delivery points within the clinic, and able to generate aggregate reports for management use. E-health complements and facilitates the introduction of the FHT approach. A family file, containing all relevant information of all the family members, is a key feature of the FHT concept. Through E-health, information on all aspects of the patient's care, including both curative and preventive services, is easily available at any station a patient may need to visit. E-health consists of separate but linked modules for non-communicable diseases, maternal health, child health and general outpatients. Relevant modules are contained in a patient's individual electronic record, within the comprehensive family file.

By the end of 2011, E-health was operational in five UNRWA clinics in Jordan and had been introduced in 29 clinics in Lebanon. E-health has streamlined service delivery and data management in UNRWA clinics. After introducing a module, all clinical information is managed electronically. Routine service data are available through automated reporting functions, reducing the time spent on reporting tasks. E-health has also enhanced data analysis capacity. For example, using E-health, UNRWA was able to introduce an innovative system of cohort analysis for routinely monitoring the care of non-communicable diseases patients. Before the introduction of E-health, such analyses were feasible only for a limited sample of patients and even then required time-consuming hardcopy record reviews. Introduction of an electronic medical record system into a clinical practice is a complex task. However, UNRWA's experience has shown that development and implementation of such a system is feasible even in resource constrained primary care settings. UNRWA learned that a range of factors contribute to success:

- A strong management decision to embark on E-health;
- Strong technical leadership within the Health Department;
- Availability of competent information technology experts to develop E-health;
- Coordinated work between the Health and Information Systems Departments;
- Strong leadership in clinics;
- Presence of a trained and competent E-health advocate among clinic staff;
- Adequate funding and time to establish infrastructure;
- Availability of supporting staff for initial entry of data into the E-health system; and
- Continuous technical support by information technology staff during the implementation phase.

Building on the lessons learned so far, UNRWA aims to implement E-health in all of its 138 clinics. The various E-health modules are being integrated into a single comprehensive electronic medical record system, One-E-health. One-E-health, with its integrated modules, will serve as a vehicle for expanding the Family Health Team approach.

FIELD INNOVATIONS

During 2011 UNRWA's Field health departments introduced a number of innovations that strengthen and complement E-Health and the Family Health Team approach. Through these innovations, Fields are working in creative ways to improve the quality and efficiency of UNRWA's health services.

THE GAZA STRIP: preparing the community for the family health team approach

Introduction of the Family Health Team approach represents a substantial change for both staff and patients. Gaining community support is essential. In the Gaza Strip, three FHT pilot health centres (Beit Hanoun, Sabra and Beach) used a range of communication methods to reach the community. Achieving the buy-in of health centre staff was the first step. All staff members were engaged in the FHT preparations from the beginning and encouraged to contribute to innovation and problem solving. Staff that actively supported the introduction of the FHT approach from the start were key in helping to prepare the community. Community preparation activities were conducted both within the health centre and in the community. Clear, positive messages were used, for example, "FHT is not for reduction of services, but for improvement of care"; "Each family will have their own doctor"; "FHT is a global modern approach to improve health services".

THE GAZA STRIP

Inside the health centre, staff conducted individual and group discussion sessions with patients; brochures about FHT and its benefits were distributed; wall paintings were made to illustrate the team approach and posters were placed throughout the facility to attract the clients' attention. Efforts were made to help patients locate their team easily. Teams were represented by different colours; walls and guiding arrows were painted according to team colours; a map of the health centre showing the location of each team was placed near the entrance. Posters showing the names and job titles of team members were produced, and nametags were made for all staff members. All family files were marked according to the team colour. At the community level, the Friendship Committees played a key role in advocating for the new approach. In addition, health centre staff conducted community outreach activities in places such as mosques, kindergartens and Women's Centres. Meetings were held with local non-governmental organizations and with teachers, pupils and parents. Teachers were very supportive of the FHT initiative and instrumental in increasing awareness. Health centre staff used every available opportunity to distribute brochures and to talk about the FHT at community events, such as during the ceremonies for World Diabetes Day. As a result of the communication efforts of the health centre teams, the Family Health Team approach was successfully introduced into all three pilot health centres.

JORDAN: health centre appointment and queue systems

The use of an appointment system to schedule patient visits is common practice in primary health care services in many countries. A well-functioning appointment system reduces waiting time and enables increased contact time between patients and health service providers. Appointment systems have been applied to some extent in UNRWA services for Maternal and Child Health (MCH) and NCD. Patients attending these services may be given an appointment by date only, or by date and hour; however compliance is variable. Patients attending general outpatient services are seen on a walk-in basis: first come, first served. Baseline studies at Nuzha and Marka Health Centres during 2010 and 2011 respectively, showed an uneven workload distribution, with higher patient loads and shorter contact times in the early morning. In order to address these challenges, in 2011 UNRWA's Jordan Field Office (JFO) health department tested the introduction of an appointment system for general outpatient services in three health centres. An electronic queuing system was also introduced to complement the appointment system. Prior to the introduction of these new systems, an information campaign was launched, explaining the comparative advantages of the new approach to the community while emphasizing the continued support of the Agency to refugees. Communities were also reassured that the appointment system was flexible enough to ensure that serious cases would be identified and assisted without delay.

The appointment system was piloted using three models: a standalone system at Amman Town health centre, one complemented by a queue-system at Marka health centre and an integrated E-health-queue system at Nuzha health centre. The systems are designed to limit the number of patients at the general clinic to 15 patients per hour for the first four working hours and to 20 patients after noon (80 patients per medical officer per day). Follow up studies carried out after six months of implementation in Amman Town and Marka health centres showed significant changes. In Amman Town the number of patients per doctor per day in the general outpatient services declined from 120 to 80 and there was an improvement in the distribution of patients across working hours. In Marka the number of patients per doctor per day dropped from 104 to 84 in the general outpatient clinic and from 98 to 60 in the NCD clinic. The doctor/patient contact time increased from 2 to 3 minutes among general outpatients, from 3 to 5 minutes among NCD patients and from 4 to 6 minutes in the MCH clinic. Compliance to previously given appointments (date and time) increased from 58% to 64% for NCD patients, from 44% to 52% for antenatal care clients, and from 45% to 58% for family planning clients. Late in 2011, stand-alone queue systems were introduced in two additional health centres while testing of the integrated Ehealth-queue system started in December 2011 in Nuzha health centre and will be evaluated in April 2012.

Fighting Iron Deficiency Anaemia: Iron Deficiency Anaemia (IDA) is highly prevalent among Palestine refugees in Lebanon, especially among pregnant women and children under the age of three. In Bourj el Shemali camp in Tyre area, 80% of children under three are affected by IDA. An UNRWA Health Programme 2010 assessment revealed lack of knowledge and misconceptions among refugees, namely mothers, on anaemia prevention and treatment. In response, UNRWA designed and launched a campaign entitled "As Strong as Iron" in partnership with UNICEF, MAP UK, ANERA and five local NGOs (Naba'a, NISCVT, PARD, GUPW and PWHO). The campaign targeted Palestine women in reproductive age with a unified message and several tailored activities: messages during individual doctor/patient sessions; home visits; group counselling and cooking sessions/health festivals. Communication and educational tools were used during the activities. The "As Strong as Iron" campaign was implemented from December 2010 to February 2011 in all refugee camps and gatherings across Lebanon, some activities are still on-going. By the end of February 2011, UNRWA and partners had reached 13,244 women. Surveys conducted in the third quarter of 2011 revealed that average anaemia rates among children in Lebanon had decreased to 31.67% compared with 37% in the same period of 2010. A major success was achieved in Tyre area where the rates decreased from 31.34% in 2010 to 19.15% in 2011.

Building capacity of health staff: Human resources are a great asset and a crucial component of a successful health programme reform. A training plan for health staff was established as part of the continuous professional development programme of UNRWA staff working in health services in Lebanon. In 2011, UNRWA's Health Programme conducted two major trainings at the American University of Beirut. The first training, "An Update in Primary Health Care", involved 30 Medical Officers and focussed on evidence-based management of medical problems in PHC. The second training tackled Health Care Management and involved 30 Senior Medical Officers, Medical Officers in charge of health centres and other supervisory staff. This training was in line with UNRWA's decentralization objective of placing supervision responsibilities on health centre managers. This is expected to increase the efficiency of PHC service provision in UNRWA health centres in Lebanon and consequently improve the quality of services provided to Palestine refugees. In 2012, the training plan will provide updates to Medical Officers and Nurses on cardiovascular diseases; to Cardiologists on cardiology & echo cardio-doppler services; to Midwives on midwifery Care; to Practical Nurses on nursing care; to Assistant Pharmacists on pharmacy care and to Assistant Clerks (Doorkeepers) on computer skills. Other trainings are also planned to cover Health Education, Mental Health, Laboratory services and X-ray services.

SYRIAN ARAB REPUBLIC: improving hospitalization and medical supplies management

Improving the management of hospitalization: during 2011 the Syria Field Office (SFO) was confronted by a number of challenges: stagnating financial resources, a rapid increase in surgical costs, changes in government health policies that affected refugee access to hospital services, and deteriorating socio-economic conditions that lead to an increase in the demand for UNRWA services. At the same time, the SFO recognized the need to strengthen internal monitoring and control of hospital service utilization, and to develop systems to ensure that refugees receive appropriate quality of care. A number of measures were taken including: updating the technical guidelines on hospitalization assistance; development of hospitalization indicators; introduction of a software application (synchronized with UNRWA's financial management system) for the follow-up of referred patients; enhancement of claims review processes and coordination among contracted hospitals, field health management teams and administration; establishment of two hospitalization officer posts for contract management; improved control of referral and the establishment of a priority operations list; discontinuation of reimbursement for intensive care and prosthetics surgeries; and negotiations with host authorities resulting in access to hospital services for refugees at discounted prices. The collective introduction of these measures has enabled the SFO Health Department to manage hospital services within the allocated budget and even to achieve some savings that will be used to expand access to hospital services in 2012.

Strengthening medical supplies management: the SFO has in previous years been challenged by limitations of the budget for medicines as well as by delays in receiving items ordered through the centralized headquarters procurement system. In order to ensure the availability of essential medicines, the SFO health department implemented a number of measures during 2011. These include: shifting to the local purchase of medicines, updating the list of essential medicines, controlling prescriptions through the work of the Drug Therapeutic Committee, and obtaining in-kind donations of contraceptives, vaccines and TB medicines from the Ministry of Health. Implementation of these measures allowed the Health Department to procure all the needed medicines and supplies, without any stock ruptures or delays during 2011.

THE WEST BANK: NCD care and family and child protection

Promoting Healthy Food in UNRWA's Schools: development of poor eating habits and consumption of low quality foods at a young age are risk factors for the future development of NCDs. During 2011, the West Bank Field office (WBFO) piloted a Healthy Food Initiative (HFI) in Shufat Refugee Camp Elementary School. The school canteen was renovated both in its infrastructure and in the type of food served to children. Chips, sweets and soda were replaced with healthy foods such as vegetables, fruit, *muajanat* and sandwiches. The innovation of the HFI lies in the partnerships among different UNRWA departments and the community to achieve healthier food options at schools. For example, Women's Programme Centres, after being trained on healthy food preparation and food handling, now sell their healthy food products at the canteen, stimulating income generation for them and their families. WBFO seeks to expand the HFI in all West Bank schools.

Shams Centre for NCD Prevention and Management: as part of the WBFO's longer-term strategy against NCDs, the Shams Centre for Prevention and Management of Non-Communicable Diseases ("Shams") was established in Dheisheh Refugee Camp. Shams is the 1st referral centre for NCDs, complementing the work of UNRWA's primary health care clinics. It provides intermediary care for patients who would otherwise directly access tertiary services and is the result of an effective partnership between health service providers and the community. The USD 500,000 building was donated by the Dheisheh community, refurbishing resulted from collaboration between UNRWA and the community, and strategic partners (Augusta Victoria Hospital and St. Johns Eye Hospital) provide specialized equipment and technical support. During 2012, high impact health and psychosocial teams will promote NCD prevention in the centre and in the community, providing refugees with information and tools to maintain a healthy lifestyle.

Family and Child Protection: recognizing family violence and child abuse and neglect as a public health issue, WBFO implements a cross-sectorial, multidisciplinary, community-based family and child protection programme, to slot in with the emerging national system for family and child protection. The programme, currently implemented in 15 refugee camps and one village, integrates family and child protection within UNRWA's health services. It also mobilizes the community as a primary prevention and response mechanism. Initial findings suggest that this integration is improving the effectiveness of prevention and response measures thanks to the strengthening of trust between health care providers, victims of abuse and their communities. Sexual and reproductive health and rights promotion is also changing attitudes about family and child violence by sensitizing the community.

SECTION 2: MAINTAINING QUALITY HEALTH SERVICES ACROSS THE LIFE CYCLE

INTRODUCTION

UNRWA's mandate on health is to protect and promote the health of Palestine refugees registered in the Agency's five Fields of operation (Jordan, Lebanon, Syria, Gaza and the West Bank). One of UNRWA's four overarching human development goals is to enable refugees to live "a long and healthy life". Under this goal UNRWA has three strategic objectives for the Agency's Medium Term Strategy (MTS) 2010-2015: Ensure universal access to quality, comprehensive primary health care; Protect and promote family health and Prevent and control diseases.

UNRWA works toward achieving these objectives through a range of services that address the needs of refugees across the lifecycle phases of an individual. A healthy life is a continuum of phases from infancy to old age. Each one of these phases has specific needs for the maintenance of good health. UNRWA therefore adopts a Life Cycle Approach to health care, providing packages of prevention and care that are best suited to each phase of an individual's life.

Preventive and curative health services sustain and promote the health of refugees from preconception, through pregnancy, childhood, adolescence and adulthood, to active ageing. These services include family planning, pre-conception care, antenatal care of pregnant women, post-natal follow-up, infant care (growth monitoring, medical check-ups and immunizations), school health, oral health, outpatient consultations, and management of chronic non-communicable diseases. Control of communicable diseases is achieved in part through high vaccination coverage and in part by the early detection and control of outbreaks using a health centre-based epidemiological surveillance system.

Figure 3- The Life Cycle Approach to healthcare

UNRWA's 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. The three strategic health objectives of the 2010-2025 MTS provide the framework within which the Life Cycle Approach to health is implemented. Trend data for these indicators are presented in Section 3. In the following chapters, UNRWA's health services across the life cycle are described within the framework of the three strategic objectives and the supporting crosscutting services. For each biennium of the MTS, Field Implementation Plans (FIP) define the health service priorities and monitor the implementation of activities and progress toward targets within each Field and Agency-wide. The FIP log frame containing the set of key performance indicators for the 2012-2013 biennium is

presented in Annex 1. Comprehensive data, relevant to the various programme areas described under the following strategic objectives may be found in Section 3 of this report.

STRATEGIC OBJECTIVE 1 – ENSURE UNIVERSAL ACCESS TO QUALITY, COMPREHENSIVE PRIMARY HEALTH CARE

Services under this objective include outpatient care, inpatient care, community mental health, oral health and physical rehabilitation.

Outpatient care

Utilization

UNRWA currently provides comprehensive Primary Health Care through a network of 138 health centres of which 67 (49%) are located inside refugee camps. In addition, UNRWA operates five mobile clinics in the West Bank to facilitate access to health services in those areas affected by closures, checkpoints and the Barrier. Agency-wide, utilization of outpatient services reached 10.66 million medical consultations during 2011, an increase of 2.4 % compared with 2010. Of this total, 257,000 were specialist consultations. In the UNRWA system, outpatient medical consultations are classified as either first or repeat visits. First visits are defined as the first visit of an individual to the health centre in a calendar year. All other visits are considered repeat visits. During 2011, the ratio of repeat to first visits was 3.6, the same as the previous year. This ratio varies among Fields and also among health centres within the same Field. The highest ratio (4.9) was found in Lebanon, while the lowest (2.0) in Syria.

Workload

The average number of medical consultations per doctor per day at UNRWA health centres increased from 101 in 2010 to 104 in 2011. This workload remains far from UNRWA's intermediate target of 80 patients per doctor per day. However, the introduction of the Family Health Team approach may help to reduce the workload, through the shifting of tasks from medical officers to nurses and through the introduction of an appointment system to manage demand. In addition, the individualized care provided through the FHT approach may help to reduce irrational health care seeking behaviour.

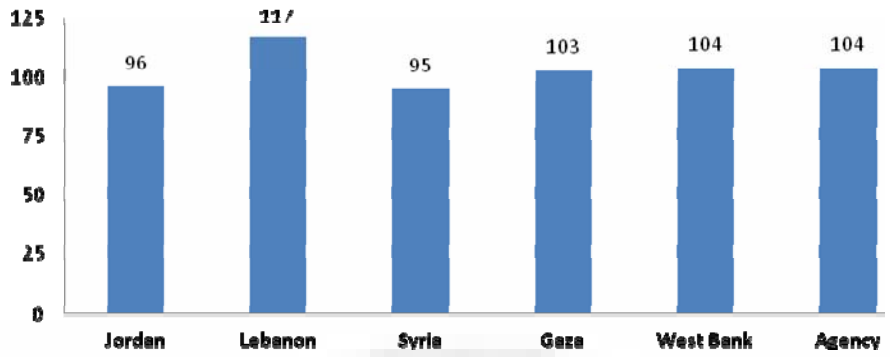


Figure 4 - Average daily medical consultations per doctor, 2011

Inpatient care

UNRWA assists refugees to obtain hospital care by contracting beds or by partially reimbursing costs incurred for inpatient care at public, nongovernmental and private health care facilities. In addition, the Agency directly provides hospital care in one hospital at Qalqilia in the West Bank.

Outsourced Hospital Services

During 2011, a total of 76,453 refugees benefited from assistance for hospital services, representing a decrease of 4.2% compared with 2010. The average length of stay was 2.1 days across UNRWA's five areas of operation - almost identical to 2010. Of all the patients hospitalized, 46.1% were between 15 and 44 years old, while 33% of were children below the age of 15. Almost 65% of the patients were women.

Table 1 - Patients receiving assistance for hospitalization, 2010 and 2011

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
2011	16,069	26,030	6,926	4,810	22,618	**76,453**
2010	19,859	25,763	8,543	4,575	21,080	**79,820**

There is significant variation among Fields concerning the number and type of hospital cases reimbursed by UNRWA, with a predominance of surgical cases in the Gaza Strip and Syria, and internal medicine cases in Lebanon and the West Bank. In Jordan, deliveries represent the majority of the cases reimbursed. The variation is not related to any significant morbidity variations but is rather a consequence of differences in the resource allocation and reimbursement policies implemented in the various Fields.

Qalqilia Hospital

In addition to subsidizing outsourced hospital services, UNRWA manages a 63-bed secondary care facility 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 hospital serves both UNRWA refugees and non-refugees from the surrounding municipalities. The annual number of admissions is steadily decreasing as a result of difficulties in accessing the hospital after construction of the Barrier: in 2011 there were 6,070 admissions, compared with 6,657 in 2006. The average daily bed occupancy in Qalqilia Hospital was 59% in 2011, compared with 61% the previous year. The average length of stay in 2011 was 2.2 days.

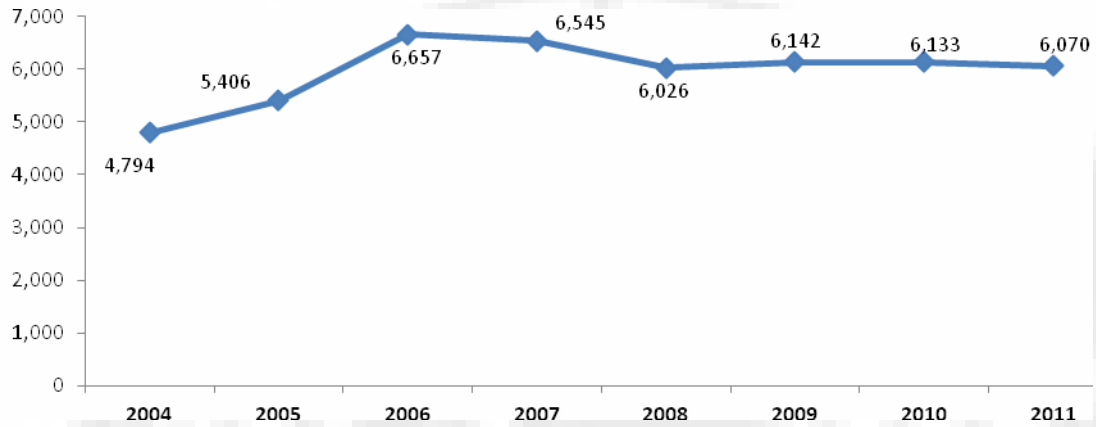


Figure 5 - Qalqilia hospital admissions, 2004 – 2011

Community mental health

Palestine refugees have for decades suffered the trauma of displacement as well as repeated episodes of conflict and violence. In response to the situation of on-going and often severe psychological stress, particularly in the Gaza Strip and the West Bank, UNRWA launched a Community Mental Health Programme. The Programme offers counselling and support, and ensures the long-term strategic incorporation of psychosocial wellbeing of refugees into the Agency's healthcare package. Through a network of counsellors, established in UNRWA health centres and schools and in community based organizations, the programme seeks to help groups at risk to develop effective coping mechanisms and prevent further psychological deterioration. Throughout 2011, the Community Mental Health Programme offered frontline counselling and group interventions through school, community and health centre based activities for children, parents, individuals, families and groups. Complementing this community based programme, the UNRWA Health Department is working toward increased integration of mental health into primary health care,

through the new Family Heath Team approach. With a strong focus on continuity of care, the approach uses a multidisciplinary teamwork model to address the holistic health care needs of individuals, families and communities.

The Gaza Strip community mental health programme

During 2011, 193 school counsellors, 13 community counsellors and 20 health centres counsellors offered a wide range of services targeting children, youth, parents, elderly and disabled people as well as local committees, local organizations, professionals and students.

Table 2 - Community Mental Health Programme Activities - Gaza, 2011

	Individual counselling	Group counselling	Group guidance (awareness)	Home visits
Sessions	34,602	10,887	4,588	4,198
Beneficiaries	24,200	41,461	4,903	5,077

The West Bank community mental health programme

In the West Bank, the programme provided individual counselling, group counselling, family counselling, home visits, referrals, group intervention sessions, supportive group sessions, summer and winter camps and open days, reaching a total of 140,270 individuals.

Table 3 - Community Mental Health Programme activities – West Bank, 2011

	Individual counselling	Group counselling	Family counselling	Home visits	Summer/winter camps	Supportive groups	Group interventions
Sessions	29,452	2,662	1,213	55	378	758	2,517
Beneficiaries	29,452	16,636	882	55	20,826	7,153	65,266

Oral health

Oral health services during 2011 were provided through 108 fixed and 11 mobile dental clinics. The total number of curative oral health consultations increased by 2.9% from 2010, reaching a total 729,145 in 2011. In Syria, however, a decrease of 4.3% was observed, presumably the result of limited access due to prevailing security constraints. Oral health screening activities were conducted Agency-wide for 268,366 individuals including school children, pregnant women and patients with NCDs.

During 2011, UNRWA continued to reinforce the preventive component of oral health. Oral health education was introduced as part of routine mother and child health care, with dental screening for women at the first preconception care visit and for all pregnant women. Agency-wide, coverage of 96% was achieved for this group in 2011. Comprehensive oral health assessment

for all children at the age of two years as well as application of sealant also commenced. Over 41,000 assessments were conducted among pre-school children, achieving a coverage of 78.9%. Regular dental screening for new school entrants, as well as 7th and 9th grade students, continued in all Fields along with oral hygiene education. The policy of providing root canal treatment was reviewed and treatment priorities were revised to allow more resources for community preventive dentistry. Training and resource documents on community dentistry were provided to oral health staff. In addition, during 2011 the Technical Instructions on infection control were updated.

Assessment of workload, productivity and efficiency of oral health services is conducted annually in each of the five Fields. The assessment, based on a standardized protocol, is carried out as part of the periodic evaluation of system performance. It is also used to identify staffing requirements and the need for re-organization of services. The acceptable average productivity per dental surgeon per hour (45-55 WLUs/hour) was achieved in Jordan, but was substantially exceeded in Gaza Field, which continued to report the highest workload (86.2 WLUs/hour). Lebanon, Syria and the West Bank Fields were all slightly below target.

Oral health ("DMFS") survey

Based on the recommendations of an external evaluation of the oral health programme in 2008, a DMFS survey was carried out among all 7th grade school children in all five Fields during the 2010 /2011 school year. A representative sample from each UNRWA Field was selected. The survey was conducted according to standardized WHO guidelines. A DMFS/CPI form (Decayed, Missing, Filled Surfaces and Community Periodontal Index) and a socioeconomic/behavioural questionnaire were used. Results of the DMFS component are presented in Section 3 Part 4 of this report, while those of the socioeconomic/behavioural questionnaire are not yet available. Results are presented for three age groups: 11 to 12 years, 13 years, and older than 13 years, with a higher DMFS score indicating a poorer state of oral health. The highest score was found among children older than 13 years, with boys scoring higher than girls.

Physical rehabilitation

During 2011, physiotherapy services were provided through 16 UNRWA physiotherapy units (ten in the Gaza Strip and six in the West Bank). A total of 14,435 patients (11,286 in the Gaza Strip and 3,149 in the West Bank) received treatment through a range of physiotherapy and rehabilitation services including manual treatment, heat therapy, electrotherapy and gymnastic therapy. Physiotherapy services were also provided through one physiotherapy unit in Jordan. After completion of their treatment sessions, 80% of all patients had fully recovered, 16% still presented mild impairment and 4% remained permanently disabled due to the nature of their injury or disease. Patients with permanent disability and their family members were educated on management of the physical aspects of the disability in their daily lives to increase independence and self-reliance.

The physiotherapy programme conducted a range of community-based initiatives during 2011, including: awareness sessions on types of disabilities, prevention of disability and care of disabled people as well as on the types of physiotherapy services provided in UNRWA physiotherapy units. Home visits were conducted during which family members were provided with advice and trained on assisting patients needing rehabilitation exercises. Cooperation between physiotherapists and school supervisors to support disabled students was also strengthened and partnerships between UNRWA physiotherapy units and non-governmental organizations and potential donors of rehabilitation aid equipment were created. Finally, a preventive foot care campaign for all diabetic patients in the West Bank and a screening session for school children in the first elementary class for postural deformities were launched.

STRATEGIC OBJECTIVE 2 – PROTECT AND PROMOTE FAMILY HEALTH

Strategic Objective 2 includes reproductive health, child health and initiatives to address gender-based violence.

Reproductive health services

UNRWA's reproductive health services include family planning, preconception care, antenatal care, delivery care and postnatal care.

Family planning

Family planning services, including counselling and provision of contraceptives, are available at all times to women accessing UNRWA health centres. Services are also provided as an integral part of maternal and child services through preconception care, antenatal, post-natal care and growth monitoring of children under five years of age.

During 2011, a total of 25,873 new family planning users were enrolled in the Family Planning Programme. The Agency-wide total number of continuing users reached 150,326 representing an increase of 7.4% compared with 2010. The increase was consistent in all Fields. The number of women accessing modern contraceptives through UNRWA services has increased fourfold since 1995. Couple Years of Protection, an indicator used to estimate the number of clients (or couples) protected from pregnancy in one year by UNRWA dispensed contraceptives, increased in all Fields except Jordan. The distribution of family planning users according to contraceptive method remained stable: 48% used intra-uterine devices, 27% chose oral contraceptive pills and 22% used condoms.

Table 4 - Utilization of UNRWA family planning services, 2011

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
New users	7,909	1,720	2,342	10,841	3,061	25,873
Total continuing users at year end	38,640	13,597	19,313	54,698	24,078	150,326
Discontinuation rate (%)	7.3	5.4	4.9	5.2	4.4	5.6

Preconception care

Preconception care 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 well-being and subsequent pregnancy outcomes*".[2]

UNRWA's Preconception Care Programme, introduced in 2010, consists of six components: health promotion, counselling, screening, periodic risk assessments, intervention and follow-up, and regular folic acid supplementation. Couples receive counselling concerning the risks of pregnancy ("too many, too often, too soon, too late") and on how to prepare for a healthy pregnancy. Women are assessed for risk factors, provided with medical care where relevant, and are given folic acid supplementation to prevent neural tube defects. Where necessary, couples may be advised to avoid or delay pregnancy. At the end of 2011, a total of 13,448 women had been enrolled in UNRWA's Preconception Care Programme in the five Fields of operations.

Antenatal care

UNRWA encourages pregnant women to receive their first antenatal assessment as early as possible and to have at least four antenatal care visits throughout their pregnancy, to promote early detection and management of risk factors and complications. Pregnant women receive a comprehensive initial physical examination and regular follow-up care, including screening for pregnancy related hypertension, diabetes mellitus, anaemia and other risk factors. Women are classified according to their risk status for individualized management. Iron and folate supplementation is provided to all pregnant women. In 2010, UNRWA introduced the Maternal and Child (MCH) Handbook that serves as a health education tool and a home based record for the mother during pregnancy and for the child until the age of five years. UNRWA uses selected indicators of coverage and quality to monitor the performance of antenatal care services: antenatal care coverage, registration for antenatal care in the 1st trimester, number of antenatal care visits, tetanus immunization coverage, risk status assessment and diabetes mellitus and hypertension in pregnancy (Section 3).

Antenatal care coverage

In contrast to the trend in previous years, the demand for UNRWA antenatal services has not increased. In 2011, the number of pregnant women registered for antenatal care decreased by 1.2% Agency wide. The reasons for the decrease require further investigation but could be at least in part explained by an increased utilization of other service providers and/or by access

[2] Recommendations to Improve Preconception Health and Health Care — United States. A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care Morbidity and Mortality Weekly Report, (MMWR) April 21, 2006/Vol. 55/No.RR-6

constraints due to movement restrictions in the West Bank or insecurity in the Syrian Arab Republic. UNRWA has traditionally calculated antenatal care coverage based on the expected number of pregnancies in the registered refugee population.

Table 5 - UNRWA antenatal care coverage, 2011

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Registered refugees	2,047,367	465,798	510,444	1,217,519	874,627	**5,115,755**
Expected no. of pregnancies*	57,326	9,316	14,292	44,926	26,326	**152,186**
Newly registered pregnancies	28,758	5,444	8,611	43,571	14,111	**100,495**
ANC Coverage (%)	50.2	58.4	60.2	97.0	53.6	**66.0**

* Calculated by multiplying the total number of registered refugees (from the UNRWA registration system) by the crude birth rates published by host authorities (2.8% in Jordan, 2.0% in Lebanon, 2.8% in Syria, 3.7% in the Gaza Strip and 3.0% in the West Bank).

Registration for antenatal care in the 1st trimester

Early registration facilitates timely detection and management of risk factors and complications, thus improving the likelihood of a positive outcome for mother and baby. Agency-wide, registration in the first trimester of pregnancy increased substantially from the 49.7% recorded in 2003. During 2011, 75.9% of women registered in the first trimester, 21.4% in the second, and 2.7% in the third. It is anticipated that the expansion of preconception care and the introduction of the Family Health Team approach will help to increase early registration.

Number of antenatal care visits

WHO recommends that all pregnant women attend at least four antenatal care visits. The average number of antenatal care visits per client has decreased (6.7 in 2011 compared with 7.1 in 2009), probably as a result of changes to UNRWA's technical guidelines. In an effort to rationalise care, the frequency of antenatal follow-up appointments for normal pregnancies was reduced from every four weeks to every six weeks.

Table 6 - Number of antenatal care visits, 2011

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
% of pregnant women with four antenatal visits or more	86.2	90.9	78.5	92.5	77.2	**87.0**
Average number of antenatal visits per pregnant women	5.5	6.6	7.8	6.2	5.3	**6.7**

Tetanus Immunization Coverage

Results of the annual rapid assessment survey of antenatal records for 2011 showed that 99.9% of pregnant women were adequately immunized against tetanus. No cases of tetanus have reported during the last two decades among mothers or new-borns attending UNRWA antenatal care services.

Risk Status Assessment

The new WHO model of antenatal care separates pregnant women into two groups: those likely to need only routine antenatal care (75% of pregnant women), and those with specific health conditions or risk factors that necessitate special care (25% of pregnant women)[3]. UNRWA currently uses a risk scoring classification based on three risk categories (high, alert, low). Agency-wide during 2011, 13% of women were classified as high risk, while 25.9% were considered alert risk cases. High and alert risk pregnancies receive more intensive follow-up than low risk cases and are referred to specialists as needed.

Diabetes mellitus and hypertension in pregnancy

Agency-wide during 2011, the prevalence of diabetes mellitus during pregnancy (pre-existing and gestational) was 3.8%, two times the prevalence recorded in 2006 (1.9%). The increase may reflect improved screening practices. Reported rates of gestational diabetes range from 2 to 10 per-cent of pregnancies depending on the population studied and the diagnostic tests and criteria employed[4].

Hypertensive disorders affect 5-15% of pregnancies worldwide. The prevalence of hypertension during pregnancy (including pre-existing and pregnancy-induced hypertension) was 9.9% in 2011 compared to 9.3% in 2010, with wide variations among Fields.

Delivery care

Place of delivery

UNRWA subsidizes hospital delivery for pregnant women classified as high-risk. During 2011, 97.2% of all reported deliveries Agency-wide took place in hospitals compared with 78.0% in 2002, 90.6% in 2005, and 96.8% in 2010. Deliveries in private clinics accounted for 2.3% of the total, while home deliveries represented 0.5%. Delivery in a health facility, where complications can be managed, substantially lowers the risk of complications and death for both mother and baby. The highest rate of home deliveries

[3] The Partnership for Maternal, New-born & Child Health. 2011. A Global Review of the Key Interventions Related to Reproductive, Maternal, New-born and Child Health.

[4] Centres for Disease Control and Prevention. National Diabetes Fact Sheet: national estimates and general information on diabetes and pre-diabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services Centres for Disease Control and Prevention, 2011.

continues to be reported from Syria, but with a declining trend. Most home deliveries were attended either by a qualified midwife or by a physician; therefore Agency-wide, 99.9% of women that delivered in 2011 were assisted by trained personnel.

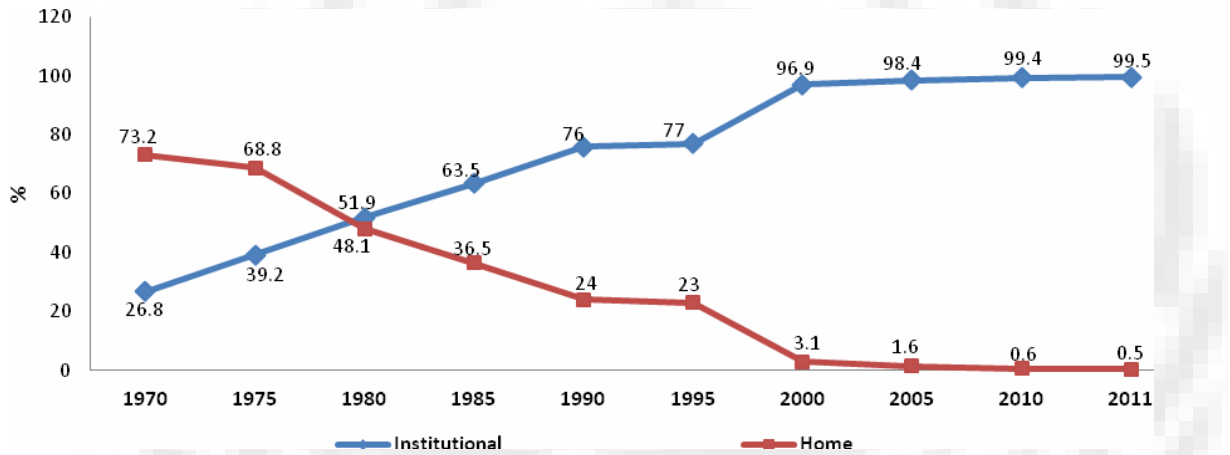


Figure 6 - Trends (%) of home versus institutional deliveries, 1971-2011

Caesarean sections

The proportion of deliveries by caesarean section among Palestine refugees served by UNRWA is increasing: 20.5% in 2011 compared with 19.0% in 2010 and 17.8% in 2009. The increase and the substantial variation among Fields may reflect a combination of client preference and prevailing medical practice. There is wide variation among regions and countries globally, while worldwide caesarean section rates are estimated at 33% [5]. In Jordan, a caesarean section rate of 20% was documented in the last Demographic and Health Survey (2007).

[5] Villar J, Valladares E, et al. Caesarean delivery rates and pregnancy outcomes: the 2005 WHO global survey on maternal and perinatal health in Latin America. The Lancet 2006;367:1819-1825.

Table 7 - Caesarean section rate among UNRWA reported deliveries, 2010

Field	Total deliveries	Caesarean section rate	
		% 2010	% 2011
Jordan	26,923	19.1	21.1
Lebanon	4,871	28.8	31.0
Syria	8,109	38.3	39.9
Gaza Strip	40,661	12.7	13.8
West Bank	12,053	19.8	21.4
Agency	**92,617**	**19.0**	**20.5**

Monitoring the outcome of pregnancy

In 2002 UNRWA established a registration system (based on the expected date of delivery) to track the outcome of each pregnant woman in each health facility. During 2011, the total number of registered pregnant women was 99,954. Of these, the outcome of only 193 pregnancies (0.2%) remains unknown. The percentage of unknown outcomes dropped from 2.8% in 2002 to 0.2% in 2007, and has since remained constant. The highest proportion of unknown outcomes in 2011 was reported from the West Bank (1.3%). This could be attributed to difficulties with follow-up due to restrictions imposed on the movement of clients and staff.

Monitoring maternal deaths

During 2011, a total of 23 maternal deaths were reported from the five UNRWA Fields. This is equivalent to an overall maternal death ratio of 24 per 100,000 live births among women registered with UNRWA antenatal services. UNRWA conducts an investigation following each reported maternal death using a standardized verbal autopsy questionnaire. Five women died during pregnancy and one during labour. Seventeen deaths occurred in the post-natal period. Twenty-one women died in hospital while two died at home (both in the Gaza Strip). The main reported cause of death was pulmonary embolism (48%), followed by haemorrhage (22%), cardiac causes (9%) and infection (9%). Worldwide, 358,000 women die during pregnancy and childbirth every year. The majority of these deaths can be prevented. The common medical causes for maternal death include bleeding, high blood pressure, prolonged and obstructed labour, infections and unsafe abortions.

Post-natal Care

UNRWA encourages all women to attend post-natal care as soon as possible after the delivery. Post-natal care services include a thorough medical examination of the mother and the new-born, either at UNRWA health centres or at home. During 2011, a total of 87,693 women received post-natal care within six weeks of delivery, representing 94.5% coverage among expected deliveries.

Child health services

UNRWA provides care for children across the phases of the life cycle, with specific interventions to meet the health needs of new-borns, infants under-one year of age, children under-five years of age and school-age children.

Both preventive and curative care is provided, with a special emphasis on prevention. Services include new-born assessment, well-baby care, periodic physical examinations, immunization, growth monitoring and nutritional surveillance, micronutrient supplementation, preventive oral health, school health services and care of sick children, including referral for specialist care.

Care of children under five years of age

Registration and follow up

Each UNRWA health centre maintains a system of registration for children under five years of age. This system enables the follow-up of children that have missed important appointments, for example, for immunization. In the past, UNRWA registered only children up to the age of three years. The system is currently under transition to include children under five years of age. Data are presented here for the zero to three years age group. During 2011, a total of 295,574 children below 36 months (compared to 286,343 in 2010) were registered at UNRWA primary health care facilities.

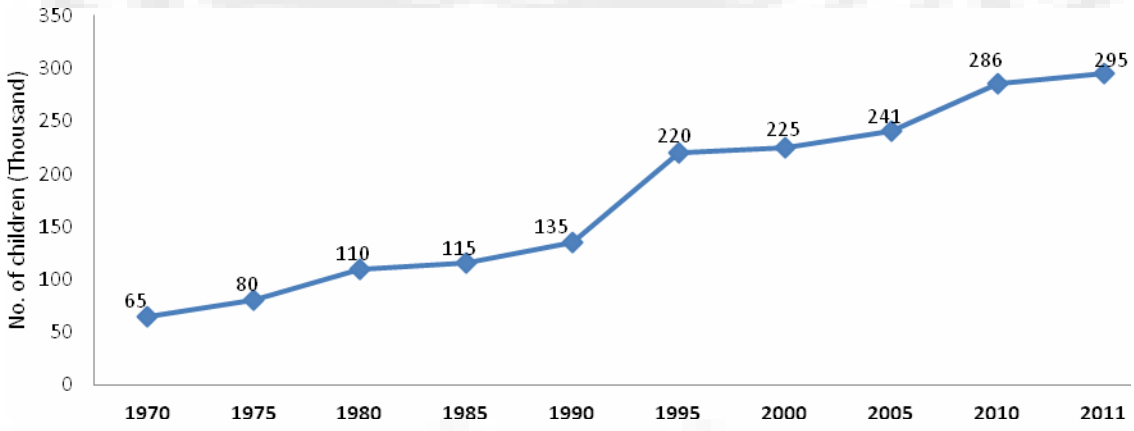


Figure 7 - Children 0-3 years registered at UNRWA health centres, 1970-2011

Immunization

UNRWA health services provide immunization against ten diseases: tetanus, diphtheria, pertussis, tuberculosis, measles, rubella, mumps, polio, haemophilus influenza (Hib) and hepatitis. Immunization coverage is assessed annually through a review of a

sample of records. The percentage of children aged 12 months and 18 months that have received all required immunizations was 99.6% for both age groups during 2011. Coverage has been close to 100% for more than a decade.

Growth monitoring and nutritional surveillance

Growth and nutritional status of under-fives is monitored at regular intervals through UNRWA health services. Breast-feeding is promoted and mothers are counselled on infant and child nutrition, including the appropriate use of complementary feeding and micronutrient supplements. A new electronic growth monitoring system, based on the revised WHO growth monitoring standards, was introduced in pilot health centres during 2011. The system documents the four main growth and nutrition related problems among under-fives: underweight, wasting, stunting and obesity. UNRWA's documentation system is at present under transition to the new system, with different Fields at different stages of implementation. Data for 2011 reflect only the total number of children that were under-weight for the age group 0-3 years. For this group, the prevalence of under-weight was 2.3% Agency wide at the end of 2011. There was no disparity between girls and boys. While under-weight does not represent a major health problem among refugee children, there is growing concern about obesity and micronutrient deficiencies. The new growth monitoring system will help to quantify the extent of the obesity problem. Further studies are needed on micronutrient deficiencies.

Infant mortality

UNRWA conducts infant mortality surveys every five years. The last survey took place in 2008, assessing the period 2005-2006. This survey found infant mortality rates per 1,000 live births of 22.0 in Jordan, 19.0 in Lebanon, 28.2 in Syria, 20.2 in Gaza and 19.5 in the West Bank[6]. These rates are comparable to those of host countries and many middle income countries. No statistically significant changes were observed compared with the previous survey conducted in 2003. **T**he three main causes of infant deaths among Palestine refugees during this period were related to low birth weight/prematurity, congenital malformations and respiratory Infections. Further improvement in the current infant mortality rate will require access to tertiary level care to address the current predominant causes of death.

School health

During the school year 2010-2011, a total of 484,594 pupils were enrolled in UNRWA schools. Collaboration between the UNRWA Health and Education Departments continued through meetings of school health committees, training of health tutors and provision of screening materials and first aid supplies. The UNRWA School Health Programme includes medical and oral health screening, assistance to children with special health needs, immunization, Vitamin A supplementation, and a de-worming programme. Particular attention is given to diseases and disabilities that can negatively impact learning capacity, such as hearing

[6] Riccardo F, Khader A, Sabatinelli G. Low infant mortality among Palestine refugees despite the odds. Bull World Health Organ. 2011 Apr 1;89(4):304-11.

and vision impairment. As a result of the School Health Programme activities during 2011, a total of 6,151 students were referred to UNRWA health facilities for further care and an additional 2,067 were referred for specialist assessment. Furthermore, 6,481 students were assisted towards the cost of eyeglasses and 183 received assistance in obtaining hearing aids.

New school entrants medical examination

During the school year 2010/2011, UNRWA schools registered 56,067 new entrants (28,118 girls and 27,949 boys). New entrants received a complete medical examination, immunization and follow-up or referral as required. The most frequently detected health problems were dental caries (23.5%) and vision defects (6.1%). Health problems related to personal hygiene remain present at low levels: pediculosis was found in 1.6% and scabies in 0.1% of new entrants.

Medical screening

Medical screening activities, targeting 4th and 7th grade students in all Fields, involve assessment for vision and hearing impairment, thyroid enlargement and oral health problems. Among 4th grade students, 55,831 were screened, achieving 98.9% coverage. The most common morbidities detected were vision defects (12.6%) and hearing impairment (1.6%). Among students in the 7th grade, 49,735 were screened, with 98.4% coverage. The main morbidities were again vision defects (13.0%) and hearing impairment (1.4%).

Oral health screening

Oral health screening is conducted for 7th and 9th grade students in all Fields and for the 4th grade students in the West Bank and Gaza Strip. A total of 43,531 7th grade students were screened, achieving 81.6% coverage (compared with 78.0% in 2008). In the 9th grade, 38,234 students were screened, with 83.8% coverage (compared with 80.0% in 2008). In the West Bank and Gaza Strip 28,432 students in the 4th grade were screened, achieving 96.6% coverage (compared with 74.0% in 2008). Improvement in oral health screening for school children is the result of the reorientation of the Oral Health Programme towards a preventive approach and investment in staff training on this concept.

Children with special health needs

During the school year 2010-2011, a total of 2,685 school children were identified with special health needs. Of these, 440 students were affected by juvenile diabetes mellitus, 896 had asthma, 362 showed behavioural problems, 251 had heart disease and 260 were living with epilepsy. These children receive special medical attention from teaching staff and the school health team and their school records are maintained separately to facilitate follow-up.

Immunization

Immunization for school children varies according to the host country requirements. During the school year 2010-2011:

- New entrants in all Fields received a booster dose of tetanus-diphtheria (DT/Td) immunization. The Agency-wide coverage was 99.3%;
- Coverage of oral polio vaccine (OPV) for new entrants was 99.8% in the Gaza Strip and 99.6% in the West Bank;
- Sixth grade girls in the Gaza Strip and the West Bank received Rubella vaccine, achieving a coverage rate of 99.8% and 99.2% respectively; and
- Coverage of Td vaccination among 9th grade school children in the five Fields was 99.3%.

De-worming programme

In accordance with WHO recommendations, UNRWA maintains a de-worming programme for children enrolled in UNRWA schools, applying a single dose of a broad-spectrum anti-helminthic medication for three successive years. An initial three-year campaign, completed during the 2004/2005 school year, targeted all school children and achieved a coverage rate of 96% across the five Fields. Since 2006, only new entrants receive the medications for three successive years. During the 2010/2011 school year, 97.6% coverage was achieved among children in first, second and third elementary classes. In addition, a health awareness campaign was carried out to emphasize the importance of personal hygiene in preventing transmission.

Vitamin A supplementation

During the 2010/2011 school year, children from grades one to six in all UNRWA schools received two doses of Vitamin A 200,000 International Units (IU) at six-month intervals.

GENDER BASED VIOLENCE (GBV)

During 2011, the Health Department continued to support all Fields in the establishment of detection and referral systems for patients that have suffered Gender Based Violence (GBV). Training sessions were conducted in each Field, benefitting 1,316 UNRWA staff as well as 255 staff and volunteers from community based organizations. Screening guidelines were produced to supplement the training of health staff on detection of GBV. Fields also developed tracking systems to collect information on GBV survivors and the services they are accessing. Furthermore, a total of 16 communication tools were produced and 104 events were held to increase awareness of GBV.

The referral system was defined in four Fields, with the involvement of stakeholders, and a total of 37 memoranda of understanding concerning the referral system have been signed with various stakeholders. The Gaza Strip and West Bank health programmes are leading in the development of referral systems for GBV survivors. The Gaza Field office has established 12 'one-stop' centres, based within UNRWA's Primary Health Care centres. These centres provide medical, legal and psychosocial support to survivors in a single location, which they are able to visit easily and in confidentiality. In the West Bank, UNRWA has established 10 Family and Child Protection Committees in the Ramallah, Jerusalem, Hebron and Jericho areas. The Committees are composed of frontline staff from UNRWA's main programme areas, as well as representatives of community based organizations and Popular Committees. The Committees have proven effective in boosting staff confidence, community acceptance and in providing support and security to survivors. Standard Operating Procedures (SOPs) for the Committees have been developed, with

protocols in Arabic. The draft SOPs were introduced into nine refugee camps in Central and Southern West Bank, where Family and Child Protection Committees have been established.

STRATEGIC OBJECTIVE 3 – PREVENT AND CONTROL DISEASE

Non communicable diseases

The burden of NCD

Non Communicable Diseases (NCDs) account for the vast majority of deaths occurring in UNRWA's host country populations, causing approximately 80% of all mortality in these countries. NCDs also represent an increasing health challenge among Palestine refugees, with a steady increase in the number of NCD patients treated at UNRWA health centres. At the end of 2011, a total of 211,533 patients with diabetes and/or hypertension were registered for UNRWA NCD services across the five Fields. This represents an increase of more than 12,000 patients from 2010 and is more than twice the number registered in 2001.

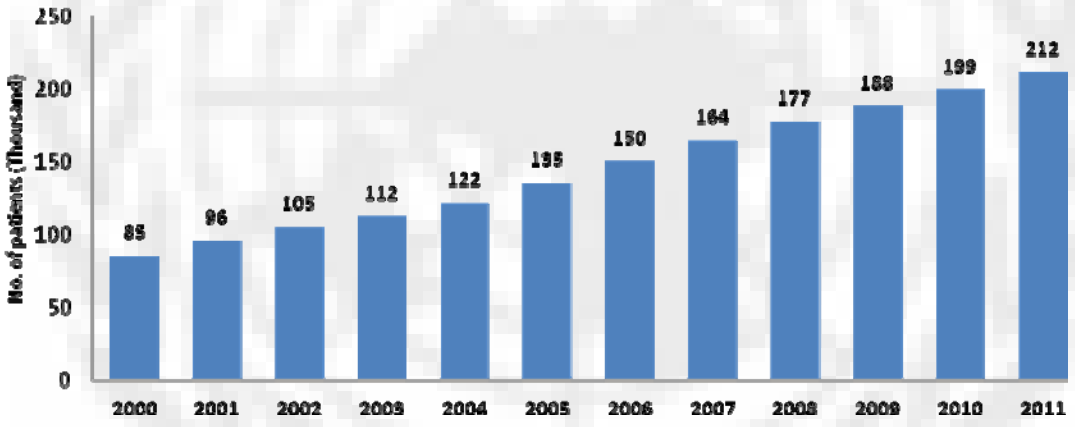


Figure 8 - Patients with diabetes and /or hypertension under care Agency-wide, 2000-2011

At the end of 2011, patients 40 years of age and older represented 91% of patients under care. Sixty-one per-cent of patients were female, probably reflecting the predominant attendance of female patients to UNRWA clinics. Hypertension only (45.7%) was the most common diagnosis, followed by patients with both hypertension and diabetes.

Table 8-Patients with diabetes and/or hypertension by Field and by type of morbidity

Morbidity type	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Diabetes mellitus type I	1,154	224	425	1,028	587	3,418 (1.6%)
Diabetes mellitus type II	10,675	2,304	3,337	10,852	5,565	32,733 (15.5%)
Hypertension	29,010	12,276	12,753	29,093	13,490	96,622 (45.7%)

Diabetes mellitus & hypertensio	27,470	8,437	9,598	19,458	13,797	78,760 (37.2%)
Total	**68,309**	**23,241**	**26,113**	**60,431**	**33,439**	**211,533**

The Agency-wide prevalence of diagnosed diabetes mellitus and hypertension among the served population 40 years of age or older was 11.4% and 17.5% respectively during 2011.

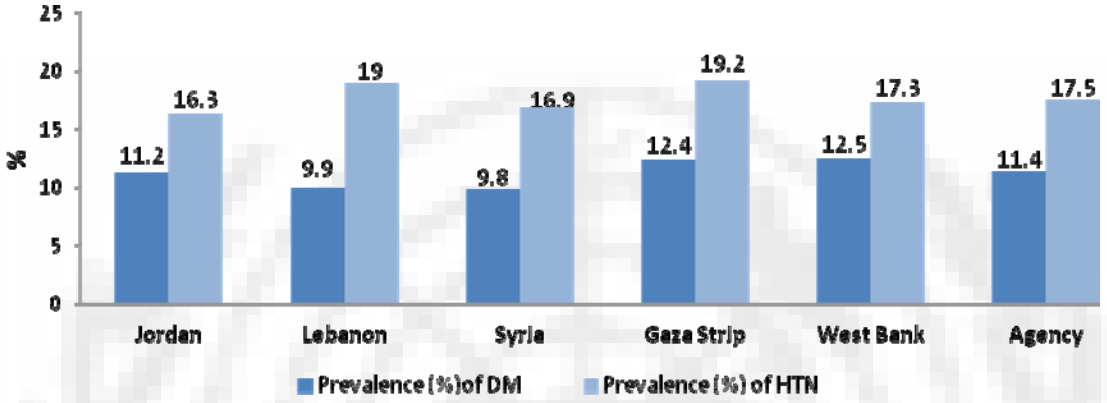


Figure 9 – Prevalence (%) of diagnosed diabetes and hypertension among served population ≥40 years of age, 2011

Risk scoring

UNRWA uses a risk scoring system adapted from the WHO Cardiovascular Disease Risk Management Package. The system assesses the presence of risk factors such as smoking, hyperlipidaemia and physical inactivity. The score indicates the individual risk level for complications and mortality. All patients registered in NCD clinics were assessed in relation to risk scoring during 2011. The assessment found that 28.3% of patients with both diabetes and hypertension were at high risk, followed by 26.6% of hypertension patients and 14.2% of type II diabetes patients. After assessing the risk score of a patient, the attending clinician is able to tailor the management to the needs of the individual and to refer the patient for specialist treatment if necessary.

Treatment

In 2011, the UNRWA Health Department introduced a revised list of essential medicines for the management of NCD patients. This list includes new medicines that can improve the control of NCDs and minimize the risks of complications and side effects. Although UNRWA guidelines for case management are similar in all Fields, there are significant variations among the Fields in relation to the management of patients with type II diabetes and hypertension. Similar variations are seen among UNRWA medical officers in the same Field. For example, the percentage of non-pharmacological treatment among hypertensive patients was 9% in Lebanon Field, followed by Gaza (5%), Syria (1%), Jordan (1%) and the West Bank (0%). The proportion of patients with type I or type II diabetes who were treated with insulin as part of their management also shows variation among Fields, from 23.5% in Syria to 32.5% in Gaza.

These variations may be related to differing interpretations of technical guidelines and require further investigation. Refresher training is needed for clinicians about the importance of sustained blood glucose control and the introduction of insulin for uncontrolled patients that are already on the maximum dose of oral hypoglycaemic agents. Further work is also needed to promote treatment compliance among patients and to strengthen control status monitoring.

Control of blood glucose levels among diabetic patients remains a source of concern. UNRWA has to date relied upon fasting and post-prandial blood glucose measurements to ascertain control status. These measurements cannot however reflect the control status over time. In 2011, UNRWA introduced the HbA1c method in one Field (West Bank). This method is able to provide information on blood glucose levels over a preceding three-month period, thus providing a more accurate view of the patients' control status. Based on funding availability, UNRWA plans to introduce HbA1c as the method of choice for blood glucose monitoring in all Fields.

In order to evaluate the care provided to diabetes patients registered in UNRWA clinics, the Health Department, in collaboration with the World Diabetes Foundation (WDF) will conduct a clinical audit during 2012, using tools prepared by WDF and adapted by UNRWA. Measurement of blood glucose using the HbA1c method will be included in the audit. The results of the audit will be highlighted in next annual report.

Late complications

Late complications of NCD include: cardiovascular diseases (myocardial infarction and/or congestive heart failure), cerebrovascular disease (stroke), end-stage renal failure (ESRF), above-ankle amputation and blindness. During 2011, the records of 10% of all registered NCD patients were analysed for the presence of late complications, using the same methodology employed in previous years. In 2011, late complications were present in 12.4% of the NCD patients Agency wide (12.6% in 2010), with little variation among Fields. Some differences among the Fields were observed in the distribution of complications among the different disease groups, probably reflecting differences in reporting practices.

Defaulters

Defaulters are defined as patients who did not attend the NCD clinic at all during a calendar year, either for follow-up or for collection of medicines (personally or through relatives for those with severe disability). Health staff employ all possible means to reach patients that miss follow-up appointments, including home visits, telephone calls and notification through family members. Despite these efforts, the Agency-wide defaulter rate increased from 4.8% in 2010 to 5.3% (10,485 patients) in 2011. The Field specific defaulter rate ranged from 3.4% in Lebanon to 6% in Jordan.

Case fatality

A total of 3,788 UNRWA NCD patients were reported to have died during 2011, representing 1.9% of the patients registered at the beginning of the year. Deaths may however be under-reported. Patients with both morbidities (hypertension and diabetes)

comprised 54% of the deaths, while patients with only hypertension represented 33% and those with only diabetes represented 13% of all the deaths.

The way forward for NCD care

The burden of NCDs and their complications is increasing. UNRWA is strengthening its approach to primary prevention through health education and by improving the quality of foods served in school canteens. The Agency is also intensifying its screening programmes, in order to detect disease and begin management as early as possible. Care of NCD patients will be further strengthened as a result of the patient-centred care and continuity provided through UNRWA's new Family Health Team approach. The implementation of E-Health and the introduction of a cohort monitoring system are also improving the quality of NCD care in UNRWA health centres. Furthermore, UNRWA will explore all possible options to introduce lipid-lowering agents into the UNRWA essential drugs list. Prohibitive costs have so far prevented UNRWA from introducing these lifesaving medications.

Other Non-Communicable Diseases

The prevalence of other non-communicable diseases, including chronic respiratory diseases, cancers and mental disorders, is increasing worldwide. As a result of resource limitations within UNRWA's health programme, it has not yet been possible to ascertain the burden of these diseases among refugees in terms of morbidity, disability and mortality and to introduce the interventions needed to adequately address them. Assistance in the form of medicines and hospitalization is provided to patients on an as-needed basis, as they come to the attention of the health care system.

Cervical and breast cancer screening

UNRWA commenced implementation of a screening programme for breast and cervical cancer in 2006. The programme promoted primary prevention activities and provided secondary prevention services aimed at detecting and managing cervical and breast cancer at an early, curable, stage. The level of implementation varied among the Fields according to the availability of funding and operational feasibility. Low detection rates of cervical cancer led the Agency to discontinue this screening activity in 2010 in all Fields except Lebanon. Conversely, the need for breast cancer screening was confirmed. During 2011, th Lebanon and Syria Fields outsourced screening services through contracts with local providers. Unfortunately, technical and budgetary limitations have to date prevented the implementation of mammography in all Fields.

Lebanon: During 2011, a total of 1,432 women were screened for breast cancer by mammography and breast ultrasonography as indicated. Of those, 502 (35%) had abnormal findings and 43 (3%) were diagnosed with breast cancer. Detection rates were 1.5% in 2010, 2% in 2009 and 1% in 2008. These findings indicate that this screening programme is cost-effective and should not only be maintained, but expanded to other Fields.

All cancer cases were referred to hospital for further treatment. During the period 2008-2011 all referred patients were covered 100% for the cost of mammography, ultrasound and biopsy through project funding. The project ended in January 2012 and Lebanon will forcibly return to cover 50% of costs for suspected cases of breast cancer.

During 2011, a total of 550 women were screened for cancer of the cervix. No cases of cervix cancer were identified.

Syria: 1,417 women were screened for breast cancer through mammography; 2.5% were diagnosed with breast cancer and referred for surgery and further treatment.

Gaza: a total of 55,332 women were screened by clinical breast examination through UNRWA's reproductive health services. Of these, 440 (0.8%) presented abnormalities and were referred to hospital. Nineteen cases were diagnosed with breast cancer (0.3%).

*Jordan***:** In addition to regular clinical breast examination performed at UNRWA health centres, the Agency participated in the national breast cancer campaign in coordination with various partners including the Ministry of Health and the King Hussein Cancer Centre.

*West Bank***:** In addition to the regular clinical breast examination performed in all health centres, the West Bank Field implements a cancer-screening programme using mobile mammography units in collaboration with the Augusta Victoria Hospital.

Communicable diseases

Prevention and control of communicable diseases in 2011 continued to focus on strengthening surveillance of emerging and re-merging diseases. The building of staff capacity in outbreak investigation and related diagnostic laboratory methods was also emphasized. Implementation of a new epidemic early warning system commenced in the West Bank and Syria. Efforts also continued to improve the detection of tuberculosis in all Fields, which resulted in increased identification of new cases in the Gaza Strip.

Close coordination was maintained with the host countries' Ministries of Health for surveillance of communicable diseases, outbreak investigation, supply of vaccines, introduction of new vaccines (e.g. pneumococcal vaccine in the West Bank), exchange of information, participation in national immunization days and the annual WHO/EMRO immunization week. UNRWA also collaborated with host authorities for laboratory surveillance of HIV/AIDS and other communicable diseases requiring advanced laboratory investigations that cannot be performed in UNRWA facilities.

EPI vaccine-preventable diseases

In each Field, UNRWA's immunization services are linked to the host country Expanded Programme on Immunization (EPI). Agency-wide immunization coverage, for both 12 month old and 18 month old children registered with UNRWA, is close to 100% in all Fields. Factors contributing to UNRWA's success with immunization coverage include a consistent supply of vaccines, the

enforcement of an appointment system and continuous follow-up of defaulters by health centre staff. No confirmed cases of poliomyelitis, tetanus, diphtheria, pertussis, measles or rubella were reported among the refugee population during 2011.

Other communicable diseases

Viral hepatitis

The Agency wide incidence of suspected cases of viral hepatitis (mainly hepatitis A) remains similar to 2010, at 25.6 per 100,000 population.

Typhoid fever

The Agency-wide incidence of suspected typhoid fever cases dropped in 2011 to 2.3/100,000 population, in comparison with 5.7/100,000 in 2010. However, this may not reflect the true epidemiological picture due to the low referral of suspected cases for laboratory confirmation. The highest incidence was observed in Syria (6.9/100,000), followed by Gaza (4.2/100,000). West Bank Field reported no cases. More attention should be given to confirmation and follow-up of suspected cases.

The presence of diseases with oro-faecal transmission routes, such hepatitis A and typhoid fever, reflect an on-going need to promote good hygiene practices, especially in schools and homes, and to ensure the quality of water and sanitation services. Follow-up by sanitation inspectors and cooperation with host authorities in this respect is particularly important.

Tuberculosis

Eighty-three cases of tuberculosis were reported during 2011 - an increase of five cases compared with 2010. Of those, 26 cases were smear-positive, five were smear-negative and 52 were extra pulmonary. Syria reported 52 cases, followed by Lebanon (19), Gaza (7) and Jordan (5). No cases were reported from the West Bank.

With the exception of Syria, detection rates in all Fields remain below the WHO target of 70% of the expected number of cases for the country. Patients diagnosed with tuberculosis are managed through national tuberculosis programmes using the directly observed treatment, short course (DOTS) strategy. During 2011, cure rates of 100% were achieved for UNRWA patients in all Fields.

Brucellosis

Brucellosis cases were reported from Syria, Jordan and the West Bank during 2011, with an Agency wide incidence of 5/100,000. The incidence of brucellosis remains highest in Syria (37.6/100,000).

Leishmaniasis

The incidence of Leishmaniasis was 30.6/100,000 among Palestine refugees in Syria, where the disease is endemic. The only other Field reporting cases of Leishmaniasis was Jordan, with an incidence of 0.1/100,000.

Environmental health

UNRWA'S environmental health programme controls the quality of drinking water, provides sanitation, and carries out vector and rodent control in refugee camps. Environmental health services are managed by different UNRWA Departments in different Fields: the Administration Department in Lebanon, the Procurement Department in Jordan, the Department of Infrastructure and Camp Improvement in Syria, and the Special Programmes Department in Gaza Field. In the West Bank, these services remain the responsibility of the UNRWA Health Department.

During 2011, in the West Bank, UNRWA employed 183 labourers to sweep streets and transport solid waste to collection points, from where the waste was removed to municipal dumpsites by ten UNRWA trucks. This year almost 77,645 tons of domestic, medical and commercial waste were removed and disposed of by UNRWA's Environmental Health Programme. The Agency also managed the water supply to UNRWA installations, carried out maintenance and rehabilitation in camps, and operated two UNRWA water facilities at Aqbat Jaber and Far'a. Site visits for UNRWA schools located inside and outside camps were carried out to assess water and sanitation conditions. A vector control campaign was conducted in all 19 West Bank camps during 2011. UNRWA also conducted two campaigns in collaboration with host country authorities to control Leishmaniasis in Jericho and the Jordan Valley.

CROSSCUTTING SERVICES

Crosscutting service areas support all three strategic objectives and include: nutrition, disability care, laboratory, radiology, medical supplies, health information systems, integrated community based activities, emergency preparedness and response, human resources and gender mainstreaming.

Nutrition

During 2011 the Health Department supported the Fields in further developing their nutrition programmes, with a particular focus on integrated actions to address obesity and non-communicable diseases among health centres attendees and in the community. The key activities performed are described below.

Nutrition training for medical officers, nurses and health tutors in Jordan and the West Bank

The training aimed to improve knowledge on health issues related to nutrition and also to build skills for dietary counselling of patients. Topics addressed included: obesity and overweight prevention and diet therapy; nutritional aspects of NCD treatment; nutritional aspects for pregnant and breast feeding women and weaning food practices; diet therapy for anaemia; healthy diet planning, food exchanges and healthy traditional food and cooking practices.

Promotion of healthy food items in UNRWA school canteens

The School Health Programme aims to reduce the risk of chronic diseases among refugee children. One of the major issues related to school health concerns the unhealthy food items served at school canteens. School canteens can play a pivotal role in producing changes in student eating habits because, being inside the schools, they are ideally placed to directly influence children's lives.

In Shufat School in Jerusalem, West Bank, a women's programme centre is working under supervision of the school health committee to provide healthy, tasty, affordable food items at a new canteen. In addition to improving the quality and diversity of food available for students, this project also helps to strengthen the economic security of vulnerable women. School-based nutrition education activities are also conducted for students, teachers and parents.

A health awareness play in refugee camps

The UNRWA Health Department and the Jordan Field Office collaborated in contracting a group of actors to conduct an interactive play directed towards the refugee population. The play, performed in ten camps in Jordan, emphasized the role of healthy life style modifications in the prevention and control of non-communicable diseases. Health messages included: weight control; healthy eating practices such as reduction of salt and fat intake, with increase in fresh fruit and vegetable intake; and healthy behaviours such as regular physical exercise and avoidance/cessation of smoking. The play was enthusiastically received by hundreds of refugees in each of the various camps.

Development of nutrition education and communication materials

A range of education and communication materials was developed during 2011. A nutritional guideline booklet was prepared for health centre staff, containing brief guidelines on diet and lifestyle modifications for prevention and management of NCDs. A food guide pyramid model was prepared from wood and plastic to help patients understand healthy eating choices. Brochures were prepared on nutrition information relating to topics such as obesity, maternal and child health, NCDs, renal diseases and rickets. A Good Manufacturing Practices Guide and a kitchen checklist were developed for the kitchen of the Shufat Women's Programme centre. A calendar with standardized, simplified nutritional health messages was developed for medical offices to use during patient counselling and a nutritional strategy document was developed for the newly established Shams NCD centre in the West Bank.

Disability care

Disability is a crosscutting issue relevant to the work of all UNRWA Programmes. UNRWA adopts the definition of disability contained in the UN Convention on the Rights of Persons with Disabilities, which states "*persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various attitudinal and environmental barriers hinder their full participation in society on an equal basis with others*".

During 2011, disability was addressed through a variety of activities to raise staff awareness about mainstreaming disability within all UNRWA activities. Current health programme initiatives relating to disability take a comprehensive approach, addressing physical, mental and social aspects. There is a strong focus on prevention of disability, including family planning services, growth monitoring, immunization, disease prevention and control, early detection and screening services. The health programme also implements a number of specific interventions related to disability care. UNRWA health centres record data on children under the age of five years that have permanent physical or mental impairments in order to facilitate medical follow-up.

Registered refugees identified by UNRWA health centres as suffering from permanent physical disability and/or visual and hearing impairments are eligible for financial support from the Health Department towards the cost of prosthetic devices. Technical instructions have been issued regarding eligibility, including that first priority be given to school children and pre-school children. The financial contribution to be made by UNRWA is outlined in the technical instructions.

UNRWA physiotherapy centres (operating in the Gaza Strip and the West Bank) do not specifically target persons with disabilities. However, it is recognized that a significant proportion of the beneficiaries of this service are likely to be considered 'persons with disabilities' under the definition contained in the UNRWA Disability Policy.

The UNRWA health programme implements a community mental health programme aimed at promoting the psychological and social wellbeing of Palestine refugees, which includes a psychological support programme delivered through a network of counsellors. The programme also includes referrals for specialist care as well as awareness raising activities to promote mental health and social well-being.

Laboratory and radiology services

During 2011, new laboratories were established in two health centres in the Gaza Strip and in one in the West Bank, increasing to 123 the number of UNRWA health facilities offering comprehensive laboratory services. Comprehensive services include biochemistry (blood glucose, renal function, liver function, lipid profile), haematology (full blood count, ESR, clotting profile, grouping and Rh factor), serology (brucella test, C-Reactive Protein, rheumatoid factor), urine chemistry and bacteriology and stool examination. The remaining 15 facilities continued to provide basic laboratory support (blood glucose, haemoglobin and urine dipstick tests) through nursing staff trained to use basic laboratory equipment.

The total number of laboratory tests performed increased from 4.7 million in 2010 to 5.0 million in 2011. The number of tests increased by 25.8% in the West Bank and 10.2% in Gaza Strip. These increases may reflect increased dependency on UNRWA health services in the occupied territory. A decrease of 5.6% was observed in Syria due to interruption of services as a result of the security situation in the country.

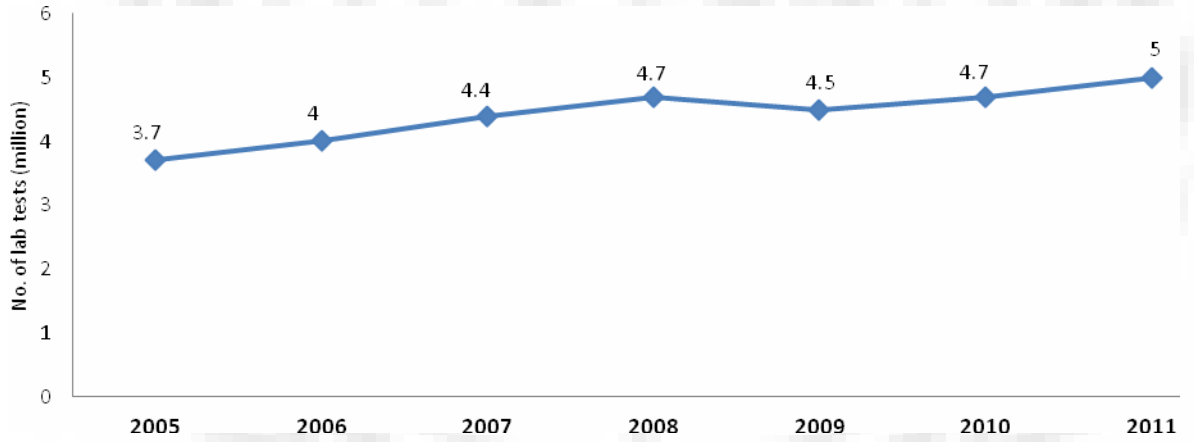


Figure 10 – Utilization trend of laboratory services, 2005-2011

Workload

UNRWA conducts periodic self-evaluations of the workloads and efficiency of its laboratory services using the WHO approach for workload measurement. During 2011, the productivity target of 45 to 55 workload units per hour was achieved in Jordan, Gaza and the West Bank Fields. Syria and Lebanon were slightly below target.

Laboratory costs

The total cost of laboratory services provided by UNRWA during 2011 amounted to USD 4.5 million. If UNRWA were to purchase equivalent services from host authority providers, the estimated cost would have been USD 14.4 million. This suggests that

UNRWA's experience in integrating laboratory services into its Primary Health Care activities remains very cost-efficient compared with referring patients to external service providers.

Table 9 - Comparative analysis on annual cost of laboratory services performed at UNRWA facilities and cost of same services if outsourced to host authorities (USD) - 2011

Cost	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Public	3,431,424	1,345,153	1,213,115	5,845,907	2,592,463	14,428,062
UNRWA	919,867	657,001	506,927	1,326,689	1,116,119	4,526,603

Quality assurance

In order to ensure the quality laboratory services, UNRWA laboratory supervisors continued to follow-up on the performance of laboratory personnel and on the proper provision and utilization of laboratory services through the following activities:

- Training courses and in-service training for newly recruited laboratory technicians were conducted in all Fields according to a standard training package;
- Internal quality control systems were implemented at all UNRWA laboratories and for all tests;
- A Memorandum of Understanding was signed between UNRWA and BIOLABO France which will allow the participation of all 123 UNRWA laboratories in a free-of-charge External Quality Assurance System (EQAS) starting from March 2012;
- As part of an internal self-evaluation policy, the annual assessment of utilization and productivity trends was conducted according to an UNRWA standardized protocol at health centre level in each Field;
- The quality of laboratory supplies was monitored on an on-going basis in coordination with the procurement division; and
- Arrangements were made with public health laboratories of host countries concerning referral of patients or samples for surveillance of diseases of public health importance.

Radiology services

UNRWA operates 21 radiology units, of which nine are 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 diagnostic radiology services including mammography, urography and ultrasound are provided through contractual agreements with hospitals and private radiology clinics.

During 2011, radiology services were provided to 95,597 UNRWA patients. Of these, 87% were served through UNRWA health centres, while the remaining 13% received services through contracted facilities.

Medical supplies

Total expenditure

In 2011, the total value of medical supplies and equipment from all funds (General Fund, in-kind contributions and emergency appeals) was approximately USD 24.3 million, representing an increase of 14% compared with 2010 (USD 21.3 million). Of the total, the General Fund covered USD 16.7 million (69%), while the total value of in-kind and emergency funds spent was approximately USD 7.5 million (31%). The emergency appeals covered USD 1.7 million. In the Gaza Field, 29% of the expenditure was covered through donations. The expenditures by Field are: Gaza at USD 9.54 million (39%) as the highest, followed by West Bank at USD 5.9million (25%), Jordan at USD 4.9 million (20%), Lebanon at USD 2.4 million (10%) and Syria at USD 1.5 million (6%).

In 2011, the average expenditure Agency-wide on medical supplies per outpatient medical consultation was USD 2.3, representing a slight increase over 2010 (USD 2.0). The average expenditure on medical supplies per served refugee was USD 7.5 Agency-wide, compared with USD 6.6 in 2010. The Field proportions of total expenditure are influenced by an increase in expenditure of some Fields (such as Lebanon), and a decrease in expenditure in other Fields (such as Syria) due to local purchase of 80% of their annual requirements from local suppliers with competitive prices.

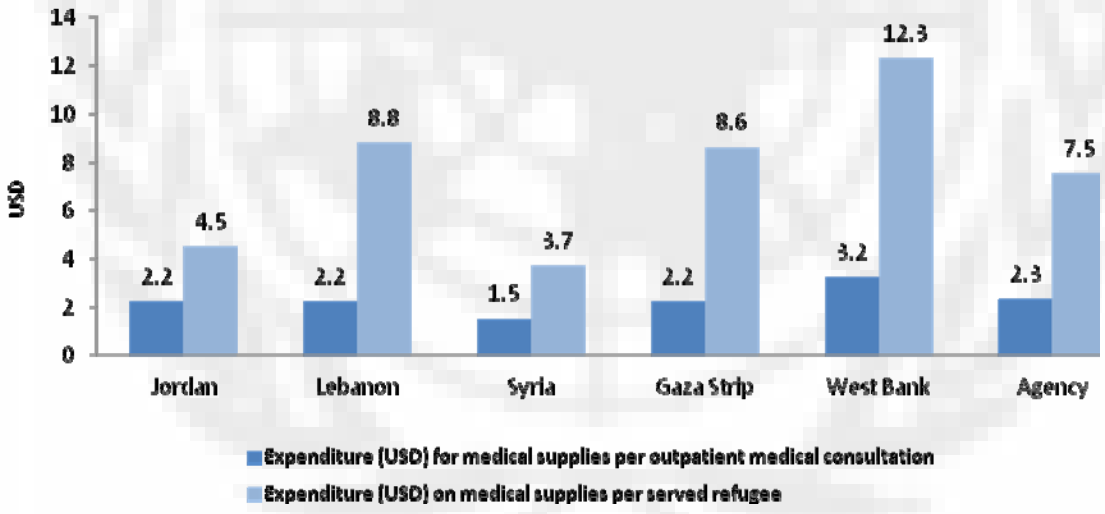


Figure 11 - Average medical products expenditure (USD) for medical supplies per outpatient medical consultation and per served refugee, 2011

Expenditure on medicines

The total expenditure on medicines in 2011 was USD 19.4 million, of which 41% was spent on medicines for the treatment of diabetes and cardiovascular diseases (29% for diabetes, 12% for cardiovascular diseases) and 14% on antibiotics.

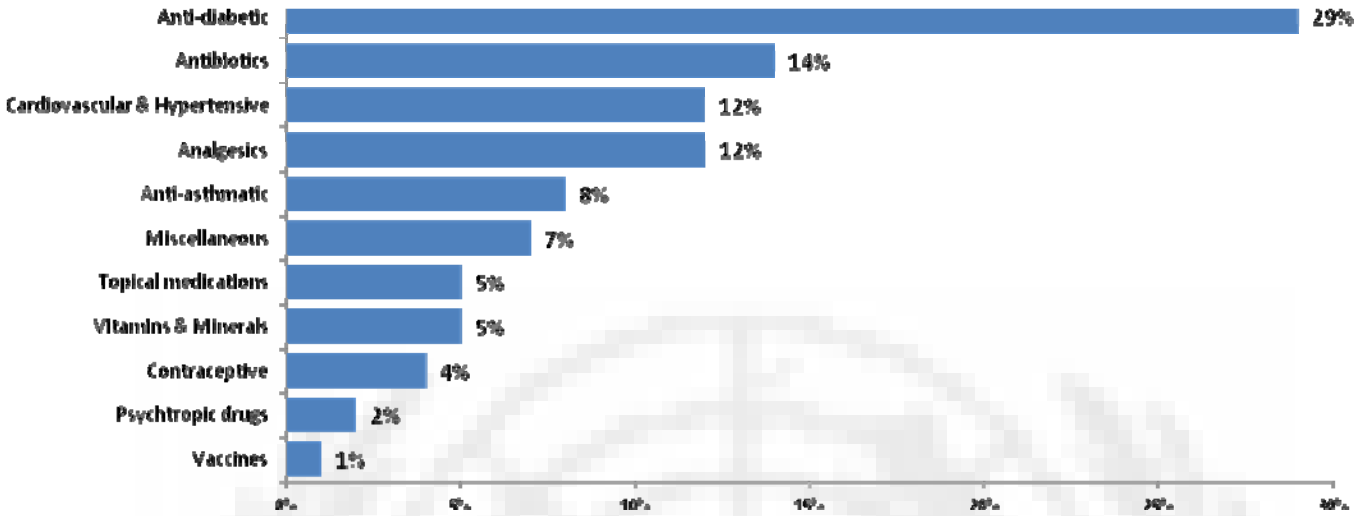


Figure 12 - Proportional expenditure on medicines per therapeutic group

UNRWA conducted an extensive review of its medical prices and procurement processes in 2011 with the help of WHO and Health Action International, a Netherland-based international non-governmental organization specialized on this subject. The results of the review, summarized below, were encouraging. UNRWA is following-up on the recommendations that were issued.

Main findings and recommendations of the review:

- Overall, UNRWA procures medicine effectively;
- Savings would still be possible if some individual medicines were purchased from internationally recognized suppliers;
- There is a need for UNRWA to investigate companies where UNRWA pays more despite large quantities procured;
- There is a need for UNRWA to publish tender awards to ensure more transparency; and
- There is a need for UNRWA to develop minimum regulatory standards for prequalifying supplies and product quality assurance.

Expenditure on medical equipment and related supplies

During 2011, medical equipment and related supplies accounted for 19.8% (USD 4.8 million) of the total expenditure for medical supplies (USD 24.3 million). The expenditure on medical equipment from all funds was USD 2.8 million and includes all service contracts and maintenance. Detailed information on equipment expenditure may be found in Section 3 Part 5 of this report.

Antibiotic prescription rate

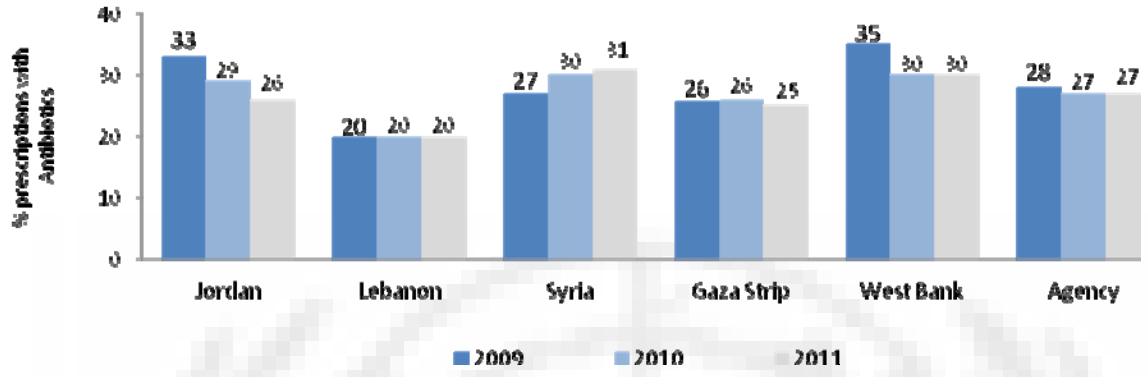


Figure 13 - Antibiotic prescription rate (%) by Field

UNRWA aims for an antibiotic prescription rate between 20% and 25% in line with WHO recommendations. Antibiotic prescription rates ranged from 20% in Lebanon to 31% in Syria in 2011, with variable progress among Fields over the past three years (Figure 11). On-going training is needed for physicians, as well as education campaigns targeting beneficiaries on rational use of medicines. Over-prescription of analgesics is also becoming a cause for concern and will require further study during 2012.

Donations of medical supplies

In 2011, UNRWA received donations of medical supplies (medicines, medical equipment and others) equivalent to USD 5.2 million, of which Gaza Field received 39%, followed by Jordan (23%), Lebanon (15%), West Bank (13%), and Syria (10%).

The following medicines and consumables were donated during 2011:

- 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, 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.

UNRWA's current system for collecting and processing routine health data is mainly paper-based at health centre level and computer based using spread-sheets at Field Office and Headquarters levels. The system is well established, with a regular schedule of monthly and quarterly reports. Reports from individual health centres are compiled and analysed at Field Office level. Indicators are produced for individual health centres and also calculated at Field level. A comprehensive health data base is maintained at Headquarters, enabling indicator comparisons among Fields and over time. This system however involves a substantial workload for staff as data are first recorded in hard copy registers and forms and then entered manually into the electronic spread-sheet system. Furthermore, manual entry of data at several levels increases the risk of introducing errors.

The introduction of UNRWA's E-health system will substantially reduce the burden of data collection, as well as improving the quality and accessibility of data. Aggregate data reports will be available electronically at health centre level and will also be transmitted electronically to the Field Office, thus reducing both the workload and the risk of errors.

In addition to introducing E-Health, the Health Department is taking further measures to streamline the existing health information system. The Field Implementation Plan (FIP) indicators were revised during 2011, resulting in a standardized minimum set of indicators to monitor key aspects of health services across all five Fields. Furthermore, a comprehensive health information system review process commenced at the Headquarters Health Department in 2011. The objectives of the review are to:

- Rationalize the data collected by developing a set of core indicators for each programme area;
- Achieve consistency with globally-used health indicators; and
- Simplify and standardize data collection tools and report formats.

A detailed review of the maternal health data collection system was completed during 2011. Revised tools and report formats for this programme will be introduced during 2012. Health information system reviews of other programme areas will also be completed during 2012. Furthermore, the Health Department will work to build data analysis capacity of staff at multiple levels, focussing on the indicators in the Field Implementation Plans for 2012/13 and the core indicator sets developed through the health information system review process (FIP indicators represent a subset of the core indicator sets). The data tables in Section 3 Part 2 of this report present data from previous years for the 2012/13 FIP indicators, to enable future trend analysis.

Integrated community based activities

Community-Based Initiatives (CBI), introduced to the region by the WHO Eastern Mediterranean Regional Office (EMRO), adopt a comprehensive approach to health by giving equal significance to the physical, mental, social and spiritual well-being of individuals. CBI programmes represent integrated bottom-up socioeconomic development models that rely on full community ownership and inter-sectorial collaboration. The overall goal of the CBI programme is to develop policies and directions that are

supportive to health, community empowerment and local governance to ensure health equity and quality of life. This is achieved by strengthening community organizations and by mobilizing communities to meet their basic socioeconomic needs.

Starting in 2009, the CBI programme was gradually introduced into two Palestine refugee camps, one in Jordan (Souf camp) and one in Syria (Qaber Essit camp). The model UNRWA adopted was named the Integrated Community Based Activities Initiative (ICBA). During the past three years, efforts were made to encourage the development of strong inter-sectorial collaboration between refugee communities, other UNRWA programmes, nongovernmental organizations and the private sector to promote the concept of health and equity as fundamental principles of development through the implementation of ICBA.

The progress in the implementation of ICBA in Syria continued with a variety of health related activities conducted by the active community structure, the Community Development Committee (CDC). The implementation of ICBA is monitored using the assessment tool introduced by the CBI programme at WHO/EMRO. As a way to highlight the efforts exerted by Qaber Essit camp community to benefit from ICBA, the camp CDC applied for the Ecuator Prize 2012 on community based initiatives. This initiative will recognize 25 outstanding local initiatives that are working to advance sustainable development solutions for people, nature and resilient communities.

In mid-2011, the initiative was introduced to two new camps in the Northern region of Syria, namely Neirab and Ein el Tal camps. In Jordan, ICBA was phased out in 2011 in order to introduce a community-based approach that is common for all programmes, including the health programme, the relief and social services programme and the infrastructure and camp improvement programme. The Health Department is committed to introducing ICBA to the other Fields and to expand its implementation to new camps as deemed appropriate.

Emergency preparedness and response

The Occupied Palestinian Territory

The humanitarian crisis continues in the occupied Palestinian territories, with intermittent violence, displacement, movement restrictions and intimidation.

West Bank

In 2011, UNRWA reported a total of 280 access incidents involving its staff, including doctors and nurses. Of the 271 communities in Area C, 22% faced difficulties in accessing health services due to road detours, road barriers and costs of transportation. Obstacles to obtaining building permits hindered appropriate maintenance and expansion of the health infrastructure. Movement restrictions also prevented Palestinians from accessing six Palestinian NGO hospitals in East Jerusalem. The hospitals are the main providers of specialized care for the occupied Palestinian territory. In the face of these challenges, UNRWA continued to provide health services to marginalized communities through five mobile health clinics, a community mental health program, and provided financial support to enable access to hospital care.

Gaza Strip

The blockade on the Gaza Strip continues to erode the quality of medical services in the area. Electricity cuts restrict medical treatment and construction and rehabilitation of health infrastructure is limited. There are on-going shortages of medicines in Palestinian Authority health facilities, for example, a cancer patient in the Gaza Strip can only expect to find half of the drugs required by chemotherapy protocols[7]. Patients referred for treatment abroad experience delays in obtaining permits to exit the Gaza Strip and this can at times result in death. As a result of their living conditions, Gazans experience significant mental stress. Almost a quarter of the patients assisted through UNRWA's community mental health services in the Gaza Strip during 2011 were children with bedwetting, a frequent symptom of psychological trauma. UNRWA provides Primary Health Care to over 85% of the population of the Gaza Strip through 21 health centres, while also ensuring emergency preparedness through training of staff and prepositioning of essential medical supplies.

Syrian Arab Republic

During 2011, UNRWA's health programme focused on ensuring continuity of health service provision in the face of the prevailing country situation. Measures taken by UNRWA included: prioritizing care for children, pregnant women and NCD patients; providing NCD patients with sufficient medicines for a three-month period; ensuring adequate stocks of essential medicines in all health centres; checking that all health centre generators are in working order and ensuring the availability of fuel and water; daily follow-up of the situation in the catchment areas of UNRWA health centres and coordination with other UNRWA programmes and other UN-Agencies.

Lebanon: Nahr el-Bared

In 2007, nearly 27,000 Palestine refugees were forced to abandon their homes after the destruction of Nahr el-Bared Camp (NBC). By September 2011, 369 restored apartments had been handed over to NBC displaced families, but much of the community remains uprooted. The major impediment to the reconstruction of the camp is insufficient funding, only 40% of the donations required for reconstruction have been secured so far. UNRWA continues to provide primary health services for displaced families through two temporary clinics in adjacent areas, continues to subsidize hospital care and the purchase of mental health medications.

Human resources

[7] ICRC, Israel and the Occupied Territories: Another Year Without Change, February 2012

Field health staffing review

During 2011, extensive discussions were held among Field Offices, the Department of Health and the Department of Human Resources and comprehensive workforce assessments of the health programme were conducted. As a result, a number of adjustments are to be considered in the human resources structure of the health programme in the Fields in order to achieve consistency while allowing room for Field specificities, priorities and financial considerations.

Lebanon Field Office gave this initiative impetus by undertaking a thorough review of its operations at health centre level, with the aim of creating structure and processes that would improve service delivery to Palestine refugees. The review addressed a wide range of issues, including workload and processes, job descriptions, reporting relationships, qualification requirements, grading of posts, categorizing of health centres based on the size of registered population and technical instructions. The outcome of the Lebanon review was shared with other Fields providing them an opportunity to reflect on their own health centre management and on the issues raised above. As a result, similar reviews were conducted in Jordan, Gaza, the West Bank, and to a lesser degree, Syria.

The key objectives of the discussions among Field Offices, the Department of Health and the Department of Human Resources were to align the health staff functions with the changing needs in health services. The Agency's health services are becoming more complex because of the changing disease patterns from acute communicable diseases to chronic non-communicable diseases. This complexity requires a higher level of qualifications (e.g. a bachelor degree for several para-medical functions). To ensure internal consistency and fairness to staff, functions with similar qualification requirements must be at the same grade level (i.e. consistent grades for doctors with medical degrees and consistent grades for para-medicals with diploma degrees) and job descriptions require updating. To this effect, jobs of health programme staff at Field Office level were updated and grading inconsistencies were addressed.

Due to the continued difficult financial situation, no additional resources are available for the implementation of this reform initiative that is a priority for the Agency. It is expected that Fields will implement the changes in phases, according to priorities and the availability of resources. Reallocation of existing resources will need to be considered.

Headquarters health staffing review

In accordance with the objectives of UNRWA, to improve the Agency's ability to recruit and retain qualified staff and to update the post descriptions of health staff consistent with the revised functions and levels of authority/responsibility, a comprehensive Health Department review was conducted to reflect the following updates:

- Introduction of new programmes and interventions to improve the health status of women and children including preconception care, nutrition, screening programmes for breast and cervix cancer and for hereditary anaemias;
- Establishment of drug therapeutic committees in all Fields to ensure cost effectiveness of UNRWA pharmaceutical services;

- Computerization of the health information system to support the reform process in the Health Department and the complexity of health data management;
- Expansion of the duties of administrative officers to include preparing the departmental operating and project budget, keeping records of cash payments, maintaining up-to-date files of budget and expenditure, preparing proposals for post actions, preparing contract proposals and special service agreements; and
- Reorientation of the nature of the work of the secretarial posts to include managerial and planning duties which enable them to exercise primary checks on the accuracy and completion of documents, attend supervisor's meetings and prepare minutes, follow up on periodic operational reports and make preliminary reviews of health technical instructions.

Accordingly, the following posts were reclassified during 2011: Head Family Health Services, Head Pharmaceutical Services, Health Statistics Officer, Administrative Support Assistant A and Administrative Assistant A (3 posts).

Gender mainstreaming

In accordance with the UNRWA Gender Policy adopted in 2007 and the Health Gender Mainstreaming Strategy (GMS) adopted in 2008, the Health Department developed a Gender Action Plan (GAP) for the 2010 – 2011 biennium. During 2011, the health programme continued its efforts toward achievement of the outcomes defined by the 2008 Health GMS.

Including men in family planning and preconception care

The Health Department distributed to all Fields' technical guidance and management protocols on the inclusion of men in pre-conception care and family planning. Training sessions were organized for health centre staff. While cultural barriers remain significant, small but encouraging changes are evident. For example, in Gaza Field, 13% of preconception care and/or family planning consultations were attended by couples during 2011.

Addressing Gender Based Violence (GBV)

The Health Department contributions to addressing GBV are described under Strategic Objective 2.

Achieving gender disaggregated data

The Health Department collects a range of gender disaggregated data, including outpatient consultations, hospital admissions, oral health consultations, radiology service utilization and patients with diabetes and hypertension under care.

Addressing the gender gap in the workforce

The proportion of women recruited in all categories and in all Fields varies from 30% in Jordan to 59% in the Gaza Strip. However, the staffing structure in UNRWA health centres still reflects classical stereotyping of gender roles and jobs. Nurses are primarily female and medical officers are mostly male, reflecting host country health services. In order to address the gender gap in the workforce, the UNRWA Health Department encourages the recruitment of female staff while remaining mindful of the need for a competitive and transparent selection process. In addition, UNRWA is working to ensure that recruitment procedures are gender-bias free. For example, actions are taken to enhance the capacity of interview panels to carry out gender sensitive interviews. Advertised positions have been revised to adopt gender-neutral language. Women are encouraged to apply for senior positions and the appointment of male nurses is also supported.

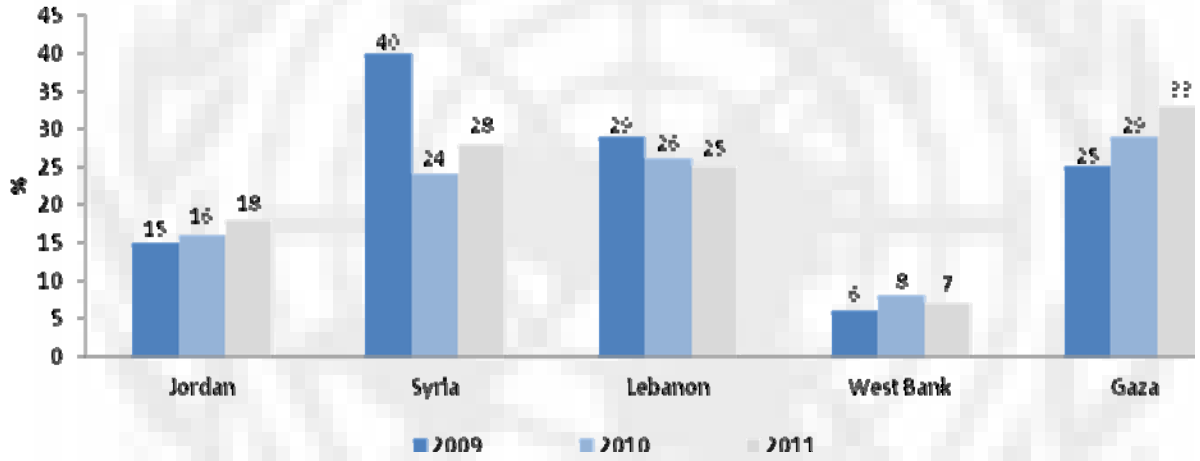


Figure 14 - Percentage of female medical officers in UNRWA health centres, 2009-2011

SECTION 3 – DATA

PART 1 - AGENCY WIDE TRENDS FOR SELECTED INDICATORS

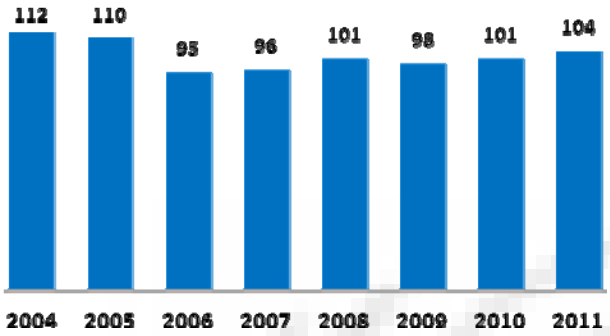


Figure 15 - Average daily medical consultations per doctor

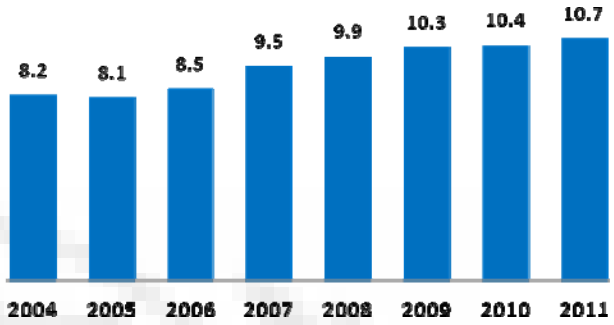


Figure 16 - No. of outpatient consultations (million)

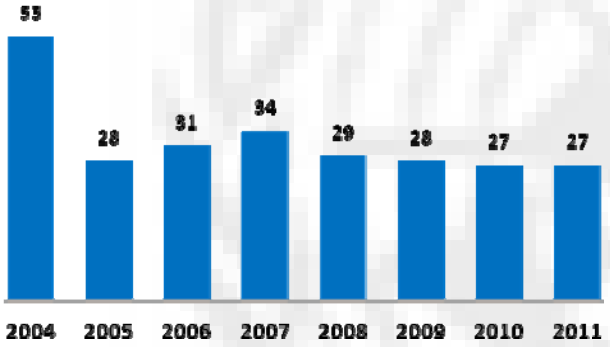


Figure 17 - Antimicrobial prescription rate

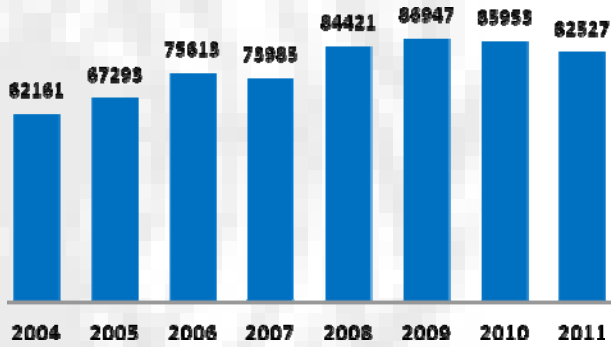


Figure 18 - No. of hospitalizations (Including Qalqilia Hospital)

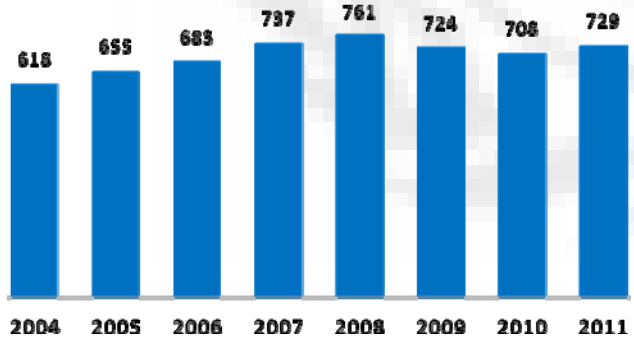


Figure 19 - No. of dental consultations (thousand)

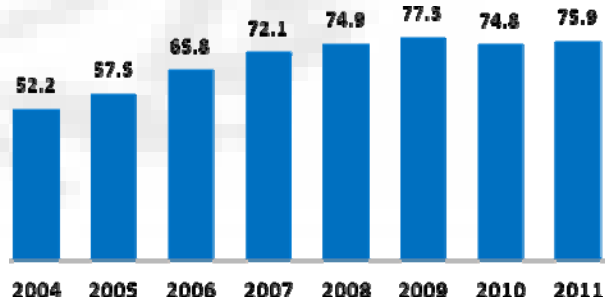


Figure 20 - % of pregnant women registered during the 1st trimester

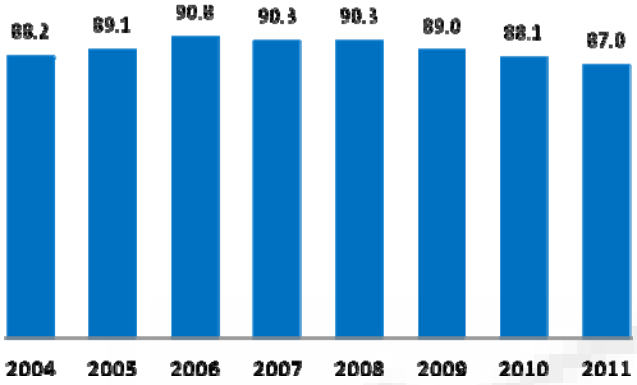


Figure 21 - % of pregnant women attending at least 4 ANC visit

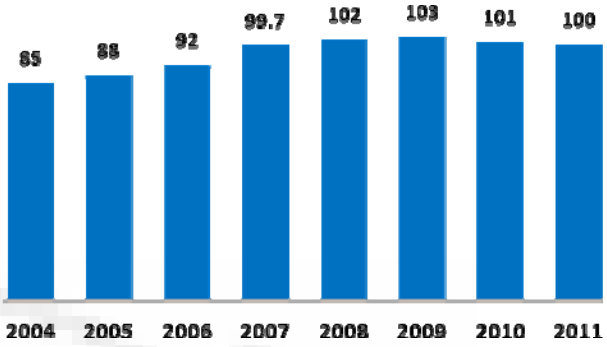


Figure 22 - No. of newly registered pregnant women (thousand)

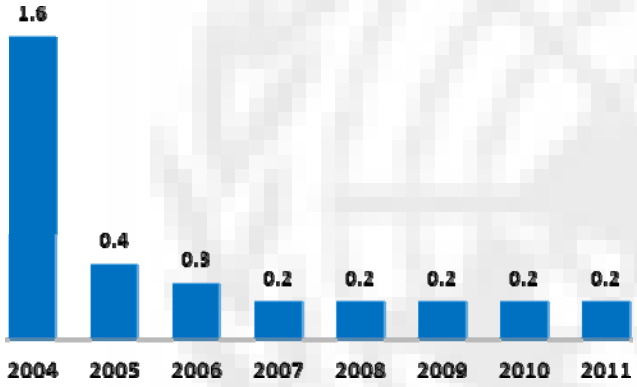


Figure 23 - % of deliveries with unknown outcome*
*women registered with ANC programme but lost to follow up

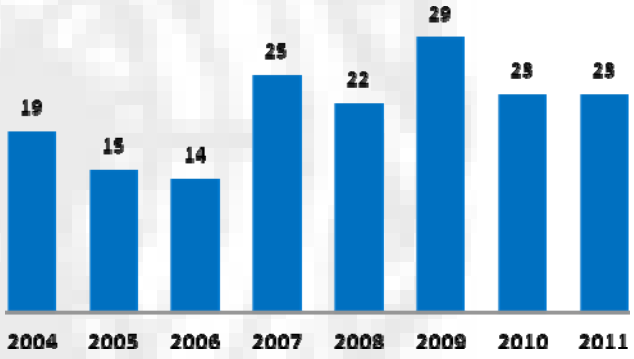


Figure 24 - No. of maternal deaths

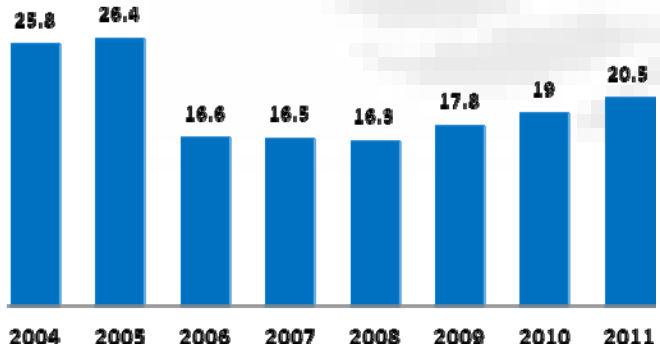


Figure 25 - % of Caesarean section deliveries

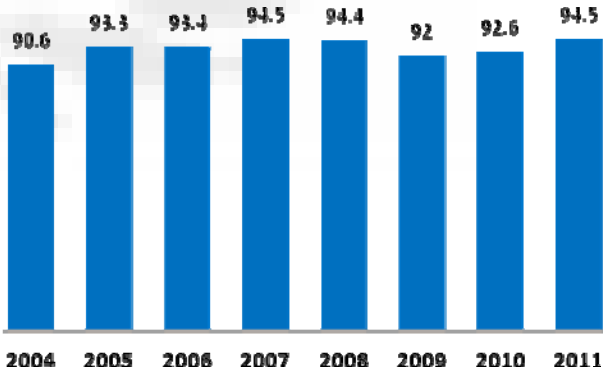


Figure 27 - % of women attending PNC within 6 weeks of delivery

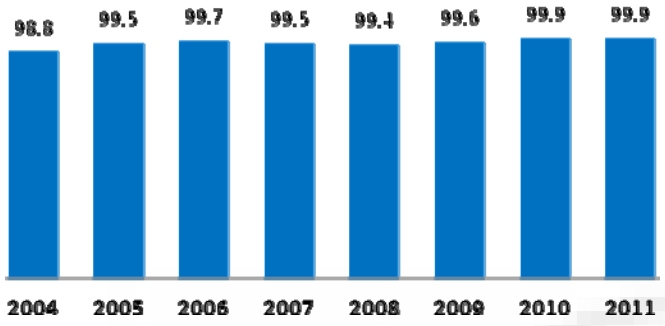


Figure 26 - % of pregnant women protected against tetanus

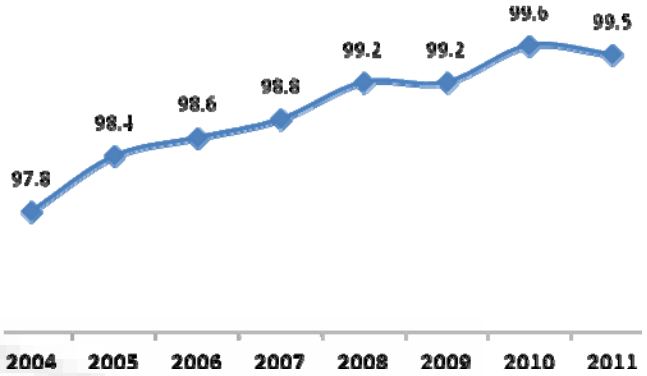


Figure 28 - % of deliveries in health institutions

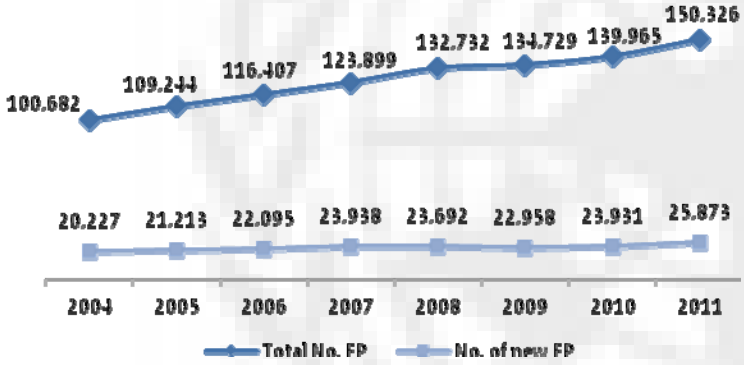


Figure 29 - New & total no. of family planning acceptors

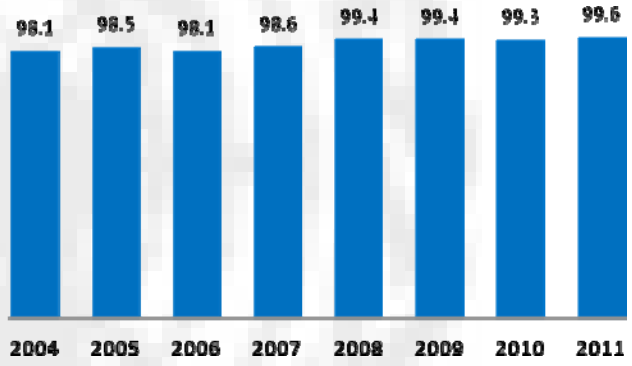


Figure 30 - % of children 18 months old received all EPI boosters

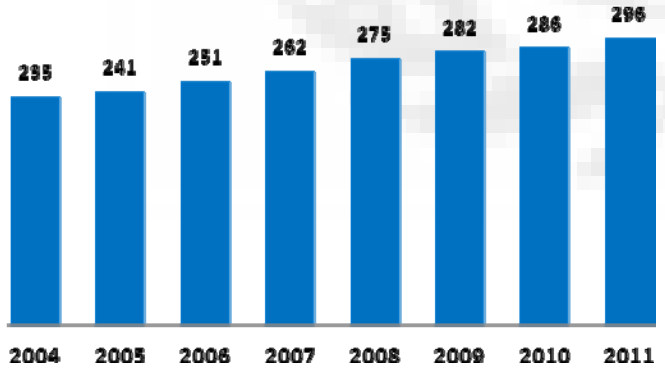


Figure 31 - No. of children 0-3 years registered (thousand)

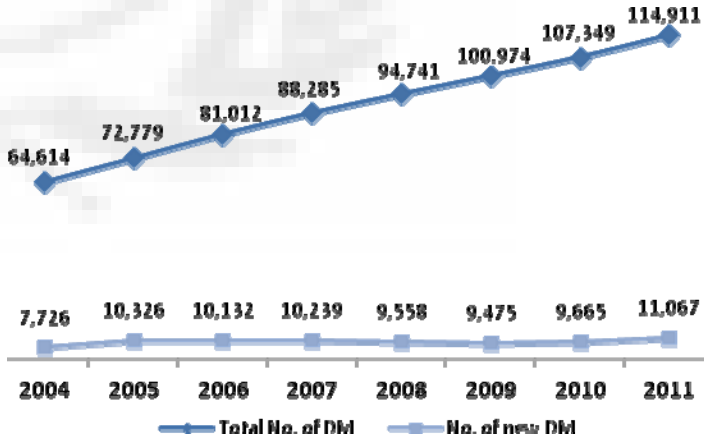


Figure 32 - New & total no. of patients with diabetes

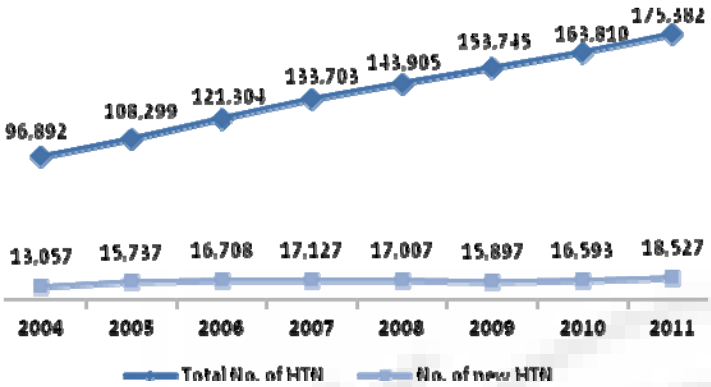


Figure 33 - New & total no. of patients with hypertension

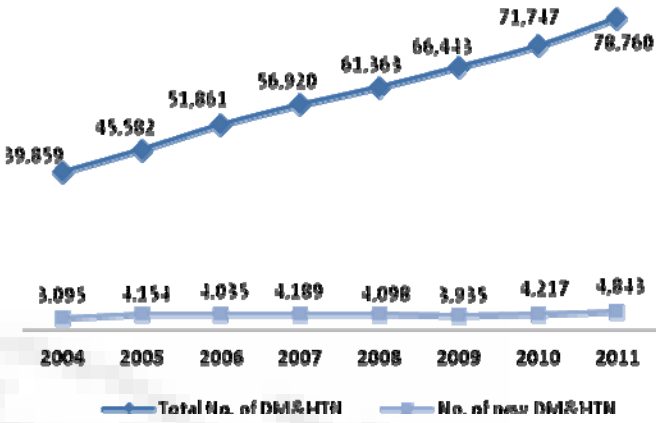


Figure 34 - New & total no. of patients with diabetes & hypertension

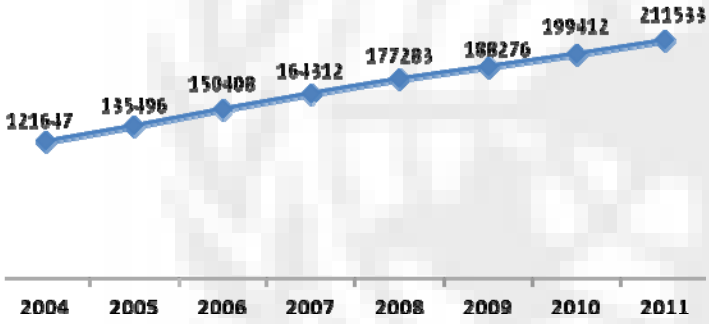


Figure 35 - Total No. of all patients with diabetes and/ or hypertension

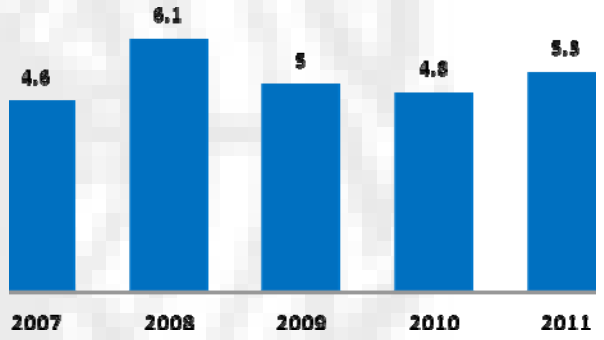


Figure 36 - % of NCD defaulters

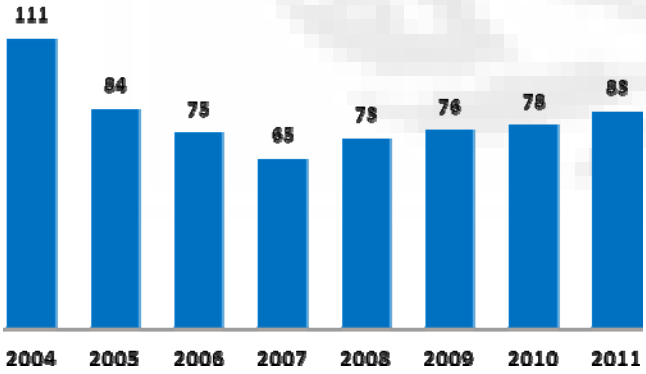


Figure 37 - No. of new reported TB cases

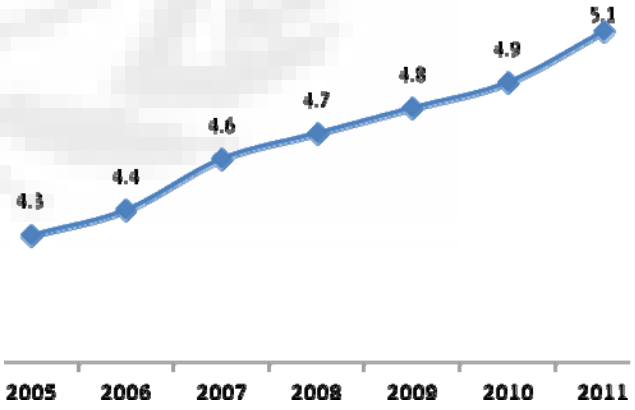


Figure 38 - No. of registered populations (millions)

PART 2 - FIELD IMPLEMENTATION PLANS 2012/13 - INDICATOR TRENDS

Table 10 - Field Implementation Plan 2012/13 - Indicator Trends: Jordan Field

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	95.0	98.2	96.2	101.0	96.2
	Antimicrobial prescription rate (%)	29.6	24.1	33.1	29	26
	% Preventive dental consultations of total dental consultations	29.5	29.6	21.8	25.5	30.3
	% 4th grade school children identified with vision defect – male	15.7	11.3	11	11.2	13.6
	% 4th grade school children identified with vision defect female	18.2	15.4	15.1	16.7	19.4
	No. of hospitalizations(1)	12,457	22,917	24,114	19,859	16,069
	% Health centres implementing at least one Ehealth module	0	0	0	1	3
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	87.6	87.9	86.4	85.2	86.2
	% 18 month old children that received 2 doses of Vitamin A	98.1	98.7	98.9	98.6	98.9
	No. of women newly enrolled in preconception care program (4)					3332
	% Women attending postnatal care within 6 weeks of delivery	90.5	91.0	85.7	87.5	88.0
	No. of continuing family planning acceptors	32,799	35,246	35,129	37,307	38,640
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	98.8	100	100	99.6	97.8
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	3,504	3,472	3,575	3,638	4,137
	Total no. of patients with diabetes mellitus	29,844	31,765	33,907	36,466	39,299
	No. of new patients with hypertension	5,508	5,733	5,749	5,533	6,544
	Total no. of patients with hypertension	43,195	46,084	49,531	52,794	56,480
	No. of new patients with diabetes & hypertension	1,673	1,535	1,643	1,591	1,919
	Total no. of patients with diabetes & hypertension	20,592	21,673	23,509	25,307	27,470
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	98.1	98.7	98.9	98.6	98.9
	No. of new TB cases detected	7	8	2	5	5

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC program established in 2011

Table 11 - Field Implementation Plan 2012/13 - Indicator Trends: Lebanon Field

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	89.0	101.6	107.1	104.0	117.3
	Antimicrobial prescription rate (%)	19	22.1	19.9	20	20
	% Preventive dental consultations of total dental consultations	33.5	22.1	24.8	27.4	35
	% 4th grade school children identified with vision defect – male	15	15.8	11.9	12	12.6
	% 4th grade school children identified with vision defect female	18	18.9	15.2	12.3	9.9
	No. of hospitalizations(1)	21,118	20,978	21,912	25,763	26,030
	% Health centres implementing at least one Ehealth module			29	29	28
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	93.8	95.9	93.2	92.3	90.9
	% 18 month old children that received 2 doses of Vitamin A	100.0	99.7	98.6	99	100
	No. of women newly enrolled in preconception care program (4)					1680
	% Women attending postnatal care within 6 weeks of delivery	96.5	97.5	96.6	95.1	97.0
	No. of continuing family planning acceptors	12,345	12,598	12,942	13,269	13,597
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	100	100	100	100	100
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	540	614	671	735	729
	Total no. of patients with diabetes mellitus	8,665	8,967	9,529	10,070	10,965
	No. of new patients with hypertension	1,483	1,463	1,587	1,643	1,795
	Total no. of patients with hypertension	17,328	17,807	18,657	19,481	20,713
	No. of new patients with diabetes & hypertension	198	231	274	338	343
	Total no. of patients with diabetes & hypertension	6,440	6,640	7,106	7,594	8,437
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	100.0	99.7	98.6	99	100
	No. of new TB cases detected	12	14	11	13	19

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC program established in 2011

Table 12 - Field Implementation Plan 2012/13 - Indicator Trends: Syria Field

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	92.0	112.8	83.2	97.0	94.9
	Antimicrobial prescription rate (%)	32	34	27	30	31
	% Preventive dental consultations of total dental consultations	45.8	48.1	32	41.3	40.9
	% 4th grade school children identified with vision defect – male	2	4.5	4.5	2.7	2.9
	% 4th grade school children identified with vision defect female	1	4	4	2.6	2.5
	No. of hospitalizations(1)	10,890	11,012	9,963	8,543	6,926
	% Health centres implementing at least one Ehealth module	0	0	0	0	0
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	86.6	87.6	86.5	79.5	78.5
	% 18 month old children that received 2 doses of Vitamin A	99.9	99.3	99.5	99.4	99.9
	No. of women newly enrolled in preconception care program (4)					638
	% Women attending postnatal care within 6 weeks of delivery	93.6	93.1	95.4	95.6	96.0
	No. of continuing family planning acceptors	18,169	18,267	18,751	18,778	19,313
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	100	99.6	99.6	97.9	99.2
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	1,001	1,089	951	984	1,033
	Total no. of patients with diabetes mellitus	10,814	11,428	11,985	12,618	13,360
	No. of new patients with hypertension	1,877	1,946	1,710	1,977	2,066
	Total no. of patients with hypertension	17,777	18,847	19,878	21,045	22,351
	No. of new patients with diabetes & hypertension	393	417	392	440	452
	Total no. of patients with diabetes & hypertension	7,065	7,739	8,203	8,780	9,598
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	99.9	99.3	99.5	99.4	99.9
	No. of new TB cases detected	33	45	59	50	52

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC program established in 2011

Table 13 - Field Implementation Plan 2012/13 - Indicator Trends: Gaza Field

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	116.0	102.6	97.0	98.1	102.7
	Antimicrobial prescription rate (%)	55.4	29	25.7	26	25.2
	% Preventive dental consultations of total dental consultations	39.9	39.3	28.8	26.8	26.3
	% 4th grade school children identified with vision defect – male	10	9.3	16.3	12.9	12.1
	% 4th grade school children identified with vision defect female	13.5	11.8	18.1	18.2	17.8
	No. of hospitalizations(1)	3,944	4,763	4,590	4,575	4,810
	% Health centres implementing at least one Ehealth module	0	0	0	0	0
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	96.1	96.0	93.6	93.7	92.5
	% 18 month old children that received 2 doses of Vitamin A	98.4	100.0	99.9	99.8	100.0
	No. of women newly enrolled in preconception care program (4)					6213
	% Women attending postnatal care within 6 weeks of delivery	98.9	99.3	97.4	98.7	99.2
	No. of continuing family planning acceptors	41,874	45,232	47,479	49,797	54,698
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	97	99.8	99.9	99.8	100
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	3,326	2,689	2,443	2,962	3,562
	Total no. of patients with diabetes mellitus	23,301	25,647	27,447	29,313	31,338
	No. of new patients with hypertension	5,656	5,120	4,273	5,460	5,770
	Total no. of patients with hypertension	34,211	38,376	41,298	44,988	48,551
	No. of new patients with diabetes & hypertension	1,108	1,023	844	1,304	1,496
	Total no. of patients with diabetes & hypertension	12,837	14,495	15,804	17,482	19,458
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	98.4	100.0	99.9	99.8	100.0
	No. of new TB cases detected	10	5	2	9	7

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC program established in 2011

Table 14 - Field Implementation Plan 2012/13 - Indicator Trends: West Bank

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	88.0	89.4	109.0	105.5	103.6
	Antimicrobial prescription rate (%)	37	37	34	30	30
	% Preventive dental consultations of total dental consultations	21.7	15.5	12.7	19.5	21
	% 4th grade school children identified with vision defect – male	8.8	10.1	9.8	10.7	7.6
	% 4th grade school children identified with vision defect female	10.8	9.2	11.1	10.7	10.7
	No. of hospitalizations(1)	25,576	24,751	26,368	27,213	28,692
	% Health centres implementing at least one Ehealth module	0	0	0	0	0
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	84.4	83.6	83.3	83.6	77.2
	% 18 month old children that received 2 doses of Vitamin A	99.3	100	99.5	99.9	99.8
	No. of women newly enrolled in preconception care programme (4)					1,585
	% Women attending postnatal care within 6 weeks of delivery	91.8	88.8	85.0	81.9	91.3
	No. of continuing family planning acceptors	18,709	19,519	20,428	20,814	24,078
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	99.2	99.1	99.5	97.9	99
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	1,868	2,051	1,835	1,346	1,606
	Total no. of patients with diabetes mellitus	15,267	16,934	18,106	18,882	19,949
	No. of new patients with hypertension	2,603	2,745	2,578	1,980	2,352
	Total no. of patients with hypertension	20,541	22,791	24,381	25,502	27,287
	No. of new patients with diabetes & hypertension	817	892	782	544	633
	Total no. of patients with diabetes & hypertension	9,697	10,816	11,821	12,584	13,797
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	99.3	100	99.5	99.9	99.8
	No. of new TB cases detected	3	1	2	1	0

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC programme established in 2011

Table 15 - Field Implementation Plan 2012/13 - Indicator Trends: Agency

SO	Indicator	2007	2008	2009	2010	2011
Strategic Objective 1	Average daily medical consultations per doctor	96	101	98.5	101	104
	Antimicrobial prescription rate (%)	34	29.3	28	27	27
	% Preventive dental consultations of total dental consultations	34.1	32.4	24.5	27.3	29.5
	% 4th grade school children identified with vision defect – male	9.8	9.6	12.5	11.2	11.0
	% 4th grade school children identified with vision defect female	12.6	11.8	14.2	14.7	14.5
	No. of hospitalizations(1)	73,985	84,421	86,947	85,953	82,527
	% Health centres implementing at least one Ehealth module	0	0	29	30	31
	% Health centres with no stock rupture of 15 tracer items (2)					
	% Health centres with emergency preparedness plans in place (3)					
Strategic Objective 2	% Pregnant women with at least 4 ANC visits	90.3	90.3	89	88.1	87.0
	% 18 month old children that received 2 doses of Vitamin A	98.6	99.4	99.4	99.3	99.6
	No. of women newly enrolled in preconception care programme (4)	-	-	-	-	13,448
	% Women attending postnatal care within 6 weeks of delivery	94.5	94.4	92.0	92.6	94.5
	No. of continuing family planning acceptors	123899	132732	134729	139965	150325
	No. of health centres with at least one staff member trained on detection and referral of GBV cases (2)					
	Diphtheria and tetanus coverage among targeted students	98.6	99.4	99.8	98.9	99.3
Strategic Objective 3	% Target population ≥ 40 years screened for diabetes mellitus (2)					
	% Patients with diabetes under control according to defined criteria (3)					
	No. of new patients with diabetes mellitus	10,239	9,915	9,475	9,665	11,067
	Total no. of patients with diabetes mellitus	87,891	94,741	100,974	107,349	114,911
	No. of new patients with hypertension	17,127	17,007	15,897	16,593	18,527
	Total no. of patients with hypertension	133,052	143,905	153,745	163,810	175,382
	No. of new patients with diabetes & hypertension	4,189	4,098	3,935	4,217	4,843
	Total no. of patients with diabetes & hypertension	56,631	61,363	66,443	71,747	78,760
	No. of vaccine preventable disease outbreaks	0	0	0	0	0
	% Children 18 months old that received all booster doses of EPI vaccines	98.6	99.4	99.4	99.3	99.6
	No. of new TB cases detected	65	73	76	78	83

(1)Includes Qalqilia Hospital & other hospital admissions subsidized by UNRWA
(2) New indicators starting 2012
(3)Criteria will change in 2012
(4) PCC programme established in 2011

PART 3 – 2011 DATA TABLES

Table 16 – Aggregated 2011 data tables

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
16.1 – DEMOGRAPHICS						
Population of host countries in 2011[8]	6,508,887	4,140,289	22,530,746	1,710,257	2,622,544	37,512,723
Registered refugees (no.)	2,047,367	465,798	510,444	1,217,519	874,627	5,115,755
Refugees in host countries (%)	30.7	11.0	2.2	68.3	32.4	13.2
Refugees accessing (served population) UNRWA health services in 2011 (%/no.)	52.5% (1,074,251	57.3% (267,105)	79.3% (404,637)	84.2% (1,025,625)	54.4% (475,588)	63.5% (3,247,206)
Children below 18 years (%)	32.7	25.6	32.7	43.0	33.3	34.6
Women of reproductive age: 15-49 years (%)	27.4	27.2	28.0	24.6	26.5	26.6
Population 40 years and above (%)	30.2	38.4	31.2	22.6	31.5	29.4
Population living in camps (%)	17.6	50.1	30.2	43.3	24.2	29
Average family size	5.5	5.2	4.5	6.3	5.9	5.5
Aging index (%)	34.1	51.2	31.9	15.8	30.1	28.8
Fertility rate	3.5	3.2	2.5	4.3	3.9	3.5
Male/female ratio	1.0	1.06	0.96	1.05	1.04	1.04
Dependency ratio	54.4	45.3	55.5	71.9	54.7	57.5
16.2- HEALTH INFRASTRUCTURE						
Primary health care (PHC) facilities (no.):						
Inside official camps	12	16	12	11	20	71
Outside official camps	12	12	11	10	22	67
Total	24	28	23	21	42	138
Ratio of PHC facilities per 100,000 population	1.2	6.0	4.5	1.7	4.8	2.7
Services within PHC facilities (no.):						
Laboratories	24	17	21	20	41	123
Dental clinics:						
- Stationed units	29	19	18	19	23	108
- Mobile units	4	3	1	3	0	11
Radiology facilities	2	4	0	6	9	21
Physiotherapy clinics	1	0	0	10	6	17
Hospitals	0	0	0	0	1	1
Health facilities implementing E-health	3	28	0	0	0	31

[8] *Sources UNRWA Registration Statistical Bulletin of 2011, and CIA World Fact-book July 2011 population estimates last accessed on 15/3/2012*https://www.cia.gov/library/publications/the-world-factbook/(

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
STRATEGIC OBJECTIVE 1						
16.3 - OUTPATIENT CARE						
(a) Outpatient consultations medical officer (no.)						
First visits						
Male	173,315	76,200	146,676	335,109	188,429	919,729
Female	288,606	104,382	182,651	497,189	255,979	1,328,807
Repeat visits						
Male	622,173	340,801	274,548	1,387,509	561,484	3,186,515
Female	1,168,007	544,182	384,392	2,041,638	839,293	4,977,512
Sub-total (a)	**2,252,101**	**1,065,565**	**988,267**	**4,261,445**	**1,845,185**	**10,412,563**
Ratio repeat to first visits	3.9	4.9	2.0	4.1	3.2	3.6
(b) Outpatient consultations specialist (no.)						
Gyn.& Obst.	42,774	20,856	15,134	82,886	8,951	170,601
Cardiology	5,760	12,236	378	10,462	324	29,160
Others	6,243	16,216	0	28,992	5,796	57,247
Sub-total (b)	**54,777**	**49,308**	**15,512**	**122,340**	**15,071**	**257,008**
Grand total (a) + (b)	**2,306,878**	**1,114,873**	**1,003,779**	**4,383,785**	**1,860,256**	**10,669,571**
16.4 - INPATIENT CARE						
Patients hospitalized -including Qalqilia (no.)	16,069	26,030	6,926	4,810	28,692	**82,527**
Average Length of stay (days)	1.9	2.4	1.2	3.0	2.0	2.1
Age distribution of admissions (%):-						
0-4 yrs	0.4	18.5	14.1	2.7	15.8	12.7
5-14 yrs	4.2	9.5	10.2	10.0	41.7	19.8
15-44 yrs	87.4	36.4	48.8	61.4	28.5	46.1
< 45 yrs	7.9	35.6	26.8	25.9	14.0	21.4
Sex distribution of admissions (%):						
Male	11.0	44.6	41.0	64.1	34.1	35.3
Female	89.0	55.4	59.0	35.9	65.9	64.7
Ward distribution of admissions (%):						
Surgery	16.0	23.2	50.4	80.1	23.0	27.3
Internal Medicine	16.8	58.6	9.6	14.6	42.8	38.3

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Ear, nose & throat	0.2	4.2	9.5	4.9	2.6	3.3
Ophthalmology	0.1	2.5	10.4	0	4.1	3.1
Obstetrics	66.8	11.5	20.1	0.4	27.5	27.9
16.5 - ORAL HEALTH SERVICES						
Dental curative consultation – Male (no.)	67,349	29,022	27,883	124,008	38,560	286,822
Dental curative consultation – Female (no.)	118,156	46,891	40,626	176,473	60,177	442,323
Total dental curative consultations (no.)	185,505	75,913	68,509	300,481	98,737	729,145
Dental screening consultations – Male (no.)	19,787	9,686	19,711	22,743	10,010	81,937
Dental screening consultations – Females (no)	49,816	20,034	26,597	69,163	20,819	186,429
Total dental screening consultations (no.)	69,603	29,720	46,308	91,906	30,829	268,366
% preventive of total dental consultations	30.3	35	40.9	26.3	21.0	29.5
Productivity (workload units /hour)	51.9	44.3	42.1	86.2	38.9	55.0
16.6 - PHYSICAL REHABILITATION						
Trauma patients	0	-	-	3,367	458	3,825
Non-Trauma patients	518	-	-	7,919	2,691	11,128
Total	518	-	-	11,286	3,149	14,953
STRATEGIC OBJECTIVE 2						
16.7 - FAMILY PLANNING SERVICES						
New family planning users (no.)	7,909	1,720	2,342	10,841	3,061	25,873
Continuing users at end year (no.)	38,640	13,597	19,313	54,698	24,078	150,326
Family planning discontinuation rate (%)	7.3	5.4	4.9	5.2	4.4	5.6
Family planning users according to method (%):						
IUD	39.7	43.2	46.6	51.6	58.2	48.2
Pills	31.2	23.4	26.5	25.8	22.8	26.6
Condoms	25.3	32.4	24.0	19.0	16.0	22.0
Spermicides	1.4	0.4	0.7	0.4	0.6	0.7
Injectables	2.3	0.6	2.2	3.2	2.4	2.5
16.8 - PRECONCEPTION CARE						
No. of women newly enrolled in preconception care programme	3,332	1,680	638	6,213	1,585	13,448

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
16.9 - ANTENATAL CARE						
Registered refugees (no.)	2,047,367	465,798	510,444	1,217,519	874,627	5,115,755
Expected pregnancies (no.)[9]	57,326	9,316	14,292	44,926	26,326	152,186
Newly registered pregnancies (no.)	28,758	5,444	8,611	43,571	14,111	100,495
Antenatal care coverage (%)	50.2	58.4	60.2	97	53.6	66.0
Trimester registered for antenatal care (%):						
1st trimester	76.3	83.8	74.7	77.3	68.7	75.9
2nd trimester	19.7	12.7	23.0	21.3	27.1	21.4
3rd trimester	4.0	3.5	2.2	1.3	4.2	2.7
Pregnant women with 4 antenatal visits or more (%)	86.2	90.9	78.5	92.5	77.2	87.0
Average no. of antenatal visits	5.5	6.6	7.8	6.2	5.3	6.7
Pregnant women by no. of antenatal visits attended (%):						
1	2.9	1.3	2.7	0.3	1.9	1.6
2 – 3	10.9	7.8	18.8	7.2	20.9	11.4
4 – 6	48.9	44.8	56.3	44.6	56.6	48.8
7 – 9	30.2	44.4	21.3	41.3	17.5	32.8
10+	7.1	1.7	0.9	6.6	3.0	5.4
16.10 - TETANUS IMMUNIZATION						
Pregnant women protected against tetanus (%)	99.8	99.6	99.8	100.0	99.6	99.9
16.11 - RISK STATUS ASSESSMENT						
Pregnant women by risk status (%):						
High	14.5	8.0	11.3	13.9	14.0	13
Alert	26.1	25.9	34.7	24.3	25.6	25.9
Low	59.4	66.1	54.0	61.7	60.4	60.5
16.12 - DIABETES MELLUTES AND HYPERTENSTION DURING PREGNANCY						
Diabetes during pregnancy (%)	5.3	3.9	2.7	2.7	4.6	**3.8**
Hypertension during pregnancy (%)	8.3	7.5	6.2	14.0	3.8	**9.9**
16.13 - DELIVERY CARE						

[9] Expected no. of pregnancies =population X CBR

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Expected deliveries (no.)	29,246	5,518	8,638	43,699	12,853	99,954
a - Reported deliveries (no.)	26,923	4,871	8,109	40,661	12,053	92,617
b- Reported abortions (no.)	2,315	647	505	3,038	639	7,144
a+b - Known delivery outcome (no.)	29,238	5,518	8,614	43,699	12,692	**99,761**
Unknown delivery outcome (no. / %)	8 (0.03%)	0	24 (0.3%)	0	161 (1.3%)	193 (0.2%)
Place of delivery (%):						
Home	0.1%	0.2%	3.7%	0.1%	0.3%	0.5%
Hospital	99.8%	99.6%	95.1%	94.9%	99.3%	97.2%
Private clinics	0.02%	0.15%	1.18%	5.08%	0.09%	2.3%
Deliveries in health institutions (%)	99.9%	99.8%	96.3%	99.9%	99.7%	99.5%
Deliveries assisted by trained personnel (%)	100%	99.9%	99.9%	100%	99.9%	99.9%
16.14 - MATERNAL DEATHS	**Jordan**	**Lebanon**	**Syria**	**Gaza**	**West Bank**	**Agency**
Maternal deaths by cause (no.)						
Pulmonary embolism	3	2		5	1	11
Haemorrhage		1		3	1	5
Cardiac causes	1		1			2
Septicaemia				2		2
Sickle cell disease		1				1
H1N1				1		1
Others				1		1
Total maternal deaths	4	4	1	12	2	23
C-Section among reported deliveries (%)	21.1	31	39.9	13.8	21.4	20.5
16.15 - POSTNATAL CARE						
Post natal care coverage (%)	88	97	96	99.2	91.3	94.5
16.16 - CARE OF CHILDREN UNDER FIVE YEARS						
Registered refugees (no.)	2,047,367	465,798	510,444	1,217,519	874,627	5,115,755
Estimated surviving infants (no.) [10]	56,031	9,139	13,889	44,005	25,813	148,877
Children < 1 year registered (no.)	28,629	5,181	9,668	40,775	10,512	94,765
Children < 1 year coverage of care (%)	51.1	56.7	69.6	92.7	40.7	63.7

No. of surviving infants = Population X crude birth rate X (1-IMR) [10]

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Children 1- < 2 years registered (no.)	30,868	5,122	10,104	42,627	11,245	99,966
Children 2- < 3 years registered (no.)	30,235	4,845	10,219	38,414	17,130	100,843
Total children 0-3 years registered (no.)	89,732	15,148	29,991	121,816	38,887	295,574
16.17 - IMMUNIZATION COVERAGE						
Immunization coverage children 12 months old (%):						
BCG	99.5	100	100	100	100	99.8
Poliomyelitis(IPV)	99.3	NA	99.9	100	99.8	99.7
Poliomyelitis(OPV)	99.3	99.7	99.8	100	99.8	99.7
Triple (DPT)	99.3	99.7	99.9	100	99.9	99.7
Hepatitis B	99.3	99.7	99.9	100	99.8	99.7
Hib	99.3	99.7	99.9	100	99.8	99.7
Measles	99.1	99.5	99.8	100	99.7	99.6
All vaccines	99.1	99.5	99.8	100	99.7	99.6
Immunization coverage children 18 months old - boosters (%)						
Poliomyelitis(OPV)	98.9	100	99.9	100	99.8	99.6
Triple (DPT)	98.9	100	99.9	100	99.8	99.6
MMR	98.9	100	99.9	100	99.8	99.6
16.18- GROWTH MONITORING AND NUTRIONAL SURVEILLANCE						
Children 0 - 3 years underweight:						
New cases among registered children 0-3 yrs (%)	0.9	2.7	2.3	4.5	1.4	2.7
Period prevalence 2011 (%)	3.1	5.1	5.4	9.4	2.5	6
Prevalence year end 2011 (%)	1.0	1.6	2.0	3.9	0.9	2.3
16.19 - SCHOOL HEALTH						
4th grade students screened for vision (No.) :						
Boys	6,374	1,806	3,703	15,113	2,481	29,477
Girls	5,593	1,805	3,767	11,773	3,416	26,354
Total	11,967	3,611	7,470	26,886	5,897	55,831
4th grade students with vision impairment (%)						
Boys	13.6	12.6	2.9	12.1	7.6	11.0
Girls	19.4	9.9	2.5	17.8	10.7	14.5
Total	16.4	11.2	2.7	14.6	9.4	12.6
7th grade students screened for vision (No.) :						
Boys	6,255	1,607	3,910	10,728	2,357	24,857

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Girls	5,959	1,837	3,524	10,240	3,318	24,878
Total	12,214	3444	7,434	20,968	5,675	49,735
7th grade students with vision impairment (%)						
Boys	16.7	8.1	2.4	11.9	11.8	11.3
Girls	19.1	10.6	3.2	16.9	11.2	14.3
Total	17.9	9.4	2.7	14.4	11.4	12.8
STRATEGIC OBJECTIVE 3						
16.20 – NON COMMUNICABLE DISEASES (NCD) PATIENTS REGISTERED WITH UNRWA						
Diabetes mellitus type I (no/%)	1,154 (1.7%)	224 (1%)	425 (1.6%)	1,028 (1.7%)	587 (1.8%)	3,418 (1.6%)
Diabetes mellitus type II (no/%)	10,675 (15.6%)	2,304 (9.9%)	3,337 (12.8%)	10,852 (18%)	5,565 (16.6%)	32,733 (15.5%)
Hypertension (no/%)	29,010 (42.5%)	12,276 (52.8%)	12,753 (48.8%)	29,093 (48.1%)	13,490 (40.3%)	96,622 (45.7%)
Diabetes mellitus & hypertension (no/%)	27,470 (40.2%)	8,437 (36.3%)	9,598 (36.8%)	19,458 (32.2%)	13,797 (41.3%)	78,760 (37.2%)
Total	**68,309**	**23,241**	**26,113**	**60,431**	**33,439**	**211,533**
16.21 - PREVALENCE OF HYPERTENSION AND DIABETES						
Served population ≥ 40 years with diabetes mellitus (%)	11.2	9.9	9.8	12.4	12.5	11.4
Served population ≥ 40 years with hypertension (%)	16.3	19.0	16.9	19.2	17.3	17.5
16.22 - MANAGEMENT						
Hypertensive patients on lifestyle management only (%)	1	9	1	5	0	3
Diabetes patients on insulin (%)	31.1	24.8	23.5	32.5	29.8	29.8
16.23 - RISK SCORING						
Risk status - patients with diabetes mellitus type 1 (%):						
Low	65.4	51.3	65.6	71.6	67.5	67.9
Medium	28.4	38.5	31.3	25.1	27.2	27.2
High	6.3	10	3.1	3.3	5.3	**4.9**
Risk status - patients with diabetes mellitus type 2 (%):						
Low	28.5	27.4	28.2	34.5	34.2	32
Medium	54.1	50.3	50.4	52.4	56.0	53.7
High	17.3	22.3	21.4	13.1	9.8	14.2
Risk status - patients with hypertension (%):						

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Low	19.2	25.4	21.2	12.0	32.3	19.9
Medium	56.8	52.5	57.4	48.0	54.6	53.5
High	24.0	22.1	21.4	39.9	13.1	26.6
Risk status - patients with diabetes & hypertension (%):						
Low	13.2	17.9	7.0	30.7	13.2	20.3
Medium	50.4	50.3	54.4	51.8	52.2	51.4
High	36.4	31.8	38.7	17.5	34.7	28.3
Risk factors among NCD patients (%):						
Smoking	17.0	31.2	22.4	12.4	15.7	17.7
Physical inactivity	54.1	19.0	39.2	57.7	25.2	44.7
Raised blood glucose	50.7	44.6	56.5	57.1	53.3	52.4
Raised blood pressure	40.8	35.9	48.8	47.2	45.3	43.0
Obesity	60.1	49.6	57.3	61.6	66.6	60.0
Raised cholesterol	44.6	44.7	48.7	50.5	49.4	47.4
16.24 - LATE COMPLICATIONS AMONG NCD PATIENTS (%)						
Diabetes mellitus type I	3.6	0	2.9	4.7	0	2.8
Diabetes mellitus type II	6.9	16.5	9.4	7.6	11.3	9.0
Hypertension	8.8	10.5	12.3	9.3	9.1	9.7
Diabetes mellitus & hypertension	17.1	16	18.8	20.6	16.2	17.9
All NCD patients	11.7	12.8	14.0	12.5	12.2	12.4
16.25 - DEFAULTERS						
NCD patients defaulting during 2011 (no.)	3,823	740	1,208	3,119	1,595	10,485
NCD patients defaulting during 2011/total registered end 2010 (%)	6.0	3.4	4.9	5.5	5.0	5.3
16.26 - FATALITY						
Reported deaths among registered NCD patients (no/%)	945 (1.5%)	548 (2.5%)	555 (2.2%)	1,107 (1.9%)	633 (2.0%)	3,788 (1.9%)
Reported deaths among registered NCD patients by morbidity (no):						
Diabetes mellitus	108	42	59	170	120	499
Hypertension	288	237	217	338	181	1,261
Diabetes mellitus & hypertension	549	269	279	599	332	2,028
16.27 - CANCER SCREENING						

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Breast cancer screened (no.)	-	1,432	1,417	-	-	2,849
Breast cancer (no.)	-	43	35	-	-	78
Breast cancer detection (%)	-	3	2.5	-	-	2.7
Cervical cancer screened (no.)	-	550		-	-	550
Cervical cancer (no.)	-	00		-	-	0
Cervical cancer detection (%)	-	00		-	-	0
16.28 - COMMUNICABLE DISEASES						
Registered refugees (no.)	2,047,367	465,798	510,444	1,217,519	874,627	5,115,755
Refugee population served (no.)	1,074,251	267,105	404,637	1,025,625	475,588	3,247,206
Reported cases (no.):						
Acute flaccid paralysis[11]	0	0	0	2	0	2
Poliomyelitis	0	0	0	0	0	0
Cholera	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0
Meningococcal meningitis	0	1	0	7	0	8
Meningitis – bacterial	0	0	2	23	2	27
Meningitis – viral	2	1	2	36	43	84
Influenza A(H1N1)	0	0	0	0	0	0
Tetanus neonatorum	0	0	0	0	0	0
Brucellosis	9	0	152	0	2	163
Watery diarrhoea (<5years)	9,180	7,880	1,944	15,549	8,734	43,287
Watery diarrhoea 0-5years)	11,607	5,130	4,460	21,697	11,303	54,197
Bloody diarrhoea	900	103	211	2,665	947	4,826
Viral Hepatitis	183	8	211	360	70	832
HIV/AIDS	0	0	0	0	0	0

[11] Among children <15 years

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Leishmania	1	0	122	0	0	123
Malaria	0	0	0	0	0	0
Measles (suspected)[12]	9	0	0	4	0	13
Gonorrhoea	1	3	0	0	0	4
Mumps	37	6	24	138	32	237
Pertussis	0	0	0	0	0	0
Rubella[12]	8	0	1	0	8	17
Tuberculosis, smear positive	4	8	9	5	0	26
Tuberculosis, smear negative	0	2	3	0	0	5
Tuberculosis, extra pulmonary	1	9	40	2	0	52
Typhoid fever[12]	2	1	28	43	0	74
CROSSCUTTING SERVICES						
16.29 - LABORATORY SERVICES						
Laboratory tests (no.)	1,190,756	349,900	542,418	2,117,376	850,536	5,050,986
Productivity (workload units / hour)	50.2	38.8	38.5	52.8	46.9	47.9
16.30 - RADIOLOGY SERVICES						
Plain x-rays inside UNRWA (no.)	3,901	24,127	0	39,886	31,036	98,950
Plain x-rays outside UNRWA (no.)	2,614	3,010	625	0	0	6,249
Other x-rays outside UNRWA (no.)	9	3,029	2,449	0	0	5,487

16.31 - HUMAN RESOURCES	HQ	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Health staff as at end of December 2011 (no.)							
(a) Medical care services :							
Doctors	4	112	55	61	172	100	504
Pharmacists	1	2	2	1	4	2	12
Dental Surgeons	0	30	15	19	31	27	122
Nurses	0	267	101	135	351	273	1127
Paramedical	1	131	32	76	195	198	633
Admin./Support Staff	6	91	26	63	138	91	415

[12] Include suspected and confirmed cases.

16.31 - HUMAN RESOURCES	HQ	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Labour category	1	103	57	64	152	102	478
Sub-total (a)	**12**	**736**	**288**	**419**	**1,043**	**793**	**3291**
(b)Environmental health services :							
Engineers	0	0	0	0	0	5	5
Admin/Support Staff	0	0	0	0	0	28	28
Labour category	0	0	0	0	0	199	199
Sub-total (b)	**0**	**0**	0	0	0	**232**	**232**
International	2	0	0	0	0	0	0
Grand total (a+b)	**14**	**736**	**288**	**419**	**1,043**	**1,025**	**3525**
Health personnel per 100,000 registered refugees:							
Doctors	-	5.5	11.8	12.0	14.1	11.4	9.8
Dental surgeons	-	1.5	3.2	3.7	2.5	3.1	2.4
Nurses	-	13.0	21.7	26.4	28.8	31.2	22.0

PART 4 - SELECTED SURVEY INDICATORS

DMFS survey, 2010

Table 17 - Descriptive: total DS, FS and DMFS sorted by age group

Age group	DS[13] Mean, SE (95%CI)	FS[14] Mean, SE (95%CI)	DMFS[15] Mean, SE (95%CI)8
11-12 year	3.27, 0.34 (2.61 – 3.94)	0.49, 0.13 (0.24 – 0.74)	3.83, 0.38 (3.08 – 4.58)
13year	3.20, 0.08 (3.04 – 3.36)	0.58, 0.03 (0.52 – 0.63)	3.92, 0.09 (3.74 – 4.10)
> 13 year	3.09, 0.49 (2.11 – 4.06)	0.94, 0.24 (0.46 – 1.42)	4.22, 0.54 (3.16 – 5.29)

Table 18 - DMFS, DS and FS sorted by age group and gender

Age group	gender	DS *Mean, SE (95%CI)*	FS *Mean, SE (95%CI)*	DMFS *Mean, SE (95%CI)*	DS/ DMFS %	FS/ DMFS %
11-12 year	males	3.38 0.47 (2.43 – 4.32)	0.39 0.12 (0.14 – 0.64)	3.90 0.52 (2.86 – 4.94)	86.5	10.0
	females	3.16 0.48 (2.20 – 4.12)	0.59 0.23 (0.14 – 1.05)	3.75 0.56 (2.64 – 4.86)	83.0	14.1
13year	males	3.23 0.12 (3.00 – 3.47)	0.55 0.04 (0.46 – 0.63)	3.90 0.13 (3.65 – 4.15)	77.2	22.8
	females	3.16, 0.12 (2.93 – 3.40)	0.60 0.04 (0.52 – 0.68)	3.9 0.13 (3.67 – 4.20)	84.2	15.8
> 13 year	males	3.75 0.85 (2.03 – 5.48)	1.11 0.47(0.16 – 2.06)	4.87 0.90 (3.05 – 6.68)	80.4	15.3
	females	2.57, 0.57 (1.43 – 3.70)	0.81 0.22 (0.36 – 1.25)	3.72 0.65 (2.42 – 5.03)	69.0	21.8

Table 19 - DMFS, DS and FS sorted by Field

Decayed Surface [13]

Filling Surface [14]

Decayed, Missing, Filled Surface [15]

Field	DS Mean, SE (95%CI)	FS Mean, SE (95%CI)	DMFS Mean, SE (95%CI)	DS/ DMFS %	FS/ DMFS %
Gaza	2.21 0.11 (1.99 – 2.42)	0.34 0.04 (0.25 – 0.42)	2.66 0.12 (2.38 – 2.87)	82.9	12.7
West Bank	5.02 0.21 (4.60 – 5.44)	0.54 0.06 (0.42 – 0.66)	5.88 0.23 (5.42 – 6.34)	85.4	9.2
Lebanon	2.99 0.21 (2.57 – 3.41)	0.77 0.08 (0.61 – 0.92)	3.78 0.23 (3.33 – 4.23)	79.2	20.3
Syria	3.37 0.18 (3.02 – 3.72)	0.7 0.09 (0.59 – 0.93)	4.22 0.20 (3.82 – 4.62)	80.0	18.0
Jordan	2.48 0.15 (2.19 – 2.78)	0.55 0.05 (0.45 – 0.64)	3.23 0.17 (2.89 – 3.56)	76.9	17.0

Current practices of contraceptive use among mothers of children 0-3 years survey, 2010

Table 20 - Selected reproductive health survey indicators

Indicators	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Mean birth interval (months)	32.7	36.9	35.1	29.3	32.8	33.3
Percentage of women married by the age < 18 years	22.2	18.9	18.5	33	30.2	24.6
Percentage of women with birth intervals < 24 months	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	47.7	67.4	47.1	59.1	61.7
Mean marital age (women)	20.5	21	21	19.2	19.4	20.2

Table 21 - Total fertility rates among mothers of children 0 to 3 years of age who attended the Maternal and Child Health clinics

Field	1995	2000	2005	2010
Jordan	4.6	3.6	3.3	3.5
Lebanon	3.8	2.5	2.3	3.2
Syria	3.5	2.6	2.4	2.5
Gaza Strip	5.3	4.4	4.6	4.3
West Bank	4.6	4.1	3.1	3.9
Agency	**4.7**	**3.5**	**3.2**	**3.5**

Prevalence of anaemia among pregnant women, nursing mothers and children 6-36 months of age survey, 2005

Table 22 - Selected anaemia survey indicators

Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Percentage of infants breastfed for at least one month	75.9	87.2	78.3	65.0	87.1	78.9
Prevalence of exclusive breast feeding up to 4 months	24.0	30.2	40.3	33.3	34.5	32.7
Prevalence of anaemia among children < 3 years of age	28.4	33.4	17.2	54.7	34.2	33.8
Prevalence of anaemia among pregnant women	22.5	25.5	16.2	35.6	29.5	26.3
Prevalence of anaemia among nursing mothers	22.2	26.6	21.7	45.7	23.0	28.6
Prevalence of anaemia among school children						
• 1 st grade	14.4	22.3	9.1	36.4	14.6	19.5
• 2 nd grade	11.6	16.9	6.0	11.4	14.9	12

PART 5 - HEALTH DEPARTMENT FINANCIAL DATA

The graphs following represent only the General Fund component of UNRWA health expenditure. The General Fund is complemented by project funding in all Fields.

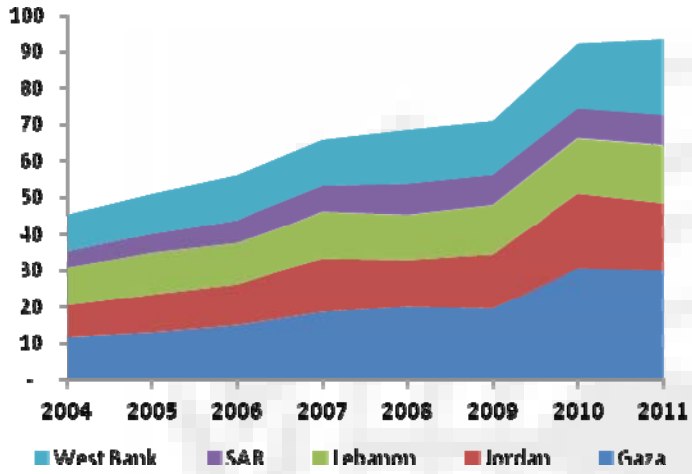


Figure 39 - Total Health Expenditure – GF (Million USD)

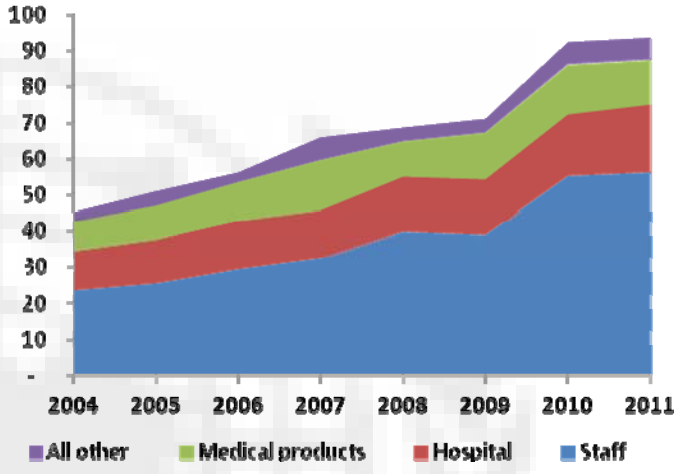


Figure 40 - Total Health Expenditure by category – GF (Million USD)

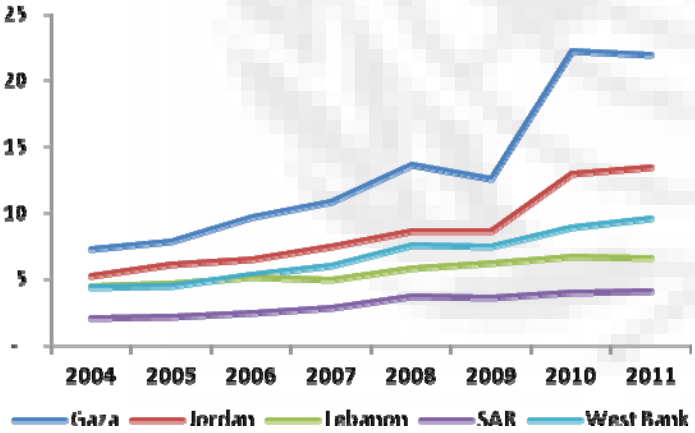


Figure 41 - Total health staff expenditure - GF (Million USD)

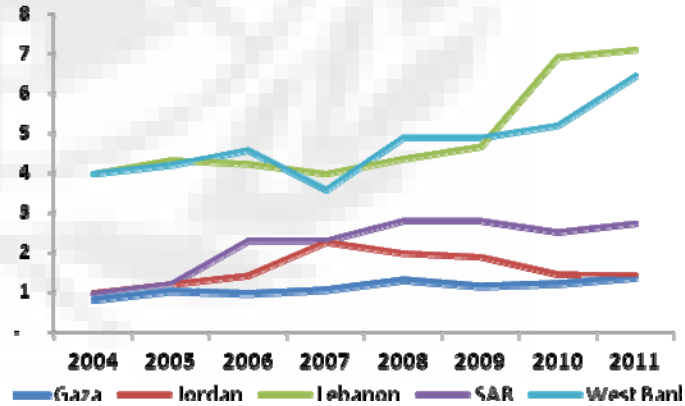


Figure 42 - Total hospital expenditure – GF (Million USD)

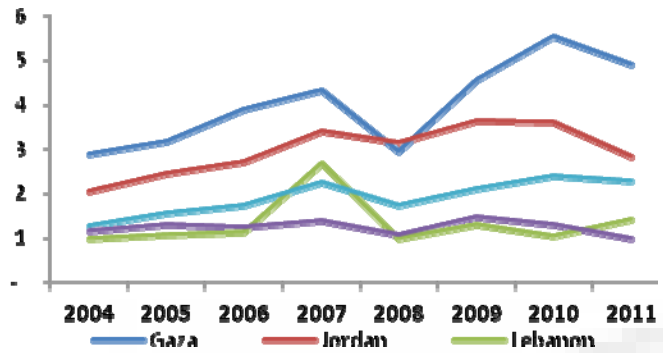


Figure 43 - Total medical products expenditure – GF (Million USD)

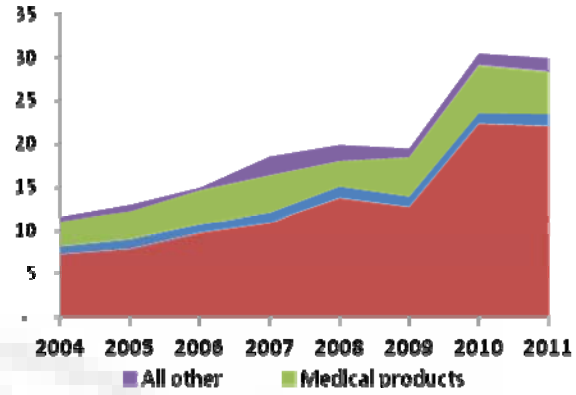


Figure 44 - Health expenditure – GF, Gaza Field (Million USD)

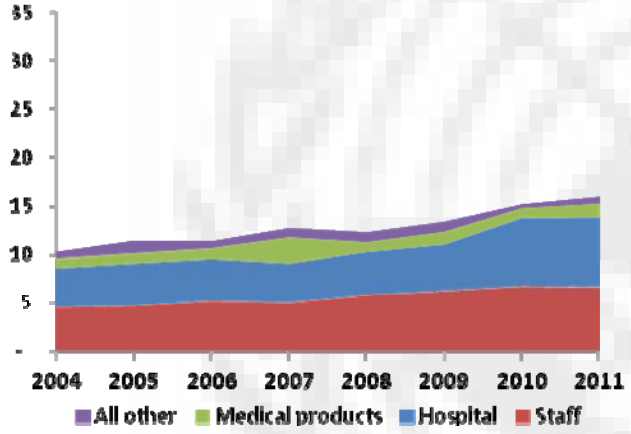


Figure 45 - Health expenditure – GF, Lebanon Field (Million USD)

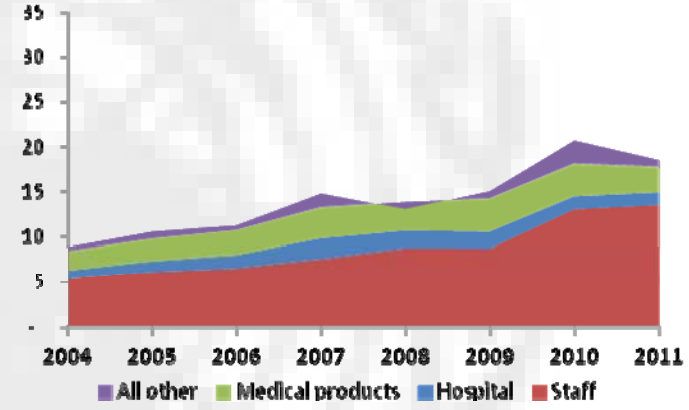


Figure 46 - Health expenditure – GF, Jordan Field(Million USD)

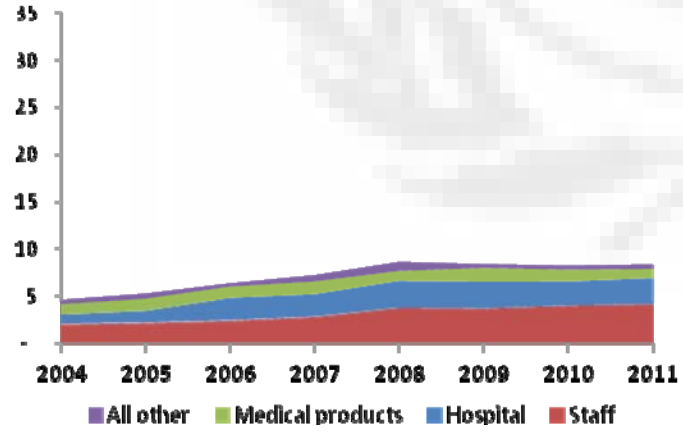


Figure 47 - Health expenditure – GF, Syria Field (Million USD)

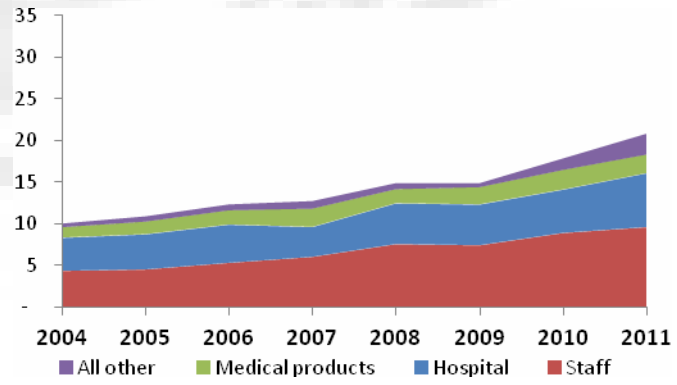


Figure 48 - Health expenditure – GF, West Bank Field (Million USD)

Table 23 - Expenditure on medical equipment, 2011 (GF: General Fund, P: Project Fund) in USD

Field	Laboratory Services		Out Patient Services		MCH services		Disease Prevention and Control		Physical Rehablitation services		Oral Health Services		Qalqilia Hospital	
	GF	P	GF	P	GF	P	GF	P	GF	P	GF	P	GF	P
Gaza	239	203,387	135,356	657,255			0	10,688	0	105,713	3,949	25,820		
Lebanon	0	1,920	26,850	44,037			0	62,660						
SAR	0	25845	7,788	70,511	0	28,043					0	5,395		
West Bank	36,518	110853	5,358	281,442	61,265	0	0	266,848	33,367	0	318	45,587	88,319	0
Jordan	1,940	8950	338,341	69,305							22,884	0		
Sub total	38,697	350,955	513,693	1,122,550	61,265	28,043	0	340,196	33,367	105,713	27,151	76,802	88,319	0
Grand total	**389,652**		**1,636,243**		**89,308**		**340,196**		**139,080**		**103,953**		**88,319**	

Table 24 - Expenditure on Laboratory Services 2011

Expenditure (USD)	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Supplies	177,441	76,923	93,339	302,567	212,322	862,592
%	**20.6**	**8.9**	**10.8**	**35.1**	**24.6**	**100**
Equipment-GF	1,940	0	0	239	36,518	38,697
Equipment-P	8,950	1,920	25,845	203,387	110,853	350,955
Equipment-Total	10,890	1,920	25,845	203,626	147,371	389,652
%	**2.8**	**0.5**	**6.6**	**52.3**	**37.8**	**100**

Table 25 - Agency-wide common log frame

Strategic Objective	Outcome	Outcome Indicators	Output	Output Indicators
1. Ensure access to quality comprehensive primary health care services	1.1 Quality of health services maintained and improved	• Average daily medical consultations per doctor	• General outpatient services maintained & improved	• Antimicrobial prescription rate (%)
				• % preventive dental consultations of total dental consultations
				• % 4th grade school children identified with vision defect
			• Access to hospital care ensured	• Total no. of hospitalizations (secondary and tertiary)
			• Health management support strengthened	• % Health centres implementing at least one Ehealth module
			• Drug management system in place	• % Health centres with no stock rupture of 15 tracer items
			• Emergency health services maintained and improved	• % Health centres with emergency preparedness plans in place
			• Health Centre Infrastructure improved	• % Upgraded health centres meeting UNRWA's infrastructure security, safety and accessibility standards*
2. Protect and promote family health	2.1 Coverage and quality of maternal & child health services maintained & improved	• % Pregnant women attending at least 4 antenatal care visits • % 18 month old children that received 2 doses of Vitamin A	• Comprehensive maternal and child health services delivered	• No. of women newly enrolled in pre-conception care program
				• % Women attending postnatal care within 6 weeks of delivery
				• No. of continuing family planning acceptors
				• % HCs with at least one clinical staff member trained on detection and referral of gender based violence cases
			• School health services strengthened	• Diphtheria and tetanus (dT) coverage among targeted students
3. Prevent and control diseases	3.1 Coverage and quality non-communicable disease (NCD) care improved	• % target population ≥40 years screened for diabetes mellitus • % patients with diabetes under control according to defined criteria	• Appropriate management of NCDs ensured	• No. of new NCD patients in program (DM, HT, DM&HT disaggregated)
				• Total no. of NCD patients in program (DM, HT, DM&HT disaggregated)
	3.2 Communicable diseases contained and controlled	• No. of vaccine preventable disease outbreaks	• Prevention and control of communicable diseases maintained	• % 18 month old children that have received all EPI vaccinations according to host country requirements
				• No. of new TB cases detected
			• Current level of environmental health services maintained	• % shelters connected to public water network*
				• % shelters connected to public sewerage network*

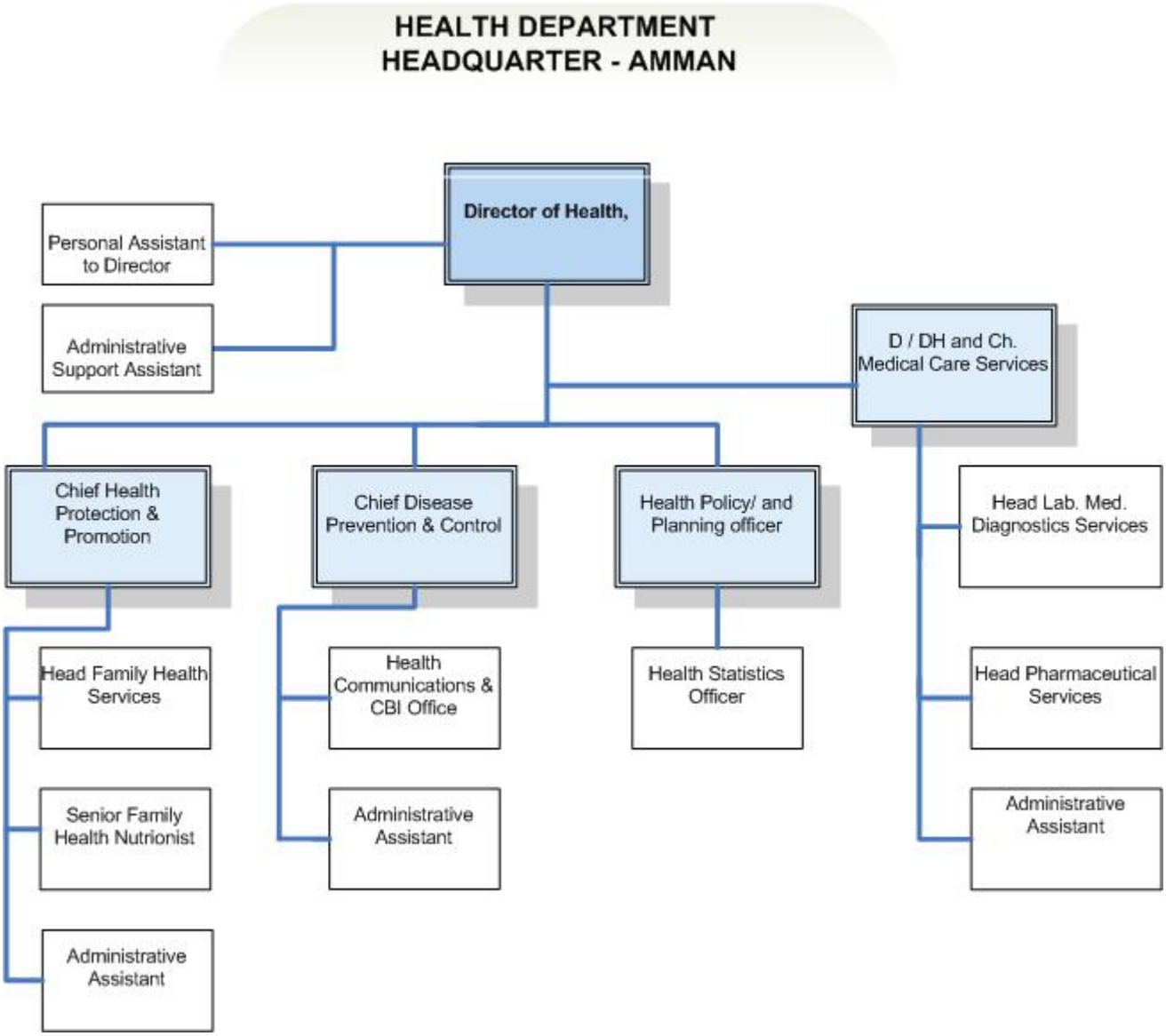
*Monitored by Infrastructure and Camp Improvement Program

Table 26 - Agency-wide Common Indicators

Indicator	Calculation
Average daily medical consultations per doctor	Total workload (All patients seen by all medical officers) No. of medical officers X working days
Antimicrobial prescription rate	No. of patients receiving antimicrobial prescription x 100 All patients attending curative services (general outpatient clinic + sick babies + sick women + sick NCD)
% Preventive dental consultations of total dental consultations	No. of preventive dental consultations x 100 Total no. of preventive & curative dental consultations
% 4th grade school children identified with vision defect	No. of 4th grade school children identified with vision defect x 100 No. of 4th grade school children screened by UNRWA school health program
Total no. of hospitalizations (secondary and tertiary)	Total no. of hospitalizations
% Health centres implementing at least one Ehealth module	No. of HCs implementing at least one Ehealth module x 100 Total No. of HCs
% Health centres with no stock-outs of 15 tracer items	No. of HCs with no stock-outs of 15 tracer items x 100 Total no. of HCs
% Health centres with emergency preparedness plans in place	No. of HCs with emergency preparedness plan in place x 100 Total no. of targeted HCs
% Pregnant women attending at least 4 ANC visits	No. of pregnant women attending at least 4 ANC visits x 100 No. of deliveries
% 18 months old children that received 2 doses of Vitamin A	No. of children 18 months old that received 2 doses of Vit A x 100 No. of registered children 1 - < 2 years
No. of women newly enrolled in Pre-Conception Care program	No. of women newly enrolled in Pre-Conception Care program
% Women attending PNC within 6 weeks of delivery	No. of women attending postnatal care within 6 wks of delivery x 100 Total no. of deliveries
No. of continuing family planning acceptors	No. of continuing family planning acceptors
% Health centres with at least one clinical staff trained on detection & referral of GBV cases	No. of HCs with at least one clinical staff trained on GBV x 100 Total no. of HCs
Diphtheria and tetanus (dT) coverage among targeted students	No. of school children that received dT x 100 Total no. of school children targeted
% Targeted population 40 years and above screened for diabetes mellitus	No. of patients 40 years and above screened for diabetes x 100 (Total no. of served population 40 years and above) – (total no. of diabetes patients currently registered in NCD program)
% Patients with diabetes under control according to defined criteria	No. of DM patients defined as controlled according to HbA1C or postprandial glucose criteria x 100

Indicator	Calculation
	Total no. of DM patients
No. of new NCD patients in programme (Diabetes mellitus)	No. of new NCD patients in programme (Diabetes mellitus; Hypertension; Diabetes mellitus & Hypertension)
Total No. of NCD patients in programme (Diabetes mellitus)	Total No. of NCD patients in programme (Diabetes mellitus; Hypertension; Diabetes mellitus & Hypertension)
No. of EPI vaccine preventable diseases outbreaks	No. of EPI vaccine preventable diseases outbreaks
%18 month old children that have received all EPI vaccinations according to host country requirements	No. of children 18 months old that received all doses for all required vaccines x 100 Total no. of children 18 months old
No. of new TB cases detected	No. of new TB cases detected (smear positive + smear negative + extra pulmonary)

ANNEX 2 - FUNCTIONAL CHART OF THE UNRWA HEALTH PROGRAMME



ANNEX 3 - HEALTH MAPS, 2011

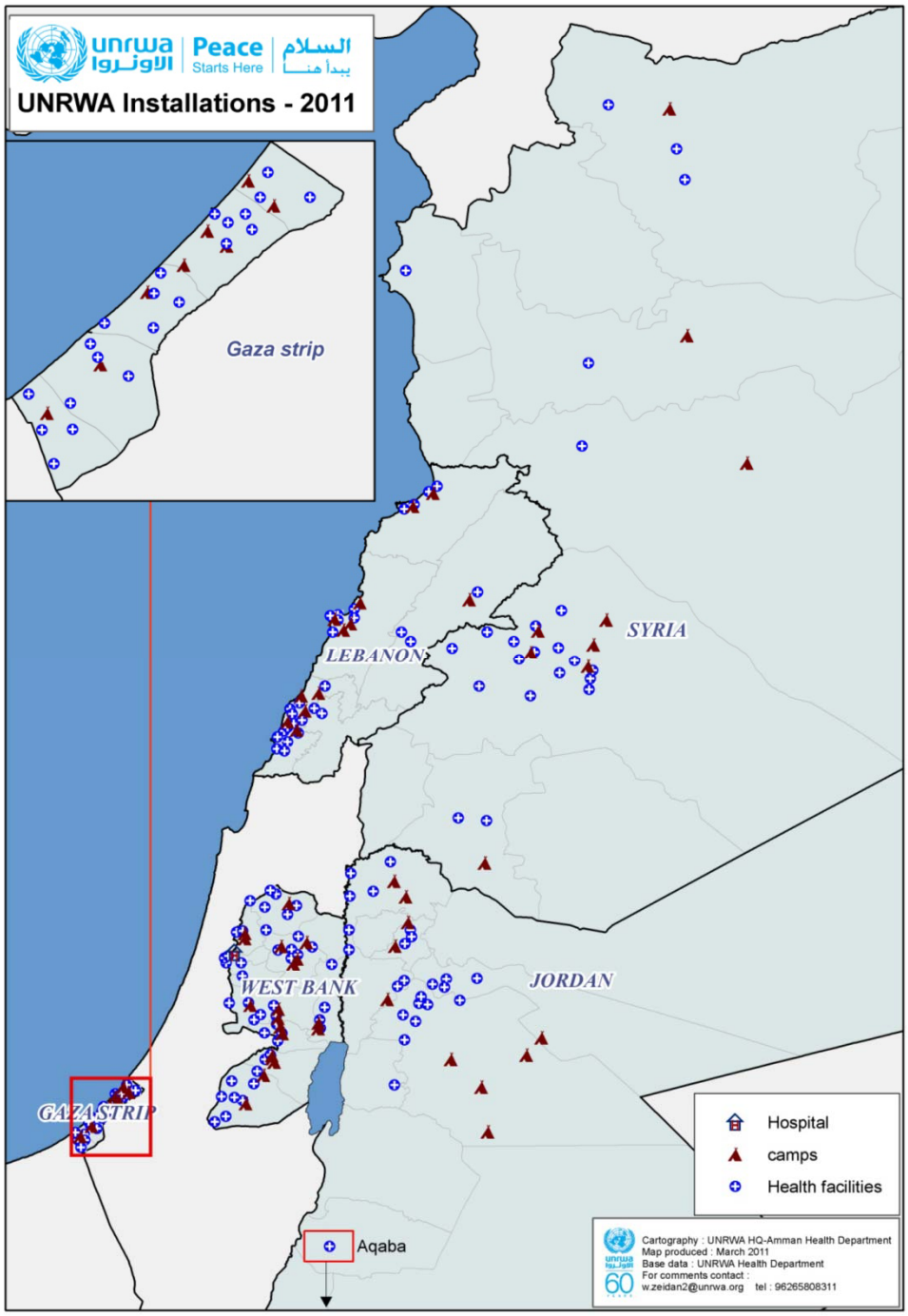


Figure 49 - UNRWA installations, 2011

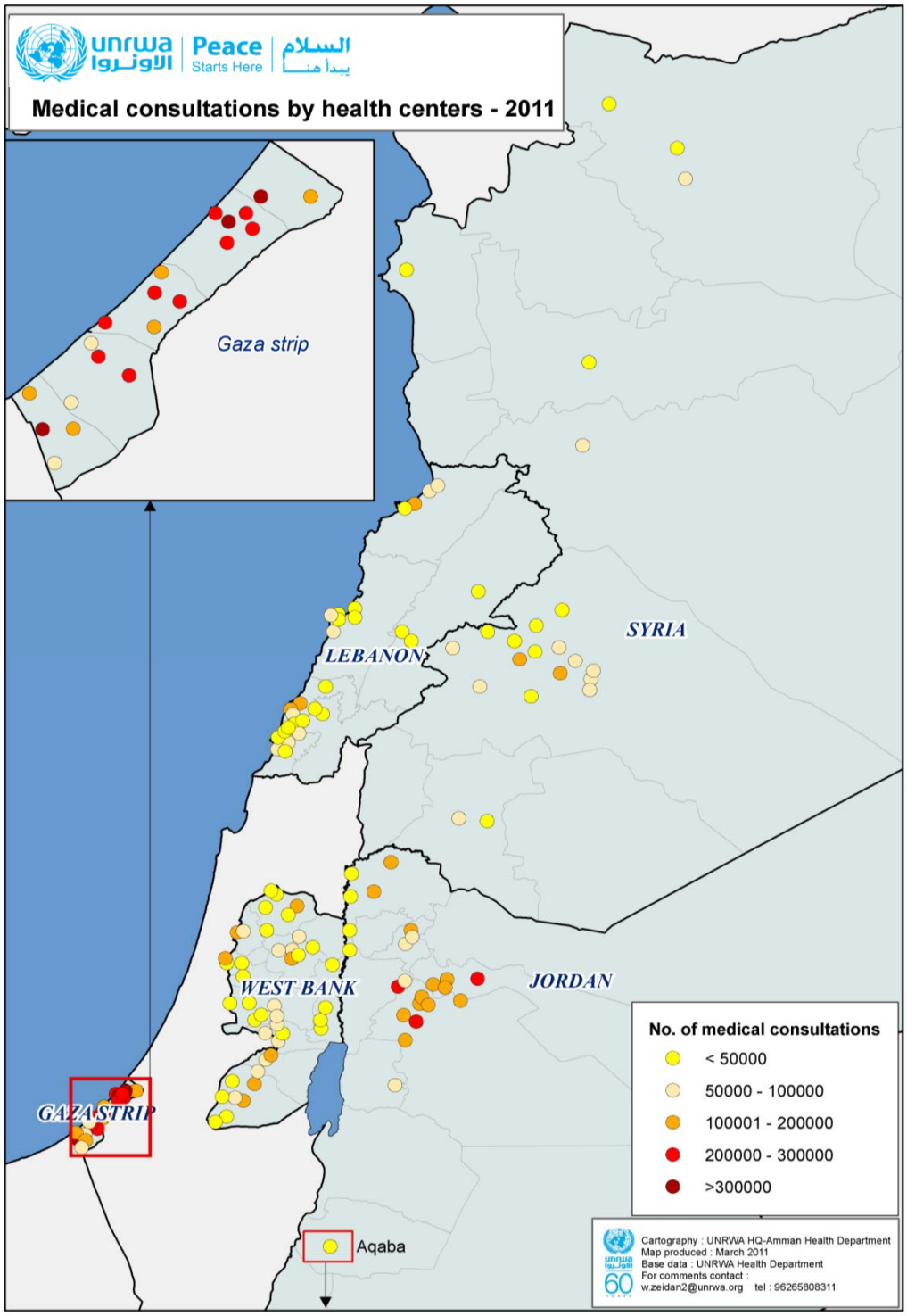


Figure 50 – UNRWA medical consultations by health centre, 2011

ANNEX 4 - CONTACTS OF SENIOR STAFF OF THE UNRWA HEALTH PROGRAMME

Technical staff in the Health Department

Headquarters staff

Post Title	Incumbent	Telephone	E-mail address
WHO Special Representative	Dr. Akihiro Seita	5808300	a.seita@unrwa.org
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Health Policy & Planning Officer	Dr. Wendy Venter	5808304	w.venter@unrwa.org
Health Communication and Community-	Dr. Yassir Turki	5808309	y.turki@unrwa.org
Health Statistics Officer	Ms. Wafa Zeidan	5808311	w.zeidan2@unrwa.org
Division of Health Protection & Promotion			
Chief, Health Protection & Promotion	Dr. Ali Khader	5808316	a.khader@unrwa.org
Head Family Health Services	Dr. Majed Hababeh	5808167	m.hababeh@unrwa.org
Senior Health Nutritionist	Ms Nada Abu-Kishk.	5808308	n.abu-kishk@unrwa.org
Division of Disease Prevention & Control			
Chief, Disease Prevention & Control	Dr. Yousef Shahin	5808315	y.shahin2@unrwa.org
Division of Medical Care Services			
Head Laboratory & Medical Diagnostics	Mr. Ahmad Al-Natour	5808305	a.alnatour@unrwa.org
Head Pharmaceutical Services	Ms. Rawan Saadeh	5808306	r.saadeh@unrwa.org

Chiefs Field health programme

Post Title	Incumbent	Telephone	E-mail address
Jordan	Dr. Ishtaiwi Abu-Zay	5809279	i.abu-zayed@unrwa.org
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Gaza Strip	Dr. Moh'd Maqadma,	6777269	m.maqadma@unrwa.org
Lebanon	Dr. Mona Osman	840491	m.osman@unrwa.org
Syrian Arab Republic	Dr. Husam Tibi	6133035	h.tibi@unrwa.org

ANNEX 5 - ABBREVIATIONS

ANERA	American Near East Refugee Aid
AIDS	Acquired Immune Deficiency Syndrome
CBI	Community Based initiative
CBR	Crude Birth Rate
CDC	Centers for Disease Prevention & Control
CIA	Central Intelligence Agency
CIS	Clinic Information System
CPI	Community Periodontal Index
DMFS	Decayed, Missing ,Filled Surface
DS	Decayed Surface
DT/Td	Tetanus – diphtheria
DOTs	Directly Observed Treatment, short-
EMRO	Eastern Mediterranean Regional Office
EPI	Expanded Programme of Immunization
ESRF	End Stage Renal Failure
FHT	Family Health Team
FS	Filling Surface
GAP	Gender Action Plan
GBV	Gender Based Violence
GMS	Gender Mainstreaming Strategy
GUPM	The General Union of Palestinian Women
HFI	Healthy Food Initiative
IDA	Iron Deficiency Anemia
ICBA	Integrated Community Based Action
IMR	Infant Mortality Rate
JFO	Jordan Field Office
MAP	Medical Aid for Palestinians
MTS	Medium Term Strategy
NCD	Non-communicable Diseases
NISCVT	National Institution of Social Care and Vocational Training
NGO	Non-Governmental Organizations
OPV	Oral Polio Vaccine
PHC	Primary Health care
PWHO	Palestinian Woman's Humanitarian Organization
SFO	Syria Field Office
SOPs	Standard Portioning Procedures
TB	Tuberculosis
Td	Tetanus/Diphtheria
UNFPA	United Nations Fund for Population activities
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief & Works Agency for Palestine Refugees in the
USA	United State of America
WBFOs	West Bank Field Office
WDF	World Diabetes Foundation