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acronyms and abbreviations

ANC	Antenatal Care
BAZ	BMI-for-Age Z-score
BCG	Bacillus Calmette-Guerin
BMI	Body Mass Index
CMM	Common Monitoring Matric
CMHP	Community Mental Health Programme
CMR	Clinical Management of Rape
COI	Cooperazione Odontoiatrica Internazionale
DCG	Deputy Commissioner General
DM	Diabetes Mellitus
DMFT	Decayed/Missing/Filled Teeth
DT/Td	Tetanus-Diphtheria
EPI	Expanded Programme on Immunisation
EQAS	External Quality Assurance System
ESRF	End-Stage Renal Failure
FBS	Fasting Blood Sugar
FHT	Family Health Team
FMDP	Family Medicine Diploma Programme
Fos	Field Offices
FP	Family Planning
GAP	Gender-Action Plans
GBV	Gender-Based Violence
GES	Gender Equality Strategy
GFO	Gaza Field Office
HAZ	Height-for-Age Z-score
Hb	Hemoglobin
HC	Health Center
HC	Health communication
HCI	Healthy Camp Initiative
HD	Health Department
UNRWA	United Nations Relief & Works Agency for Palestine
WAZ	Weight-for-Age Z-scores
WBFO	West Bank Field office
Hib	Haemophilus influenza type B
HQ	Head-Quarter
HSP	Hospitalization Support Program
IDF	International Diabetes Federation
IMR	Infant Mortality Rate
LBW	Low Birth Weight
LFO	Lebanon Field Office
MCH App	Child Health Application
MCH	Maternal and Child Health
MCI	Micro Clinic International
mhGAP	mental health Global Action Programme
MHPSS	Mental Health and Psychosocial Support
MoH	Ministry of Health
MTS	Medium Term Strategy
NCDs	Non-Communicable Diseases
NGOs	Non-Governmental Organizations
OPV	Oral Polio Vaccine
PCC	Pre-Conception Care
PHC	Primary Health Care
PN	Post-natal Care
PRS	Palestine Refugees from Syria
PTSD	Post-Traumatic Stress Disorder
SOPs	Standard Operating Procedures
SSNP	Social Safety Net Programme
Td	Tetanus/Diphtheria
UK	United Kingdom
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNICEF	United Nations International Children's Fund
UNGA	United Nations General Assembly
WDF	World Diabetes Foundation
WHO	World Health Organization
WLUs	Workload Units

message of the UNRWA commissioner general and of the WHO regional director

This year marks 70 years of Nakba, which resulted in the forced displacement of hundreds of thousands of people in Palestine from their homes and homeland in 1948. UNRWA is proud to have provided much needed assistance to Palestine refugees since 1950, and to continue to do so today across our five areas of operation Jordan, Lebanon, Syria, the West Bank and Gaza for 5.4 million palestine refugees.

Health and dignity are basic rights and should not be denied to anyone as a result of natural or man-made calamities. With the strong support and in partnership with the World Health Organization (WHO), UNRWA contributes to the protection of Palestine refugees' health and providing healthy living environments.

UNRWA's comprehensive primary health care services, both preventive and curative, are provided through its 143 health centres. These centres respond to the dramatically shifting disease burden and health needs of the Palestine refugee population. The on-going closure of Gaza and conflict in the Syrian Arab Republic have diminished access to key medicines and medical equipment, as well as options for treatment for some health conditions. Population ageing and poverty have led to an epidemiological transition, with more Palestine refugees suffering from non-communicable diseases (NCDs) and an increase in NCD mortality rates. There is no doubt that needs for humanitarian and development assistance for Palestine refugees are continuing to grow over the years to come.

Together with UNRWA and key health partners, WHO is striving to prevent the collapse of Gaza's health sector by filling critical gaps in hospitals and health facilities through the provision of essential, life-saving medicines and surgical supplies. In Jordan, Lebanon, Syria and other countries in the Eastern Mediterranean WHO works to ensure that all populations in need, including Palestine refugees, are provided access to life-saving health care services.

Despite such challenging and emotional environments, UNRWA continued its services without interruption in 2017. Many health-related indicators were favourable compared to regional averages, in large part thanks to UNRWA's unique health reform strategies and the strength of UNRWA's programmes and remarkable dedication of its staff.

We are now living in uncertain and unpredictable times and UNRWA is operating in a complex environment in the region with changing regional dynamics. The world, however, cannot afford to abandon the Palestine refugees. The stakes are too high.

UNRWA remains committed, together with WHO and other concerned UN agencies and authorities, to its mission to help Palestine refugees achieve their full human development potential and well-being, pending a just and lasting solution to their plight. We must act decisively with courage and determination to uphold the fundamental human rights and dignity of Palestine refugees and the quality of UNRWA services.

Pierre Krähenbühl

UNRWA Commissioner General

Dr. Jaouad Mahjour

Acting WHO Regional Director for the Eastern Mediterranean and Director of Programme Management

foreword of the director of health

It is our utmost honour and privilege for UNRWA to present the Annual Report on behalf of 3,320 health staff throughout the UNRWA. In 2017, UNRWA continued to face series of challenges in health care services for Palestine refugees. The on-going conflict situations in Syria, lasting Israeli occupation and blockade in the West Bank and Gaza have continued to threatene the well-being of Palestine refugees. Double displacement of Palestine refugees from Syria (PRS) remained a struggle in both Lebanon and Jordan as they compete for scarce resources.

Despite such challenges, UNRWA continued its services including essential health care. Family Health Team (FHT) approach and electronic medical records system (e-Health) are in almost all health centres of UNRWA. Both FHT and e-Health are the core of UNRWA's strategic health reform in the era of non-communicable diseases (NCD) which accounts for 70 to 80% of Palestine refugees' mortality; by the end of 2017, more than 267,000 patients were reported having diabetes mellitus and/or hypertension.

In 2017, the main focus was to improve the quality of primary health care. A total of 40 medical officers in Jordan, West Bank and Gaza, as well as 13 in Lebanon received international training on family medicine. Mental health and psychosocial support (MHPSS) was introduced in 21 health centers in 2017 with an aim to achieve provision of more comprehensive care for Palestine refugees. Support for hospitalization was also critical particularly in Lebanon where Palestine refugees may not have financial protection for their hospitalizations other than UNRWA.

We truly appreciate the generous contributions from international community, our partnerships with the host countries' authorities, the WHO and UN agencies, local and international organizations, and most importantly, dedication and commitment of our staffs.

In May 2018, this report is expected to be available. UNRWA then can be in the middle of the unprecedented financial crisis particularly due to the drastic funding cut from the key donor. The life of Palestine refugees could be at stake, which includes 96,000 pregnancies, 180,000 immunizations and 267,000 patients with diabetes and/or hypertension.

That being said, we remain committed with absolute determination to provide lifesaving health services to Palestine refugees. This is reflected in the report highlighting UNRWA's work in the last 70 years and its impact on the lives of Palestine refugees. Now more than ever, Palestine refugees need the support of the international community to live with dignity. There is no health without justice, and there is no justice without peace.

Dr. Akihiro. Seita

Director of the UNRWA
Health Programme
WHO Special Representative

executive summary and report overview

For the seventh decade, UNRWA Health programme continues to deliver comprehensive preventive and curative primary health care (PHC) services to Palestine refugees through a network of 143 HCs in Jordan, Lebanon, Syria, the West Bank and the Gaza Strip, and supports the patients access secondary and tertiary health care services. The total number of registerd population has reached some 6 million, out of whom; about 61% are served at our HCs.

The Department of Health Annual Report 2017 describes the health services provided to Palestine refugees, as well as health indicators related to progress made towards the Strategic Outcomes set out in Medium Term Strategy (MTS) 2016-2021 namely, the second Strategic Outcome on Refugees' Health is Protected and the Disease Burden is Reduced, during the period of 1 January and 31 December, 2017.

The Annual Report also analyzes achievements against programmatic and resource mobilization targets set out in the MTS common monitoring matrix (CMM). Annexed to the report are a series of detailed data tables and figures including key statistics. Overview of the Report is as follows.

Section 1 – Introduction

This section includes an introduction to UNRWA as an Agency, and the Department of Health's activities today, introducing the population and examining its demographics. Moreover, this section presents the way forward and policy recommendations for the health reform process, newly launched Family Medicine Diploma Programme (FMDP), implementation of the mental health and psychosocial support (MHPSS), hospitalization support for the most vulnerable patients.

Section 2 – 70 years on: Palestine Refugees and UNRWA

We are proud to present a special section this year, dedicated to Nakba and the history of Palestine refugees during the 70 years since. Images and data extracted from past issues of our Annual Reports since the 1950s are presented. It highlights progress in the UNRWA health system and health service delivery that has been provided by UNRWA, and examines the demographic and epidemiological shifts in the served population over the years.

Section 3 – Strategic Outcome 2: Refugees' health is protected and the disease burden is reduced.

This section outlines outcomes based on one of the MTS 2016-2021 set by UNRWA. The activities and achievements of all sub-programmes by the Department of Health are presented. Those include outpatient care, community mental health, non-communicable diseases (NCDs), communicable diseases, maternal health services, child health services, school health, oral health, physical rehabilitation and radiology services, disability care and pharmaceutical services. It also outlines information and data about inpatient care, outsourced hospital services, and crosscutting issues.

Section 4 – Data

Under this section, major indicators are presented in four parts followed by annexes. Those include Agency-wide trends for selected indicators, CMM indicators 2016-2021, data tables of 2017, selected survey indicators, list of research activities and published papers, list of conferences attended by staff, donor support to UNRWA health programme, health Maps and functional chart of department of health at headquarter.

section 1 – introduction and progress to date

UNRWA

UNRWA's primary mission is to assist Palestine refugees in Jordan, Lebanon, Syria, West Bank and the Gaza Strip to achieve their full potential in human development, pending a just solution to their plight. UNRWA's services encompass education, health care, relief and social services, camp infrastructure and improvement, microfinance and emergency assistance. UNRWA is funded almost entirely by voluntary contributions. UNRWA has its Headquarters (HQ) in Amman, Jordan, and the Gaza Strip, which coordinate the activities of the the five Field Offices (FOs).

UNRWA's health system has three tiers:

- Headquarters: handles policy and strategy development.
- 5 Field Departments of Health: concerned with operational management.
- 143 Health Centres: provide health services to Palestine refugees

The Department of Health employs over 3,320 staff throughout the three tiers, including around 475 doctors. About 3.6 million Palestine refugees; the served population or beneficiaries, out of the some 6.0 million registered, eligible UNRWA health services free of charge. UNRWA does not operate its own hospitals (except for one, Qalqilia Hospital, in the West Bank), but instead operates a reimbursement scheme for its beneficiaries.

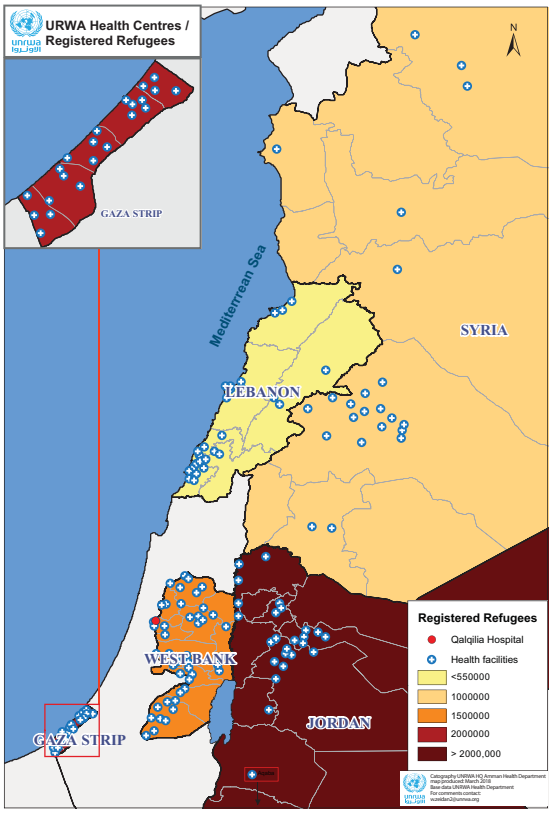


Figure 1- UNRWA health facilities & registered population

Health Profile

UNRWA has contributed to sizeable health gains for Palestine refugees since the beginning of its operations in 1950. More than 5.4 million Palestine refugees are registered with UNRWA today. The population is ageing, but it is still predominantly young, with enduringly high fertility rates and increasing life expectancies. Across UNRWA's areas of operation, 31.0% of refugees are children below 18 years of age. A high dependency ratio of 55.9% suggests a particularly great economic burden on families living in a context of conflict, high unemployment rates and worsening poverty levels.

Approximately 28.2% of registered refugees live in 58 official UNRWA camps, all of which are densely populated. The remaining refugees live in unofficial camps, towns and villages, side by side with host country populations.

Though declining significantly over time, a follow up study conducted in 2015 has revealed that the trend of the infant mortality rate (IMR) among Palestine refugees in Gaza slightly increased from 20.2 in 2008 to 21.3 in 2015. In 2017, UNRWA services cared for 407,504 infants and children 0-5 years.

Principal features of UNRWA healthcare for Palestine refugee women of reproductive age are: universal access to antenatal care; safer delivery care, with referrals to and subsidies for hospital delivery, and the availability of modern contraceptive methods. There has been a reduction in the overall fertility rate, which has stabilized over time. Despite this, fertility and maternal mortality rates remain relatively high. Unless additional resources are secured, further reductions will be a challenge. In 2017, UNRWA services cared for 164,932 family planning users and 96,803 pregnant women.

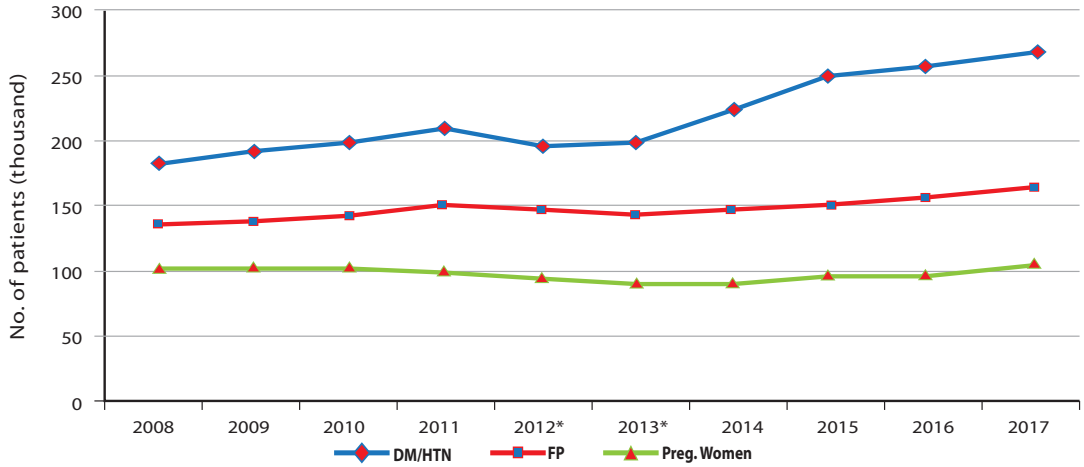


Figure 2- Patients with diabetes mellitus and/or hypertension, family planning and newly registered pregnant women
(*data not available from Syria)

The reduction in communicable disease incidence, combined with a longer life expectancy and lifestyle modifications, have led to a change in refugees' morbidity profile. Non-communicable diseases (NCDs), such as cardiovascular diseases, chronic respiratory diseases, diabetes mellitus and cancer, are emerging as today's leading health concerns. These diseases are costly to treat and are often the result of sedentary lifestyles, obesity, unhealthy diets and smoking. In 2017, UNRWA health centres cared for more than 267,000 Palestine refugee patients with diabetes and hypertension

UNRWA will continue working hand in hand with the Palestine refugee community, host countries and other stakeholders to check the advance of these diseases, applying a multidimensional strategy that focuses on three dimensions: disease surveillance to collect, analyse and interpret health-related data on NCDs and their determinants; health promotion and prevention interventions to combat the major risk factors and their environmental, economic, social and behavioural determinants among Palestine refugees across the life cycle; and the provision of cost-effective interventions for the management of established NCDs.

Communicable diseases are largely under control, thanks to high vaccination coverage and the early detection and control of outbreaks. Diseases related to personal hygiene and poor environmental sanitation are under control, though refugees continue to suffer from food insecurity and the burden of micronutrient deficiencies.

The ongoing protracted and acute conflicts, occupation, and the lack of a just and durable solution for Palestine refugees, continue to affect the population's physical, social and mental health. There is scientific evidence of a high prevalence of mental distress among Palestine refugees.

Mental health and psychosocial-related disorders are major issues to address when working to ensure that refugees enjoy the highest attainable level of health.

The crisis in Syria has entered its eighth year, with no lasting, peaceful solution in the horizon. Over 280,000 Palestine refugees from Syria (PRS) have been internally displaced, and more than 80,000 have fled to neighboring countries, including Jordan and Lebanon, where PRS have been accessing UNRWA services for years. This has placed additional pressures on camps, schools and health centres with scarce resources. The blockade and recurrent emergencies in Gaza, and the occupation the West Bank, remain major obstacles to socioeconomic development of Palestine refugee communities, and on the health-care provision.

To respond to these challenges, UNRWA's strategy is to focus on: improving the quality of healthcare delivered through a Family Health Team (FHT) model; improving the quality of medical consultations and care for Non-communicable Diseases (NCDs); providing staff with training in family health; integrating Mental Health and Psychosocial Support (MHPSS) and protection into the day-to-day activities of health centres; engaging the community in health prevention and promotion activities; and improving hospitalization support to ensure financial protection for the most vulnerable. UNRWA will continue to roll out the health information system, the e-health system, and strengthen the FHT primary healthcare model, the new norm at all health centers in the four Fields, and expanding it to new health centres in the fifth Field, namely Syria.

section 2– 70 years on: palestine refugees and UNRWA

Who are Palestine refugees

The United Nations Relief and Works Agency was established, following the 1948 Arab-Israeli conflict accordance with United Nations General Assembly (UNGA) resolution 302 IV of 8 December 1949, with a mandate to promote the human development of the Palestine refugees. The Agency began operations on 1 May 1950. In the absence of solution to the Palestine refugee problem, the General Assembly renews the Agency's mandate periodically, most recently in resolution 71/91, in which the mandate was extended until 30 June 2020.[1]

The Agency's services encompass healthcare, education, relief and social services, camp infrastructure and improvement, microfinance and emergency assistance, including in times of armed conflict. UNRWA is funded almost entirely by voluntary contributions from UN Member States. UNRWA also receives some funding from the Regular Budget of the United Nations, which is used mostly for international staffing costs.

Palestine refugees: are define as "persons whose normal place of residence was Palestine during the period 1 June 1946 to 15 May 1948, and who lost both home and means of livelihood as a result of the 1948 conflict.

UNRWA: is unique in terms of its long-standing commitment to one group of refugees. It has contributed to the welfare and human development of four generations of Palestine refugees. The descendants of Palestine refugee males, including legally adopted children, are also eligible for registration.[2]

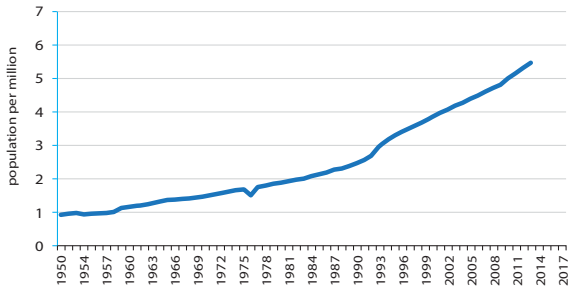


Figure-3 Trend of registered refugees (no.)

UNRWA services are available to all registered refugees present in its area of operations who meet this definition who are registered with the Agency and who need assistance whether they live in camps or not. When the Agency began operations in 1950, it was responding to the needs of about 750,000 Palestine refugees. Today, over of 5.0 million Palestine refugees are eligible for UNRWA services.[2]

1. https://unispal.un.org/DPA/DPR/unispal.nsf/0/1816868FB86D36D9852580FB0050B0A6
2. Who We Are | UNRWA. https://www.unrwa.org/who-we-are. Accessed March 12, 2018.

UNRWA is the largest humanitarian operation in the region for over 68 years and has been the main comprehensive Primary Health Care provider for Palestine refugees. 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. Nowadays UNRWA is committed to foster the human development of Palestine refugees by helping them to acquire knowledge and skills, lead long and healthy lives, achieve decent standards of living and enjoy human rights to the fullest possible extent.

After 70 years, one-third of the registered refugees still live in refugee camps. Because of the population growth and the limited plot of the camps, most of the other two-thirds live in cities, towns and villages throughout UNRWA's area of operations, and some have moved outside the area and are living in other countries. A Palestine refugee camp is defined as a plot of land placed at the disposal of UNRWA by the host government to accommodate Palestine refugees and set up facilities to cater to their needs. Socioeconomic conditions in the camps are generally poor, with high population density, cramped living conditions and inadequate basic infrastructure such as roads and sewers.

UNRWA health services: Health is a fundamental human right, universally recognized and agreed upon. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.[3]

Since 1950, UNRWA remains committed, together with WHO and other concerned UN agencies and authorities, to its mission to help Palestine refugees achieve their full human development potential and well-being. Under the terms of an agreement with UNRWA, the World Health Organization has provided technical supervision of the Agency's health care programme through the sustained support of the Eastern Mediterranean Regional Office.

In its almost 70 years of history, UNRWA has expanded its health care services in the five areas of operation: Jordan, Lebanon, Syria, West Bank and Gaza. In 1955, there were 90 health centers in operation. As of 2017, there are 143 health centers operating across the fields. Medical consultations have increased from 1.5 million to 8.3 million.

3. Universal Declaration of Human Rights Preamble Whereas recognition of the inherent dignity and of the equal and inalienable. http://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf. Accessed March 12, 2018

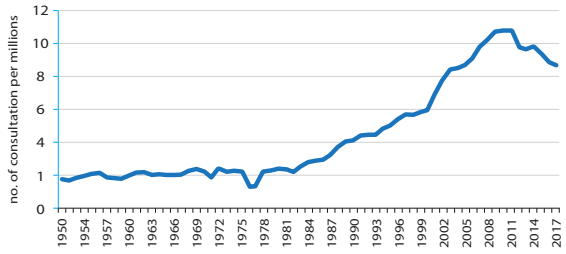


Figure-4 Trend of medical consultations (no.)

Health status of Palestine refugees: Since the 1950s, there were mainly three epidemiological transitions of operational objectives for the population with varying disease burden.

Phase I (1950 -1970):
Meeting basic needs of survival.

Phase II (1970 -1990):
Protection and promotion of health and well-being of the population with a particular focus on maternal and child health services.

Phase III (1990 - 2017):
Responding to the demographic transition and shifting health needs of the population to the disease prevention and control of chronic non-communicable diseases (NCDs) and mental health.

Phase I: (1950-1970):

Meeting basic needs of survival.

UNRWA's critical work on humanitarian assistance for Palestine refugees started in 1950. Initially, 69 per cent of the budget spent towards financing relief operations. Mass ration distributions also began in 1950, and included basic items such as flour, rice, cheese and soap. As contributions allow, clothing, shoes, bedding and domestic items are added. Access to shelters (tented camps), household supplies, basic education, food, and health interventions were provided as a comprehensive packages to then 750,000 Palestine refugees.

After 1967 war between Israel and Egypt, Jordan and Syria; over 300,000 people are rendered homeless or left their homes, including some 120,000 Palestine refugees.1UNRWA responds by providing emergency aid and relief. UNRWA establishes ten camps to accommodate the wave of displaced persons, including persons not registered as Palestine refugees. Main health concerns during the period of 1950s and 60s were heavily associated with infectious and communicable diseases, malnutrition, personal hygiene and environmental sanitation related conditions due to high-density neighbourhoods with limited access to resources in emergency settings.

Prevention and control of communicable diseases were carried out by vector and rodent control and surveillance of certain communicable diseases; weekly incidence reports from the UNRWA health centers were reviewed by epidemiologists.

In early 60s, vaccines provided to children included those against diphtheria, pertussis (whooping cough), and tetanus (DPT), typhoid and paratyphoid A and B (TAB), and small-pox. Today, vaccinations against tuberculosis, IPV, poliomyelitis, triple DPT, hepatitis B, Haemophilus influenza type B (Hib), measles, mumps, and rubella are provided to children with more than 99% of coverage.

Today, UNRWA's Department of Health continues to provide WHO and health authorities of host countries with information on the incidence and prevalence of communicable diseases.

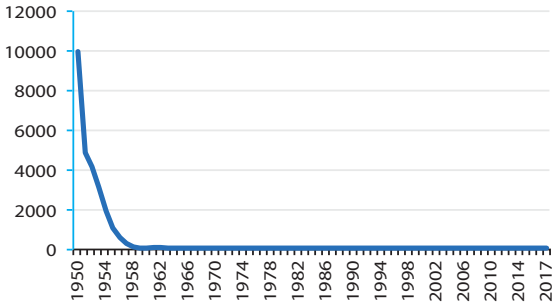


Figure-5 Trend Inidence rate of Malaria / 100,000 population

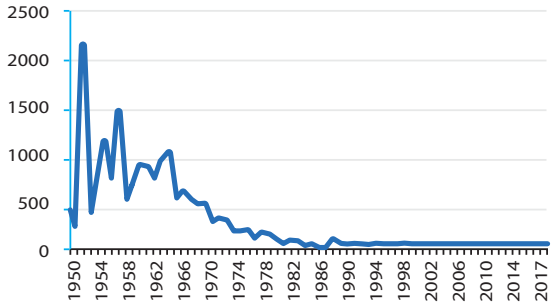


Figure-6 Trend Inidence rate of Measles / 100,000 population

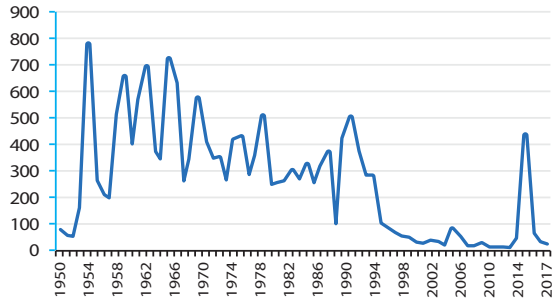


Figure-7 Trend Inidence rate of Mumps / 100,000 population

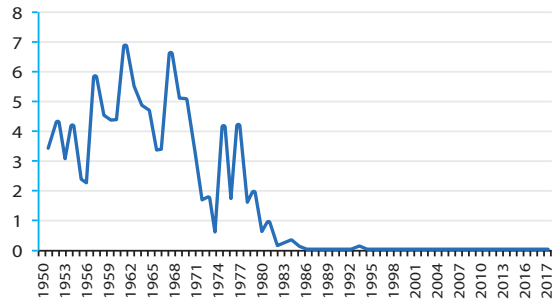


Figure-8 Trend Inidence rate of Poliomylities / 100,000 population

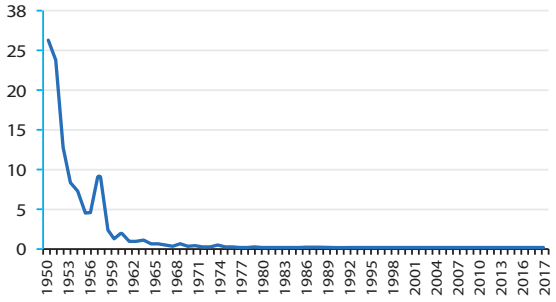


Figure-9 Trend Inidence rate of Diphteria / 100,000 population

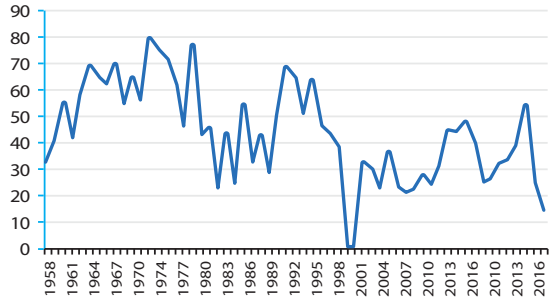


Figure-10 Trend Inidence rate of viral hepatites / 100,000 population

In the early years of UNRWA operation, vulnerable individuals of the population heavily relied on nutritional support provided by UNRWA. Nutritional support was provided;

- Milk-distribution to children 0-36 months old, to non-breast-fed babies under six months, as well as to pregnant women, nursing mothers and tuberculosis patients;
- Daily midday meals to children up to six years of age and, upon medical recommendation, those over that age;
- Special extra rations to tuberculosis patients and to pregnant women from the fifth month of pregnancy and for one year after delivery

Maintaining clean environment of the camps was essential in preserving sanitation of Palestine refugees and prevent diseases. In 61 camps and locations, UNRWA provided portable water sources, sanitary disposal of solid and liquid wastes, drainage of storm water and control of disease-carrying insects and rodents. Today, cooperation of host governments, local councils and municipalities are steadily growing in the delivery of the service through the establishment of camp improvement committees, construction of community water supply and sewerage schemes in some camp.

Phase II: (1970-1990)

Towards protection and promotion of health in mothers and children.

n the 1970s, maternal and child health (MCH) services were further strengthened. MCH services then were comprised of antenatal care, postnatal care, and growth monitoring of children. UNRWA is known to be one of the first to introduce growth charts for children in the region. Fifty nine thousand child births were newly registered in 1970 that increased to 165,146 in 1990. The total population of Palestine refugees surpasses 2.4 million in 1990.

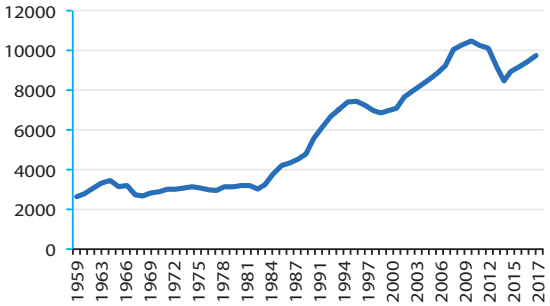


Figure-11 Trend of Newly registered prgnant women (no.)

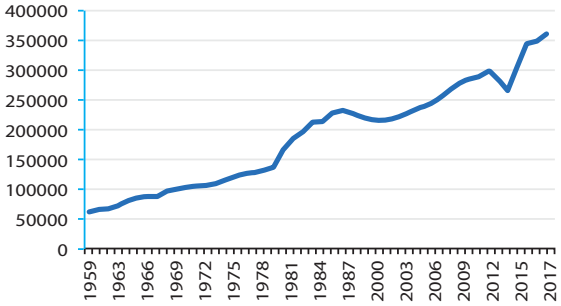


Figure-12 Trend of newly infant and child registered (0-5) years

In the 1986, school health services covered 349,224 children in 635 UNRWA schools. Medical examination at school entry, including vision screening, reinforcing immunizations against diphtheria, tetanus and tuberculosis (BCG), were carried out by either a school health team or at health centres. Regular visits are paid to the schools for health monitoring of the pupils and inspection of school premises. Schoolchildren with suspected visual or hearing defects, usually identified by either regular screening or by their teachers, were referred to specialists for examination through the health centres. With assistance from UNRWA, spectacles and hearing aids were provided to all schoolchildren who need them.

Outpatient medical care , dental, Pharmacy , Laboratory and rehabilitation services continued to be provided by UNRWA during the period to registered Palestine refugees, locally-recruited staff members and their authorized dependants who are not participating in Agency-sponsored insurance schemes. These services were made available at various health centres and health points, polyclinics, hospitals, laboratories, X-ray departments, and rehabilitation centres fully operated or partially subsidized by the Agency.

UNRWA maintained its standing policy of providing in-patient care by securing facilities in government, local authority, university, voluntary agency and privately-owned hospitals and medical institutions. UNRWA also administers a hospital in the West Bank (36 beds), nine maternity centres (totalling 71 beds) mostly in the Gaza Strip, and 21 daytime rehydration and nutrition centres (229 cots) located throughout its area of operation. In all the Fields, the cost of in-patient care continued to rise and the Agency had to increase substantially its subsidy to hospitals where beds are reserved for refugee patients. However, the refugees also had access to government, private and voluntary hospitals, locally available, either free of charge or for fee.

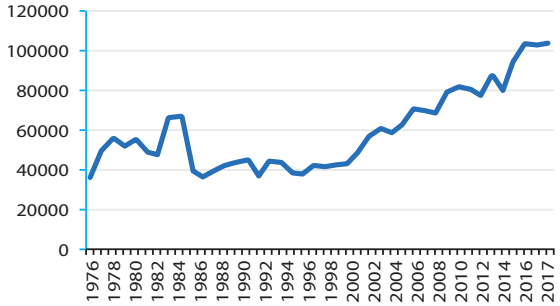


Figure-14 Trend of number of Hospitalization

Phase III: (1990 -2017)

New innovative measures to challenge the burden of chronic diseases.

The health status of Palestine refugees has shown sizable improvement. Deaths of mothers and children have been considerably decreased. Progress in the Millennium Development Goals 4 and 5, namely to reduce child and mother deaths, respectively, is on track. Immunization coverage has always been close to 100%, much higher than the WHO target of 95%.

The demographic transition dramatically shifted the health care needs of the Palestine refugee population. People are living longer and the population started to age. Epidemiological transition was significant during this period as main causes of mortality and morbidity were no longer communicable diseases.

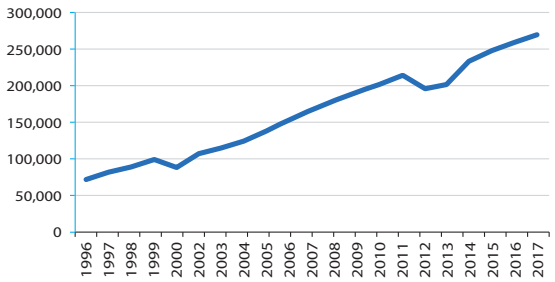


Figure-13 Trend of patients with diabetes and/or hypertension

In the 90s, non-communicable diseases (NCDs) such as diabetes mellitus (DM), hypertension, and cardiovascular, chronic respiratory diseases and cancer were becoming increasingly more prevalent among the Palestine refugee population. These are life-style illnesses, life-long, difficult to prevent and hard to control health conditions. Refugees were particularly vulnerable to NCDs as many families flee violence with limited resources, endure conditions of prolonged displacement and deepening poverty, and thus struggle to pursue healthy lifestyles and access adequate care. Today, NCDs are primary cause of death across all five areas of UNRWA operation. UNRWA continues to introduce new tests, medicines and public awareness campaigns to promote NCD prevention and condition management.

After the second Intifada, began in September 2000, the Palestinian lived very difficult situations. This affected the mental wellbeing of children, and adults. Trauma from war and violence has led to psychological disorders in individuals living in the Gaza strip and West Bank. Different studies documented the burden of psychological disorders.

In one of the studies that was conducted in Gaza and the West Bank among 1,254 patients, 23.2% reported post-traumatic stress disorder (PTSD), 17.3% anxiety disorder (other than PTSD or acute stress disorder), and 15.3% depression.

PTSD was more frequently identified in children ≤ 15 years old, while depression was the main symptom observed in adults. Among children ≤ 15 years old, factors significantly associated with PTSD included being witness to murder or physical abuse, receiving threats, and property destruction or loss ($p < 0.03$).[4]

The ongoing protracted and acute conflicts, occupation, and the lack of a just and durable solution for Palestine refugees, continue to affect the population's physical, social and mental health. Mental health and psychosocial-related disorders are major issues to address when working to ensure that refugees enjoy the highest attainable level of health.

The crisis in Syria has entered its eighth year, with no lasting, peaceful solution in the horizon. Over 280,000 Palestine refugees from Syria (PRS) have been internally displaced, and more than 80,000 have fled to neighboring countries, including Jordan and Lebanon, where Palestine Refugees from Lebanon (PRS) have been accessing UNRWA services for years. This has placed additional pressures on camps, schools and health centres with scarce resources. The blockade and recurrent emergencies in Gaza, and the occupation the West Bank, remain major obstacles to socioeconomic development of Palestine refugee communities, and on the health-care provision.

In response, to additional health burden, UNRWA Health Department and Ministry of Health of the Palestinian Authority with the support of donors initiated a mental health programme to prevent and promote mental health through the earl identification and provision, of psychological support and referral when needed. In 2002, the Community Mental Health Programme (CMHP) was established in Gaza and West Bank to empower vulnerable refugees, especially children. CMHP later developed into a comprehensive mental health and psychosocial support (MHPSS) services.

In addition to the focus on NCDs, improvement of maternal and child health services continue with the integration of Family Planning services in 1993, introduction of the maternal mortality audit/-confidential inquiry 1994, gynaecology services at PHC level, introduction of the ultrasound and improvements of the quality of medications provided to pregnant women. In 1998 a comprehensive maternal health record was introduced in order to strengthen the integration of MCH services and to support the integration of family planning and breast feeding services. The introduction of the outcome registry and the establishment of the Health information system at PHC in 2001, supported and programme management, monitoring and evaluation at all levels of the Agency and at all areas of operation. Updating the technical instructions and the clinical guidelines in accordance with WHO guidance and best available evidence, ensured the provision of high quality services and standardization of services in all UNRWA's areas of operation. In 1991, a special programme for monitoring of underweight children was initiated and in 2008, of the WHO New Growth Monitoring Standards up to 5 years and Maternal and Child Handbook were introduced. Family protection and domestic violence screening was introduced with Preconception care in 2009, achieving the lifecycle approach to health care. The Epidemiological surveillance was strengthened with the implementation of an Early Warning System for timely communicable disease detection and response.

Furthermore, operational research was integrated within all programmes to support evidence-based decision making and identifying priority actions with an average 4-5 study every year conducted by UNRWA staff in accordance to the best research methodology.

4. Reference: Trauma-related psychological disorders among Palestinian children and adults in Gaza and West Bank, 2005-2008, Espié E, Gaboulaud V, Baubet T, Casas G, Mouchenik Y, Yun O, Grais RF, Moro MR. Int J Mental Health Syst. 2009 Sep 23;3(1):21. doi: 10.1186/1752-4458-3-21.

Many of the studies conducted, were publish in reputable International Journals such as The Lancet, The WHO Eastern Mediterranean Health Journals, the Plos One and other. The culture of data and operational research was part of the day-to-day of UNRWA health staff.

In 1995, quality of care and services provided was another dimension that URWA health programme concentrated on. Different studies to improve the quality of services were conducted such as patient flow analysis, waiting time and irrational use of antibiotics. Accordingly the appointment system was introduced and close monitoring of prescribing practices were put in place. In addition, several tools were developed to further improve the services including, checklists, flowcharts, and handy technical instruction ensure the technical quality and exit interviews for perceived quality/patient satisfaction. Competency-based training and supportive supervision were the main keys to the high quality services that UNRWA Health Department is providing evidenced by the different internal and external evaluations conducted.

During this period, the prevailing social and economic difficulties and political instability also negatively affect health outcomes. Unemployment is extremely high among productive age groups. Poverty level still remains high. The latest survey in Lebanon, for example, indicated that 67% of the refugees are poor. Such economic and social stress sometimes results in gender-based violence and mental health distress. Continued blockade by Israel has affected health service delivery in the Gaza Strip. Similarly, limitations in access to health care cause a significant health burden in the West Bank and wars in Lebanon, Gaza and Syria. The health programmes of UNRWA are fully aware of such challenges and difficulties and are committed to address them through a health reform based on the progress made to date.

In 2009, comprehensive health systems reform was launched in the five fields supported by the life cycle approach model to health care. In this reform, addressing the life style illnesses is a key message. This will entail improvement of quality of care in crowded health centres, and outreaching to communities to bring changes in life style. Addressing health needs will also entail increasingly costly hospital payments. In order to make this feasible, fundamental improvements in the health information system through e-health and, most importantly, support to health workforces through continued education and training. All Fields have made encouraging innovations along with the reform, Partnerships with host countries, donors and all others will remain critical.

Family Health Team approach, confronted by the challenges of the changing environment, the UNRWA Health Department began implementation a major health service reform initiative in 2011. UNRWA introduced a new, modern PHC service delivery model the Family Health Team (FHT) approach. FHT use a family and person-centred approach to provide holistic primary care at UNRWA health primary centres. Families are registered with and assigned to a multidisciplinary health teams. This team is responsible for all the health care needs of the families registered to them over the life cycle. The strong patient-provider relationships coupled with longevity of care will ensure effective, efficient and timely delivery of care, an aspect especially critical in the management of NCDs. The notions of "my doctor" and "my patient", previously unknown in UNRWA facilities capture the essence of the new FHT approach.

The e-health information system to reach the target of "paperless clinic" was introduced in 2009. With the FHT model, a fully computerized electronic medical record and appointment system named e-Health was developed and implemented by UNRWA staff. E-Health helped health staff to access patient information quickly and easily, allowing for longer consultation times. As family health teams got to know better their families and each patient's full history, it has become easier for them to provide the best advice and care.

In 2015 UNRWA launched the Family Medicine Diploma Programme (FMDP). The main goal of the FMDP is to offer doctors in the Field a model of in-service training that will build on their existing knowledge, skills and experience and to improve their mastery of the clinical management of the patient and raise the standards of clinical care. The programme started in Gaza with 15 doctors in 2015-2016 and expanded to Gaza, West Bank, Jordan and Lebanon targeting 69 doctors in the four fields.

unrwa response: health reform

family health team (FHT) approach and e-health (Electronic Medical Records)

In 2017, UNRWA continued to deliver comprehensive PHC services on the basis of the FHT Approach, which was introduced in 2011, as a person-centered package focused on the provision of comprehensive care for the entire family. Emphasising long-term provider-patient/family relationships, the approach is designed to improve the quality, efficiency and effectiveness of health services. By the end of 2017, all 143 HCs across five fields of Agency operations were implementing the FHT approach.

E-Health, Introduced in 2009, has streamlined service provision and contributed to improved efficiency and the collection of high-quality data. Operational across all HCs in Gaza 22 and Lebanon 27, the system is expected to be fully operational in both Jordan and the West Bank in 2018. In Syria, where e-Health implementation has been challenged by the conflict and resultant connectivity issues, exceptional efforts were made to introduce the system into three HCs. Expansion to further HCs in Syria is expected in 2018 as the security situation, infrastructure and connectivity allow.

Table 1- Number of health centres fully implementing eHealth system

Field	Baseline 2017	Target 2017	Actual 2017	Target 2021
Jordan	20	25	24	26
Lebanon	27	27	27	27
Syria	3	8	7	26
Gaza	22	22	22	22
West Bank	42	43	42	43
Agency	114	125	122	144

Throughout the reporting period, e-Health system flaws were remedied, data quality for some modules was improved and training was provided to health teams and supervisors towards the development of super-users in each field of operations as part of building capacity among the fields for smooth operations at the service delivery level. Further data quality improvement of other modules and training of super users is planned for 2018 and onward, depending on the availability of human resources. Currently operational across 85 per cent of all UNRWA HCs, the full implementation of e-Health will impact the quality of patient care in terms of swift access to medical records, an improved appointment system and flow of patients, strengthened supervision of health services, and enhanced monitoring and reporting capabilities. Ultimately, by 2021, the system will reduce staff workloads and result in better patient care.

A new Mother and Child mobile application e-MCH was developed and launched in Jordan for the refugee's mothers to view their electronic medical records and their children's medical records. e-MCH sends notifications to the mothers on their appointments and other health advices according to their status. It will be rolled-out to other fields in 2018.

family medicine training (Postgraduate Diploma in Family Medicine)

Postgraduate medical training is not only important for the professional development of doctors, but also for patient safety and health services' efficient and effective delivery. The main goal of this training programme is to offer clinicians in the Field a model of in-service training that build on their existing knowledge, skills and experience and to improve their mastery of the clinical management of the patient and raise the standards of clinical care.

This course was tailored by Rila Institute of Health Sciences in UK to UNRWA physicians, based on UNRWA needs and working circumstances. The course runs over a period of 12 months. Candidates were selected based on a written test prepared by Rila institute. During 2015, with the generous donation of Al-Waleed Ben Talal Foundation, 15 doctors were trained in Gaza in Family Medicine.

During 2017, with generous donation of Japanese government, 15 doctors in Jordan, 15 doctors in Gaza and 10 doctors in West Bank still have the training. All doctors passed the mini-assessment, completed all the assignments and will set for the final assessment in June 2018 to obtain the diploma.

Al-Azhar University in Gaza, the Hashemite University in Jordan and An-Najah University in the West Bank selected tutors, who have specialty in family medicine with educational experience to facilitate the implementation of this programme.

The course integrates and blends several components of learning; face to face workshops combining lectures and hands-on sessions, directed learning resources available online, regular assessments to monitor acquisition of knowledge and skills, regular mini tests to assess understanding and test competency of a section of the programme, and interactive webinars to develop the skills of in depth knowledge, analysis, communication and inter-professional discourse. Hospital training is done in UNRWA contracted hospitals directly supervised by the assigned tutors. The design of the course enables the participating doctors to continue in their usual work.

The feedback received from the participants was positive. They highlighted the impact of the training they receive on the quality and the comprehensiveness of the health care they offer, more sharing of knowledge and experience, more focus on prevention and on the psychosocial-physical model, in addition to the rational use of resources. They reported acquiring new skills, such as better ability to identify timely, and to correct their mistakes, practical implementation of what they learned, and improved communication with the patients. They also expanded the scope of cases managed at primary health care level to include new cases.

In July 2018, with generous donation of Japanese government 10 doctors in Jordan and 10 doctors in Gaza will be enrolled in this training.

integrating mental health and psychosocial (MHPSS) into UNRWA's primary health care (PHC) and the family health team model

The Agency MHPSS vision is to protect and promote the right of every Palestine refugee to achieve the best possible mental health and psychosocial well-being through UNRWA's basic services. The rationale for the MHPSS program is the relative lack of mental health professionals available to serve a population in psychological distress.

In UNRWA Health Programme, the MHPSS interventions aim to enhance the psychological and social well-being of individuals and their communities through empowering community and individual resilience. These interventions are not limited to an emergency situation nor oriented at problems or deficits but they aim to support psychosocial wellbeing and processes of empowerment. It is not relevant not only to Palestine refugee clients, but also to the health professionals themselves.

Following the success of the pilot at Saftawi H/C in 2016, health department started in July 2017 the integration of MHPSS into FHT in all Fields involving trained Medical Officers, staff nurses and midwives on psychosocial and mhGAP and other staff categories of health on psychosocial support and protection. This came through a three years plan of integration supported by the government of Japan, during the first year the following were accomplished:

- MHPSS strategic plan of activities at HQ and all fields was developed and adopted.
- MHPSS Focal points were identified at HQ and in each field with job descriptions and clear roles and responsibilities.
- The focal points at HQ and Fields (total 15 senior staff) were provided with adequate training by Lisbon Institute of Global Mental Health.
- Mental health specialists were contracted to support the training needs of health staff and provide them with on the job guidance.
- The health department HPSS technical instructions and guidelines developed and distributed.
- Sufficient quantities of the recommended psychotropic medication were secured.
- Educational materials and printing forms prepared and distributed.
- Partnerships and relationships were initiated at HQ and in each field with competent local organizations, relevant authorities and UN agencies to optimize MHPSS services to refugees and staff.
- Information management and assessment tools were developed in addition to indicators to be reported.
- A total of 21 Health centers managed to integrate the MHPSS into FHT.

Table 2- No. of Health centres implementing MHPSS into FHT in 2017

Field	Number
Jordan	2
Lebanon	3
Syria	2
Gaza	11
West Bank	3
Total	21

hospitalization policies

UNRWA Hospitalization Support Program (HSP) is an important part of the health package provided to PRs in Jordan, Lebanon, Syria, West Bank and Gaza. Faced with increasing health care and financial needs against a limited budget, UNRWA has designed a revised hospitalization support reform with the objectives to achieve effectiveness, equity and efficiency.

Key strategic progresses are: a new contract template realized in consultancy with the fields in order to have a common tool that facilitate monitoring and align the provision of services; the first draft agency-wide policy for hospitalization streamlining UNRWA's support on hospitalizations with special focus on the vulnerability and clinical needs.

Other achievement was the deep analysis on expenditure and caseload of HSP in LFO and WBFO, where the financial pressure is the highest in UNRWA, to closely follow the implementation of cost containment targets.
Experience shows that insufficiently discussed policy changes may result ether in an increase in expenditure for UNRWA or in a strong reaction by PRs and, in some cases, also by MoH of the concerned host country. To avoid those risks, local staff and front office have been in constant contact with the community and local stakeholders.

Implement decentralization of process, cost containment measures and monitoring their effects can be done only with a strong commitment of the staff. The main tool used to accomplish the whole reform of the HSP was building strong and constructive working relationship among departments in the fields and among the fields and HQ. Identification of new donors and/or new strategies to cover budget shortfalls and special needs have been also important part of the strategy to assure HSP to continue offer health protection to PRs.

The work plan for 2018 includes: to complete data entry decentralization in LFO, to develop proper SOPs and dashboards for different users and export it to other fields; to set up a proper quality control of data inserted in the database. Moreover, to perform extensive data analysis to determine the current level of utilization of services and expenditure related vs budget allocation so that each field will be supported in identifying and implementing appropriate containment measures. Finally, to advocate and contribute in project writing for donors interested in financing UNRWA HSP.

section 3: strategic outcome 2:
refugee health is protected and the disease burden is reduced

output 2.1: people-centred primary health care system using FHT model

Services under output 2.1 include outpatient health care, non-communicable diseases, communicable diseases, maternal health care, child health care, school health, oral health, mental health and psychosocial, physical rehabilitation & radiology services, disability care and pharmaceutical services.

Outpatient Care

In the UNRWA health system, outpatient care encompasses all services that can be done in a health centre during a routine visit, and which do not require an overnight stay at a hospital. At UNRWA health centres, these services include, but are not limited to, basic consultations, antenatal and postnatal care, infant and child care, NCD management, basic laboratory testing and medicine distribution.

Utilization

UNRWA currently provides comprehensive primary health care (PHC) through a network of 143 health centres, of which 69 (48.3%) are located inside Palestine refugee camps. In addition, UNRWA operates six mobile health centres in the West Bank to facilitate access to health services in those areas affected by closures, checkpoints and the barrier.

Utilization of outpatient services Agency-wide decreased by 2.2 % in 2017 compared to 2016, with a total of approximately 8.3 million medical consultations. Of these consultations, 127,829 were specialist consultations. This decrease in utilization was found in all Fields except Gaza it observed slightly increase.

- This decrease could be attributed to the implementation of the appointment system, e-health system and the FHT approach in most health centres.
- In Syria, the utilization of outpatient services was still affected by the closure of health centres, and the limited access to health services due to the prevailing security constraints.
- In the UNRWA health system, out-patient medical consultations are classified into two groups: first visits and repeat visits. First visits reflect the number of persons attending a health centre during a calendar year, while repeat visits measure the frequency of service utilization. The ratio of repeat to first visits slightly decreased from 3.2 in 2016 to 3.0 in 2017, with few variation, both among Fields, and between health centres in the same Field. The variability of this ratio within and between Fields reflects access to other health care providers. It is quite higher in health centres located inside camps where people can easily reach services, and in the Fields with limited access to other health care providers – like Lebanon. The security situation in Syria may account for the low utilization rate in this Field.

Table 3- No. of medical consultations, Agency-wide in 2016 and 2017

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
2016	1,552,936	1,104,705*	927,913	3,810,791	1,157,173	8,553,518
2017	1,570,044	1,037962	831,015	3,858,497	1,066,984	8,364,502

*Data include medical consultations provided to Palestine Refugees from Syria (PRS)

Workload

The average number of medical consultations per doctor per day decreased from 85 in 2016 to 78 in 2017. The highest workload was 83 as reported by Lebanon Field, and the lowest was 74 in West Bank. Despite the variation throughout the Fields,
The introduction of the FHT approach has begun to help reduce the workload, mainly through the shifting

of some preventive tasks from medical officers to nurses, such as authority to approve monthly refills of medicines for controlled NCD patients, and through the introduction of an appointment system. In addition, the individualized care provided through this approach may have helped to reduce irrational health care seeking behaviour.

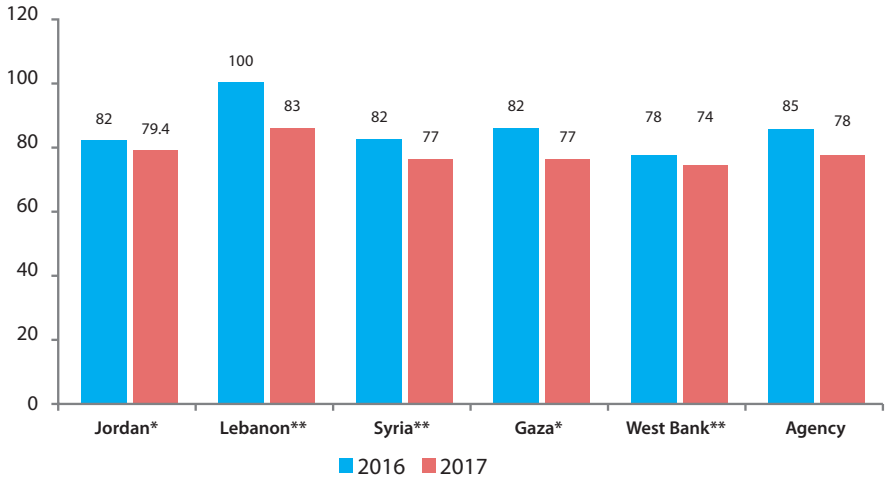


Figure -15 Average daily medical consultations per doctor, in 2016 and 2017 (*HCs open for six days/week, **HCs open for 5 days/week)

Non Communicable Diseases (NCDs)

The burden of NCDs

The number of patients with NCDs continued to increase. By the end of 2017, a total of 267,470 patients, including Palestine refugees from Syria (PRS), with diabetes mellitus and/or hypertension were registered at UNRWA NCD services across the five Fields of UNRWA operations. The Agency-wide prevalence rates of diabetes mellitus and hypertension were similar of those at 2016 , 12.1% for Diabetes and 18.6% for hypertension among those above 40 years and older served by UNRWA respectively for patients who were 40 years. For the first time and line with new line of reporting and similar to International Diabetes Federation (IDF), health department started to report the prevalence of those 18 years and above and the provenance for diabetes was at 5.9 .Age group disaggregation showed that patients 40 years of age and older represented 92.0% of all patients under UNRWA NCD care in 2017, which is the same of that in 2016 , The percentage of males also increased from 2016 and reached 39%, this reflects the increased demand and attendance of males to UNRWA NCD clinics.

Table 4- Patients with diabetes mellitus and/or hypertension by Field and by type of morbidity (*PRS data included)

Morbidity type	Jordan	Lebanon*	Syria	Gaza Strip	West Bank	Agency
Type I diabetes mellitus	1,139	322	427	1,284	641	3,813
Type II diabetes mellitus	11,659	3,623	3,516	13,371	6,191	38,360
Hypertension	31,249	15,197	18,275	39,169	15,490	119,380
Diabetes mellitus & hypertension	33,435	10,958	11,941	30,215	19,368	105,917
Total	77,482	30,100	34,159	84,039	41,690	267,470

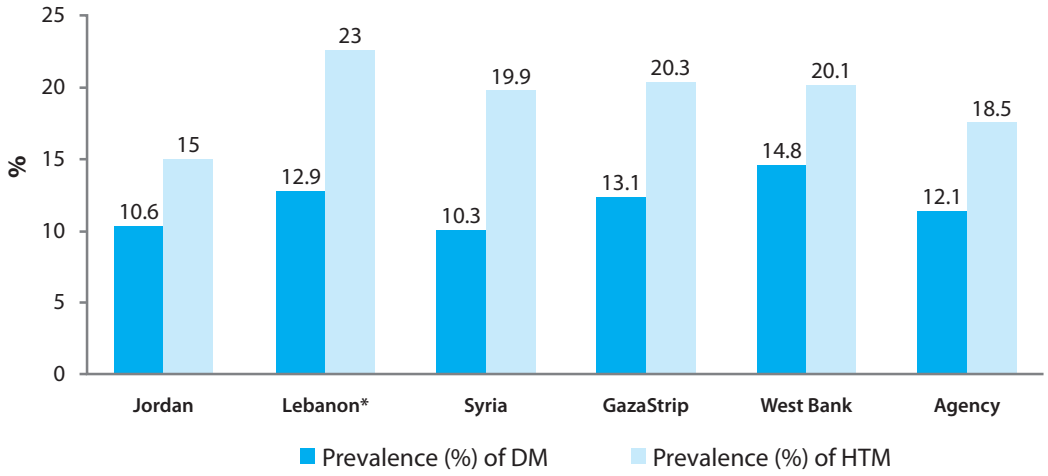


Figure -16 Prevalence (%) of patients diagnosed with type I and type II diabetes mellitus and hypertension among served population ≥40 years of age, 2017 (*PRS data included)

Risk scoring

A risk assessment system is still used to assess the risk status of NCD patients. The system assesses the presence of modifiable risk factors such as smoking, hyperlipidemia, physical inactivity, blood pressure, blood sugar and non-modifiable risk factors such as age and family history of the disease. The system helps health staff to manage patients according to their risk score and to refer them for specialist care when necessary. During 2017, all patients registered with the NCD programme at all UNRWA health center were assessed using the risk scoring assessment system. The risk scoring assessment revealed that an average of 28.3% of all NCD patients were considered to be at high risk. This includes 21.3% of patients with hypertension, 40.9% of patients with both diabetes mellitus and hypertension which obviously increased from 2016 from 28%. While 15.4% of patients with type II diabetes mellitus and 3.1% for type 1 diabetes. While the total of patients at moderate risk was 52.4% and only 19.3% were considered as normal.

There is a need for UNRWA to revise the scoring tool currently used and start using the WHO risk scoring system based on new PEN package as soon as it is released in 2018.

Treatment

The analysis of the consumption of anti-hypertensive drugs shows tendency among Medical Officers to use newly introduced drugs as losartan and amlodipine. In Gaza, Bisoprolol is used within non catalogue items. The Health Department plan to replace Atenolol that no more recommended as first line treatment in hypertension patients, with Bisoprolol in all Fields, statin continued to be used in patients with both diabetes and hypertension with blood cholesterol level of ≥ 200mg/dl.

The proportion of patients with type I or type II diabetes who were treated with insulin as part of their management also varied among Fields, with an average of 29.3% Agency-wide, which is higher than that in 2016 (27.5%). As per Field, this proportion ranged from 23.5% in Lebanon to 25.6% in Syria, followed by 29.2 % in West Bank and 30.4% and 31.6% in Gaza.

Late complications

Late complications of NCDs include: cardiovascular diseases (myocardial infarction and/or congestive heart failure), cerebrovascular disease (stroke), end-stage renal failure (ESRF), above-ankle amputation and blindness. A random samples (10%) of NCD files in most of health centers were used, some health centers used whole sample of 100% obtained through e-health, data was analyzed for the presence of late complications through this rapid assessment. Agency-wide late complications during 2017, was at 11.0 % which is a little bit higher than that of 2016 at 10.8% of all registered NCD patients.
As projected, patients with both diabetes mellitus and hypertension had the highest incidence of late complications (16.5%), followed by patients with hypertension only (8.1%), and patients with diabetes mellitus type 2 only (5.7%). There were some differences in the distribution of late complications of diseases between the Fields. These variations can be attributed in part to following lifestyle advice, enforcement of the appointment system and proper case management, as well as variations in treatment offered by different doctors, in addition to possible variation in recording the complication in patients file and subsequently reporting.

Defaulters

Defaulters are defined as patients who did not attend to the health center for NCD care at all during a calendar year, neither for follow-up, nor for collection of medicines (in person or via relatives for those unable to travel to the health centre). To reach patients who miss follow-up appointments, health staff use all possible means, including home visits, telephone calls and notifications via family members. Following these measures the Agency-wide rate of defaulter NCD patients decreased from 6.3% (15,415) in 2016 to 5.5% (14,015) in 2017 to The Field-specific defaulter rate ranged from as low as 3.6 % in Gaza to as high as 7.6% in Jordan, Lebanon's defaulter rate was 4.1 %, while in West Bank it was 6.1%. Defaulters in Syria Field was 7.6%, which decreased in comparison to that in 2016 (8.1%).

Case fatality

Similar to 2016 the mortality rate was at (1.5%) in 2017. A total of 4,007 of UNRWA's NCD patients were reported to have died during 2017; however, deaths could be under-reported. Patients with co-morbidities (hypertension and diabetes mellitus) comprised 55.0% of all deaths, while patients with only hypertension represented 35.0% and those with only diabetes mellitus represented 10 % of all 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 raising the awareness on risk factors among Palestine refuges about diabetes mellitus and hypertension. UNRWA will focus in the future on the revision of the guidelines and the essential list of NCD medications, mainly antihypertensive medicines, to meet the new guidelines recommended globally.

The use of an e-health-based cohort monitoring system is helping in monitoring NCD care in UNRWA health centres. It allows for comprehensive follow up of NCD care, including incidence, prevalence, treatment compliance and control status of patients. UNRWA will work with WHO and other concerned organization on revising the guidelines on Diabetes and hypertension to meet the needs of both staff and refugees.

UNRWA will seek all possibilities to continue cooperation with NGOs and diabetes associations to fund projects and activities to help in scaling up the diabetes and hypertension care provided to Palestine refugees. In 2017, the joint project between UNRWA Health Programme and Micro-clinic International (MCI) on the provision of health education on diabetes was accomplished in 115 health centres. A total number of 998 nurses are now trained and almost 110,000 patients were recruited or educated using MCI approach.

Communicable Diseases

In 2017, no cases of polio or other emerging diseases were reported among Palestine refugees. Increased in mumps cases were reported from West Bank, namely from Arroub camp. Total reported cases were 341, close supervision of cases and monitoring applied, preventive measures and raising awareness among staff and refugees were conducted.
UNRWA continued its cooperation with host authorities and WHO, and participated in immunization campaigns in all Fields. In addition, focus on strengthening the surveillance of emerging and re-emerging diseases continued to be active. Close coordination was maintained with the host countries' Ministries of Health for surveillance of communicable diseases, outbreak investigation, supply of vaccines, and exchange of information.

Expanded Programme on Immunisation (EPI): Vaccine-preventable Diseases

In each Field, UNRWA's immunisation services are linked to the host country's Expanded Programme on Immunisation (EPI). In all Fields, immunisation coverage, for both 12 month old and 18 month old children registered with UNRWA, continued to be above WHO target of 95.0%. Factors contributing to UNRWA's success in immunisation coverage include a consistent supply of vaccines, the enforcement of an appointment system for vaccination, and continuous follow-up of defaulters by health center staff. UNRWA will also consider using e-health in coming years to assess the immunization coverage instead of used for many years rapid assessment method.

Other communicable diseases

Viral hepatitis

The Agency-wide incidence of suspected cases of viral hepatitis (mainly hepatitis A) showed more decline (14.1 per 100,000 populations) in comparison with last 2 years, 53.5 per 100,000 populations in 2015 and 24.7 in 2016. The highest increase during 2017 was reported by Syria at 79.4 per 100,000 population which much less than that in 2016. This could be still attributable to the poor quality of water and hygienic conditions, in addition to the very difficult environmental conditions caused by on-going armed conflict and displacement of refugees. Gaza's incidence declined from 23.7 per 100,000 populations in 2016 to 11.9 per 100,000, while in Lebanon's was only 0.9 per 100,000 populations and none in Jordan.

Typhoid fever

The Agency-wide incidence of suspected typhoid fever cases decreased from 8.8 cases per 100,000 in 2016 to 8.3. No cases were confirmed. The highest and main incidence was observed in Syria (62.3 per 100,000 populations) which is also explained by poor quality of water and hygienic conditions in addition to the very difficult environmental conditions caused by on-going armed conflict and displacement of refugees. Both Jordan and West Bank Fields reported no cases.

Tuberculosis

Thirty-One cases of tuberculosis were reported in 2017 compared to 28 cases in 2016. Although reported cases from Syria Field were higher in previous years, namely before the conflict started, in 2017, only 13 cases were reported which represent 41% of all reported cases. Lebanon reported 14 cases, 4 cases reported from Gaza and no cases were reported in Jordan and West Bank. Of the 31 reported cases, 14 cases were smear-positive, 2 were smear-negative and 15 were extra pulmonary. Patients diagnosed with tuberculosis are managed, in close coordination, through national tuberculosis programmes.

Brucellosis

During 2017, out of 159 total cases, the majority (151) were reported from Syria. The other Fields reported few cases.

Maternal Health Services

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

Family planning

Family planning services, including counselling and provision of modern contraceptives, are available at all times to women accessing UNRWA health centres. Services are also provided as an integral part of the maternal and child health services through preconception care, antenatal, post-natal care and growth monitoring of children under-five years of age. The FHT approach offers a good opportunity to enhance male participation in family planning services.

During 2017, similar to previous years, the demand for modern contraceptive methods continued to increase in all fields. A total of 28,162 new family planning users were enrolled in the Family Planning Programme.
The Agency-wide total number of continuing users reached 164,932 representing an increase of 4.2% compared with 2016 The increase was consistent in all fields except in Jordan where was found an increase in the number of defaulters.

The distribution of family planning users according to contraceptive method remained stable.

The intra-uterine device continued to be the most popular method (48.0% of the users) followed by condoms (25.0%), oral contraceptive (24.7%), injectable (2.4%).

Preconception care

To achieve further reduction in infant and maternal mortality, UNRWA introduced a preconception care programme in 2011 as an important component of the maternal health care and fully integrated within the primary health care system. The aim of preconception care is to prepare women of reproductive age to enter pregnancy in an optimal health status. Women are assessed for risk factors, screened for hypertension, diabetes mellitus, anaemia, oral health diseases, given folic acid supplementation to prevent congenital malformation - in particular neural tube defects - and are provided with medical care where relevant.
During 2017, a total of 37,271 women had been enrolled in UNRWA's Preconception Care Programme representing an increase of 28.2% compared with 2016 (29,080). This increase can be attributed to the health awareness sessions on preconception care which targeted women who were attending a health centre for medical, dental and NCD consultations. Additionally, the expansion of FHT to the majority of health centres may have had an impact on enrolment, given the increased focus on family health and patient/family relationship.

Table 5- Utilization of UNRWA family planning services, 2017

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
New users	6,455	2,699	2776	13,268	2,964	28,162
Total continuing users at year end	36,862	14,933	11,348	77,809	23,980	164,296
Discontinuation rate (%)	6.2	6.4	3.4	6.3	4.0	5.2

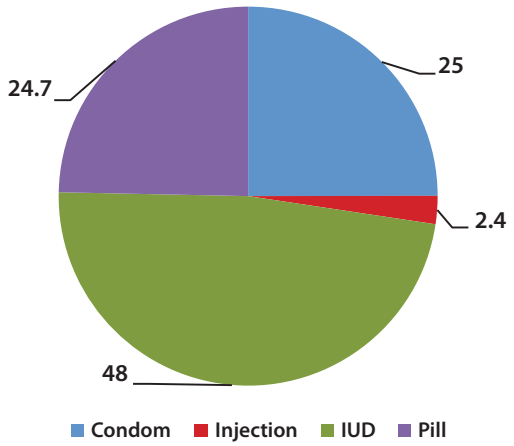


Figure 17- Contraceptive method mix, Agency-wide, 2017

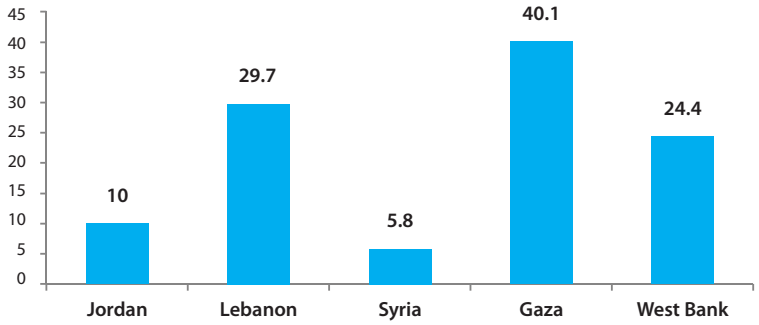


Figure 18- Percentage of newly registered pregnant women attended preconception care

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, oral health problems and other risk factors. Women are classified according to their risk status for individualized management. Iron and folic acid supplementation is provided to all pregnant women.

UNRWA uses selected indicators of coverage and quality to monitor the performance of antenatal care services including: antenatal care coverage, percentage of registration for antenatal care in the 1st trimester, number of antenatal care visits, tetanus immunisation coverage, risk status assessment and diabetes mellitus and hypertension in pregnancy.

Antenatal care coverage

During 2017, UNRWA primary health care facilities cared for 96,803 pregnant women which represented a coverage rate of 84.2% of all expected pregnancies among the served refugee population. The antenatal care coverage was calculated based on the expected number of pregnancies in the served refugee population.

In Syria, the utilization of antenatal care services was still affected by the closure of a large number of health centres and limited access to health services caused by the prevailing security constraints.

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 positive outcomes for the mother and the baby. The proportion of pregnant women who registered during the 1st trimester of pregnancy in 2017 was 82.0%, while it was 15.0% for women registered during the 2nd trimester and 3.0% for those registered during the 3rd trimester.

Table 6- UNRWA antenatal care (ANC) coverage, 2017

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Served population	1,145,136	228,790	420,614	1,372,440	491,535	3,658,515
Expected No. of pregnancies*	32,064	5,033	11,777	50,643	15,483	115,001
Newly registered pregnancies	26,419	4,999	7,934	43,025	14,426	96,803
ANC Coverage (%)	82.4	99.3	67.4	85.0	93.2	84.2

* Expected No. of pregnancies = Total No. of served population (from UNRWA registration system) X crude birth rate

Number of antenatal care visits

A key objective of the maternal health care programme is to ensure that women register for antenatal care as early as possible in pregnancy to allow ample time for risk identification follow up and management, and to meet the WHO recommended standard of at least four antenatal visits during the course of pregnancy. In 2017 the average number of antenatal visits per client ranged from 4.2 in Syria to 7.0 visits in Gaza giving an Agency-wide average of 6 antenatal visits.

Analysis of the 2017 data reveals that the Agency-wide percentage of pregnant women who paid ≥ 4 antenatal visits was 92.0%. The highest was in Gaza at 98.7% and the lowest was in Syria at 67.0%.

Table 7- Number of antenatal care visits during 2017

Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
% of pregnant women who paid ≥ 4 antenatal visits or more	86.0	95.0	67.0	98.7	94.8	92.0
Average number of antenatal visits per pregnant women	4.9	5.9	4.2	7.0	5.1	6.0

The utilization of antenatal care services was still affected by the closure of a large number of health centres and limited access to health services caused by the prevailing security constraints.

Tetanus Immunisation Coverage

Results of the annual rapid assessment survey of antenatal records for 2017 showed that 98.6% of registered pregnant women were adequately immunized against tetanus. As a result of the optimal immunisation coverage maintained, 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, and those with specific health conditions or risk factors that necessitate special care (43% in UNRWA). UNRWA currently uses a risk scoring classification based on three risk categories (high, alert, low). During 2017, and Agency-wide, 16.1% of women were classified as high risk, while 26.9% 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.

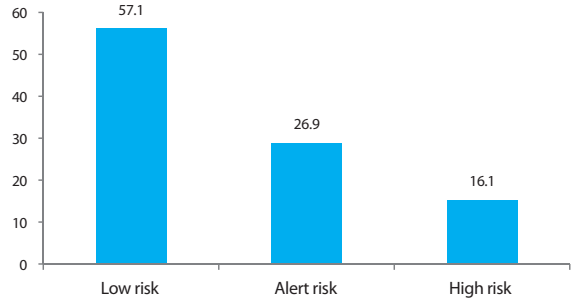


Figure 19- Percentage of risk assessment

Diabetes mellitus and hypertension during pregnancy

Pregnant women are screened regularly for diabetes mellitus and hypertension all through pregnancy. Agency-wide, during 2017, the prevalence of diabetes mellitus during pregnancy (pre-existing and gestational) was 3.9%, with wide variation between fields. The lowest rate was 2.1% in Syria and the highest rate was 6.6% in West Bank. Globally the reported rates of gestational diabetes range from 2% to 10% of pregnancies (excluding pre-existing DM) depending on the population studied and the diagnostic tests and criteria employed. Whereas some fields achieved the expected detection rate of DM, some did not. Therefore, efforts need to be exerted to improve the detection rate.

The prevalence of hypertension during pregnancy (including pre-existing and pregnancy-induced hypertension was 7.0% in 2017, the lowest rate was 4.7% in West Bank and the highest rate was 8.7% in Gaza.

Delivery Care

Place of delivery

UNRWA subsidizes hospital delivery for pregnant women classified as high-risk. During 2017, 99.9% of all reported deliveries Agency-wide took place in hospitals, while home deliveries represented 0.1%.

Caesarean sections

The proportion of deliveries by caesarean section among Palestine refugees served by UNRWA was 26.8% during 2017, compared to 25.4% during 2016. The substantial variation among Fields may reflect a combination of client preference and prevailing medical practice. Globally, there is a wide variation among regions and countries, however, worldwide caesarean section rates are estimated at 33%.[5]

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 8- Caesarean section rates among UNRWA reported deliveries, 2017

Field	Total deliveries	Caesarean section rate
Jordan	24,638	25.3
Lebanon	4290	46.9
Syria	7146	61.2
Gaza Strip	39,518	19.2
West Bank	13,436	27.3
Agency	89,030	26.8

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 2017, the total number of pregnant women who were expected to deliver was 93,445. Of those, 86,610 were delivered, 6,751 resulted in miscarriages or abortions (7.2%) and the outcome of only 81 pregnant women (0.09%) remained unknown.

The percentage of unknown outcomes dropped from 2.8% in 2002 to 0.2% in 2007, and had since that time remained constant. The highest proportion of unknown outcomes was reported from Syria (0.81%). This could be attributed to the prevailing security constraints; health staff couldn't track and ascertain the outcome of pregnancy of registered women in the antenatal care due to the mobility of people to seek safe places inside and outside the country.

Monitoring maternal deaths

During 2017, a total of 14 maternal deaths were reported in all Fields. This is equivalent to an overall maternal death ratio of 15.6 per 100,000 births among women registered with UNRWA antenatal services. UNRWA health staff conducts a thorough assessment following each reported maternal death using a standardized verbal autopsy questionnaire. Four women died during pregnancy, 10 deaths occurred in the post-natal period, 12 women died in hospitals while 2 died at home. Most maternal deaths were of multi-parity. The main reported cause of death was pulmonary embolism in 6 cases (42.9%), Toxaemia/hypertension in 4 cases (28.6%), bleeding in one case (7.1%), renal failure in one case (7.1%), bronchial asthma in one case, and the cause of death in one case was not ascertained and was therefore reported as unknown. The majority of these deaths could have been prevented. Four maternal deaths (28.6%) were due to preventable causes including 4 cases of Toxaemia and one case of bleeding.

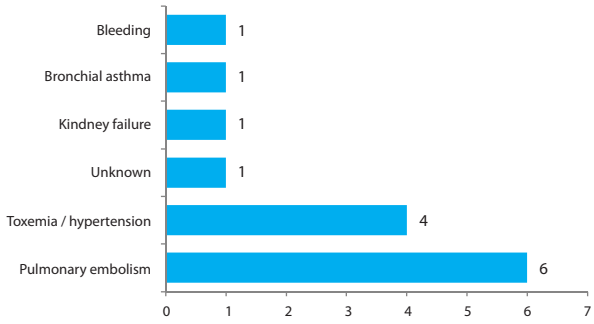


Figure 20- Underlying causes of maternal mortality cases, 2017

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 and counselling on family planning, breast feeding and new-born care. Of the 87,286 pregnant women who delivered live births during 2017, a total of 82,533 women received post-natal care within six weeks of delivery, representing a coverage rate of 95.0%.[6] The highest rate was 100.0% in Gaza and lowest rate was 81.6% in Syria.

6. Postnatal coverage calculated based on WHO definition

Child Health Services

UNRWA provides care for children across the phases of the lifecycle, with specific interventions to meet the health needs of new-borns, infants under-one year of age, children one to five years of age and school-aged children. Both preventive and curative care is provided, with a special emphasis on prevention. Services include new-born assessment, periodic physical examinations, immunisation, growth monitoring and nutritional surveillance, micronutrient supplementation, preventive oral health, school health services and care of sick children, including referral for specialist care.

Before 2010, UNRWA registered only children up to the age of three years, however for the past five years has been maintaining a system of registration for children up to five years of age. This system enables the follow-up of children who have missed important appointments, for services such as immunization, growth monitoring, and screening.

Child care coverage

During 2017, UNRWA primary health care facilities cared for 358,989 children up to five years of age, a coverage rate of 79.8% of all expected number of children. Service coverage rates were estimated based on the number of infants below 12 months of age that have been registered for care and the expected number of surviving infants which is calculated by multiplying the crude birth rates (as published by the Host Authorities) by the number of registered refugees in each country.

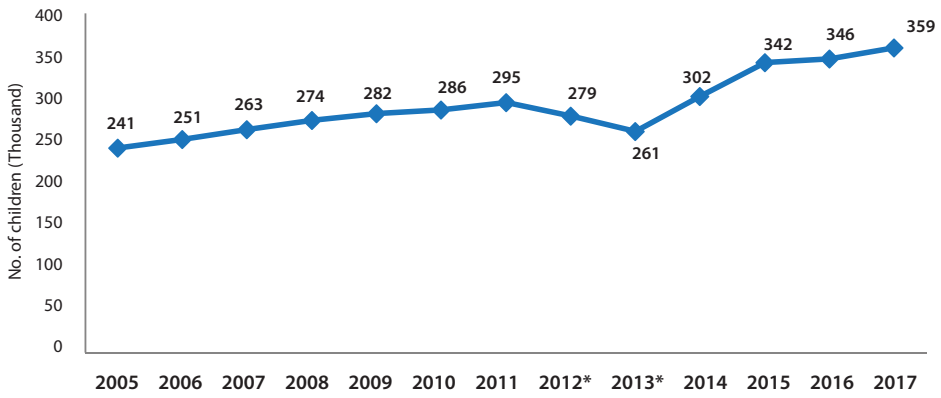


Figure 21- Children 0-5 years registered at UNRWA health centres, 2005 – 2017 (*Data not available for Syria)

Immunisation

UNRWA health services provide immunisation against the following diseases: tetanus, diphtheria, pertussis, tuberculosis, measles, rubella, mumps, polio, haemophilus influenza type B (Hib) and hepatitis and rota virus. Pneumococcal vaccine is only provided in West Bank, Gaza and Lebanon. The percentages of children aged 12 months and 18 months who have received all required vaccines among the served population in the Five Fields were 99.7% and 99.0%, respectively. Coverage has been close to 100% for more than a decade. This extraordinary achievement has led to a substantial decrease in the incidence, morbidity and mortality of communicable diseases

Growth monitoring and nutritional surveillance

Growth and nutritional status of under-five children 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 integrated into e-Health. The system documents the four main growth and nutrition related problems among under-five children: underweight, wasting, stunting and overweight /obesity. At the end of 2017, the prevalence rate for under-weight was 4.85%, for stunting was 7.35%, for wasting was 4.13% and for the overweight /obesity was 5.44%. There was no disparity between girls and boys.

Surveillance of Infant and Child Mortality

Infant mortality

During 2017, a total of 656 cases of death among infants below one year were reported from all Fields. The main causes of deaths reported by fields were: congenital malformations or metabolic disorders (29.4%), followed by LBW/Prematurity (26.5%), respiratory infections and other respiratory conditions (16.6%), Septicemia (6.3%), birth trauma (0.5%), gastroenteritis (1.2%).

Child mortality

In addition, during 2017, a total of 225 cases of death among children 1-5 years were reported. The main causes of child death are congenital malformations (35.1%), followed by LBW/ Prematurity (4.9%), respiratory tract infections and other respiratory conditions (15.6%). In terms of the distribution of deaths by sex, child mortality was higher among males than females at 57.2 % and 42.8% respectively, however there is no direct correlation between the sex of the child and the cause of death. Almost (17.5%) of the children who died during 2017 died at home and were not hospitalized.

School Health

UNRWA's existing School Health Programme consists of a number of health services provided in cooperation between the Health and Education Departments. The health services provided are: new school entrants medical examination, immunizations, hearing and vision screening, dental screening, de-worming and vitamin A supplementation. Additionally, the School Health Programme follows up on children with special health needs and conducts school environment and canteen inspection. These health services are provided to UNRWA schools, via health centers and School Health Teams (including a Medical Officer and Nurses) who visit schools according to scheduled visits to cover all schools within a scholastic year.
During the school year 2016/2017, more than 526, 000 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.
As a result of the School Health Programme activities during 2017, a total of 6,128 students were referred to UNRWA health facilities for further care, and an additional 7,535 were referred for specialist assessment. Furthermore, 13,104 students were assisted with the cost of eyeglasses, and 247 received assistance for the cost of hearing aids.

New school entrants medical examination

During the school year 2016/2017, UNRWA schools registered 61,411 new entrants. They received a thorough medical examination, immunization and follow-up. Morbidity conditions detected among new students included: dental caries (28.8%), vision defects (6.2%), heart disease (0.8%), bronchial asthma (1.0%) and epilepsy (0.2%). Health problems related to personal hygiene remain present at low levels: pediculosis was found in 1.7% and scabies in 0.4% of new entrants. Children with disabilities were assisted towards provision of eyeglasses, hearing aids and other prosthetic devices according to their condition and available resources.

Screening

UNRWA screening activities during the school year 2016/2017 targeted pupils in the 4th and 7th grades in all Fields and involved assessment for vision and hearing impairment and for oral health problems.

Among 4th grade students, 57,639 were screened, achieving 98.2% coverage rate. The main morbidity conditions detected were vision defects (11.9%) and hearing impairment (0.2%). Among students in the 7th grade, 51,623 were screened, with 98.7% coverage rate. The main morbidities were again vision defects (13.7%) and hearing impairment (0.2%).

Oral health screening

Oral health screening is conducted for 1st, 4th and 7th grade students in all Fields, and for 3rd grade students in the West Bank. A total of 11,710 students were screened at different grade levels. Screening is coupled with other dental caries prevention activities such as pit and fissure sealant for 1st graders, erupted molar for students at the 1st and 2nd grade, fluoride mouth rinsing, and teeth brushing campaigns. Pit and fissure sealant application achieved 42.5% coverage rate. 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 2016/2017, a total of 4,459 school children were identified with special health needs. Of these, 1187 students had bronchial asthma, 157 students were affected by type 1 diabetes mellitus, 512 had heart disease, 394 showed behavioural problems, and 307 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.

Immunisation

UNRWA Immunisation programme for school children is streamlined with host country requirements. During the school year 2016/2017:

- New entrants in all Fields received a booster dose of tetanus-diphtheria (DT/Td) immunisation. The Agency-wide coverage was 99.2%.
- Coverage of oral polio vaccine (OPV) for new entrants was 99.9%, and coverage of Td vaccination among 9th grade school children in the five Fields was 99.9%.

De-worming programme

In order to improve the health status of school children, UNRWA in accordance with WHO recommendations, maintains a de-worming programme for children enrolled at UNRWA schools. This programme of de-worming used a single dose of an effective wide-spectrum anti-helminthic. The de-worming programme targeted school children in the 1st grades - 6th grades. During the 2016/2017 school year, two rounds of deworming were conducted in all fields
The first round was conducted during the months of September- November 2016. The second round was conducted during the months of March- April 2017. In addition, health awareness campaigns were carried out to emphasize the importance of personal hygiene in preventing transmission at all schools.

Oral Health

Oral health services are provided through dental clinics integrated within the Agency's primary health care facilities or by mobile dental teams. The goal of UNRWA's Oral Health Service is to prevent, detect and manage dental and periodontal disorders among Palestine Refugees with special attention to at risk groups.

UNRWA currently provides oral health services through 106 fixed and 9 mobile dental clinics. Analysis of the trends of utilization of dental services in 2017, revealed that there was a 1.1% increase in curative dental consultations and a 4.7% increase in screening activities compared to 2016.

During 2017, 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.

Comprehensive oral health assessment was conducted for all children at the age of one and two years, in addition to the application of sealant. A total of 56,620 assessments were conducted among pre-school children. Regular dental screening for new school entrants and for 7th and 9th grade students, along with oral hygiene education continued in all Fields except Gaza where they targeted only first graders with comprehensive dental care.

Assessment of workload, productivity and efficiency of oral health services is conducted annually in each of the five Fields. A workload unit method is a standardized counting method for measuring technical workload in a consistent manner. With this method, one work unit is equal to one minute of productive technical, clerical and aide time. 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 highest workload was 65.6 as reported by Lebanon Field, and the lowest was 24.2 in West Bank. Despite the variation throughout the Fields, the Agency-wide average workload per dental surgeon per was 39.6.

Table 9- Utilization of dental services in 2017

Jordan	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
No. of curative interventions	141,430	50,376	57,900	269,811	45,195	564,712
% of curative services	62.9	59.9	57.9	58.6	65.7	60.2
No. of preventive interventions	83,279	33,667	42,151	190,682	23,589	373,368
% of preventive services	37.1	40.1	42.1	41.4	34.3	39.8
Average daily dental consultations (workload per dental surgeon) (target 25)	31.6	26.1	28.8	65.6	24.2	39.6

The second Oral health (DMFT) survey

The second Oral health Survey (DMFT) was carried out among all 7th grade school children in all five Fields during March - May 2016. Two-stage sampling was used, schools were selected during the first stage while the classes were selected in the second stage. The sample size was calculated based on number of students registered in each field. A total of 1,842 school children participated in the survey.
The survey was conducted according to standardized WHO guidelines and with the technical support of the WHO Collaborating Centre in Milano, Sassari University and Cooperazione Odontoiatrica Internazionale (COI) in Italy. A structured questionnaire on socio-behavioral risk factors was compiled by child/parent under supervision. The following principal variables were covered: socioeconomic status, dietary habits, oral hygiene habits, dental attendance.

The results of the survey show that:

- The prevalence of dental caries among examined children was 72.8% the highest was in West Bank at 79.7% and the lowest was in Jordan at 68.4%.
- Prevalence of untreated decayed surfaces was 69.4% the highest was in West Bank 76.8% and the lowest was in Jordan 68.4%.
- The percentage of children with one or more sealed permanent tooth was 9.8% (6.8% in 2011) with wide variation between fields, the lowest was 1.6% in Gaza and the highest was 31.5% in Lebanon.
- Oral health habits, 19.1% of children do not use toothbrush and toothpaste (22% in 2011).
- The percentage of children who used to clean their teeth after every meal was 59.3% (31.6% in 2011). Overall, 18.3% of children never attended a dentist, whilst 83.1% had a toothache experience in the past.
- In the total sample, 66.0% of children use to drink soft drinks during meals. This habit is less frequent in Gaza (37.5%) compared to (71.1%) in Jordan, (75%) in West Bank, (85.5) % in Lebanon.

Conclusion

The prevalence of dental caries remains very high among Palestine Refugee school children, whilst caries-free children are only 27.2%.

The high percentage of untreated dental caries and the low percentage of sealed teeth call for increased efforts, refining and completing the preventive strategies for UNRWA. The main behavioral factors related to caries prevalence and severity were the frequency of sugar intake between meals and soft drinks consumption.

Physical Rehabilitation and Radiology Services

Physiotherapy services

Physiotherapy services provided to 16,367 patients Agency-wide. 2,877 patients through six physiotherapy units in the West Bank, to 13,052 patients through 11 units in Gaza Strip and to 438 patients through one unit in Jordan. The patients received 224,298 physiotherapy treatment sessions. 28,818 sessions through 11 physiotherapists in the West Bank 192,251 physiotherapy treatment sessions through 34 physiotherapists in Gaza Strip and 3,229 sessions through one physiotherapist in Jordan.
These units provide a wide range of physiotherapy and rehabilitation services including: manual treatment, heat therapy, electrotherapy, and gymnastic therapy. In addition, an outreach programme, using advanced equipment around 50 facilitated the provision of therapeutic exercise, manipulation massage, functional training, hydrotherapy, electrotherapy and self-training.
The patients with permanent disability, together with their family members, were educated & trained on how to handle the physical aspect of the disability in their daily lives, which will lead to more independence and self-reliance. Consequently, this will enable the health professional staff to devote more time for other patients.

Radiology services

UNRWA operates 20 radiology units (seven units in Gaza, eight units in the West Bank, four in Lebanon and one in Jordan). These units provide plain X-ray services to patients attending the health centres. Other plain X-rays and specific types of diagnostic radiology services, such as mammography, urography, ultrasounds, are provided through different contractual agreements with hospitals and private radiology health centres to patients, to newly recruited UNRWA staff, to UNRWA local staff during periodic medical examinations, and as part of medical board examinations.
During 2017, radiology services included 103,535 X-rays for 91,974 patients. Out of these, 88,002 were plain X-rays for 81,498 patients conducted through UNRWA X-ray facilities and 15,533 X-rays for 10,476 patients conducted at contracted X-ray facilities.

Disability Care

Disability is a crosscutting issue and extremely relevant to the work of all UNRWA Programmes. The Agency adopts the definition of disability present in the UN Convention on the Rights of Persons with Disabilities (UNCRPD), which states that "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."
In 2017, disability inclusion was addressed in different levels across UNRWA. The Disability Inclusion Guidelines were launched and until March 2018 more than 200 staff have been trained on how to mainstream disability inclusion in the Agency's programmes and services. Currently, the Health Programme initiatives relating to disability take a comprehensive approach, addressing physical, intellectual, psychosocial and social aspects. UNRWA adopts a "twin-track" approach to disability, where we work both on the social environment (ensuring non-discrimination and accessibility of services) and on strengthening targeted disability-specific services. In this sense, the Health Department has a strong focus on the prevention of disability, including provision of quality family planning services, antenatal, intra-natal, postnatal care, growth monitoring, immunization, disease prevention and control, screening activities to early detect and correct disability for new born infants and school children.

Folic Acid supplementations are prescribed for mothers in the Preconception care period, which can help prevent certain birth defects, such as Neural Tube Defects. 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 who have conditions that can lead to permanent physical or intellectual impairments such as hypothyroidism and phenylketonuria in order to facilitate appropriate medical follow-up.
In addition to prevention, the Health Department also provides other important services to persons with disabilities. Registered refugees whose permanent physical, visual and hearing impairments have been identified by UNRWA's health centres, are eligible for financial support from the Department of Health to cover the cost of assistive devices such as hearing aids, eye glasses, artificial limbs, wheelchairs etc. For instance, in 2017, more than 13,104 students were assisted with the cost of eyeglasses and 247 students received assistance to cover the cost of hearing aids.
While Physiotherapy Centers (operating in Jordan, Gaza and West Bank) do not target specifically persons with disabilities, it is recognized that a significant proportion of beneficiaries of this service are likely to be considered 'persons with disabilities' under the definition of the UNRWA Disability Policy (2010) and UNCRPD. It is important to note, however, that data collection regarding physiotherapy services does not differentiate between beneficiaries with and without permanent disabilities.

Pharmaceutical Services

Total expenditure

In 2017, the total value of medical supplies and equipment from all funds (General Fund and projects) was approximately US$ 14.17 million. Expenditure from general fund was US$ 13.13 million (92.5%), and from projects US$ 1.05 million (7.5%).

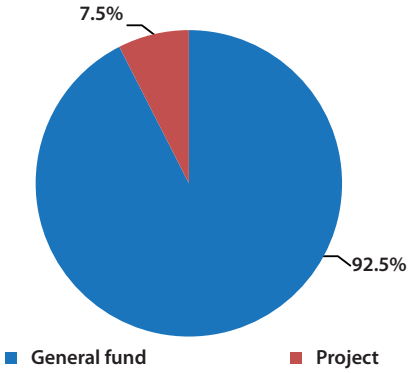


Figure - 22 Total value of medical supplies and equipment from different resources, 2017

Expenditure on medical supplies

In 2017, the average expenditure Agency-wide on medical supplies per outpatient medical consultation was US$ 1.69, with decrease as 2016 (US$ 2.60). The average annual expenditure on medical supplies per served refugee was US$3.87 Agency-wide, compared with US$ 6.49 in 2016. The high cost per served refugee in Lebanon, Syria (US$ 15.68 , US$ 8.52) respectively. In Lebanon, it is mainly due to out flux of PRS from Lebanon. As for Syria, it is due to the necessity of procuring high quantities including buffer to avoid any shortages during emergencies .Also, in Syria, there is the need to procure locally due to the restriction on importing any medicines produced by manufacturers outside Syria

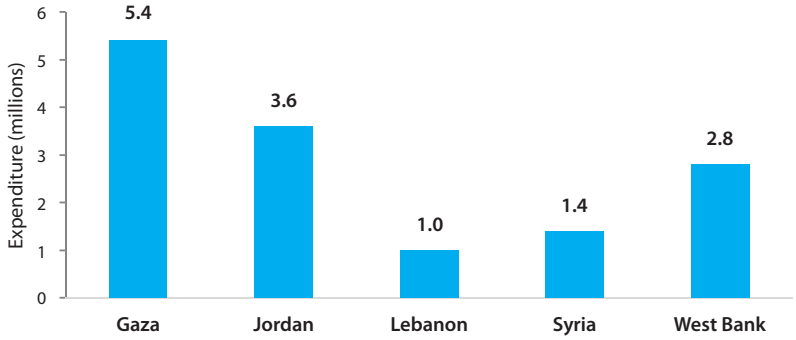


Figure 23- Expenditure on medicines by Field 2017

Expenditure on medicines

The total expenditure on medicines in 2017 was US$ 10.58 million. Analysis for drugs expenditure revealed 53.5% was spent on medicines for the treatment of NCDs and 10.0% on antimicrobials.

By further analysis of expenditure on NCD drugs shows that 49% of expenditure on NCD was on anti –diabetics, followed by 20% on antihypertensive medications, 21% on cardiovascular drugs , 4% on diuretics, and 6% on lipid lowering agents.

Table 10- Average medical products expenditure (USD) for medical supplies per outpatient medical consultation and per served refugee, 2017

	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Expenditure (US$) for medical supplies per medical consultations	2.3	3.45	3.3	1.4	3.36	1.69
Expenditure (US$) for medical supplies per served refugee	3.13	15.68	8.52	3.85	7.29	3.87

Expenditure on medicines

The total expenditure on medicines in 2017 was US$ 10.58 million. Analysis for drugs expenditure revealed 53.5% was spent on medicines for the treatment of NCDs and 10.0% on antimicrobials.
By further analysis of expenditure on NCD drugs shows that 49% of expenditure on NCD was on anti –diabetics, followed by 20% on antihypertensive medications, 21% on cardiovascular drugs , 4% on diuretics, and 6% on lipid lowering agents.

During 2017, medical equipment and related supplies accounted for 25.3% (US$ 3.59 million) of the total expenditure for medical supplies (US$ 14.18 million).

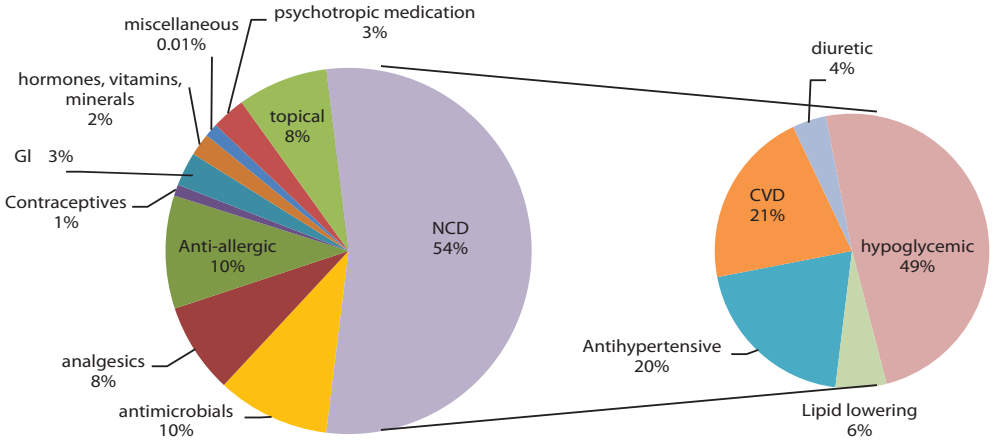


Figure 24- Drugs expenditure in 2017

Antibiotic prescription rate

UNRWA aims for an antibiotic prescription rate below 25.0% in line with WHO recommendations. Antibiotic prescription rates ranged from 21.4% in West Bank to 33.5% in Syria in 2017. It is worth mentioning that in Syria Field the rate decreased in 2017 compared to 2016 (35.4%), as a lot of efforts were done to rationalize antibiotic prescription. However, in Lebanon ,it has increased due to the receipt of several donation of anti-microbials with short shelf life, which urged the need to increase consumption.

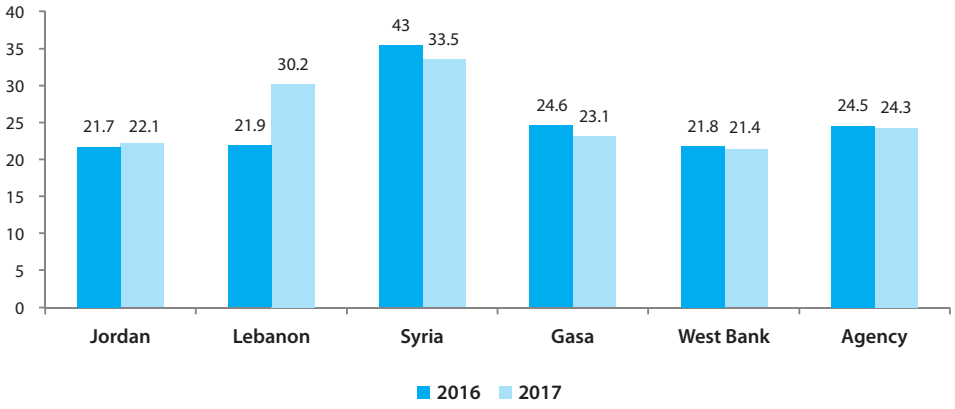


Figure 25- Antibiotics prescription rate (%) by Field, 2014-2016

Donations of medical supplies

- In 2017, UNRWA received in-kind donations of medical supplies (medicines, medical equipment and others) .The following medicines and consumables were donated during 2017.
- 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.
- Syria's Ministry of Health and UNICEF provided Syria Field with vaccines, tuberculosis treatment and other miscellaneous drugs.

Output 2.2: Efficient hospital support services

In patient Care

UNRWA continued to provide assistance towards essential hospital services either by contracting beds at non-governmental and private hospitals or by partially reimbursing costs incurred by refugees for treatment.

Outsourced Hospital Services

During 2017, a total of 97,454 refugees benefited from assistance for hospital services, the hospitalization support program (HSP) HSP costed over 25 million USD (second highest health-related expenditure after personnel). The average length of stay was 2.0 days across UNRWA's five Fields of operation.
In addition, the Agency directly provides hospital care in one hospital at Qalqilia in the West Bank.

Table 11- Patients who received assistance for outsourced hospital services during 2015 and 2017

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
2016	11,904	28,475	20,737	13,079	21,903*	96,098
2017	10,000	29,887	23,489	11,885	22,193	97,454

*Numbers exclude Qalqilia Hospital

Of all the patients hospitalized, 52.7% were between 15 and 44 years old, while 20.9 % were children below the age of 15. Almost 65.2% of the patients were women.

Features of UNRWA HSP varies in each field, utilization, available resources according to served population, unit costs, number and type of contracts, staff involved, hospital service target, caseload, etc., are a result of the access PRs have to hospital services provided by host government and of the local implementation of the overall hospitalization policy. Moreover, HSP management is influenced by the health care provided by UNRWA PHC services. In Lebanon PRs have very limited access to local health services and UNRWA is the only and last resort for them both for primary care and for hospitalization: this explains the high expenditure and the diversity of the caseload in this field. In Jordan, the cap of 100 JOD (150 JOD for SSNP) and a reasonable governmental health coverage have skewed UNRWA support to PRs: the mainly use it to cover deliveries. In West Bank UNRWA represents an alternative to overcrowded MoH services. Utilization may vary in the future according to MoH delivery capacity. In Syria and Gaza, with the current fragile context, MoH services are discontinuous and often not accessible. For PRs living in these countries UNRWA support is every day more important.

Population increase, worsening of leaving conditions and consequently health in some countries (Syria and Lebanon in particularly), availability of more sophisticated and for this reason more expansive hospitalization treatments are some of the reasons for the increase in the hospitalization expenditure.

To keep a good level of service offered to PRs while responding to the constrains in budget, cost containment measures were set at the beginning of 2017 according to HSP specificities in each field (e.g. direct the patients towards PRCS hospitals in LFO or direct <3 years old or insured patients towards MoH hospitals in WBFO). Monitor the progress towards specific indicators proved to be a challenge. To face this, the Agency hospitalization database was improved and managers in the fields supported in extraction and use of data for monitoring purposes.

In 2018 an important exercise in LFO and WBFO will be the renewal of contracts with the hospitals. For a combination of reasons that include competition to provide services to an expanded number of refugees (e.g. Syrians in Lebanon or Jordan), actual costs increase or the need to compensate for other supporting agencies' failures (e.g. the increasing debt of West Bank MoH concerning the payment of hospital services), some hospitals in the fields have already expressed their will to increase the price of hospitalization services provided to UNRWA and to avoid uncontained increase a proper tender process will be paramount.

Focus will be also give all along the year on closer monitor of target indicators in particular in LFO and WBFO where expenditures constantly exceed budget allocated in order to continue to provide the best quality service to the most beneficiaries possible within the budget constraints.

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, 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. A total of 5,527 patients were admitted to the hospital in 2017 compared to 5,892 in 2016. The average bed occupancy in Qalqilia Hospital was 54.7% in 2017, compared with 55.3% the previous year. The average length of stay in 2017 was 2.3 days

Table 12- In-patient care at the UNRWA hospital (Qalqilia, West Bank) in 2016 and 2017

Indicators	2016	2017
Number of beds	63	63
Persons admitted	5,892	5,527
Bed days utilized	12,711	12,570
Bed occupancy rate (%)	55.3	54.7
Average stay in days	2.2	2.3

Crosscutting Services

Nutrition

In August 2017, a cross-sectional study was conducted at UNRWA HCs in the five fields. To assess the anemia prevalence among new entrant children registering at UNRWA schools; in order to consider the feasibility of implementing appropriate targeted interventions, should additional resources become available to the agency. The main Objectives were:

- To assess and establish a base-line data on anemia prevalence among new entrants to school attending UNRWA health centres for the medical examination required for their acceptance at UNRWA schools.
- To assess the need for implementing and integrating appropriate curative and preventative interventions for 1st grade students attending UNRWA`s schools.

A total of 2,900 weighted sample size was calculated based on (2015/2016) holistic year numbers and prevalence of anemia in 2005. All new school entrants attending UNRWA's HCs for their school medical examination (male and female) living inside or outside Palestine refugee camps, were included in the study with a verbal consent from their parents. Anthropometric (weight and height) and Hb levels data were collected using unified sheet for each child. Association between Hb levels and different variables were determined by Chi-Square test, using SPSS-V22. Hb readings were categorized according to World Health Organization's anemia guidelines for 5-11 years old; mild anemia (11.5-10.0 mg/dl), moderate (9.9-7.0mg/dl) and serve (<7mg/dl). Child growth Z-scores (weight-for-age (WAZ), height-for-age (HAZ), BMI-for-age (BAZ) were calculated using WHO Anthroplus-software.

Result

Out of 2,900 calculated sample size 2,421 were collected so far from Gaza, Syria, Lebanon and West Bank. Of the participants, 1,279 was female (52.85%), the mean age 6.14±0.4 years, and 52.25% of children resided inside camps.

According to WHO's growth indicators, stunting, wasting and underweight status was examined. Highest levels of stunting were found in Gaza and Syria (4.3%) and highest levels of wasting and underweight is found in Syria 10.1% and 6.3%, respectively. A significant associations were found in both the anemic and stunted cases with the geographical distribution of both HCs ($p<0.001$) and schools ($p<0.003$), in Gaza, Syria and West Bank, respectively. Anemic cases and gender was significant in West Bank ($p<0.02$). A significant difference found in WAZ and HAZ readings in West Bank and Gaza HCs' location. It is conclude that the prevalence of anemia among surveyed new school entrants' has increased compared to UNRWA's previous anemia surveys, with a significant differences in the location of HCs and schools.

Table 13- prevalence of anemia among 1st grade school children

Field	Hb mean level (mg/dl)	Prevalence of anemia
Syria	1.9 ± 1.0	30.0%
Gaza	11.9 ± 0.8	29.3%
West Bank	12.2 ± 0.9	22%
Lebanon	12.8 ± 0.95	18%

Appropriately targeted interventions for school-aged children is being considered in order to improve their anemia status, that's why UNRWA health department at HQ, is planning to include the Hb test in the 1st grade school medical examination, which will be concerned as a first step to examine children's anemia status. Also, the study result in recommendation for further examination and investigation of malnutrition among these children, as the levels of wasting and stunting were higher than the regional data.
During 2017, health department has finalized the NCD handbook, an update on the healthy nutritional knowledge and practices and ways to update a healthy lifestyle for diabetic patients were include in the handbook.

Laboratory services

Comprehensive laboratory services were provided through 124 out of 143 health facilities. Out of the remaining 19 facilities, 10 facilities continued to provide basic laboratory support (blood glucose, blood haemoglobin and urine tests by dipstick) through competent nursing staff using basic laboratory equipment, and the remaining 9 facilities are in Syria Field and are not functioning.

Utilization trend

The Agency-wide number of tests performed in 2017 increased by 8.4% from 4.37 to 4.73 million compared to 2016. With variation from one Field to another, while rates of increase were observed in Gaza 27.1%, in Jordan 2.7%, in Lebanon 2.0% and in Syria 11.7%, rates of decrease was observed in West Bank 20.7% The increase in Syria is due establishing new health points that provided laboratory services, in Lebanon due to providing laboratory services to (PRS) Palestine Refugees from Syria, the increased in Gaza could be attributed to the increase in the number of essential tests that have been performed which were not performed in 2016 due to shortage in the laboratory supplies in particular in Q4 in 2016.

This increase was noticed in number of HBA1C tests which was done for all diabetic patients, FBS for pregnant ladies, more HB test for PCC cases demand from the patients due to deteriorated MOH sector and socio economic conditions, and in Jordan due to increase demand UNRWA laboratory services, while the decrease in West Bank was due to a shortage of laboratory testing materials mainly on biochemistry, serology and urine tests, the decrease by 25%, 26% and 32% in 2017 compared to 2016 respectively.

Periodic self-evaluation

The annual comparative study of workloads and efficiency of the laboratory services was carried out based on 2017 data as part of UNRWA's periodic self-evaluation of the programmes using the WHO approach for workload measurement. The productivity target ranged from 32.6 to 63.6 Workload Units (WLUs)/hour. The productivity was 40.7 in Jordan, 48.4 in Lebanon, 63.6 in Gaza, 52.5 in the West Bank and 32.6 in Syria. The average Agency-wide productivity was 47.6 WLUs/hour.

Laboratory costs

The overall cost of laboratory services provided by UNRWA was US$ 6.9 million, out of which US$ 6.85 million (99.1%) were secured through Programme budget; US$ 58,152 (0.84%) through in-kind donations, projects or emergency funds. The cost of laboratory services continued to be far below the rates of the host countries for equivalent services (estimated at US$ 21.0 million). This suggests that UNRWA's experience in integrating laboratory services into its primary health care activities remains very cost-efficient vis-a-vis referring patients to external services.

Table 14- Expenditure on laboratory services

Cost	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Programme Budget	1,448,395	768,633	438,272	2,103,746	2,094,057	6,853,103
Non-Programme Budget	0.0	3,330	0.0	54,822	0.0	58,152
Total	1,448,395	771,963	438,272	2,158,568	2,094,057	6,911,256

Table 15- Comparative analysis on annual cost of laboratory services performed at UNRWA facilities and cost of the same services if outsourced to host authorities (USD), 2017

Cost	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Host authorities	4,493,873	1,908,660	924,994	10,350,379	3,365,835	21,043,741
UNRWA	1,448,395	771,963	438,272	2,158,568	2,094,057	6,911,256

Quality assurance

In order to ensure the quality of 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.
- Implementing an internal quality control system at all UNRWA laboratories and for all tests.
- Implementing an External Quality Assurance System (EQAS) at all UNRWA laboratories in all Fields.
- Conducting an annual assessment of the trends in utilization and productivity of laboratory services at health centre level in each Field as part of self-internal assessment policy according to UNRWA standard assessment protocol.
- Conducting annual assessment of the laboratory services according to standard checklist by Field Laboratory Services Officers.
- Conducting quarterly follow up checklist assessment on laboratory services by the Senior Medical Officer or Medical Officer in-charge.
- On-going check-up of the quality of laboratory supplies in coordination with relevant staff at the procurement division.
- Making arrangements with the public health laboratories of the host countries concerning the referral of patients or samples for surveillance of diseases of public health importance.

Health Communication

Health communication (HC) is basically about the use of communication strategies to help people make informed choices, health behaviors and decisions about their health. It is concerned with every aspect of health and well-being, including disease prevention, health promotion and quality of life.

During 2017, one of the main activities conducted successfully was the International UNRWA-World Diabetes Foundation (WDF) conference on Diabetes and Refugees. All administrative and logistic requirements to get the conference run into success were properly done. In addition, all conference documents were finalized and disseminated timely, including a press release, the conference proceedings report and the conference call for action.

HC, working with the NCD team at the department, has finalized the NCD booklet, piloted its first version, revised it then finalized it for mass production.

After more than two years since the launching of the UNRWA-Microclinic International (MCI) programme to support diabetic Palestine refugees, a closing ceremony was conducted in cooperation with the NCD team at HD, HQA.
A new WDF proposal was finalized and submitted to the donor in cooperation with the NCD team at HD, HQA to sustain the positive outcomes of the two diabetes campaigns and the UNRWA-MCI programme.

As a new tool for communicating with Palestine refugee mothers, a mobile application, the Mother and Child Health application (MCH App), was rolled out and launched in Jordan. Several communication materials were prepared for raising the awareness of the users and for advocating for the application.

Relevant World Days 2017 (World Health Day, World No Tobacco Day and World Diabetes day) were observed in cooperation with the fields' health programmes. Awareness materials were produced and disseminated as needed or requested.

To follow-up on the implementation of the new No-smoking Policy, an online survey for staff at HQ (A) and all fields was conducted, results analysed, and a report prepared with recommendations to the Deputy Commissioner General (DCG). In addition, UNRWA was granted, during a special ceremony patonised by HRH Princess Ghaida Talal, a certificate for a smoke-free workplace offered by King Hussein Cancer Centre.
Lastly, and as part of efforts to sustain the achievements and gains that the Health Programme in all fields have reached, the need was recognised for measuring the quality of health care at primary health care level. Health care accreditation is one way for achieving that. This is currently a new role for HC at HD, HQA.

Health Research

Throughout 2017, health research remained one of the fundamental activities of the Department of Health. Our assumptions that research findings can serve not only to supplement out knowledge, but also to support transparency of the Agency as well as its visibility continue to grow stronger. In 2016, the first Departmental Research Agenda was developed. The aim of the Research Agenda was to narrate all potential research activities, according to the World Health Organization (WHO) Health System Strengthening Framework, and to visualize priorities of the studies to be conducted. This WHO framework defines a set of pillars which represent the critical components of health systems. Together with the WHO framework, research priorities for the department were identified based on the current and estimated future trends in the burden of diseases; the ability to conduct research based on available human, financial and infrastructure capacity; the potential impact of the research on policy-making.

Our current focus areas include but not limited to NCDs, MCH, nutrition, MHPSS, health financing, health workforce strategies, and health system data quality. For those areas of study, we currently conduct four types of research, primary research, medical records analysis, literature reviews and policy analysis.

The Department of Health continues to be committed to scientific research, and to integrate research findings into the decision-making process for patient care. Partnerships to promote evidence-based practice were further strengthened, and will continue to be strengthened, with memorandum of understanding (MoU) signed by UNRWA and world-leading academic institutions. We welcome researchers and consultants from those institutions who share interest in supporting the Palestine refugee population and their well-being.

We had a privilege of welcoming 19 researchers, from Canada, Egypt, Italy, Japan, Jordan, Netherlands, the United Kingdom and the United States, to work with us on various scientific studies in 2017.

In 2017, two articles and four abstracts were published by the Department staff, and data analysis is on-going for more studies.

Currently, Agency-wide discussion in relation to ethical considerations for Palestine refugees and their data is on-going. In 2018, we plan to establish better scientific basis for efficient and effective health care for Palestine refugees, and to advocate for the Agency by improving the number of publications.

Gender Mainstreaming

In accordance with the UNRWA Gender Policy adopted in 2007 and the UNRWA Gender Equality Strategy (GES) 2016-2021, the Health Programme has continued to work in 2017 on providing support to field offices on the implementation of their areas of priority focusing on ensuring increased sex balance among UNRWA health staff, addressing gender-based violence (GBV) in the health centers, improving men's participation in pre-conception care and family planning, and introducing breast cancer screenings.

Addressing the gender gap in the workforce

The percentage of women recruited within all categories and in all Fields varies from 33.0% in Jordan to 61.7% in West Bank. To address the gender gap among health staff, UNRWA Department of Health encouraged the recruitment of female staff while remaining mindful of the need for a competitive and transparent selection process. However, the staffing structure in UNRWA health centres, similar to what can be observed in host countries, reflects persistence in stereotypes regarding positions occupied by women and men. Nurses are primarily women and Medical Officers are mostly men. To tackle these challenges, UNRWA is working to ensure that recruitment procedures are more gender sensitive. Actions were taken to enhance the capacity of interview panels to carry out gender sensitive interviews. In addition, advertised positions have been revised to adopt gender-neutral language.

Gender Based Violence (GBV)

In line with Agency-wide efforts to address GBV since 2009, the health programme has sought to embed the identification and referral of GBV survivors to needed services as part of its programme. One of the major challenges reported relates to the limited or lack of private spaces in health centres which continues to form an obstacle to safe and confidential identification and addressing on GBV in health centres. This issue has proved more salient in emergency contexts, such as in the Syria context, due to unavailability of space for private consultations in the context of collective centres.

Identified Priority Areas in Fields of Operation

Field offices continued to implement activities based on previously identified priorities in gender-action plans (GAP). Work has thus continued on issues such as the engagement of men in preconception care (PCC) and family planning (FP), screening for breast cancer, and coverage of clinical management of rape (CMR) in Lebanon field. The health programme has continued its efforts to ensure the inclusion of men in PCC and FP by working both at the community level, through awareness raising, and also on the staff level through trainings. Engaging men in PCC and family planning aims at increasing men's understanding of the importance of family planning and to empower women in making decisions related to conception together with their husbands to achieve the main goal of improving maternal and child health.

In Gaza, 22,880 men were involved in family planning sessions which were mainstreamed in the Health Programme as a core part of health centres' monthly action plans.

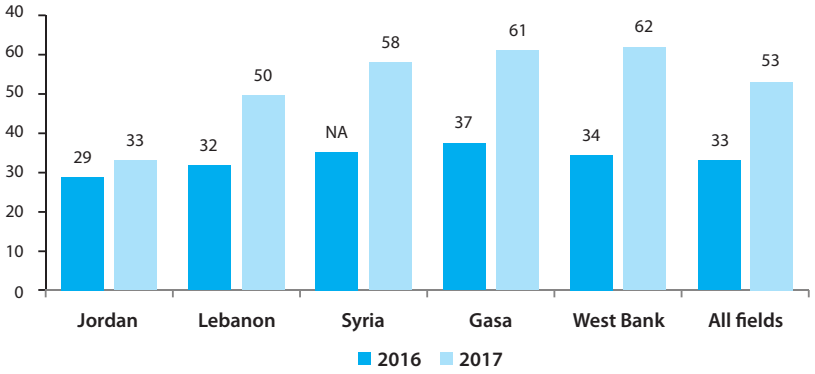


Figure 26- Percentage of female staff at UNRWA health centres

By mainstreaming this activity through the programme, the number of men participating in family planning sessions has been significantly increased in 2017 compared to the previous year where only 244 men had been reached through awareness-raising sessions on this topic. The Health Programme considered these activities to be a contributing factor to reducing the maternal mortality rate in Gaza during 2017, with only three maternal deaths having occurred during the year.

Between July and December 2017, an increased number of husbands joined their wives during pre-conception care (121 couples compared to 68 couples between January and June 2017) and family planning (875 couples compared to 493 couples from January to June 2017) sessions in Syria. Ongoing awareness-raising efforts on the importance of joint attendance of PCC and family planning sessions are likely to have contributed to this significant increase.

In Jordan, awareness-raising sessions on the importance of family planning were held in the 25 health centres.

In Gaza, 82 breast cancer awareness sessions, including 20 sessions for men, were carried out in the health centres. 1,640 persons (1,240 female and 400 male) attended the sessions. The aim of delivering breast cancer awareness sessions to men is to create solidarity among them towards affected cases, create a sense of commitment towards their wives in order to support them psychologically. A joint project on GBV and health issues between the Health and Education Programmes targeted 24,120 grade 8 and 9 students. In addition, 2,200 teachers and 1,650 mothers were also reached through additional awareness-raising sessions.

In Jordan, the Health Programme, in collaboration with the field office's GBV Lead Focal Points, conducted workshops on Gender and GBV targeting 517 staff, distributed posters and brochures in all 25 health centres disseminating the GBV hotlines and services and raised awareness on the field office's Standard Operating Procedures related to communicating on sensitive cases.

Finance Resources

The total Health Programme expenditure in 2017 amounted to approximately USD 110.6 million, corresponding to an estimated expenditure of USD 18.4 per registered refugee. Even if a more conservative approach was used to estimate the per capita expenditure based on the number of population served by the Agency (approximately 3.65 million) rather than the total number of registered refugees (almost six million), the annual per capita expenditure is USD 30.2 per capita per year Agency-wide. WHO recommends USD 40-50 per capita for the provision of basic health services in the public sector.

There is a large expenditure gap between Lebanon and Jordan. This is due to the heavy investment in secondary and tertiary care made necessary in Lebanon because refugees are denied access to public health services and cannot afford the cost of treatment at private facilities. Conversely in Jordan, UNRWA Registered Palestine Refugees have full access to the Government's social and health services.

UNRWA's main focus is on comprehensive primary health care delivery, with very selective use of hospital services that are mostly contracted for. Allocations for hospital services in 2017 represented only 21.1% of the total Health Programme Budget.

The constrains in budget will represent a major challenge for the Health Programme due to the population increase, worsening of leaving conditions and increase of NCDS, which are often associated with major complications, long-term care, and of the cost of hospital services in recent years.

Table 16- Health expenditure per registered refugee, 2017 regular budget (USD)

Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
9.0	42.9	10.0	22.8	25.1	18.4

Table 17- Breakdown of budget and expenditure by sub-programme

Sub Program	Sub Sub-Program description	Jordan		Lebanon		Syria		Gaza	
		Budget manage 2	Expenditure	Budget manage 2	Expenditure	Budget manage 2	Expenditure	Budget manage 2	Expenditure
Hospitalization Services	Hospital Services	1,081,723	1,084,695	13,059,547	13,057,658	419,684	342,034	1,660,752	1,631,771
	Qalqilia Hospital								
	Tertiary Health Care			282,572	282,572				
Total Hospitalization Services		**1,081,723**	**1,084,695**	**13,342,119**	**13,340,229**	**419,684**	**342,034**	**1,660,752**	**1,631,771**
Primary Health Care (FHT)	Family Health	16,448,168	14,549,898	6,695,591	6,241,259	3,968,276	4,066,781	27,761,727	24,282,688
	Oral Health	1,669,812	1,615,027	891,157	803,634	587,634	519,849	1,322,983	1,253,175
	Communicable Diseases	20,486	231,240	-	187,613	-	42,182		
	Non-Communicable Diseases							270,456	450,881
	Maternal Health & Child Health Services	-	2,024	1,395	7,356			13,791	15,680
	School Health Services	273,647	270,670			3,863	755	468,349	481,918
	School Health Services	1,731,796	1,312,611	667,279	605,120	623,462	533,913	2,421,809	2,111,610
	School Health Services	1,310,217	1,310,079	702,829	702,829	354,354	354,354	1,477,925	1,477,925
	School Health Services	6,718	6,716	81,424	81,424			117,507	117,507
	Disability Screening and Rehabilitation	85,327	93,789			34,413	38,578	1,129,872	1,074,195
	School Health Services			-	17,951			128,919	135,616
	Psychosocial Support Programme							809,659	901,014
Total Primary Health Care (FHT)		**21,546,172**	**19,392,054**	**9,039,675**	**8,647,185**	**5,572,001**	**5,556,413**	**35,922,996**	**32,302,209**
Programme Management		513,711	495,796	546,548	498,038	379,639	415,851	603,780	556,784
Total Programme Management		513,711	495,796	546,548	498,038	379,639	415,851	603,780	556,784
Grand Total		23,141,605	20,972,546	22,928,342	22,485,453	6,371,324	6,314,297	38,187,528	34,490,764

Table 17- Breakdown of budget and expenditure by sub-programme

Sub Program	Sub Sub-Program description	West Bank		HQ		Total	
		Budget manage 2	Expenditure	Budget manage 2	Expenditure	Budget manage 2	Expenditure
Hospitalization Services	Hospital Services	3,942,094	3,819,043			20,163,799	19,935,201
	Qalqilia Hospital	3,052,188	3,079,910			3,052,188	3,079,910
	Tertiary Health Care					282,572	282,572
Total Hospitalization Services		**6,994,282**	**6,898,953**			**23,498,560**	**23,297,682**
Primary Health Care (FHT)	Family Health	14,053,844	12,655,114			68,927,606	61,795,741
	Oral Health	845,800	802,632			5,317,385	4,994,316
	Communicable Diseases	-	4,186			20,486	465,221
	Non-Communicable Diseases					270,456	450,881
	Maternal Health & Child Health Services					15,186	25,060
	School Health Services	82,522	79,521			828,381	832,864
	School Health Services	2,080,740	1,888,609			7,525,086	6,451,863
	School Health Services	1,474,340	1,474,340			5,319,665	5,319,527
	School Health Services	136,229	136,229			341,878	341,876
	Disability Screening and Rehabilitation	510,638	397,223			1,760,250	1,603,785
	School Health Services	22,750	18,740			151,669	172,307
	Psychosocial Support Programme	443,250	443,250			1,252,909	1,344,264
Total Primary Health Care (FHT)		**19,650,112**	**17,899,845**	-	-	**91,730,956**	**83,797,706**
Programme Management		998,352	882,095	781,956	657,031	3,823,986	3,505,595
Total Programme Management		998,352	882,095	781,956	657,031	3,823,986	3,505,595
Grand Total		27,642,747	25,680,892	781,956	657,031	119,053,502	110,600,983

section 4 – data

part 1 - agency wide trends for selected indicators

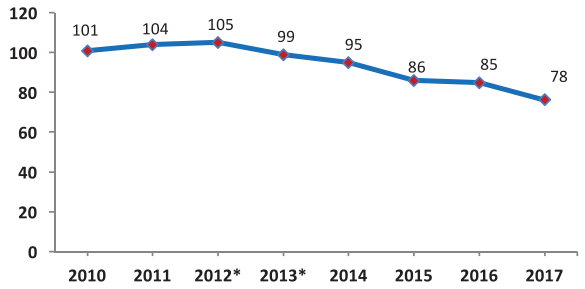


Figure 27- Average daily medical consultations per doctor

*Data from Syria is not included

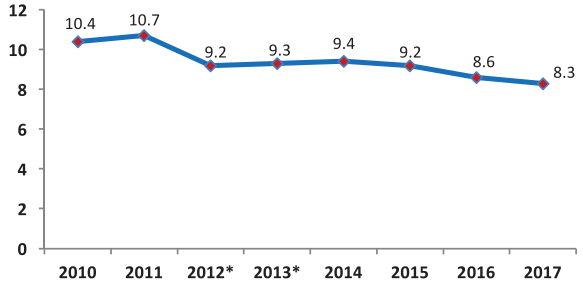


Figure 28- No. of outpatient consultations (million)

*Data from Syria is not included

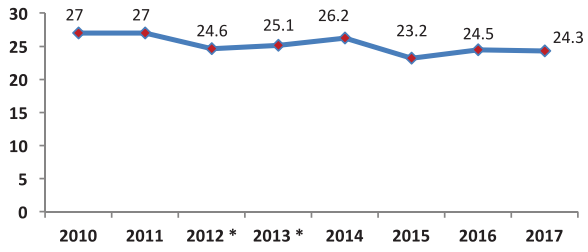


Figure 29- Antibiotics prescription rate

*Data from Syria is not included

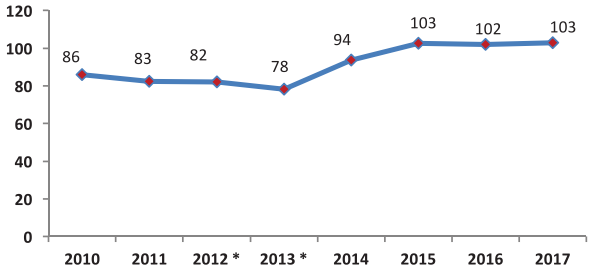


Figure 30- No. of hospitalizations, including Qalqilia hospital (in thousand)

*Data from Syria is not included

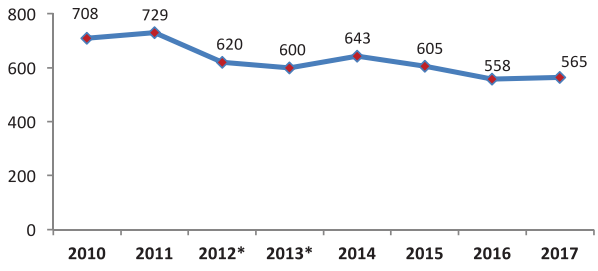


Figure 31- No. of dental consultations (thousand)

*Data from Syria is not included

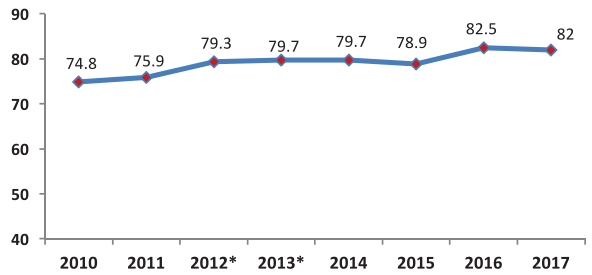


Figure 32- % of pregnant women registered during the 1st trimester

*Data from Syria is not included

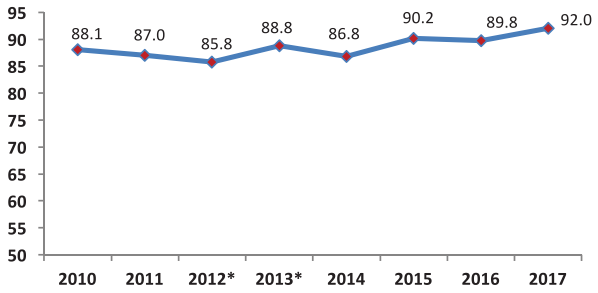


Figure 33- % of pregnant women attending at least 4 ANC visit

*Data from Syria is not included

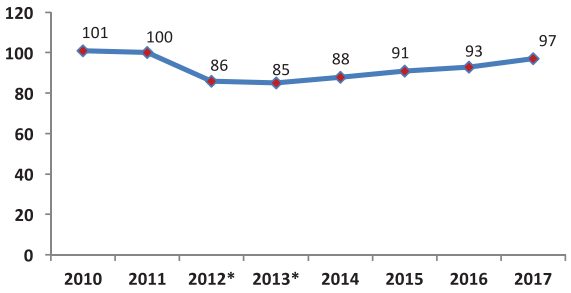


Figure 34- No. of newly registered pregnant women (thousand)

*Data from Syria is not included

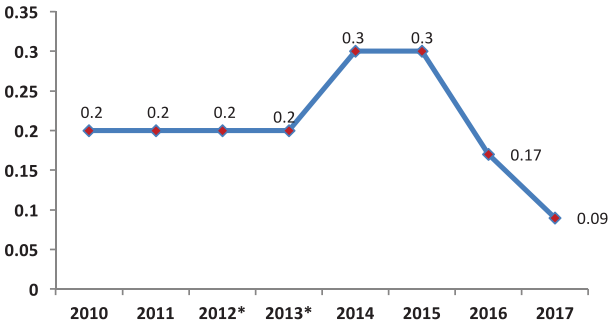


Figure 35- % of delivers with unknown outcome

*Data from Syria is not included

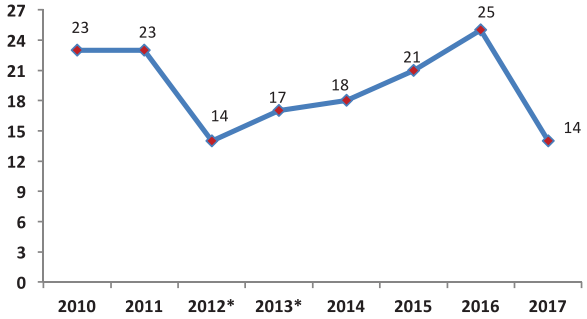


Figure 36- No. of maternal deaths

*Data from Syria is not included

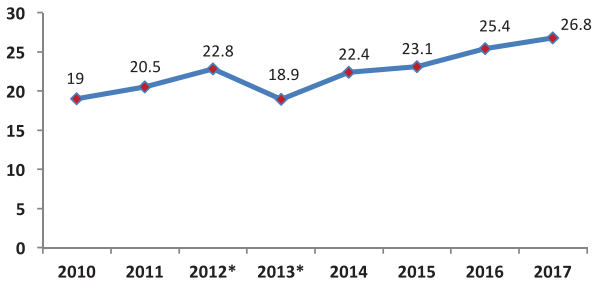


Figure 37- % of caesarean section deliveries

*Data from Syria is not included

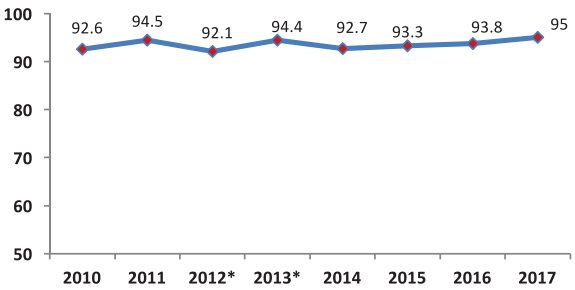


Figure 38- % of women attending PNC within 6 weeks of delivery

*Data from Syria is not included

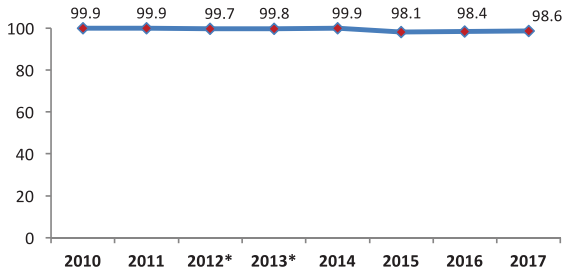


Figure 39- % of pregnant women protected against tetanus

*Data from Syria is not included

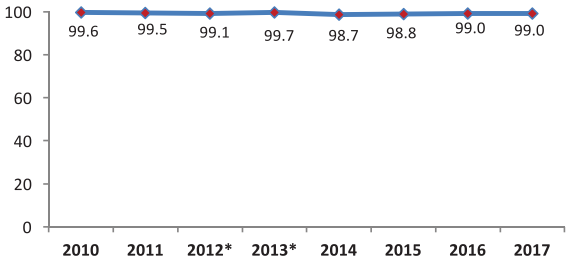


Figure 40- % of deliveries in health institutions

*Data from Syria is not included

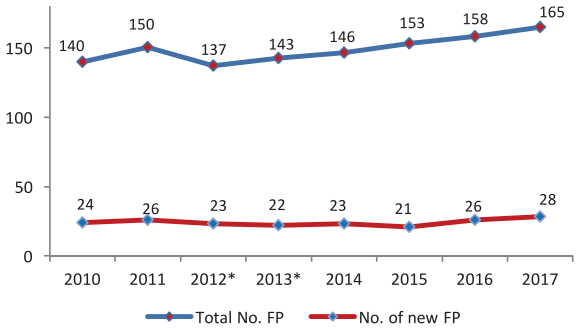


Figure 41- New & total no. of family planning acceptors (thousand)

*Data from Syria is not included

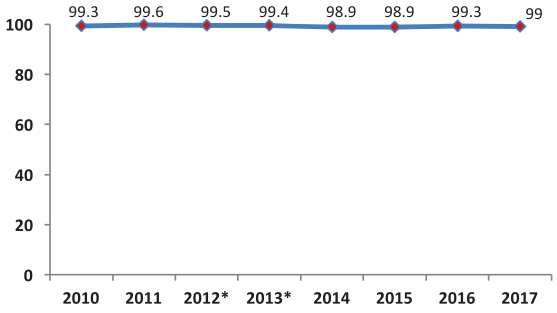


Figure 42- of children 18 months old received all EPI booster

*Data from Syria is not included

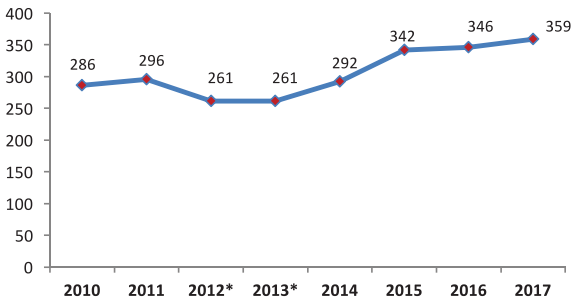


Figure 43- No. of children 0-5 years newly registered (thousand)

*Data from Syria is not included

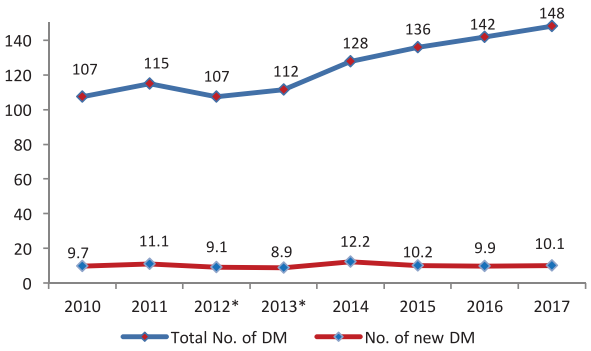


Figure 44- New & total no. of patients with diabetes (thousand)

*Data from Syria is not included

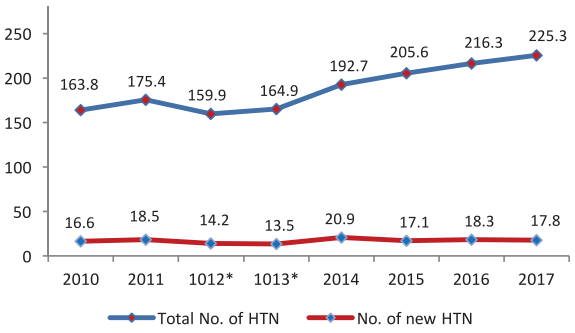


Figure 45- New & total no. of patients with hypertension (thousand)

*Data from Syria is not included

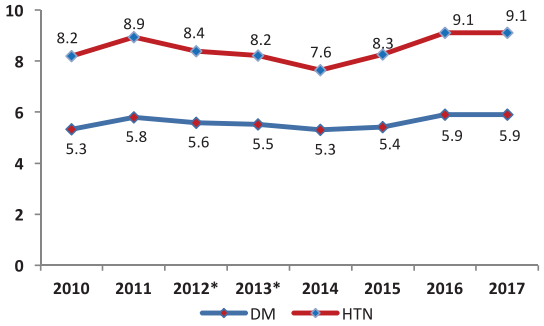


Figure 46- Prevalence of NCD among population served > 18 years

*Data from Syria is not included

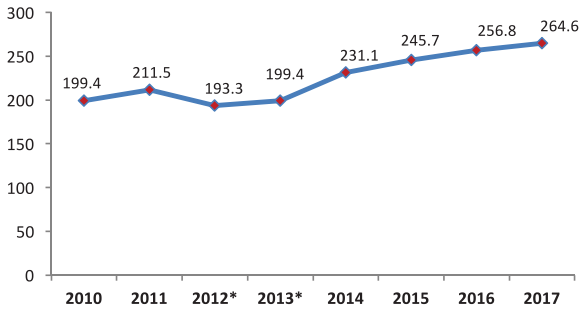


Figure 47- Total No. of all patients with diabetes and/ or hypertension

*Data from Syria is not included

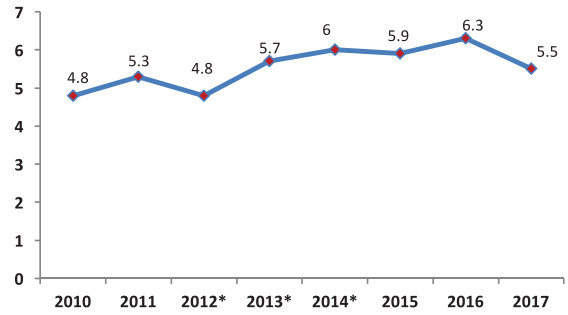


Figure 48- % of NCD patients defaulters

*Data from Syria is not included

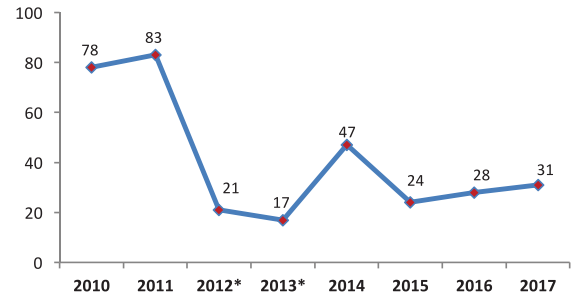


Figure 49- No. of new reported TB cases

*Data from Syria is not included

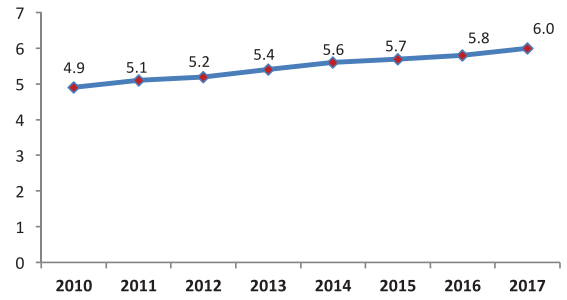


Figure 50- No. of registered populations (millions)

part 2- common monitoring matrix (CMM) 2016-2021 Indicators

Table 18- Selected (CMM) indicators 2017

SO2	Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
	Prevalence of diabetes among population served, 18 years and above	5.5	7.6*	5.3	5.6	7.4	5.9
	Percentage of DM patients under control per defined criteria	37.3	53.7	37.2	38.4	43.2	40.3
	Average daily medical consultation per doctor	79.4	83	77	77	74	78
	Average consultation time per doctor	2.8	2.4	NA	3.11	3.3	2.9
	Number of HCs fully implementing eHealth system	24	27	7	22	42	122
	Percentage of NCD patients coming to HC regularly	77	76.9	NA	81.9	76.6	78.1
	Percentage of NCD patients with late complications	9.7	7.0*	12.9	11.1	11.4	11.0
	Number of EPI vaccine preventable disease outbreaks	0	0	0	0	0	0
	Percentage of women with live birth who received at least 4 ANC visits	86	95	67	98.7	94.8	92
	Percentage of post natal women attending PNC within 6 weeks of delivery	88.7	97.2	81.6	100	94.9	95
	Percentage Diphtheria + tetanus coverage among targeted students	97.2	98.9	98.2	100	100	99.2
	Antibiotic prescription rate	22.1	30.2	33.5	23.1	21.4	24.3
	Percentage of HCs with no stock out of 12 tracer medicines	79	100	76.0	86.7	75	72.6
	Percentage of preventative dental consultations out of total dental consultations	37.1	40.1	42.1	41.4	34.3	39.8
	Percentage of targeted population 40 years and above screened for diabetes mellitus (DM)	15.4	20.3*	11.8	26.8	32.5	20.8
	Number of new NCD patients (DM, HT, DM+HT)	7,821	2,065	3,945	7,416	3,098	24,345
	Total number of NCD patients (DM, HT, DM+HT)	77,482	30,100	34,159	84,039	41,690	267,470
	Percentage of children 18 months old that received all booster vaccines	97.9	99.4	94.5	99.9	100	99.0
	Number of new tuberculosis (TB) cases detected	0	14	13	4	0	31
	Percentage of 18 months old children that received 2 doses of Vitamin A	97.9	99.1	94.2	99.8	100	98.9
	Number of active/continuing family planning users	36,862	14,933	11,348	77,809	23,980	164,932
	Number of new enrolments in pre-conception care programme	3,337	1,932	1,033	28,360	2,609	37,271
	Percentage of 4th gr. school children identified with vision impairment (disaggregated by sex)	18.96	11.8	4.9	8.6	18.1	11.9
	Unit cost per capita (Direct cost)	22.6	120.3	23.1	31.1	64.5	37.6
	Percentage of UNRWA hospitalization accessed by SSNP	13.3	29.14	34.63	19.0	3.0	20.5
	Hospitalization rate per 1000 served population	8.7	130.6	55.8	8.7	56.4	28.1
	Hospitalization unit cost	82.7	505.3	113.5	137.1	277.4	250.4

* PRS data including

part 3 – 2017 data tables

Table 19- Aggregated 2017 data tables

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.1 – DEMOGRAPHICS						
Population of host countries in 2016 [7]	10,248,069	6,229,794	18,028,549	1,795,183	2,747,943	39,049,538
Registered population, utilize health services (no.)	2,327,540	524,340	631,111	1,515,649	1,022,870	6,021,510
Refugees in host countries (%)	22.7	8.4	3.5	84.4	37.2	15.4
Refugees accessing (served population) UNRWA health services (%/no.)	(49.2%) 1,145,136	(43.6%) 228,790	(66.6%) 420,614	(90.6%) 1,372,440	(48.1%) 491,535	(60.8%) 3,658,515
Growth rate of registered refugees (%)	1.8	2.1	2.1	5.6	2.6	2.9
Children below 18 years (%)	26.9	23.1	29.7	42.0	28.9	31.0
Women of reproductive age: 15-49 years (%)	28.3	26.3	27.5	24.4	27.9	27.0
Population 40 years and above (%)	35.3	42.1	34.2	23.1	34.0	32.5
Population living in camps (%)	17.4	50.7	30.3	38.6	24.4	28.2
Average family size [8]	5.2	4.7	4.8	5.6	5.6	5.3
Aging index (%)	53.5	71.6	36.2	18.7	47.5	39.6
Fertility rate [8]	3.2	2.7	2.7	3.6	3.6	3.2
Male/female ratio	1.0	1.01	0.95	1.02	0.98	1.00
Dependency ratio	49.0	48.4	51.6	75.8	53.0	55.9
19.2- HEALTH INFRASTRUCTURE						
Primary health care (PHC) facilities (no.):						
Inside official camps	12	14	12	11	20	69
Outside official camps	13	13	14	11	23	74
Total	25	27	26	22	43	143
Ratio of PHC facilities per 100,000 population	1.1	5.3	4.2	1.5	4.3	2.4
Services within PHC facilities (no.):						
Laboratories	25	17	17	22	43	124
Dental clinics:						
- Stationed units	29	18	17	18	24	106
- Mobile units	4	1	1	3	0	9
Radiology facilities	1	4	0	7	8	20
Physiotherapy clinics	1	0	0	11	6	17
Hospitals	0	0	0	0	1	1
Health facilities implementing E-health	24	27	7	22	42	122
STRATEGIC OBJECTIVE 1						
19.3 - OUTPATIENT CARE						
Primary health care (PHC) facilities (no.):						
First visits						
Male	157,896	105,024	97,862	376,798	112,554	850,134
Female	256,551	138,924	133,964	525,838	178,766	1,234,043

7. Sources UNRWA Registration Statistical Bulletin of 2017, and CIA World Fact-book February 22,2018 population estimates (https://www.cia.gov/library/publications/the-world-factbook/ last accessed on 25/2/2018.
8. Current contraceptive practices among mother of children 0-5 years survey conducted in 2015.

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.3 - OUTPATIENT CARE						
Repeat visits						
Male	394,236	309,679	243,124	1,190,984	289,506	2,427,529
Female	733,920	437,933	341,801	1,733,320	477,993	3,724,967
Sub-total (a)	**1,542,603**	**991,560**	**816,751**	**3,826,940**	**1,058,819**	**8,236,673**
Ratio repeat to first visits	2.7	3.1	2.5	3.2	2.6	3.0
(b) Outpatient consultations specialist (no.)						
Gyn.& Obst.	25,465	19,076	14,264	8,851	7,124	74,780
Cardiology	1,976	9,508	0	11,447	57	22,988
Others	0	17,818	0	11,259	984	30,061
Sub-total (b)	**27,441**	**46,402**	**14,264**	**31,557**	**8,165**	**127,829**
Grand total (a) + (b)	**1,570,044**	**1,037,962**	**831,015**	**3,858,497**	**1,066,984**	**8,364,502**
Average daily medical consultations / doctor [9]	**79.4**	**83**	**77**	**77**	**74**	**78**
19.4 - INPATIENT CARE						
Patients hospitalized -including Qalqilia (no.)	10,000	29,887	23,489	11,885	27,720	102,981
Average Length of stay (days)	1.5	2.4	2.0	1.5	1.9	2.0
Primary health care (PHC) facilities (no.):						
0-4 yrs	0.1	16.0	10.4	6.2	16.0	12.0
5-14 yrs	1.9	8.8	16.9	7.2	5.6	8.9
15-44 yrs	94.0	33.1	46.9	64.9	58.7	52.7
< 45 yrs	3.9	42.2	25.8	21.7	19.8	26.3
Sex distribution of admissions (%):						
Male	4.2	46.5	42.0	29.3	29.4	34.8
Female	95.8	53.5	58.0	70.7	70.6	65.2
Ward distribution of admissions (%):						
Surgery	1.3	23.7	35.94	46.8	19.3	25.8
Internal Medicine	6.7	62.4	20.30	2.9	40.8	34.7
Ear, nose & throat	1.2	2.8	9.72	0.00	0.0	3.1
Ophthalmology	0.1	2.9	15.64	11.3	3.7	6.7
Obstetrics	90.6	8.2	18.39	39.0	36.2	29.6
19.5 - ORAL HEALTH SERVICES						
Dental curative consultation – Male (no.)	51,476	21,651	22,733	117,386	19,249	232,495
Dental curative consultation – Female (no.)	89,954	28,725	35,167	152,425	25,946	332,217
Total dental curative consultations (no.)	**141,430**	**50,376**	**57,900**	**269,811**	**45,195**	**564,712**
Dental screening consultations – Male (no.)	79,114	35,370	40,765	176,485	27,749	359,483
Dental screening consultations – Females (no.)	145,595	48,673	59,286	284,008	41,035	578,597
Total dental screening consultations (no.)	**224,709**	**84,043**	**100,051**	**460,493**	**68,784**	**938,080**
% preventive of total dental consultations	37.1	40.1	42.1	41.4	34.3	39.8
Productivity (workload units /hour)	47.8	35.8	45.8	83.0	32.4	54.5
Average daily dental consultations / dental surgeon	31.6	26.1	28.8	65.6	24.2	39.6

* PRS data including

9. The working days in Jordan and Gaza are six days/week, and in Lebanon, Syria and West Bank Fields are five days/week

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.6 - PHYSICAL REHABILITATION						
Trauma patients	-	-	-	4,282	444	4726
Non-Trauma patients	438	-	-	8,770	2,433	11641
Total	438	-	-	13,052	2,877	16,367
STRATEGIC OBJECTIVE 2						
19.7 - FAMILY PLANNING SERVICES						
New family planning users (no.)	6,455	2,699	2,776	13,268	2,964	28,162
Continuing users at end year (no.)	36,862	14,933	11,348	77,809	23,980	164,932
Family planning discontinuation rate (%)	6.2	6.4	3.4	6.3	4.0	5.2
Family planning users according to method (%):						
IUD	42.0	43.7	26.6	50.0	63.2	48.0
Pills	31.2	23.8	38.2	22.0	17.3	24.7
Condoms	24.0	31.7	33.8	24.8	19.0	25.0
Spermicides	0.0	0.0	0.0	0.02	0.0	0.01
Injectables	2.9	0.8	1.5	3.2	0.5	2.4
19.8 - PRECONCEPTION CARE						
No. of women newly enrolled in preconception care programme	3,337	1,932	1,033	28,360	2,609	37,271
19.9 - ANTENATAL CARE						
Served refugees (no.)	1,145,136	228,790	420,614	1,372,440	491,535	3,658,515
Expected pregnancies (no.) [10]	32,064	5,033	11,777	50,643	15,483	115,001
Newly registered pregnancies (no.)	26,419	4,999	7,934	43,025	14,426	96,803
Antenatal care coverage (%)	82.4	99.3	67.4	85.0	93.2	84.2
Trimester registered for antenatal care (%):						
1st trimester	79.8	92.4	61	89	74	82
2nd trimester	16.5	6.2	29	10	23	15
3rd trimester	3.7	1.4	11	1	2	3
Pregnant women with 4 antenatal visits or more (%)	86	95	67	98.7	94.8	92
Average no. of antenatal visits	4.9	5.9	4.2	7.0	5.1	6
19.10 - TETANUS IMMUNIZATION						
Pregnant women protected against tetanus (%)	99.3	95.4	99.6	98.5	98.1	98.6
19.11 - RISK STATUS ASSESSMENT						
Pregnant women by risk status (%):						
High	19.7	11.7	14.1	15.6	13.3	16.1
Alert	27.8	36.9	36.1	24.5	24.1	26.9
Low	52.5	51.4	49.8	59.9	62.6	57.1
19.12 - DIABETES MELLUTES AND HYPERTENSION DURING PREGNANCY						
Diabetes during pregnancy (%)	3.1	6.0	2.1	3.6	6.6	3.9
Hypertension during pregnancy (%)	6.0	5.6	6.0	8.7	4.7	7.0

10. Expected no. of pregnancies =population X CBR

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.13 - DELIVERY CARE						
Expected deliveries (no.)	24,904	4,646	6,669	43,240	13,986	93,445
a - Reported deliveries (no.)	22,879	4,286	6,345	39,794	13,306	86,610
b- Reported abortions (no.)	2,022	360	270	3,446	653	6,751
a+b - Known delivery outcome (no.)	24,901	4,646	6,615	43,240	13,959	93,361
Unknown delivery outcome (no. / %)	0.01	0.00	0.81	0.00	0.17	0.09
Place of delivery (%):						
Home	0.05	0.05	0.83	0	0.04	0.09
Hospital	99.95	99.95	99.17	100	99.96	99.91
Deliveries in health institutions (%)	99	100	100	100	99	100
Deliveries assisted by trained personnel (%)	99.7	100	99	98	99	99
19.14 - MATERNAL DEATHS						
Maternal deaths by cause (no.)						
Pulmonary Embolism	5	-	-	1	-	6
Eclampsia Toxemia (PET)	1	-	2	1	-	4
Acute bronchial asthma attack	1	-	-	-	-	1
Renal failure	1	-	-	-	-	1
Bleeding	-	1	-	-	-	1
Unknown	-	-	1	-	-	1
Total maternal deaths	**8**	**1**	**3**	**2**	**0**	**14**
Maternal mortality ratio per 100,000 live births	32.9	23.4	41.9	5.0	0.0	15.6
C-Section among reported deliveries (%)	25.3	46.9	61.2	19.2	27.3	26.8
19.15 - POSTNATAL CARE						
Post natal care coverage (%)	88.7	97.2	81.6	100.0	94.9	95
19.16 – CARE OF CHILDREN UNDER FIVE YEARS						
Served refugees (no.)	1,145,136	228,790	420,614	1,372,440	491,535	3,658,515
Estimated surviving infants (no.) [11]	31,345	4,958	11,445	49,508	14,620	111,426
Children < 1 year registered (no.)	26,152	4,800	6,315	40,815	10,809	88,891
Children < 1 year coverage of care (%)	**83.4**	**96.8**	**55.2**	**82.4**	**73.9**	**79.5**
Children 1- < 2 years registered (no.)	25,042	4,350	6,043	41,106	10,179	86,720
Children 2- < 5 years registered (no.)	26,900	4,382	11,012	121,502	19,582	183,378
Total children 0-5 years registered (no.)	78,094	13,532	23,370	203,423	40,570	358,989
19.17 - IMMUNIZATION COVERAGE						
Immunization coverage children 12 months old (%):						
BCG	99.8	100	98.7	99.8	100	99.8
IPV	99.7	NA	98.9	99.9	100	99.8
Poliomyelitis(OPV)	99.7	99.7	98.7	99.9	100	99.8
Triple (DPT)	99.7	99.7	98.7	99.8	100	99.7
Hepatitis B	99.7	99.5	98.7	99.9	100	99.8
Hib	99.7	99.5	98.7	99.8	0.0	99.7
Measles	99.4	99.2	NA	NA	0.0	99.4
All vaccines	99.7	99.6	99	99.9	100	99.7

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

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.17 - IMMUNIZATION COVERAGE						
Immunization coverage children 18 months old - boosters (%)						
Poliomyelitis(OPV)	97.9	99.4	94.2	99.9	100	98.9
Triple (DPT)	97.9	99.7	95.1	99.9	100	99.0
MMR	97.9	99.1	94.2	99.9	100	98.9
All vaccines	97.9	99.4	94.5	99.9	100	99.0
19.18- GROWTH MONITORING AND NUTRIONAL SURVEILLANCE						
Infants and Children with Growth Problems (0-5) years of age						
% of children aged <5 years underweight	3.68	3.05	6.34	6.5	1.48	4.85
% of children aged <5 years stunting	6.39	2.6	5.04	10.1	2.44	7.35
% of children aged <5 years wasting	2.53	2.34	2.69	6.4	0.90	4.13
% of children aged <5 years overweight/obesity	5.04	4.05	0.49	7.3	2.08	5.44
19.19 - SCHOOL HEALTH						
4th grade students screened for vision (No.) :						
Boys	7,129	1,903	1,963	15,963	2,238	29,196
Girls	6,607	1,967	2,125	14,545	3,199	28,443
Total	13,736	3,870	4,088	30,508	5,437	57,639
4^{th} grade students with vision impairment (%)						
Boys	18.8%	10.8%	4.5%	7.5%	17.0%	11.0%
Girls	19.1%	12.8%	5.2%	9.8%	18.8%	12.8%
Total	19.0%	11.8%	4.9%	8.6%	18.1%	11.9%
7^{th} grade students screened for vision (No.) :						
Boys	6,765	1,511	1,730	13,973	2,176	26,155
Girls	5,664	1,747	1,802	13,092	3,163	25,468
Total	12,429	3,258	3,532	27,065	5,339	51,623
7th grade students with vision impairment (%)						
Boys	16.6%	12.7%	4.5%	9.5%	15.9%	11.7%
Girls	17.7%	14.0%	5.6%	16.0%	17.9%	15.7%
Total	17.1%	13.4%	5.0%	12.6%	17.1%	13.7%
19.20 – NON COMMUNICABLE DISEASES (NCD) PATIENTS REGISTERED WITH UNRWA						
Diabetes mellitus type I (no/%)	(1.5%) 1,139	(1.1%) 322	(1.3%) 427	(1.5%) 1,284	(1.5%) 641	(1.4%) 3,813
Diabetes mellitus type II (no/%)	(15.0%) 11,659	(12.0%) 3,623	(10.3%) 3,516	(15.9%) 13,371	(14.9%) 6,191	(14.3%) 38,360
Hypertension (no/%)	(40.3%) 31,249	(50.5%) 15,197	(53.5%) 18,275	(46.6%) 39,169	(37.2%) 15,490	(44.6%) 119,380
Diabetes mellitus & hypertension (no/%)	(43.2%) 33,435	(36.4%) 10,958	(35.0%) 11,941	(36.0%) 30,215	(46.5%) 19,368	(39.6%) 105,917
Total	**(100%) 77,482**	**(100%) 30,100**	**(100%) 34,159**	**(100%) 84,039**	**(100%) 41,690**	**(100%) 267,470**
19.21 - PREVALENCE OF HYPERTENSION AND DIABETES						
Served population ≥ 40 years with diabetes mellitus (%)	10.6%	12.9%	10.3%	13.1%	14.8%	12.1%
Served population ≥ 40 years with hypertension (%)	15.0%	23.0%	19.9%	20.3%	20.1%	18.6%
19.22 – MANAGEMENT						
Hypertensive patients on lifestyle management only (%)	1.8%	6.6%	1.0%	4.1%	1.0%	2.9%
Diabetes patients on insulin (%)	30.45%	23.47%	25.57%	31.56%	29.21%	29.34%

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.23 - RISK SCORING						
Risk status - patients with diabetes mellitus type 1 (%):						
Low	61.2%	48.5%	31.0%	69.2%	69.1%	65.5%
Medium	36.5%	41.2%	45.2%	29.6%	28.8%	31.4%
High	2.4%	10.3%	23.8%	1.2%	2.2%	3.1%
Risk status - patients with diabetes mellitus type 2 (%):						
Low	22.6%	28.3%	37.9%	27.5%	28.8%	27.8%
Medium	56.2%	51.7%	45.9%	57.2%	57.6%	56.8%
High	21.1%	20.0%	16.2%	15.3%	13.6%	15.4%
Risk status - patients with hypertension (%):						
Low	20.6%	22.5%	33.0%	21.8%	22.6%	22.4%
Medium	57.7%	53.3%	49.7%	56.1%	58.2%	56.3%
High	21.7%	24.2%	17.3%	22.0%	19.2%	21.3%
Risk status - patients with diabetes & hypertension (%):						
Low	5.6%	18.7%	24.8%	13.1%	6.7%	11.4%
Medium	38.5%	47.9%	49.9%	50.0%	45.0%	47.8%
High	55.9%	33.3%	25.3%	36.9%	48.3%	40.9%
Risk factors among NCD patients (%):						
Smoking	15.1	34.1	24.8	8.3	10.5	10.7
Physical inactivity	64.2	15.9	18.3	49.5	34.3	44.1
Obesity	45.2	43.1	44.5	57.5	56.4	55.6
Raised cholesterol	43.8	51.8	50.4	45.9	47.1	46.5
19.24 - LATE COMPLICATIONS AMONG NCD PATIENTS (%)						
Diabetes mellitus type I	4.2	0.9	3.5	1.3	2.4	1.7
Diabetes mellitus type II	5.6	3.9	10.2	5.8	5.5	5.7
Hypertension	6.5	6.0	9.4	8.0	8.8	8.1
Diabetes mellitus & hypertension	14.2	10.6	19.9	17.6	15.5	16.5
All NCD patients	9.7	7.0	12.9	11.1	11.4	11.0
19.25 – DEFAULTERS						
NCD patients defaulting during 2016 (no.)	5,759	97.9	97.9	97.9	97.9	97.9
NCD patients defaulting during 2016/total registered end 2015 (%)	7.6	97.9	97.9	97.9	97.9	97.9
19.26 - FATALITY						
Reported deaths among registered NCD patients (%)	1.2	1.8	1.3	1.7	1.7	1.5
Reported deaths among registered NCD patients by morbidity (no):						
Diabetes mellitus	85	35	31	165	66	382
Hypertension	252	238	211	538	178	1,417
Diabetes mellitus & hypertension	562	266	208	720	452	2,208
Total	**899**	**539**	**450**	**1,423**	**696**	**4,007**
19.27 - COMMUNICABLE DISEASES						
Registered refugees (no.)	2,327,540	524,340	631,111	1,515,649	1,022,870	6,021,510
Refugee population served (no.)	1,145,136	228,790	420,614	1,372,440	491,535	3,658,515
Reported cases (no.):						

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.27 - COMMUNICABLE DISEASES						
Acute flaccid paralysis [12]	0	0	4	0	0	4
Poliomyelitis	0	0	0	0	0	0
Cholera	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0
Meningococcal meningitis	0	0	0	1	0	1
Meningitis – bacterial	0	1	7	2	1	11
Meningitis – viral	4	3	4	2	15	24
Tetanus neonatorum	5,848	0	0	0	0	0
Brucellosis	5,760	3	151	0	1	159
Watery diarrhoea (>5years)	58	10,705	4,496	4,739	5,438	31,226
Watery diarrhoea (0-5years)	8	9,087	4,892	15,545	7,043	42,327
Bloody diarrhoea	0	22	76	741	493	1,390
Viral Hepatitis	0	10	334	164	0	516
HIV/AIDS	0	1	0	0	0	1
Leishmania	1	2	4	0	0	6
Malaria*	0	0	0	0	0	0
Measles	1	2	6	1	5	15
Gonorrhoea	0	0	0	0	0	0
Mumps	1	93	37	205	341	677
Pertussis	0	0	0	0	0	0
Rubella	0	1	1	1	1	4
Tuberculosis, smear positive	0	7	5	2	0	14
Tuberculosis, smear negative	0	0	1	1	0	2
Tuberculosis, extra pulmonary	0	7	7	1	0	15
Typhoid fever	0	1	262	42	0	305
CROSSCUTTING SERVICES						
19.28 - LABORATORY SERVICES						
Laboratory tests (no.)	963,624	373,249	422,767	2,252,984	723,902	4,736,526
Productivity (workload units / hour)	40.7	48.4	32.6	63.6	52.5	47.6
19.29 - RADIOLOGY SERVICES						
Plain x-rays inside UNRWA (no.)	938	18,882	-	44,508	23,674	88,002
Plain x-rays outside UNRWA (no.)	1,249	8,220	-	-	-	9,469
Other x-rays outside UNRWA (no.)	88	5,976	-	-	-	6,064

12. Among children <15 years

Field	HQ	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
19.30- HUMAN RESOURCES							
Health staff as at end of December 2017 (no.)							
Medical care services :							
Doctors	3	103	40	64	171	94	475
Specialist	0	7	7	7	6	12	39
Pharmacists	1	2	34	11	3	12	54
Dental Surgeons	0	30	16	20	29	17	112
Nurses	0	266	96	110	324	284	1,080
Paramedical	9	132	50	82	201	212	686
Admin./Support Staff	5	81	80	71	94	95	426
Labour category	0	103	32	68	135	106	444
Sub-total	18	724	355	433	963	823	3,316
International Staff	4	0	0	0	0	0	5
Grand total	22	724	355	433	963	823	3320
Health personnel per 100,000 registered refugees:							
Doctors	-	4.4	4.4	10.1	11.3	9.2	7.9
Dental surgeons	-	1.3	1.3	3.2	1.9	1.7	1.9
Nurses	-	11.4	11.4	17.4	21.4	27.8	17.9

International Conference on Refugees and Diabetes; Dead Sea, Jordan 10 - 12 April 2017.

part 4 - selected survey indicators

infant and child mortality survey, 2013

Table 20- Infant and child mortality survey

Indicators	Jordan	Lebanon	Gaza Strip	West Bank	Agency
Early neonatal (<= 7 days)	10.8	8.3	10.3	5.9	9.2
Late neonatal (8 - <=28 days)	2.5	2.8	10.0	1.8	4.6
Neonatal (<= 28 days)	13.3	11.1	20.3	7.8	13.7
Post neonatal (>28 days - 1 year)	6.7	3.9	2.1	4.1	4.3
Infant mortality (< one year)	20.0	15.0	22.4	11.9	18.0
Child mortality (> one year)	1.6	2.2	4.8	0.5	2.4
Infant and child mortality	21.6	17.2	27.2	12.3	20.4

DMFS survey, 2010

Table 21- 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)	3.27, 0.34 (2.61 – 3.94)	3.27, 0.34 (2.61 – 3.94)
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 22- 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

13. Decayed Surface
14. Filling Surface
15. Decayed, Missing, Filled Surface

Table 23- DMFS, DS and FS sorted by Field

Field	DS Mean, SE (95%CI)	FS Mean, SE (95%CI)	DMFS Mean, SE (95%CI)	DS/ DMFS %	FS/ DMFS %
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
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
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

current practices of contraceptive use among mothers of children 0-3 years survey, 2015

Table 24- Selected reproductive health survey indicators

Indicators	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Mean birth interval (months)	40.4	42.4	42.9	33.7	39.4	39.2
Percentage of women married by the age < 18 years	24.6	16.6	19.0	23.7	23.6	22.0
Percentage of women with birth intervals < 24 months	27.7	30.4	26.2	38.5	30.4	31.3
Prevalence of modern contraceptives among women of reproductive age utilizing UNRWA MCH services	64.0	67.2	59.6	52.8	55.6	59.3
Mean marital age (women)	20.3	21.4	20.9	19.9	19.9	20.4

Table 25- 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	2015
Jordan	4.6	3.6	3.3	3.5	3.2
Lebanon	3.8	2.5	2.3	3.2	2.7
Syria	3.5	2.6	2.4	2.5	2.7
Gaza Strip	5.3	4.4	4.6	4.3	3.6
West Bank	4.6	4.1	3.1	3.9	3.6
Agency	4.7	3.5	3.2	3.5	3.2

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

Table 26- Selected anaemia survey indicators

Indicators	Jordan	Lebanon	Syria	Gaza Strip	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						
• 1st grade	14.4	22.3	9.1	36.4	14.6	19.5
• 2nd grade	11.6	16.9	6.0	11.4	14.9	12

annex1 - health department research activities and published papers

Table 27- List of publications

Month of publication	UNRWA author(s)	Title	Citation	Type of publication	Web site (if applicable)
August	Ali Khader, Majed Hababeh, Wafa'a Zeidan, Akihiro Seita	Infant and neonatal mortality among Palestine refugees in Gaza, West Bank, Lebanon, and Jordan: an observational study	The Lancet. Volume 390, Special Issue, S10, August 2017	Conference Abstract	http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)32061-5.pdf
August	Nimer Kassim, Ali M Khader	Determinants of bullying among Palestinian refugee students in Lebanon: a qualitative study	The Lancet. Volume 390, Supplement 1, August 2017, Page S26	Conference Abstract	http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)32027-5.pdf
September	Ishtaiwi Abu-Zayed, Raeda Al-Issa, Amjad Awad	Barriers to accessing and consuming mental health services for Palestinians with psychological problems residing in refugee camps in Jordan	Psychiatria Danubina, 2017; Vol. 29, Suppl. 3, pp 157-163	Journal Article	http://www.hdbp.org/psychiatria_danubina/pdf/dnb_vol29_sup3/dnb_vol29_sup3_157.pdf
September	Akihiro Seita	Complex emergencies in the Eastern Mediterranean Region: Impact on tuberculosis control	International Journal of Mycobacteriology, Volume 5, Issue null, Page S12	Conference Abstract	https://www.sciencedirect.com/science/article/pii/S2212553116302400?via%3Dihub
December	Ghada Ballout, Amin Shishtawi, Fathia Abuzabaida, Yousef Shahin, Ali Khader, Wafa'a Zeidan, Yassir Turki, Ahmad Al-Natour, Rawan Saadeh, Majed Hababeh, Akihiro Seita	Development and Deployment of an e-Health System in UNRWA Healthcare Centers (HCs): he Experience and Evidence	MEDINFO 2017: Precision Healthcare through Informatics	Conference Abstract	http://ebooks.iospress.nl/publication/48352

annex 2 –health department staff participated in the conferences, 2017

Table 28- Health department staff participated in the Conferences, 2017

Month	Name of participant(s)	Title of Conference and presentation	Organized by	City and country of venue
March	Majed Hababeh, Akiko Kitamura, Akihiro Seita Yousef Shahin, Wafa'a Zeidan	The Lancet Palestinian Health Alliance (LPHA) 8th Annual Conference • Current practices of contraceptive use among Palestine Refugee mothers of young children attending UNRWA clinics • Effect of Hypertension medications and treatment outcomes among Palestine refugees	The Lancet Palestinian Health Alliance (LPHA)	Birzeit, oPt
March	Yassir Turki	The Development and Humanitarian Forum for Supporting Palestinian People / Workshop on UNRWA health services • UNRWA health services	Qatar Charity	Doha, Qatar
April	All Department of Health staff	International conference on refugees and diabetes / Conference declaration	UNRWA and the World Diabetes Foundation	Dead Sea, Jordan
May	Majed Hababeh	Sixth Palestinian National Thalassemia Conference • Current Situation of Palestine Refugees Patients in Lebanon Suffering of Congenital Hemoglobinopathies	Thalassemia Patient's Society (TPFS)	Ramallah
September	Yousef Shahin	Mental health and psychosocial support in EMR • MHPSS integration into FHT in UNRWA clinics	WHO/ EMRO	Cairo, Egypt
October	Yousef Shahin	Diabetes in MENA region • Diabetes care in UNRWA	IDF/ MENA	Beirut, Lebanon
November	Yousef Shahin	Water- pipe smoking • Smoking among patients with Diabetes in UNRWA clinics	AUB	Beirut, Lebanon
November	Yassir Turki	First Eastern Mediterranean Summit on Tobacco Dependence Treatment	King Hussein Cancer Center	Amman, Jordan
November	Akiko Kitamura	Translating Research into Scaled Up Action: Evidence symposium on Adolescents and Youth in MENA	UNICEF MENA Regional Office	Amman, Jordan
December	Yousef Shahin	IDF Congress • Cohort monitoring of patients with diabetes in UNRWA clinics	International Diabetes Federation (IDF)	Abu Dhabi, UAE
December	Yousef ShahiYasmeen Barham, Akiko Kitamura, Suha Saleh, Yassir Turkin	HCAC 4th Quality Health Care Conference and Exhibition	Health Care Accreditation Council (HCAC)	Amman, Jordan

annex 3- donor support to unrwa health programme, 2017

Table 29- Donor support to health programme, 2017

Funding Portal	Donor	US$ Amount	Title
Programme Budget	Andalucía Government, Spain	1,090,887	Health services in Syria
	Japan	2,573,742	Support to UNRWA Education, Healthcare and Emergency Assistance to Palestine Refugees in Lebanon -UNRWA education and health programme
	Japan	7,797,525	Emergency Response for Humanitarian Assistance in 2017 in Gaza (oPt) -UNRWA Education and Health Programme (Health and Education)
	Japan	5,504,900	Support to Palestine Refugees in Syria through providing essential services including quality healthcare and education and emergency cash assistance -UNRWA Education and Health programme
	Japan	1,795,150	Enhancement of Human Security of the Palestine Refugees in the West Bank -UNRWA Health Programme (health reform and community mental health)
	Luxembourg	888,626	Healthy Life and Lifestyle for Youth in West Bank and Gaza
	Saudi Arabia (SFD)	6,000,000	Supporting Rehabilitation and Maintenance Program of Health , Education and Administration Facilities of the United Nations Relief and Works Agency for Palestinian Refugees in the Near East
	Austria	1,768,868	A Long and Healthy Life: UNRWA Life Cycle Approach to Health Health Programme for Palestine Refugees in Gaza and the West Bank
	Extremadura Government, Spain	68,235	Maternal and Child Health Care in Gaza _MCH
	Asturias Government, Spain	73,317	Support to the maternal child health care program for the Palestinian refugee in Gaza
	Kuwait Patients Helping Fund	200,000	Provision of antidiabetic and antihypertensive drugs to Palestine refugees registered at UNRWA clinics in Lebanon
Syria Appeal	Asturias Government, Spain	74,310	Health Equipment in Syria
	Belgium	3,541,927	Support to UNRWA's Emergency Assistance, Livelihoods and Healthcare to Palestine Refugees in Lebanon and Jordan
	Italy	592,417	Strengthening the resilience of Palestine Refugees in Lebanon Through Health Services
	UNHCR	163,397	Health Assistance for Palestinian persons arriving from Syria in Egypt, additional amount of $9,722
	UNICEF	298,000	UNRWA - UNICEF Lebanon Partnership for Palestine Refugees Children and Youth, Lebanon
Projects	Germany	58,698	Solid Waste Management in Jordan
	Japan	349,583	Support to UNRWA Education and Healthcare for Palestine Refugees in Lebanon (Health Services)
	Japan	6,255,554	Construction of Sewer System in Aqbat Jaber Palestine Refugee Camp, WB
	Japan	1,000,000	Emergency Response for Humanitarian Assistance in 2017 in Gaza (oPt) -UNRWA Health Reform(MHPSS)

annex 3- donor support to unrwa health programme, 2017

Table 29- Donor support to health programme, 2017

Funding Portal	Donor	US$ Amount	Title
Projects	Japan	650,000	Support to Palestine Refugees in Syria through providing essential services including quality healthcare and education and emergency cash assistance -UNRWA Health Reform(e-Health)
	Monaco	357,159	Support to health care of Palestine refugees most in need of Assistance in Lebanon
	UK	35,423	Hospitalization Reform Support and Management; DFID Technical Assistance 2016 – 2017
	UK	118,784	Hospitalization Reform Support and Management; DFID Technical Assistance 2017 – 2018
	Saudi Arabia (SFD)	4,700,000	Replacement of the old two linear accelerator systems in Augusta Victoria hospital (Almutala), Jerusalem
	Saudi Arabia (SFD)	500,000	Supporting Rehabilitation and Maintenance Program of Health , Education and Administration Facilities of the United Nations Relief and Works Agency for Palestinian Refugees in the Near East
	Extremadura Government, Spain	68,396	Provision of Medical Equipment for Gaza
	USA	1,325,579	Prioritizing Reproductive Healthcare for Youth and Gender-Based Violence (GBV) in UNRWA Health Services
	UNICEF	65,000	Improved Family Health Practices focusing on Maternal and Neonatal Health
	Danish Red Cross	80,000	Joint assessment of PRCS hospitalization services, Lebanon
	Koninklijk Instituut voor de Tropen (KIT)	25,408	Knowledge platform on Sexual and Reproductive Health and Rights
	Novo Nordisk	5,000	Medical Hardship Fund (Hospitalization in Lebanon)
	St. John Eye Hospital	68,230	To Strength resilience of the population of Gaza by establishing a sustainable, local provision of eye care services to Palestine refugees in Gaza at conflict and non-conflict times. Gaza Strip
Emergency Appeal (oPt)	Japan	199,800	Emergency Health/mobile health clinics in Gaza
	Brcelona City Council, Spain,	88,863	Psychosocial Support Project in Gaza Strip
	Basque government, Spain	240,379	Psychosocial Support Project for Children in Gaza Strip
	Catalonia Government, Spain	117,647	Improving Children Mental Health in the Gaza Strip
	Fons Català, Spain	7,102	Psychosocial Support Project for Children in Gaza Strip
	Navarra Government, Spain	93,158	Mobile Clinics in West Bank
	Oviedo City Council, Spain	15,907	Psychosocial Support Project for Children in Gaza Strip
	Valencia City Council, Spain	35,545	Psychosocial Support Project in Gaza Strip
	Valladolid, Spain	12,008	Access to Primary Healthcare for vulnerable women in isolated communities in the West Bank – Phase III
	Zaragoza City Council, Spain	59,242	Guaranteeing Refugee's Right to Health in difficult access areas in the West Bank through the service of a Mobile Clinic" (Mobile Clinics in WB)
	Zaragoza City Council, Spain	64,043	Mobile Clinics in WB
	IDB	1,000,000	Providing Fuel to Operate the Water Wells, Sewage Treatment Plants and Hospitals in Gaza Strip
	CERF	2,010,700	Fuel provision to support the health and WASH primary services in Gaza Strip

annex 3- donor support to unrwa health programme, 2017

Table 29- Donor support to health programme, 2017

Funding Portal	Donor	US$ Amount	Title
Emergency Appeal (oPt)	OCHA	500,225	Provision of Fuel for Operating Hospitals in the Gaza Strip
	OCHA	1,000,000	Providing Fuel to Support the Health and WASH Primary Services in Gaza Strip
	WHO	200,000	Supporting Emergency Needs to sustain Health care delivery in Gaza Strip
	UNRWA USA National Committee	206,840	Community Mental Health in Gaza
	UNRWA USA National Committee	110,175	Emergency Environmental Health in Gaza
	UNRWA USA National Committee	18,000	Emergency Environmental Health in Gaza
	UNRWA USA National Committee	186,201	Community Mental Health in Gaza
	Consolidated Contractors Company "CCC"	99,994	Providing a Vision for Palestine Children in Gaza

Annex 4 - Strategic Outcome 2: Refugees' health is protected and the disease burden is reduced

Table 30- Agency-wide Common Monitoring Matrix 2016-2021 log frame

Strategic outcome 2	Output 2.1 people-centered primary health care system using FHT model	Activities
2.0.a Prevalence of diabetes among population served 18 years and above. 2.0.b Percentage of DM patients under control per defined criteria. 2.0.c Maternal mortality ratio (per 100,000 live births). 2.0.d Degree of alignment with UNRWA protection standards of health services.	*outpatient* 2.1.a Average daily medical consultation per doctor. 2.1.b Average consultation time per doctor. 2.1.c Number of HCs fully implementing eHealth system. 2.1.d Percentage of users satisfied with newly constructed health centers and new extensions that exceed 50% of the original Health Centers built up area (ICID). 2.1.e Percentage of HCs meeting UNRWA facilities protection design standards (ICID). 2.1.f Number of health centers integrating the MHPSS technical instructions into the Family Health Team approach. 2.1.g Percentage of individuals identified with MHPSS needs provided with assistance. *non-communicable diseases* 2.1.h Percentage of NCD patients coming to HC regularly. 2.1.i Percentage of NCD patients with late complications. *communicable diseases* 2.1.j Number of EPI vaccine preventable disease outbreaks. *Maternal health and child services* 2.1.k Percentage of women with live birth who received at least 4 ANC visits. 2.1.l Percentage of post-natal women attending PNC within 6 weeks of delivery. *school health services* 2.1.m Percentage Diphtheria + tetanus coverage among targeted students. *pharmaceutical services* 2.1.n Antibiotic prescription rate.	*outpatient* 2.1.1.a Percentage of Post Occupancy Evaluation conducted for newly constructed health centers and new extensions that exceed 50% of build-up area (ICID). 2.1.1.b Number of staff trained on comprehensive MHPSS response. 2.1.1.c Number of individuals experiencing MHPSS needs identified by UNRWA in health centers. *oral health* 2.1.1.d Percentage of preventative dental consultations out of total dental consultations. *non-communicable diseases* 2.1.1.e Percentage of targeted population 40 years and above screened for diabetes mellitus. 2.1.1.f Number of new NCD patients (DM, HT, DH+HT). 2.1.1.g Total number of NCD patients (DM, HT, DH+HT). *communicable diseases* 2.1.1.h Percentage of children 18 months old that received all booster vaccines. 2.1.1.i Number of new TB cases detected. *Maternal health and child services* 2.1.1.j Percentage of 18 months old children that received 2 doses of Vitamin A. 2.1.1.k Number of active/continuing family planning users. 2.1.1.l Number of new enrolments in pre-conception care programme.

Annex 4 - Strategic Outcome 2: Refugees' health is protected and the disease burden is reduced

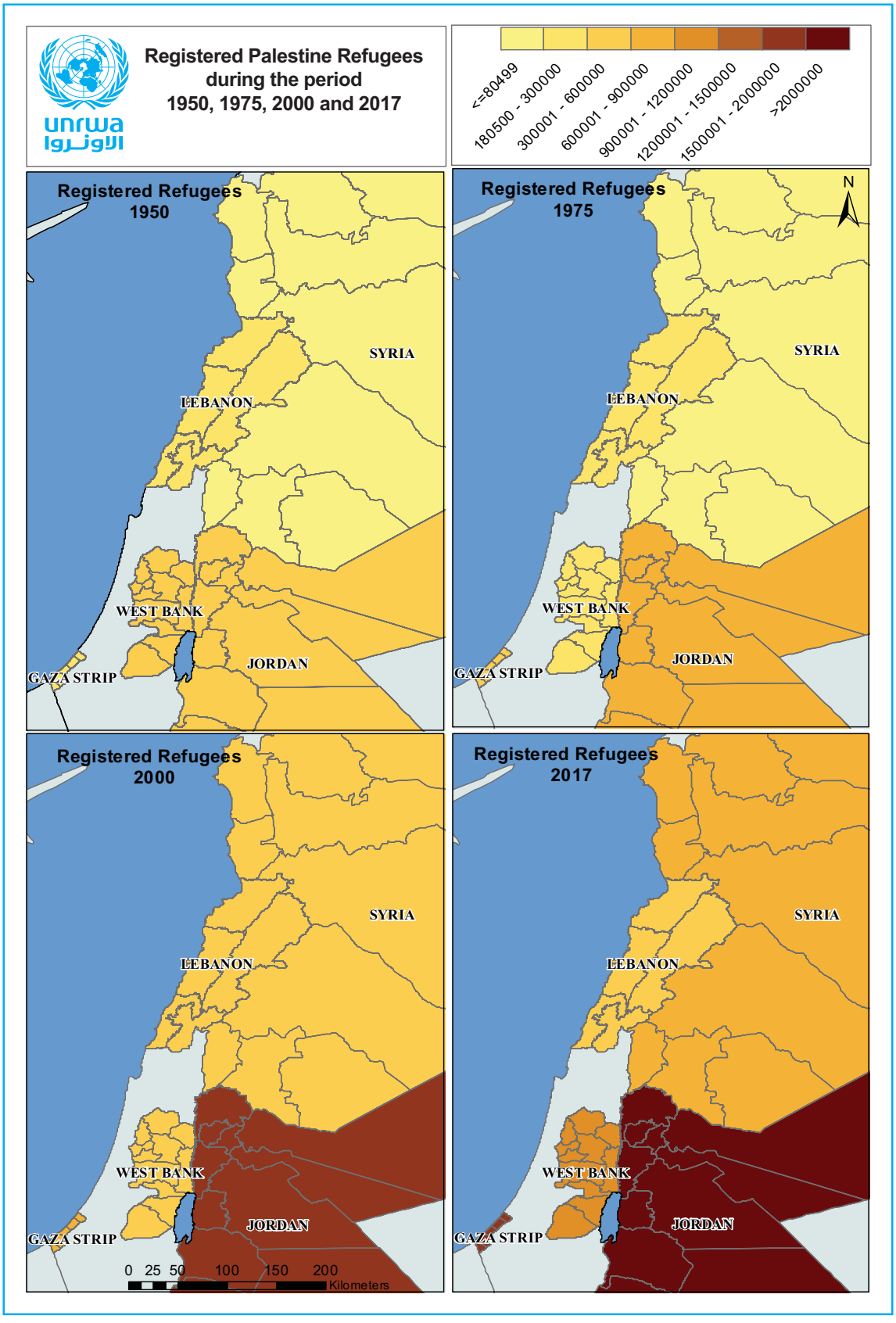
Table 30- Agency-wide Common Monitoring Matrix 2016-2021 log frame

Strategic outcome 2	Output 2.1 people-centered primary health care system using FHT model	Activities
	2.1.o Percentage of HCs with no stock out of 12 tracer medicines. 2.1.p Percentage of individuals identified as experiencing a protection risk (general protection, GBV, child protection) provided with health assistance. 2.1.q Percentage of individuals identified as experiencing a protection risk (general protection) provided with health assistance. 2.1.r Percentage of individuals identified as experiencing a protection risk (GBV) provided with health assistance. 2.1.s Percentage of individuals identified as experiencing a protection risk (child protection) provided with health assistance. 2.1.t Percentage of protection mainstreaming recommendations from internal protection audits implemented.	*school health services* 2.1.1.m Percentage of 4th gr. school children identified with vision impairment. 2.1.1.n Unit cost per capita. 2.1.1.o Number of individuals experiencing a protection risk (general protection, GBV, child protection) identified by UNRWA in health centers. 2.1.1.p Number of individuals experiencing a protection risk (general protection) identified by UNRWA in health centers. 2.1.1.q Number of individuals experiencing a protection risk (GBV) identified by UNRWA in health centers. 2.1.1.r Number of individuals experiencing a protection risk (child protection) identified by UNRWA in health centers.
	Output 2.2 **efficient hospital support services**	**Activities**
	2.2.a Percentage of UNRWA hospitalization accessed by SSNP. 2.2.b Hospitalization rate per 1,000 served.	2.2.1.a Hospitalization unit cost.

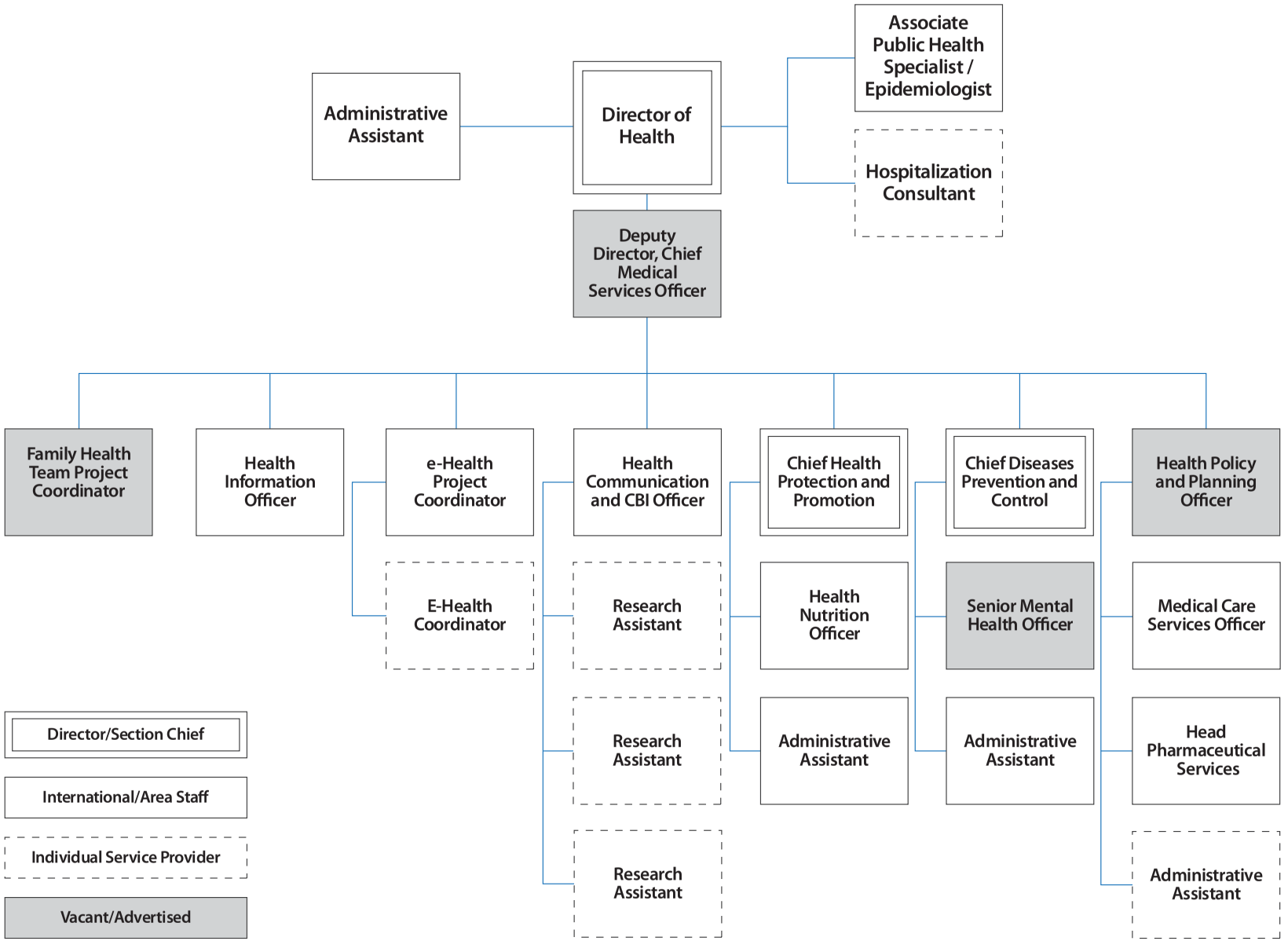
Table 31- Agency-wide Common Indicators

Indicator	Calculation
Average daily medical consultations per doctor	Total workload (All patients seen by all medical officers) No. of medical officers
Antimicrobial prescription rate	No. of patients receiving antibiotics 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
% 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 12 tracer items	No. of HCs with no stock-outs of 12 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 women with live births
% 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 No. of women with live births
% 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 NCD 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 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 5 – Health Maps



Annex 6 – Functional chart of department of health at headquarter, Amman for 2017



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اللاجئين الفلسطينيين في الشرق الادنى