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Department of Health

Annual Report 2022

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About UNRWA

UNRWA is a United Nations agency established by the General Assembly in 1949 with a mandate to provide humanitarian assistance and protection to registered Palestine refugees in the Agency's area of operations, namely the West Bank, including East Jerusalem, Gaza, Jordan, Lebanon and Syria, pending a just and lasting solution to their plight. Thousands of Palestine refugees who lost both their homes and livelihoods because of the 1948 conflict have remained displaced and in need of significant support for over seventy years. UNRWA helps them achieve their full potential in human development through the quality services it provides in education, health care, relief and social services, protection, camp infrastructure and improvement, microfinance and emergency assistance. UNRWA is funded almost entirely by voluntary contributions.

www.unrwa.org

Cover photo: NCDs-Plaestine refugee with his wife at UNRWA Nuzha Health Centre in Jordan. ©2022 UNRWA Photo by Dima Ismail

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acronyms and abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
BC	Breast Cancer
BSE	Breast-Self Examination
CI	Confidence Interval
CMM	Common Monitoring Matrix
COVID-19	Coronavirus Disease 2019
DM	Diabetes Mellitus
DMFS	Decayed/Missing/Filled Surface
DMFT	Decayed/Missing/Filled Teeth
DS	Decayed Surface
DTC	Damascus Training Centre
DT/Td	Tetanus-Diphtheria
e-MCH	Maternal and Child Health Mobile Application
EMR	Electronic Medical Records
EMRO	Eastern Mediterranean Region of Operations
e-NCD	Non-communicable Disease Mobile Application
EPI	Expanded Programme on Immunization
FHT	Family Health Team
FICIP	Field Infrastructure and Camp. Improvement Programme
FMDP	Family Medicine Diploma Programme
EMR	Electronic Medical Records
FP	Family Planning
FS	Filled Surface
GBV	Gender-Based Violence
GFO	Gaza Field Office
GHQ-12	General Health Questionnaire
GSHS	Global School-based Student Health Survey
GYTS	Global Youth Tobacco Survey
G-SHPPS	Global School Health Policies and Practices Survey
HBA1CHbA1c	Hemoglobin A1C
HCs	Health Centres
HD	Health Department
Hib	Haemophilus Influenza Type B
HP	Health Programme
HQ	Headquarters
HSP	Hospitalization Support Programme
IFA	Iron and Folic Acid
IMDT	Information Management and Technology Department
IMR	Infant Mortality Rate
IPC	Infection Prevention Control
IPV	Inactivated Poliovirus Vaccine
IUD	Intrauterine Device
LBW	Low Birth Weight
MCH	Maternal and Child Health
mhGAP	mental health Gap Action Programme
MHPSS	Mental Health and Psychosocial Support
MKAP-UK	Medical Aid for Palistine united Kingdom
MMS	Multiple Micronutrient Supplementation
MMR	Maternal Mortality Rate
MOPH	Ministry of Public Health
MoH	Ministry of Health
MOs	Medical Officers
MTS	Medium Term Strategy
NCDs	Non-communicable Diseases
NGO	Non-governmental Organization
OPV	Oral Polio Vaccine
PHC	Primary Health Care
PIO	Public Information Office
Power BI	Microsoft Power Business Intelligence
PCC	Pre-conception Care
PEC	Primary Eye Care
PPE	Personal Protective Equipment
PR	Palestine Refugee
PRCS	Palestine Red Crescent Society
PRL	Palestine Refugees from Lebanon
PRS	Palestine Refugees from Syria
PHC	Primary Health Care
PNC	Post-natal Care
PNs	Practical Nurses
LFO	Lebanon Field Office
RDA	Recommended Dietary Allowance
RDT	Rapid Diagnostic Test
RSS	Relief and Social Services
RSSP	Relief and Social Services Programme
SHP	School Health Programme
SFO	Syria Field Office
SJEHG	St. John Eye Hospital Group
SMART survey	Standardized Monitoring and Assessment of Relief and Transitions Survey
SSNP	Social Safety Net Programme
TB	Tuberculosis
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNICEF	United Nations International Children's Emergency Fund
UNIMMAP	United Nations International Multiple Micronutrient Antenatal Preparation
UNFPA	United Nations Population Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USD	U.S. Dollar
USP	United States Pharmacopeia
WB	West Bank
WHO	World Health Organization
WISN	Workload Indicators of Staffing Need
WLUs	Workload Units

foreword unrwa Commissioner-General

Health is not only a fundamental human right, but also the most essential prerequisite to a productive and dignified life. This is why I am particularly proud of the Agency's health programme, whose impact continues to exceed global standards, including in terms of universal infant vaccinations and reduced maternal mortality.

In 2022, UNRWA continued to deliver primary health care services to nearly two million Palestine refugees, with 7.86 million consultations in 140 health centers across the region. The most vulnerable among them also continued to be supported with much needed access to hospitalization services. UNRWA operates at the crossroad of the humanitarian- development nexus, quickly adapting to evolving crises to ensure continued access to health care services in times of conflict and displacement, including through mobile health clinics. In Syria, UNRWA strive to rehabilitate its health centers to support returning refugees in Yarmouk, Ein el Tal and Neirab refugee camps.

UNRWA continued to pioneer digital health care. Our e-health system, which keeps the medical records of some two million patients, allowed us to spearhead telemedicine and develop smartphone applications to support patients, including pregnant women, to track their health and remind them to go to their appointments, and for persons with diabetes to regularly test themselves.

These accomplishments did not come without challenges. Chronic underfunding of the core budget of the Agency, recurring conflicts and collapsing public health care systems in some fields of operation have put severe strains on our health programme. Most notably, in Lebanon, our hospitalization programme struggles to keep up with the needs in the wake of skyrocketing costs. Needs for psychosocial support are on the rise across the region.

Despite these challenges, the perseverance and dedication of our health staff has been at the core of our success. I want to take this opportunity to express my gratitude to all UNRWA health staff, who work tirelessly to provide quality care, often under challenging circumstances they themselves face as refugees.

This work would also not have been possible without the support of our generous donors and devoted partners. Our long-standing partnership with the World Health Organization represents a model example of excellent cooperation that produces remarkable results.

From our side, responding to the health needs of Palestine refugees will continue to remain a top priority, and forms a core pillar of the Agency's Strategic Plan 2023-2028. The key priorities for the next strategic term are improving maternal and child health, as well as mental health; tackling non-communicable disease as the leading cause of preventable death among refugees; strengthening our response to infectious diseases; and continuing to improve refugees' access to quality health services.

To continue this critical role in the lives of Palestine refugees in the region, the Agency needs reliable and sustainable funding and the commitment of donors and partners. Together I am confident we will be able to uphold our responsibility to ensure that Palestine refugees have the quality healthcare they deserve.

Mr. Philippe Lazzarini
UNRWA Commissioner-General

message from the who regional director for the eastern mediterranean

On behalf of the World Health Organization Eastern Mediterranean Regional Office, I would like to extend my sincerest congratulations on the release of your Annual Health Report. This report is a testament to the tireless efforts of your team in providing the essential health services to Palestine refugees. The work you do is vital to improve health outcomes of vulnerable refugee communities, and I am grateful for your ongoing commitment to this important cause.

As Director of WHO, I am acutely aware of the challenges facing health systems in the region. UNRWA's health services is critical in ensuring that essential health services are accessible to those who need them most. The report underscores the challenges that continue to face Palestine refugees, including the ongoing COVID-19 pandemic and the difficult socio-economic conditions in which many of them live.

At WHO EMRO, we recognize the critical role that UNRWA plays in providing health services to Palestine refugees, and we are proud to partner with UNRWA in these efforts. We are committed to working together to address the health needs of Palestine refugees and to ensure that they receive the care and support they need to lead healthy and productive lives.

In addition to our partnership with UNRWA, at the WHO Eastern Mediterranean region office, we have a clear vision set for the year 2023: 'Health for all by all.' This vision aims to achieve health for all, involving stakeholders including government, health professionals, communities and individuals collectively, to maximize health outcomes and well-being in the region. Through fostering collaboration, sharing knowledge and advocating for the rights for health, we strive to make significant strides towards achieving the vision in partnership with UNRWA.

I would like to take this opportunity to commend UNRWA for its dedication to improving the health of Palestine refugees and for its ongoing efforts to promote equity, dignity and the respect for the people UNRWA services. Your work is an inspiration to us all, and we look forward to continuing our partnership in the years to come.

Dr. Ahmed Al-Mandhari
Regional Director,
WHO/Eastern Mediterranean
Region of Operations (EMRO)

Dr. Ahmed Al Mandhari
WHO Regional Director for the Eastern Mediterranean

executive summary and report overview

The year 2022 started with the spread of Omicron variant globally and this hit the UNRWA Fields of operation too. UNRWA Health Programme continued to adopt the service delivery models with the challenges posed by COVID-19. Despite the protracted challenges, the health programme continued to deliver its essential work of providing health care services to Palestine refugees. In 2022, over 2 million Palestine refugee utilized the UNRWA health services a round 7.86 million consultations. The number of consultations increased by 12.4 percent compared to the previous year. The patients number returned almost to the pre COVID time with resumption of full health services and withdrawal of COVID-19 restriction in the host countries. In 2022, the health programme focused on strengthening its health care systems, improving access to essential health services and enhancing the capacity of health workers in line with family health team approach.

The Health Annual report 2022 highlights the health services provided by UNRWA to Palestine refugees between 1 January and 31 December 2022. The report also showcases the relevant health indicators linked to the Agency's MediumTerm Strategy (MTS) 2016-2022 as well as programmatic and resource mobilization achievements.

Section 1: Introduction and health strategic approach

This section gives you an overview of UNRWA, health workforce, and health profile of Palestine refugees served by the Agency. The health profile contains demographic information, disease trends, the impact of protracted occupation and acute conflicts, and Health response to these health situations.

Section 2: COVID-19 and beyond- lessons learned from the experience.

This section highlights the impact of the past three years of COVID-19 response and lessons learned from the experiences. It showcases the transition from acute phase of pandemic to post pandemic services deliveries, as well as health systems that UNRWA continues to implement. Field specific activities and innovations are also stated in this section.

Section 3: Strategic outcome 2- refugee's health is protected and the disease burden is reduced.

The Agency's MTS 2016-2022 sets health goal under its outcome 2. The activities and achievement under all sub programmes by the health programme are presented in this section. These includes outpatient care, NCD treatment, communicable diseases, maternal and child health, school health, oral health, Physical rehabilitation and radiology services, hospitalization services, as well as cross cutting issues such as disability inclusion, health response to GBV and workforce norms for health reform.

Section 4: Data

This section presents major health indicators, including for Agency wide trends, common monitoring matrix (CMM) 2016-2022 indicators, data tables for 2022 and selected survey indicators, donor support to UNRWA health programmes, research activities and a list of published papers.

UNRWA Medical Officer checking blood pressure of a Palestine Refugee patient in Beddawi camp HC in Lebanon. *© 2022 UNRWA Photo by Dima Farran*

section 1 – introduction and health strategic approach

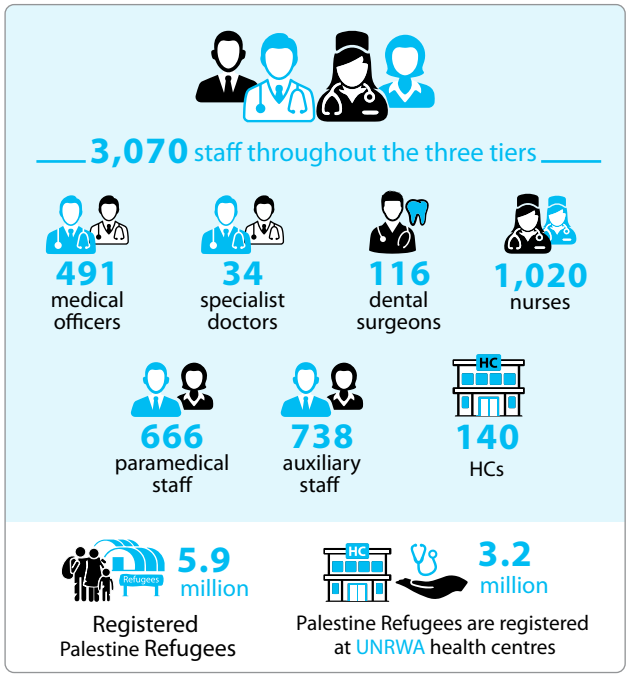
UNRWA

The Agency's primary mission is to assist Palestine refugees in Jordan, Lebanon, Syria, Gaza and the West Bank to achieve their full potential in human development, pending a just solution to their plight. UNRWA services encompass education, health care, relief and social services (RSS), camp infrastructure and improvement, microfinance and emergency assistance. UNRWA is funded almost entirely by voluntary contributions. UNRWA has its headquarters (HQ) in Amman, Jerusalem and Gaza.

UNRWA health system has three tiers:

- The Health Department (HD), at UNRWA HQ in Amman, is responsible for policy and strategy development;
- Five field Health Programmes (HPs) are responsible for local operational management; and
- 140 HCs provide PHC services directly to Palestine refugees.

The HD employs around 3,070 staff throughout the three tiers, including about 491 medical officers (MOs) working in 140 HCs, 34 specialist doctors, 116 dental surgeons, 1,020 nurses, 666 paramedical staff and 738 auxiliary staff. Out of the 5.9 million registered Palestine refugees, it is estimated that 3.2 million Palestine refugees are registered at UNRWA HCs and receive health services free of charge. UNRWA does not operate its hospitals (except for one, Qalqilya Hospital, in the West Bank), but instead, the Agency conducts a reimbursement scheme for its beneficiaries.



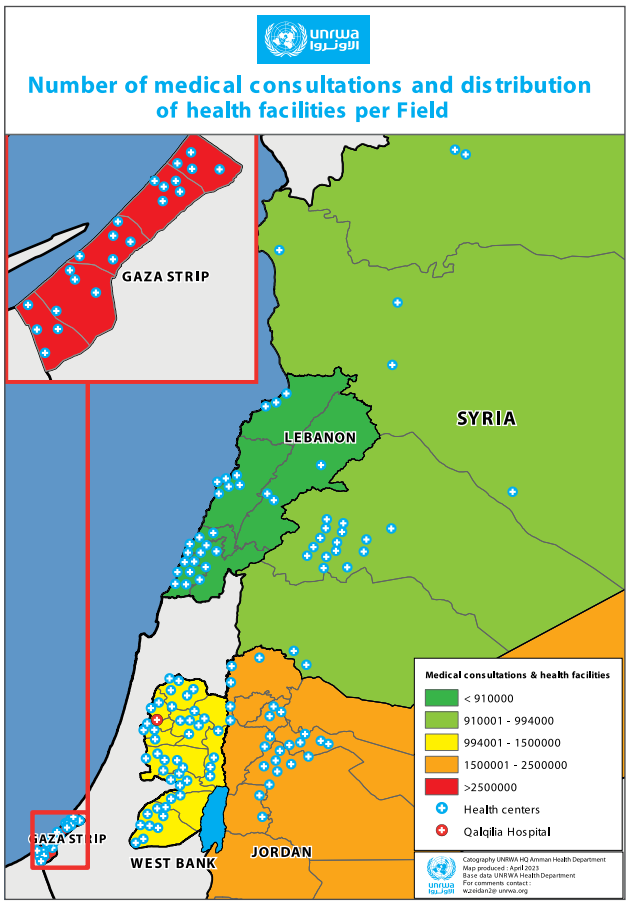


Figure 1: No. of medical consultations and distribution of UNRWA health facilities

Health Profile

Over the span of seven decades of displacement and dispossession, the number of Palestine refugees has increased from 750,000 in 1950 to 5.9 million in 2022. Throughout these years, UNRWA has been committed to providing quality health services to address the needs of Palestine refugees. Through partnerships with host countries and other stakeholders, UNRWA has realized significant health gains for Palestine refugees. As the demographic profile of the population has changed, the health needs of Palestine refugees have also evolved over the past decades. Despite this, UNRWA has continued to adapt and improve its services to meet the changing needs of the population. Currently, it is estimated that 3.2 million or 53.9 per cent of served Palestine refugees still heavily rely on UNRWA services due to economic hardship, high unemployment rates, and worsening poverty levels, especially in conflict areas. Around one-third of registered Palestine refugees reside in 58 official Palestine refugee camps, living side-by-side among host countries' communities.

In 2022, the world faced the third year of the COVID-19 pandemic as the virus continued to claim lives and overburden health systems and services. During this period, UNRWA focused on sustaining the health gains it had made in previous years, continuing to provide health services and improving its preparedness and response capacity. UNRWA's FHT approach was restored, allowing its health services to resume pre-pandemic operations through preventive measures like triage, COVID-19 rapid diagnostic testing, home delivery of medication, and COVID-19 vaccination services. This was reflected in the gradual improvement in performance indicators.

Increasing life expectancy among Palestine refugees has resulted in an ageing population. However, high fertility rates have markedly increased in the youth population, with 29.0 per cent of registered Palestine refugees currently below the age of 18 years old. Maternal and child health (MCH) care is a crucial focus of the Agency. Women of reproductive age have universal access to contraceptive (family planning) care, antenatal care (ANC), safer delivery care with referrals to and subsidies for hospital delivery, post-natal care (PNC) and infant and childcare (0-5 years old). In 2022, UNRWA provided maternal health care services, and family planning (FP) care for 190,827 women, 81,166 pregnancies and 425,585 infants and children (0-5 years old) registered. Although still relatively high, a slight reduction in the overall fertility rate has been recorded and stabilized over the past few decades.

Although significantly decreased, maternal mortality rates (MMR) and infant mortality rates (IMR) among Palestine refugees remain relatively high. Among Palestine refugees in Gaza, the MMR decreased from 16.2 per 100,000 live births in 2019 to 9 per 100,000 live births in 2022 (further assessment is needed to better understand this decline in MMR in Gaza)[1]. The estimated IMR in Gaza increased slightly from 20.2 per 1,000 live births in 2008 to 22.7 per 1,000 live births in 2015. The stagnation of progress on the IMR indicates that further efforts are needed to investigate the causes for this stagnation and ways of addressing potentially preventable causes among Palestine refugee children in Gaza.

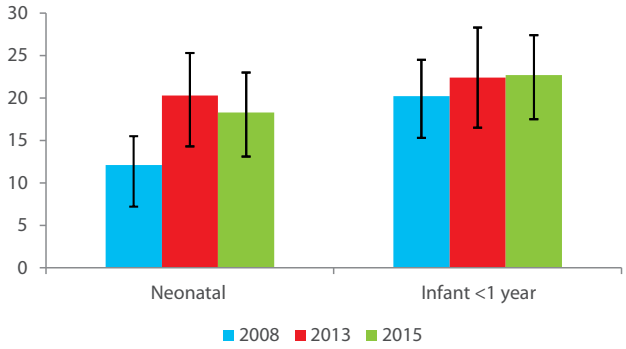


Figure 3: Infant mortality rate per 1,000 live births among Palestine refugees in Gaza (Sources: UNRWA surveys conducted in 2008, 2013 and 2015, with reference times of 2006, 2011 and 2013, respectively).

A reduction in communicable disease incidence, combined with longer life expectancy and lifestyle modifications, has led to a change in refugees' morbidity profile.

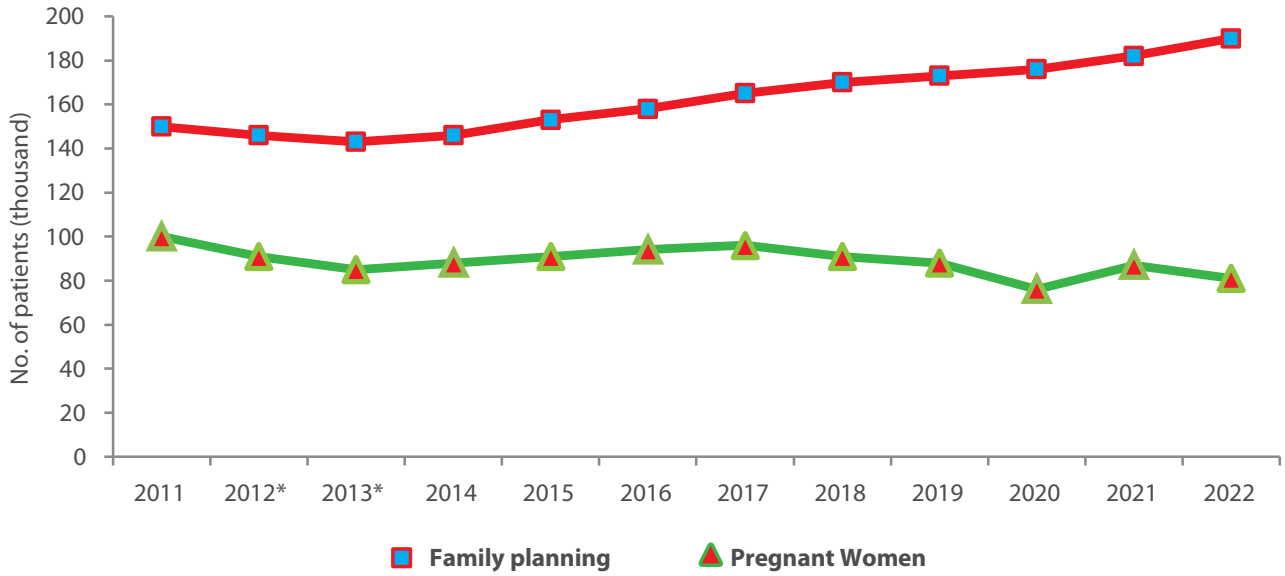


Figure 2: Total number of patients registered for FP services and newly registered pregnant women at UNRWA HCs (*data excludes Syria)

1 Maartje, M. et. al. (2018). Stalled decline in infant mortality among Palestine refugees in Gaza Strip since 2006. PLOS ONE, June 13, 2015.

Cardiovascular diseases, chronic respiratory diseases, diabetes mellitus (DM), hypertension and cancer are today's leading NCDs among Palestine refugees, representing the highest financial burdens on UNRWA health services. In 2022, 130,036 patients were treated for hypertension only, 46,720 were treated for DM only, and 129,089 were treated for both DM and hypertension. The significant risk factors for NCDs among the Palestine refugee population include sedentary lifestyles, obesity, unhealthy diets and smoking.

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To target NCDs, UNRWA applies a strategy that focuses on three dimensions: (i) disease surveillance, that consists of collecting, analysing and interpreting health-related data on NCDs and their determinants; (ii) health promotion and prevention interventions to combat NCD major risk factors or determinants among Palestine refugees across their life cycle; and (iii) the provision of cost-effective interventions for the management of NCDs. In 2019, UNRWA HD invested in developing a mobile application for NCD patients to contribute to health promotion efforts, help ensure compliance with regular appointments, and provide health advice.

The long-term provision of health care services to Palestine refugees has effectively controlled communicable diseases by ensuring high vaccination coverage and timely outbreak detection and management. Diseases related to poor hygiene and sanitation have been almost completely eradicated. However, micronutrient deficiencies and food insecurity continue to be significant risk factors for diseases among Palestine refugees, especially during the pandemic. Despite the implementation of a mental health and psychosocial support program in all five fields of operation, the prevalence of mental illnesses is increasing among Palestine refugees due to the ongoing conflicts, occupation, and COVID-19.

Ongoing protracted and acute conflicts, occupation, the lack of a just and durable solution for Palestine refugees'status and the added burden of COVID-19 continue to affect the population's physical, social and mental health. Assessment, diagnosis and treatment of mental health and psychosocial-related disorders show their prevalence is increasing throughout UNRWA operation. To address this trend, the Agency introduced a mental health and psychosocial support (MHPSS) programme in all five fields in 2018 which aims to identify and address mental illnesses, particularly in Gaza. MHPSS services are heavily integrated into UNRWA PHC and work towards ensuring that all Palestine refugees enjoy the highest attainable mental health level. In 2022, all 140 HCs across five fields of operations continued to integrate the MHPSS within its services.

A nurse at Al-Nuzha health centre in Amman, Jordan explaining to a patient with a non-communicable disease (NCD) about how to use the NCD smart phone application "Your health with UNRWA" and how it connects to her electronic health record in UNRWA e-Health system. *© 2020 UNRWA Photo by George Awwad*

UNRWA health care services cover basic medical needs of Palestine refugees in Syria, UNRWA health centre in Dera'a camp. *© 2022 UNRWA Photo by Taghreed Mohammad*

section 2 – covid-19 and beyond – Lessons learned from the experience

UNRWA Health Response to COVID-19

Although globally COVID-19 is not yet over, UNRWA health service provision has transitioned beyond the acute phase of the pandemic and have regained a complete resumption of health services and a complete package of Family Health Teams are now actively serving the Palestine Refugees.

Since the start of the pandemic, UNRWA has responded to the issues that surround it. Initially, it was with the goal of containment and later with a strategy of mitigation to safeguard the Palestine refugee population as efficiently as possible. UNRWA's main objectives have been fourfold: preventing the spread of the pandemic among Palestine refugees and UNRWA staff by an introduction of preventive measures including the safeguarding of vulnerable groups among Palestine refugees and UNRWA staff and reinforcing the health services to prevent it from collapsing. Ideally this is done by following a comprehensive approach that not only addresses COVID-19 but also ensures uninterrupted access to broader health care services. Additionally, supporting host countries has been essential to achieving optimal vaccination coverage which involves emphasizing communication as crucial to vaccine acceptance and building trust in these measures.

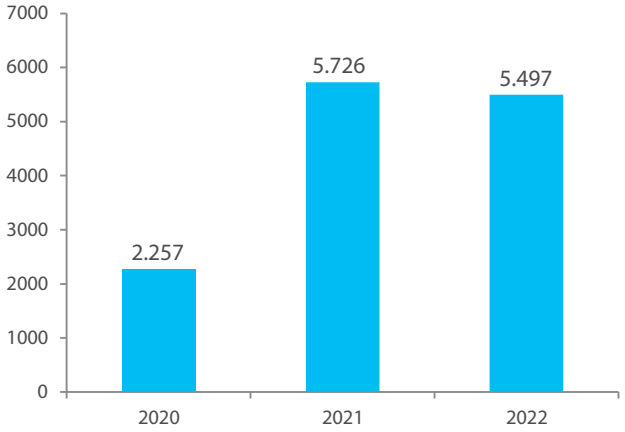
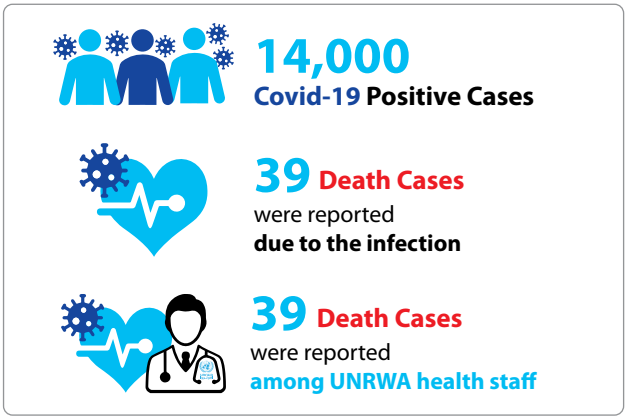


Figure 4: Number of confirmed COVID-19 cases among Palestine Refugees

The COVID-19 pandemic has had significant impacts on both Palestine refugee communities and UNRWA health services over the past three years. The pandemic has compounded existing vulnerabilities and poverty, resulting in profound health impacts and loss of livelihoods for many refugees. Since the beginning of COVID-19, a dramatic increase in the number of confirmed cases and deaths has been reported, while new variants continued to emerge. Despite these challenges, UNRWA continued to provide primary health care services without disruption, which was enabled by the tireless dedication of the health staff within the Agency.

UNRWA has adapted its health services to the COVID-19 pandemic by gradually resuming services with preventive measures and focusing on emergency and high-risk group patients. With the introduction of COVID-19 vaccinations, the utilization of UNRWA health services started to return to pre-COVID-19 levels and full PHC services were resumed. UNRWA has also continued its efforts to maintain infection prevention and control (IPC) measures in HCs, providing training for staff and supplying cleaning and sterilization tools.

However, there were challenges that UNRWA faced in providing direct PHC services to Palestine refugees. The health workers running the HCs remained exposed to the risk of being infected with the COVID-19 virus, as were other frontline workers. By the end of 2022, a total of 14,000 COVID-19 positive cases and 39 death cases due to the infection were reported and 39 deaths were reported among UNRWA health staff. Within the Agency, health staff had the highest positivity rate and remained at risk for acquiring the infection as frontline workers. The occurrence of multiple waves of the virus with new variants has led to a constantly changing epidemiological situation. UNRWA has nevertheless remained flexible with service delivery changes depending on the epidemiological situation of each host country.



Despite the increasing vaccination coverage and high levels of herd immunity in some fields, the pandemic is expected to remain active within Palestine refugee communities. UNRWA will continue to implement the necessary measures to minimize the risk of transmission of the virus and ensure the safety of UNRWA staff and Palestine refugees. During the past three years, UNRWA has introduced the following key measures to tackle COVID-19 and to ensure continuity of health service provision.

Triage System:

UNRWA response: During the past three years, the triage system was applied and standardized across all health centres. This new system included screening patients for respiratory symptoms and high temperature, and minimizing contact between suspected cases and staff or other patients. The table below shows the commonly reported signs and symptoms of the respiratory system among our patients who underwent triage.

Telemedicine:

UNRWA response: Telemedicine consultations were continued through telephone hotlines, allowing a remote provision of medical advice and health information. The number of telemedicine consultations increased by 160 per cent in 2021, with 844,518 consultations provided. This number, however, reduced to 336,029 (signifying 60 per cent reduction) in 2022 pointing towards a resumption of the complete package of services provided in-person.

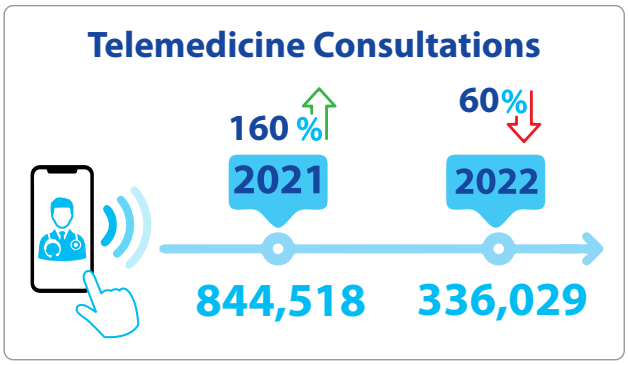


Table 1: Major diseases of respiratory system and symptoms & signs

Diseases of respiratory system and symptoms & signs	Number of visits		
	2020	2021	2022
Acute upper respiratory infection, site unspecified	15,816	248,347	345,663
Acute upper respiratory infections of multiple and unspecified sites	2,363	24,433	21,530
Acute upper respiratory infections of multiple sites	71	284	979
Upper respiratory tract disorders, unspecified	427	2,038	1,019
Other specified upper respiratory tract disorders	1,011	4,489	5,761
Lower respiratory tract disease, unspecified	2,334	13,325	14,293
Respiratory infections, not elsewhere classified	297	1,311	1,015
Fever of other or unknown origin	16,153	83,647	101,421

Future direction: Triage had been one of the successful non-pharmaceutical interventions for tackling the burden of the COVID-19 pandemic. Implementation of triage was needed to prevent the spread of COVID-19 among both our patients and health care providers. This intervention allowed the agency to streamline the patient flow and to separate the high- risk visitors from those who had no symptoms. A clear case definition, well- trained staff and pre-defined patient flow helped to render UNRWA health facilities safe, build the trust of Palestine refugees and enforce the safety of health service providers. Although the triage may not be sustained in the post-COVID-19 era, it will remain as a key intervention in UNRWA's readiness and response to such a pandemic in the future.

Future direction: UNRWA plans to continue using telemedicine to reduce overcrowding in HCs and enable longer patient-doctor consultations in future years. In particular, telemedicine service continues in Gaza and will be expanding in Syria and potentially other fields depending on the feasibility. UNRWA will retain telemedicine as a means of service delivery in similar situations.

Personal Protective Equipment:

UNRWA's response: Approximately 3,000 health care providers were provided with personal protective equipment (PPE), including masks, gloves, gowns, protective eye goggles, and face shields. During the past three years, UNRWA dedicated financial resources for procurement of PPE and also secured

UNRWA provides laboratory services, oral health, and maternal and child healthcare to Palestine refugees in its health facilities across Syria, UNRWA health centre in Khan Dunoun camp in Rif Damascus. *© 2022 UNRWA Photo by Taghreed Mohammad*

in-kind donations of PPEs that helped in protecting staff and Palestine refugees from avoidable exposure to COVID-19.

Future direction: PPE is part of UNRWA infection prevention and control protocols. Thusly, it will continue to be used within the HCs even after the post-COVID-19 pandemic. Additional precaution and protective measurements will be implemented during the active phases of epidemics/pandemics as per the UNRWA infection prevention and control protocols.

COVID-19 Vaccination:

UNRWA's response: UNRWA encouraged its staff and Palestine refugees to get vaccinated against COVID-19. UNRWA's continued advocacy and communication campaigns have helped in reducing misinformation about the COVID-19 vaccination. Health staff were encouraged to get vaccinated against COVID-19, resulting in 93.8 per cent of them receiving two doses of the vaccine by the end of 2022.

Future direction: As the COVID-19 pandemic situation is gradually normalizing, there is still a large number of people in the host countries who require vaccination coverage. UNRWA will continue supporting the efforts of host countries in reaching the desired level of vaccination. UNRWA will continue offering its HCs and staff for COVID-19 vaccination where the host country needs such support. UNRWA will also continue encouraging Palestine refugees to comply with host country regulations with regard to COVID-19 vaccination.

Rapid Diagnostic Test (RDT):

UNRWA response: Distributed 10,000 RDTs in Jordan, Syria and Lebanon whereas Gaza and the West Bank procured their own tests. RDTs were introduced as a quick measure to differentiate at risk and potential positive staff members and patients from the otherwise healthy individuals and to reduce the avoidable risk of spreading COVID-19. In Gaza, RDTs were made part of triage and had successful results in identifying potential positive cases.

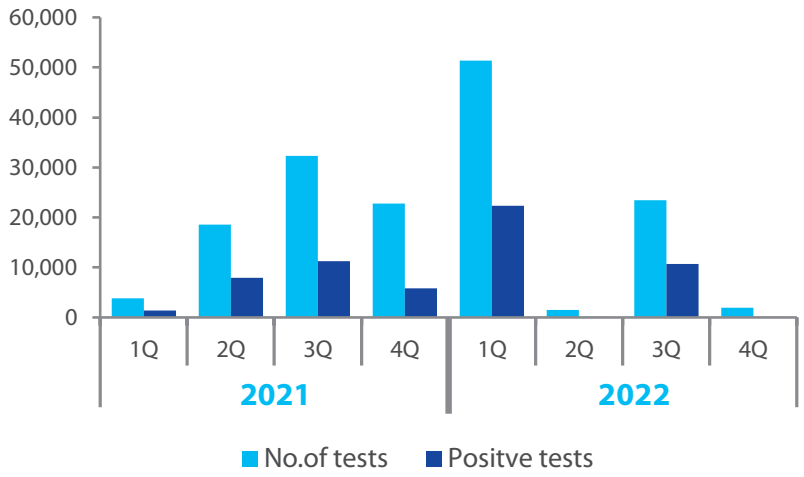
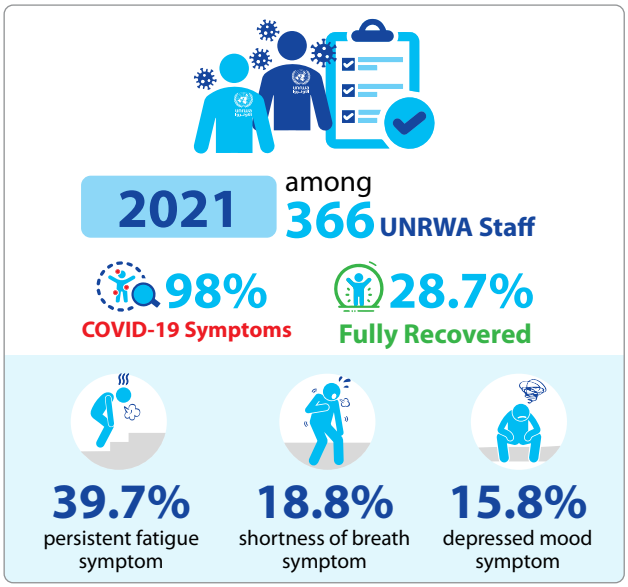


Figure 5: Number of antigen rapid diagnostic tests (Ag-RDT) in Gaza

Future direction: UNRWA will continue to utilize RDTs as a tool to protect its health staff from the spread of viral infection. During active future phases of the COVID-19 pandemic, RDTs may remain a feasible method for COVID-19 testing in our humanitarian settings, especially in Syria, where testing services are not readily available and affordable. In the fields where the strong triage facilities exist such as in the Gaza Strip, UNRWA will use RDTs to identify the patients with positive cases during the phases of COVID-19 pandemics to identify the patients suffering from the disease.

Staff Care:

During the COVID-19 pandemic, protecting the well-being of staff, especially the frontline workers, became one of the priorities for UNRWA. UNRWA implemented various interventions aimed at ensuring their physical safety and protection. Mental health support was identified as a necessary element , as staff members who contracted COVID-19 infection required counselling. In addition, mental health support was also needed to alleviate mental stress and fatigue experienced by health care providers who were affected by a shortage of staff during the COVID-19 pandemic. A study was conducted in 2021 among 366 UNRWA staff and the results indicated that the majority of staff suffered from the long-lasting COVID-19 symptoms. Ninety-eight per cent of staff developed acute COVID-19 symptoms, of which only 28.7 per cent fully recovered. The majority of staff members suffered from long COVID symptoms, such as persistent fatigue (39.7 per cent), shortness of breath (18.8 per cent), and depressed mood (15.8 per cent). Consequently, a significant proportion of study participants required mental health and psychosocial support. To address the needs for mental health support, the UNRWA health department, in collaboration with the HR department, established hotlines in each field to provide staff members with access to dedicated psychologists. Furthermore, specific mental health activities were organized at a HC level, aimed at reducing work stress and encouraging staff members recovering from COVID-19 to share their experiences. These interventions helped to reduce the fear of COVID-19 among staff and build their confidence.



Future direction: In light of the COVID-19 pandemic and other emergency situations, UNRWA acknowledges the crucial importance of prioritizing staff care, particularly in the realm of psychosocial support. As such, Mental Health and Psychosocial Support (MHPSS) remains a fundamental aspect of UNRWA health services, and the organization places significant emphasis on the provision of such services. Going forward, UNRWA intends to maintain staff care as a central feature of its

UNRWA staff nurse providing vaccination to a Palestine Refugee baby in Baqa'a Main HC in Jordan. *©2020 UNRWA Photo*

UNRWA is committed to continue providing primary health care to Palestine refugees in Syria, UNRWA health centre at the Agency's Damascus Training Centre. *©2022 UNRWA Photo by Taghreed Mohammad*

preparedness and response strategies, with a specific focus on anticipated active phases of COVID-19 as well as other potential emergencies, such as conflicts or natural disasters.

Health Service re-orientation:

UNRWA response: In response to the COVID-19 pandemic, UNRWA undertook a reorganization of its services to prioritize emergency care for high-risk groups, specifically those with uncontrolled NCDs and high-risk pregnant women. This reorientation was designed to ensure the continuation of positive health outcomes in priority areas and to reduce unnecessary exposure for both patients and health care providers, with non-emergency services suspended. The limited number of staff available were redirected to provide new services, such as telemedicine, triage, and home delivery of medication for NCD patients. This intervention allowed UNRWA health facilities to maintain services during the active phase of the pandemic, and with the decline of COVID-19 incidence, UNRWA health facilities are now returning to their pre-pandemic utilization levels.

Future direction: Reorganization of health services constitutes an integral component of UNRWA's health department preparedness and response planning, serving as a vital mechanism for effectively addressing comparable events in the future. Drawing upon the lessons learned from COVID-19 pandemic, UNRWA intends to incorporate these insights into its preparedness and response planning efforts.

Digital Platform for Evidence:

UNRWA response: The UNRWA demonstrated an admirable response to the COVID-19 pandemic by leveraging its valuable electronic medical records (EMR), also known as e-health, to introduce an ICD-11 module for improved diagnosis and surveillance of COVID-19 cases. Through remote training during the pandemic's active phase, UNRWA's health department successfully trained its staff in the use of ICD-11 and augmented the existing e-health platform with ICD-11. This achievement has empowered UNRWA to harness the data from e-health and use business intelligence and analytics tools to create dashboards that facilitate easy uploading, analysis, and access to COVID-19 caseloads in the fields and headquarters. The use of these dashboards enabled UNRWA to report in a timely and accurate manner and allocate resources to areas with the greatest need. The use of digital technology was a key intervention that helped UNRWA streamline its COVID-19 response.

Future direction: In order to monitor services and analyse disease trends among Palestine refugees, UNRWA persistently employs e-health and the ICD-11. UNRWA acknowledges the value of technology and electronic health records for efficient operations and intends to further leverage such systems to advance its mission. To achieve this goal, UNRWA plans to upgrade its EMR system in the near future to comply with contemporary industry standards and take advantage of advanced functionalities not currently available in its existing system.

Field Innovations

Jordan

Multiple Micronutrient Supplementation (MMS) for Pregnant Women: Pilot in Two HCs

Multiple Micronutrient Supplementation (MMS) for pregnant women was introduced as an innovative program that positively reflected on the UNRWA health services in 2022. MMS is a form of daily prenatal supplements that provide 15 vitamins and minerals, including iron and folic acid, in one tablet. These supplements are intended to address the increased nutritional needs during pregnancy and to prevent micronutrient deficiencies that can lead to negative health outcomes for both the mother and the baby, such as maternal anaemia, low birth weight, preterm and small-for-gestational-age births. In 2020, the World Health Organization updated its antenatal guidelines now recommending MMS for pregnant women in the context of rigorous research, where the programs are being considered. In 2021, MMS was added to the WHO's Essential Medication List.

The Jordan Field Office was chosen to pilot MMS. In September 2022, the MMS was first piloted in two HCs (Amman New Camp and Marka HCs) to test the acceptability, feasibility of workflow, education materials, and data collection tools between September and December in 2022.

UNRWA Midwife providing MMS Tablets and instructions to a Palestine refugee pregnant woman at Amman New Camp HC in Jordan. *©2022 UNRWA Photo by Masako Horino*

Lebanon

a. Training Health Staff on the Proper Assessment for Monitoring Maternal, Newborn, and Child Health

Within the context of a collapsing healthcare system in Lebanon, UNRWA continues its healthcare provision through its network of HCs to deliver essential primary health care and supported hospitalization services by contracts with the local institutions. In 2021 the SMART survey was conducted on nutrition status of the children and pregnant/lactating women residing in Lebanon. This survey showed alarming results on the diets that over 80 per cent of children aged 6-23 months did not eat the required variety to grow healthy. This obliged Lebanon MOPH and UNICEF to lead on a multisectoral group consultation where UNRWA is a member and produced the Lebanon National Nutrition Strategy for the first time in 2022.

An immediate intervention and support for pregnant and/or lactating women and children is extended through the UNRWA-MCH. A new tool was added to the regular child and mother monitoring visits which is a tape measuring the arm circumference. It is very effective in early detection of malnutrition and hence allows early intervention to prohibit severe malnutrition and delayed development. Training on the proper assessment for the health staff (nurses, MWes and doctors) was conducted during September 2022 to ensure the accuracy of the results to proceed with the management. In addition to the treatment of anaemia when detected by the iron supplements, coordination with UNICEF resulted in enrolling the UNRWA HCs in the PHC networks to provide children with multiple micronutrients supplementations (MNS) in June 2022. It is planned to continue this MNS for the coming years whenever they are funded.

b. Cholera Outbreak in Lebanon

The UNRWA health programme has a routine surveillance system for communicable diseases in place continuing daily reporting in response to the announcement of Cholera outbreak in North and Beqaa, and as a lesson learned from the COVID-19 response strategy. A task force, led by the D/ DUAL(P) composed of the main departments (Health, Education, RSSP, FICIP, PIO) was established to ensure the proper response and preventive measures are in place to maintain clean safe camps and ensure awareness and comprehension of the hygienic practices are well delivered to the community. Similar working groups were established at the area level to follow up on measures in place. In parallel with the decision to continue full coverage of any admitted case to hospitals, the departments, with the support of PIO, worked on producing a series of awareness videos, posters and flyers depicting main preventive practices and information about Cholera infection with tailoring of the messages according to the target group (whether students by age and community). So far, no cholera cases were detected inside any PR camp.

UNRWA Medical Officer providing a Cholera related awareness sessioPn to Palestine refugees in Lebanon. *©2022 UNRWA photo by Maysoun Mustafa*

With the current pandemic and challenging economic situation in Lebanon, it is important to continue the coordinated, multi-sectorial and targeted efforts to avoid exacerbation of the negative coping mechanisms that the patients are adopting. They are adopting these mechanisms to avoid health expenditures but simultaneously jeopardizing their own well-being. While responding to immediate needs is critical, strengthening cooperation and partnership continues to be a main pillar in bridging the health gaps that are not covered under the regular health policy schemes. Hence, working closely with partners is ongoing and is especially very close with UNICEF, WHO, PRCS, MOPH, UNFPA, MAP-UK, National MHPSS and AIDS programs, and indirectly with several NGOs through the National Joint Health Working Group.

Syria

Queue System in All HCs Starting in Damascus Training Centre (DTC) Piloting

HCs in Syria are crowded with hundreds of patients daily. Most of the patients are used to gathering early morning (8 – 11) A.M which creates crowdedness and pressure on the staff. There was a critical need to organize the appointments and the flow of the patients to raise the service quality, but at the same time, HD was not able to afford the Queue system from the market. HD & IMDT in SFO created a queue system for HCs with the following added values:

- The system is almost free.
- Respond to special Health Department requirements in SFO.
- Provide a good impact on the level of service provided to beneficiaries.

The Plan:

Finishing the requirement collection stage before Sep 2022

- Piloting the system in the middle of November 2022, including change requests, Chrome Cast, and TV Box testing).
- Evaluation of the system during February 2023 (our Sample was DTC HC team).

The Implementation and Evaluation:

Health Department implemented a queue system in DTC HC (Piloting):

- The Queue system helped to improve the working mechanism.
- The screen on which the Queue is presented is clear and visible to clinic visitors and patients.
- The technical support provided to the Queue system by the IMTD Department meets these needs.
- The Queue system allows beneficiaries to receive the service in a fair manner.
- The sound alert mechanism helped to draw the attention of the clinic visitors.
- The use of the TV Box is useful and helps display the Queue on the screen clearly.

Health & IMDT will implement the system in other clinics as soon as the needed hardware is provided.

UNRWA delivers basic health services to Palestine refugees in its health facilities across Syria, queue system at UNRWA Damascus Training Centre Clinic. *©2022, UNRWA Photo by Taghreed Mohammad*

Gaza

a. Appointment Initiatives

In 2022, efforts were made to resume the health service provision to the pre-COVID-19 era. As COVID-19 restrictions and measures subsided in the host country, the lives of Palestine Refugees gradually returned to normal. One of the issues that have been affected is the appointment system. The Gaza field health management realized that resuming the strict appointment system would eventually result in an automatic improvement of patients' flow and hence the quality of care provided.

To encourage health providers to provide quality care, a health programme launched an initiative that aims at enhancing the appointment system at different stations of the HCs. In July 2022, HP launched the competition between HCs to select the best HC. HCs exerted their utmost efforts to follow up, analyse, review appointments at different

stations and correlate the adherence to the given appointment by date and time. At the end of every month health management extracted the reports, analysed the data, and announced the selected HCs. The health programme organized gatherings for all HCs to celebrate their achievement of staff outside the HCs.

To ensure adherence of the HCs to the initiative, HP monitored the daily reports on E- health and provided the HC with regular feedback on their progress. HCs have shown a high level of commitment to this initiative to continue improving the quality of care provided to the refugees. Sheikh Radwan succeeded in scoring the highest in November and December 99.2 per cent and 99.3 per cent respectively.

b. Screening Mammography

Within the efforts to promote early detection and early management of breast cancer, getting a high-quality screening mammogram, having a clinical breast examination, and training on a self-breast exam on a regular basis, are considered the most effective ways.

The absence of a national screening programme for breast cancer and the inability of refugee females to pay the cost of mammograms have initiated the idea of mammography services. Entirely through GFO-HP efforts and with the help of project funds, the first mammography started in 2016.

This included reviewing the literature to decide the criteria, in cooperation with other departments to ensure contracting with the specialised centres across Gaza after passing the technical and financial evaluation.

Between 2016 and the end of 2022, a total of 79,678 women were sent for screening according to a well-defined criterion, and 544 were identified as confirmed cases of a breast cancer. A total of 784,732 women were examined by health staff and trained on breast self-exam by 2022.

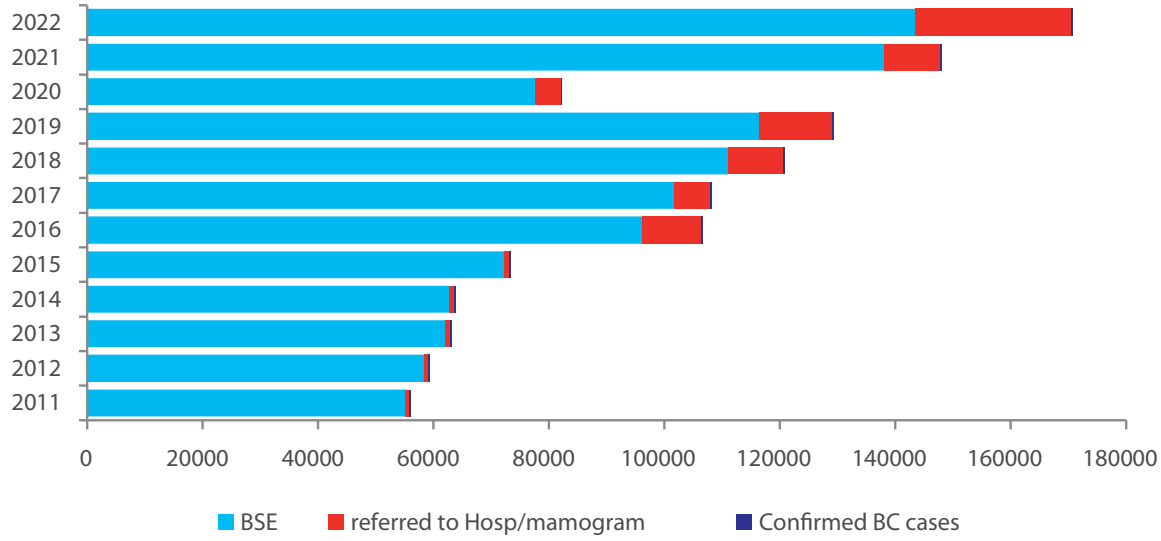


Figure 6: Screening for breast cancer with mammography

Palestine refugees receiving UNRWA Health services at Deir El Balah UNRWA Health Centre in Deir El Balah, Gaza Strip. *© 2022 UNRWA Photo by Mohammad Hinnawi*

Pink October (Breast Cancer awareness month) Health Programme activities in Gaza. *© 2022 UNRWA Photo*

During 2022, breast cancer awareness campaigns were under the spotlight mainly when Pink October activities were launched with participation of different stakeholders in Gaza including WHO, UNFPA, MoH, NGOs, and community leaders.

These activities included: health awareness sessions, outreach activities, and enhancing referral of all female staff members who are above 40 years old to do mammogram screening.

In addition to health program participation, an oral presentation "UNRWA Effort in Early Detection of Breast Cancer" was given at the First Annual Multidisciplinary Breast Cancer Conference in Gaza.

UNRWA HP managed to have a closing ceremony for Pink October with a large gallery exhibition that presented all the year's efforts and activities in a very creative and attractive way.

West Bank

Improve Eye Care in West Bank Field and Prevent Blindness.

During the Year 2022, the health department in collaboration with St. John Hospital (SJEHG) started the implementation of the Primary Eye Care (PEC) project. The PEC project aimed to maximise the UNRWA health system and the provision of medical eye care services to the most vulnerable population in the West Bank including women and girls, people with disability and persons living in isolated areas.

- 45 primary health doctors received eye care training to strengthen their capacity to successfully treat patients with eye diseases.
- 12 nurses were trained in diabetic retinopathy detection using a fundus camera.
- The referral mechanism was strengthened between UNRWA HCs and SJEHGs so that PEC patients can be referred for specialized secondary and tertiary care.
- Several PEC equipment and supplies were provided to UNRWA health facilities (39 direct ophthalmoscopes 44 LCD vision charts and 7 Fundus cameras).
- During 2022, 30,185 patients received PEC screening. 15,214 patients were screened for Diabetic Retinopathy, and 3118 patients were referred for specialized care.

An elderly Palestine refugee woman from Lebanon, in Beddawi camp at UNRWA health center, Lebanon getting a check-up. *©2022 UNRWA Photo by Maysoun Mustafa*

UNRWA Pharmacist delivering medications to Palestine refugees patients at Amman New Camp HC in Jordan. *©2022 UNRWA Photo by Amjad Ghosoun*

section 3: strategic outcome 2 - refugees' health is protected and the disease burden is reduced

Output 2.1: People-Centred Primary Health Care System Using the FHT Model

Services under Output 2.1 include outpatient health care, NCD treatment, communicable (infectious) disease treatment, maternal health care, child health care, school health, oral health, mental health and psychosocial support, physical rehabilitation, radiology services, disability care and pharmaceutical services.

FHT Approach and the E-Health System

The Family Health Team (FHT) approach represents a system of delivering PHC through a multidisciplinary team of health professionals who work together to serve the Palestine refugees comprehensive health needs across the client's life cycle and in a community setting close to the client. FHT approach design aims to improve the quality, efficiency, and effectiveness of health services.

Each FHT is composed of doctor(s), nurses, and other health workers[1]. The FHTs work together and are responsible for providing health services for the families who are registered with them.

In 2022, the performance of the FHT's approach was retained as it was affected during the past two years by the precautionary and preventive measures taken by the Department of Health to mitigate the spread of COVID-19 in most health centres in the fields..

The e-Health system, introduced in 2009, has streamlined service provision, improved efficiency, and enabled high-quality data collection. In 2022, e-Health was upgraded to cope with the new technical instructions' requirements. Additional online training modules were introduced to facilitate new staff capacity building for different roles. Also, the e-health was integrated with the laboratory machines for the CBC test results. E-Health is operational in 139 out of 140 HCs; Gaza (22 HCs), Jordan (25 HCs), Lebanon (27 HCs), West Bank (43 HCs), and (22 out of 23 HCs) in Syria. E-Health implementation in Syria is challenged due to the ongoing conflict and the resulting connectivity issues in some areas. Further expansion of e-Health in Syria is expected in 2023, contingent upon security, infrastructure and connectivity. Currently, the system is operational across 99.3 per cent of all UNRWA HCs.

Table 2: Number of UNRWA HCs fully implementing the e-Health system

Field	2018	2019	2020	2021	2022
Jordan	25	25	25	25	25
Lebanon	27	27	27	27	27
Syria	11	20	22	22	22
Gaza	22	22	22	22	22
West Bank	43	43	43	43	43
Agency	128	137	139	139	139

Since its introduction in 2017, the Maternal and Child Health Mobile Application (e-MCH) has been used by around 237,714 mothers, allowing registered Palestine refugee mothers to view their electronic health records and those of their children on their smartphones. The e-MCH application notifies mothers about their appointments and their children's appointments, in addition to providing health advice according to their health status and the age of their children.

3 Each FHT is composed of medical officer, nurse, midwife and clerk as core team and other health providers such as pharmacist, laboratory technician, dentist and non-medical staff such as cleaners are shared resource. Number of staff may vary per FHT.

Palestine refugees receiving UNRWA Health services at Deir El Balah UNRWA Health Centre in Deir El Balah, Gaza Strip. *© 2022 UNRWA Photo by Mohammad Hinnawi*

In 2020, a second mobile application, targeting NCD patients was introduced. By the end of 2022, the e-NCD app was utilized by approximately 137,240 patients, including 3,000 patients not registered with the Agency's HCs. The app provides the users with a self-assessment and monitoring tool for their health and enables access to electronic health records, enables recording of home measurements i.e., BP, BG .. and shows trends, notifies patients about their appointments and medications in addition to providing health information and education.

Outpatient Care

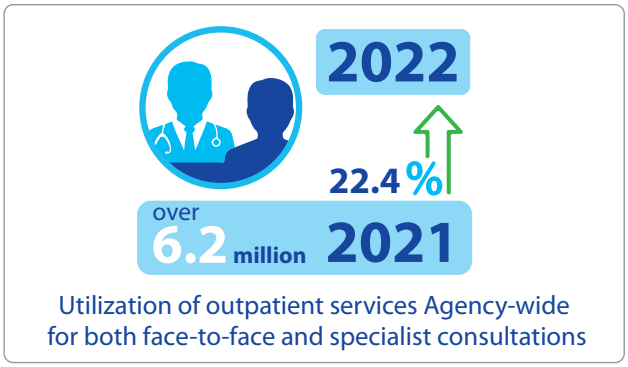
UNRWA Provides comprehensive Primary Health Care (PHC) services through a network of 140 HCs, 47.1 per cent (66) of which are located within Palestine refugee camps. Furthermore, the Agency manages six mobile HCs in the West Bank to facilitate in accessing health care in areas impacted by barriers and checkpoints, as well as two mobile HCs in Syria to provide health coverage in hard-to-reach areas.

Throughout the MTS strategic period (2016-2022), there was an 8.0 per cent reduction in the utilization of the Agency›s outpatient services, with 7.9 million consultations held in 2022 as opposed to 8.6 million in 2016. This decrease was evident with a lower average daily medical consultations per doctor, dropping from 85 consultations in 2016 to 75 consultations in 2022.

In 2022, there was a further increase in the utilization of the Agency's outpatient services, approaching the levels seen before the COVID-19 pandemic. UNRWA continued to provide all health services in the context of the FHT approach, while keeping the implementation of preventive measures against COVID-19 at the HC level. This included crowd-control measures such as triage, appointments, and the use of telemedicine.

Utilization

In 2022, UNRWA provided over 7.8 million medical consultations. The utilization of outpatient services Agency-wide increased by 22.4 per cent from 6.2 million in 2021 for both face-to-face and specialist consultations. This increase was due to resumption of all health services, increased demand, and improvement of patient access to health care services.



Utilization of outpatient services Agency-wide for both face-to-face and specialist consultations

Of the outpatient consultations held in 2022, 7,440,030 were face-to-face consultations, an increase of 22.4 per cent compared to the 6,078,956 consultations held in 2021. A reduction in popularity for telemedicine consultations was observed in 2022, with a reduction of 60.2 percent from 844,518 consultations in 2021 to 336,029 consultations in 2022, this reduction was mostly due to an improvement in beneficiary's physical access to UNRWA health services. Some 93,860 specialist consultations (including those offered by gynecologists/ obstetricians and cardiologists) were also conducted.

All fields showed an increase in the overall number of outpatient consultations compared to 2021. However, the increase was variable from one field to another which may be explained by the different level of improvement of patient's access to UNRWA HCs at UNRWA's fields of operation.

Table 3: Number of Agency-wide medical consultations in 2021and 2022

Year	Type of consultation	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
2021	**a) Face to Face**						
	Male	448,131	241,117	298,316	1,062,619	329,100	2,379,283
	Female	846,700	341,152	456,924	1,497,522	557,375	3,699,673
	Total (a)	1,294,831	582,269	755,240	2,560,141	886,475	6,078,956
	b) Telemedicine						
	Male	10,721	-	12,654	339,963	658	363,996
	Female	17,490	-	33,725	427,941	1,366	480,522
	Total (b)	28,211	0	46,379	767,904	2,024	844,518
	Total (a) + (b)	1,323,042	582,269	801,619	3,328,045	888,499	6,923,474
	c) Specialist						
	Male	1,076	1,213	123	4,580	1,985	8,977
	Female	23,441	12,295	7,722	20,330	4,467	68,255
	Total (C)	24,517	13,508	7,845	24,910	6,452	77,232
	Total consultations (a+b+c)	1,347,559	595,777	809,464	3,352,955	894,951	7,000,706
2022	**a) Face to Face**						
	Male	521,046	365,994	348,384	1,325,106	364,866	2,925,396
	Female	949,177	518,252	548,754	1,878,160	620,291	4,514,634
	Total (a)	1,470,223	884,246	897,138	3,203,266	985,157	7,440,030
	b) Telemedicine						
	Male	4,616	0	2,232	149,390	0	156,238
	Female	7,898	0	3,300	168,593	0	179,791
	Total (b)	12,514	0	5,532	317,983	0	336,029
	Total (a) + (b)	1,482,737	884,246	902,670	3,521,249	985,157	7,776,059
	c) Specialist						
	Male	1,063	2,305	829	5,264	2,761	12,222
	Female	24,366	16,577	11,909	22,057	6,729	81,638
	Total (c)	25,429	18,882	12,738	27,321	9,490	93,860
	Total consultations (a+b+c)	1,508,166	903,128	915,408	3,548,570	994,647	7,869,919
Variance (no)/(%) (2021 / 2022)	Face to Face	175,392	301,977	141,898	643,125	98,682	1,361,074
	%	14%	52%	19%	25%	11%	22.4%
	Telemedicine	-15,697	0	-40,847	-449,921	-2,024	-508,489
	%	-56%	0%	-88%	-59%	0%	-60.2%
	Face to Face & Specialist	176,304	307,351	146,791	645,536	101,720	1,377,702
	%	13%	52%	19%	25%	11%	22.4%

UNRWA's outpatient medical consultations can be categorized into two groups: first visits and repeat visits. First visits indicate the number of persons attending a HC during a calendar year, while repeat visits indicate the frequency of service utilization.

The ratio of repeat visits to first visits experienced a slight increase from 2.7 in 2021 to 2.9 in 2022, with a slight variation among fields and between HCs within the same field. The interpretation of this ratio may reflect the fact that some patients in some fields have access to other health care providers. Furthermore, the ratio of repeat visits to first visits was higher in HCs located inside camps where Palestine refugees can easily access health care services, and in fields where Palestine refugees have limited or no access to other health care providers, such as in Gaza, Syria, and Lebanon.

Table 4: Agency-wide total number of first and repeat visits to UNRWA HCs and ratio of repeat to first visits in 2022

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Total first visits	459,690	180,329	184,304	915,301	278,578	2,018,202
Total repeat visits	1,023,047	703,917	718,366	2,605,948	706,579	5,757,857
Ratio of repeat to first visits	2.2	3.9	3.9	2.8	2.5	2.9

Workload

The average number of medical consultations per doctor per day increased Agency-wide from 66.3 in 2021 to 74.5 in 2022, which was observed across all UNRWA's fields of operation due to the improved physical access to UNRWA's health services and the increased demand from patients during the third year of the COVID-19 pandemic.

The highest workload was observed in Lebanon, with an average of 87.5 medical consultations per doctor per day, while Gaza had the lowest workload, with an average of 62.8 medical consultations per doctor per day.

Despite the variation across the fields, the overall workload on MOs and PHC services has been reduced through the FHT approach. This reduction has been achieved by shifting some preventive tasks from MOs to nurses, such as providing nurses with the authority to approve monthly repeat prescription refills for NCD patients. In addition, the introduction of an appointment system in HCs resulted in a more evenly distributed workload for all health staff. The introduction of telemedicine consultations in 2020 has also contributed to this reduction in workload.

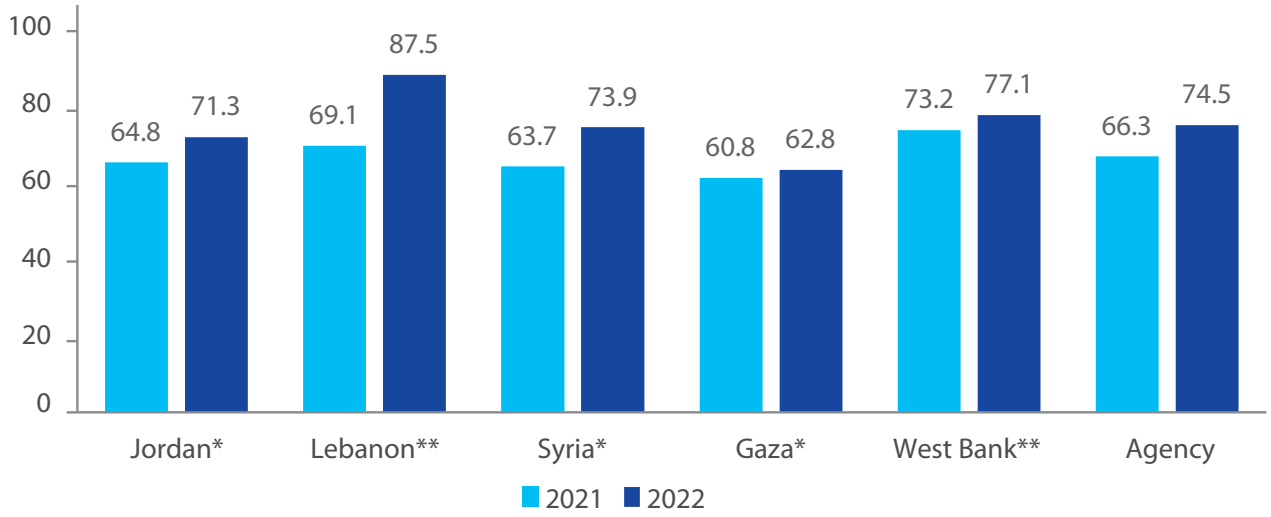


Figure 7: Average daily medical consultations per doctor in 2021 and 2022
(*HCs open for six days per week; **HCs open for five days per week)

Palestine refugees receiving UNRWA Health services. A diabetic focus group awareness session done for diabetic patients, Burj Barajneh health center, Lebanon. *© 2022 UNRWA Photo by Maysoun Mustafa*

Non-Communicable Diseases

The Burden of NCDs

In 2022, the number of patients with NCDs registered at UNRWA HCs continued to increase. By the end of the year, a total of 305,845 Palestine refugee patients with DM, and/or hypertension, are registered at 140 HCs in the five fields. This is 14,512 higher than the total NCD patients registered in 2021. The estimated Agency-wide prevalence rates of DM and hypertension were that same as those of 2021; at 15.9 per cent and 23.8 per cent for DM and hypertension among those above 40 years old respectively, while for those above 60 it reached 22.0 per cent for DM and 32.3 per cent for hypertension. The prevalence of DM among patients 18 years and older was at 8.0 per cent and 11.9 per cent for hypertension. Age-wise, 94.0 per cent of NCD patients are those aged 40 years and older. Gender-wise, 60 per cent of the patients were female and 40 per cent were male, which most probably reflects the attendance pattern of refugees, and not the epidemiological situation.

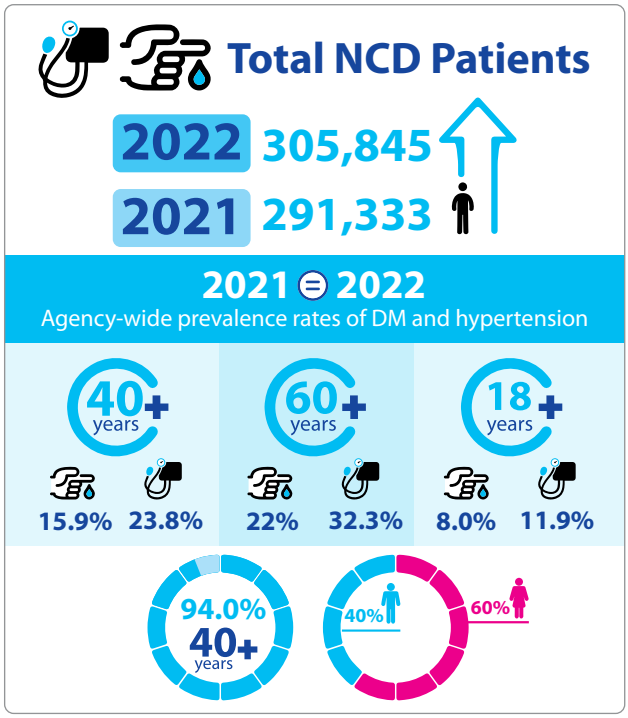


Table 5: Patients registered with UNRWA HCs with DM, hypertension or both, by field and by type of morbidity

Morbidity type	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Type I DM	1,152	321	502	1,716	587	4,278
Type II DM	12,870	3,899	3,909	15,498	6,266	42,442
Hypertension	31,738	16,853	18,995	48,765	13,685	130,036
DM and hypertension	40,057	12,959	13,482	40,503	22,088	129,089
Total	85,817	34,032	36,888	106,482	42,626	305,845

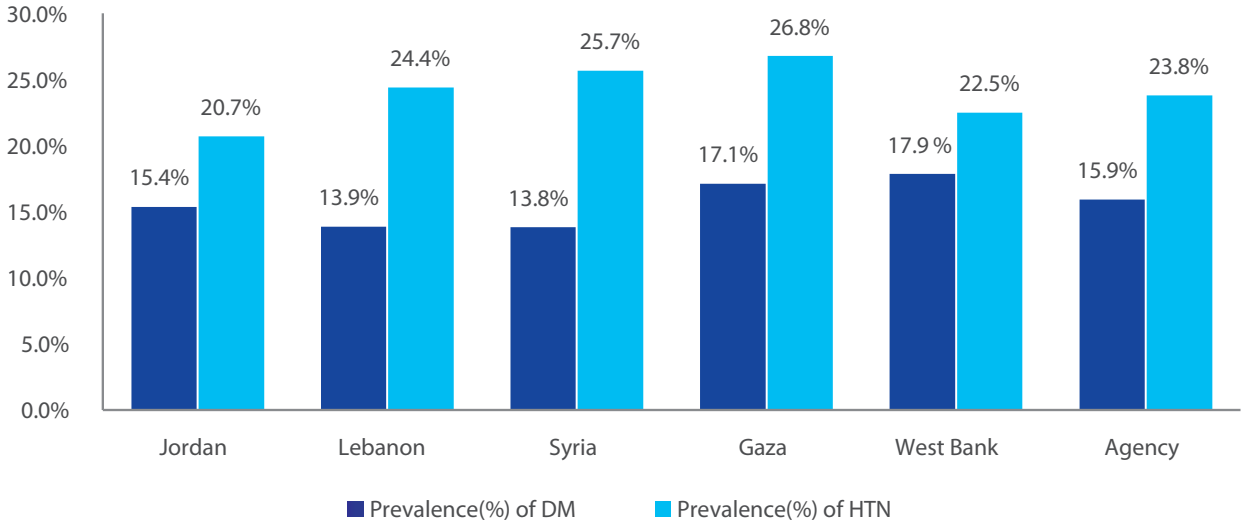


Figure 8: Prevalence (per cent) of patients diagnosed with type I and type II DM and hypertension among served population ≥40 years of age in 2022

Risk Scoring

Every year, UNRWA assesses the risk status of all NCD patients to help staff with the management of the condition of patients. The assessment is on the presence of modifiable risk factors such as smoking, hyperlipidemia, physical inactivity, blood pressure and blood sugar, as well as non-modifiable risk factors such as age and family history concerning the disease. In 2022, the risk-scoring assessment of all NCD patients revealed that 39.0 per cent of them were with high-risks on average, which is less than that of 2021 40.7 per cent. The percentage of patients at moderate risk was 49.7 per cent, and those with low risk were only 11.3 per cent. This means the majority 89.7 per cent of patients are either at high or moderate risk and in need of further follow up to reduce the modifiable risk factors mentioned above through different means of health education, increasing their physical activity and smoke cessation, controlling blood sugar and pressure, and reducing the level of hyperlipidemia in line with UNRWA guidelines and best practices such as Microclinic and support group sessions.

Treatment

As per UNRWA technical instruction, patients with type 1 diabetes need to be managed by Insulin only, without oral hypoglycemic agents. Therefore, 100 per cent of type 1 diabetic patients should be using insulin therapy. The per cent utilization of insulin among diabetic patients varied among fields, with an average of 25.9 per cent which is less than that of 2021 26.3 per cent. This proportion ranged from 13.9 per cent in Lebanon to 29.6 per cent in Gaza , 28.2 per cent in the West Bank, 24.8 per cent in Jordan and 22.8 per cent in Syria. The proportion also varied among patients with DM alone and with DM and hypertension as shown in the following table.

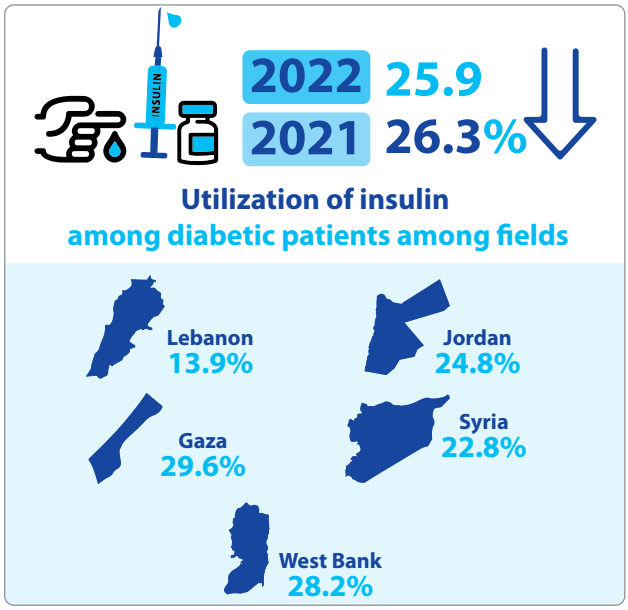


Table 6: Per cent of insulin usage among patients with DM only and with DM and HTN by field

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
DM only	24.8%	13.9%	22.8%	29.6%	28.2%	25.9%
DM+HTN	20.7%	14.5%	21.0%	28.4%	28.4%	23.8%
Total	21.7%	14.3%	21.5%	28.8%	28.4%	24.4%

The above differences among fields need further analysis and follow up to understand the reasons for the differences particularly in Lebanon. Uncontrolled patients on a maximum dose of oral hypoglycemic drugs must be enrolled in combination therapy or total insulin treatment. Close monitoring of management protocols need to be strengthened at HC, area, and field levels to improve the quality of care provided to patients with DM. MOs need to be more alert and patients properly educated as per observation as some are not convinced to prescribe and patients are afraid to inject themselves with insulin.

Control Status

Criteria for monitoring the control status of patients with DM and/or hypertension refer to HbA1c readings and blood pressure measurements as seen in the table below.

Table 7: Criteria of monitoring the control status of DM and HTN

Value Reading	Controlled	Uncontrolled
DM: HbA1c	<7	≥7
Hypertension: Blood pressure (mmHg)	<140/90	≥140/90

Definitions of controlled statuses for diabetic and hypertensive patients are as follows. For patients with DM, the protocol is to conduct two HbA1c tests every year. The most recent HbA1c test result is considered the control status assessment. If no HbA1c tests are done in the year, the patient will be considered as not tested. As for those with hypertension, the protocol is to measure blood pressure every three months, resulting in a total of four blood pressure measurements in one year. The patients with at least two measurements of blood pressure <140/90 mmHg are considered to be controlled. For patients living with both conditions, the control of diabetes and that of hypertension are measured separately.

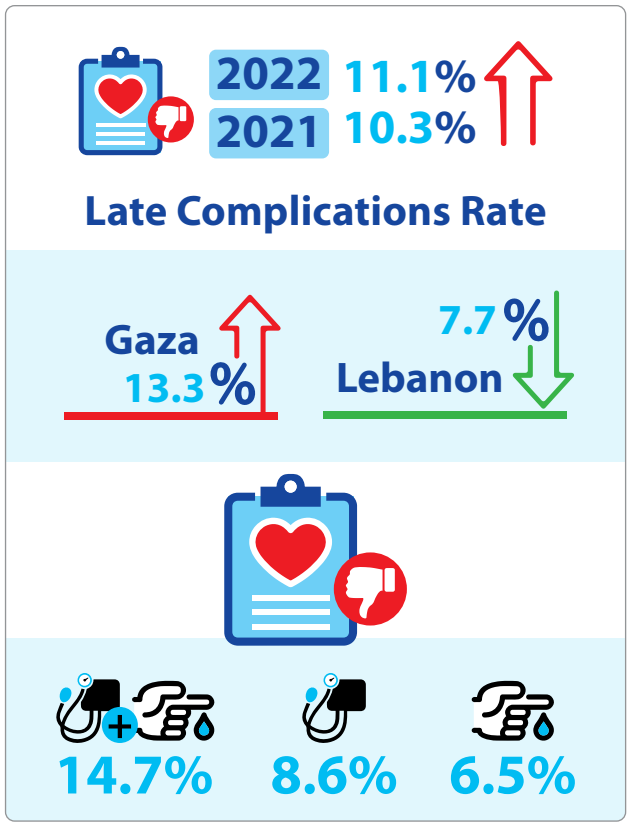
Table 8: Percentage of DM and HTN patients under control

Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
% of DM1 patients under control	7.0%	16.2%	9.2%	9.2%	7.3%	8.8%
% of DM2 patients under control	24.8%	42.1%	30.0%	31.0%	33.3%	30.2%
% of DM&HTN patients under control	29.5%	45.7%	38.0%	36.2%	37.3%	35.2%
% of all DM patients under control	28.0%	44.4%	35.5%	34.0%	35.9%	33.4%
% of HTN patients under control	38.6%	56.9%	54.7%	50.8%	41.7%	47.2%

Late Complications

Late complications of NCDs include cardiovascular diseases (myocardial infarction, congestive heart failure, or both), cerebrovascular disease (stroke), end-stage renal failure, above-ankle amputation, and blindness. The Agency-wide late complications rate in 2022 was 11.1 per cent, which was higher than that of 2021 10.3 per cent. This could be either due to the improved recording and reporting and/or later complications that appeared among patients in the reported year. The highest rate was in Gaza 13.3 per cent and the lowest rate was in Lebanon 7.7 per cent which may reflect low detection, recording, and reporting.

As expected, patients with both DM and hypertension had the highest incidence of late complications 14.7 per cent, followed by patients with hypertension only at 8.6 per cent and patients with DM type 2 only at 6.5 per cent. There were some differences in the distribution of late complications of diseases between the fields. The variations among fields could be due to different doctors' treatment and possible variation in recording the complications in patients' files and subsequently reporting.



A Palestine refugee from Lebanon (PRL), in Nahr elbared camp(NBC) at UNRWA health center, Lebanon getting a check-up. *©2022 UNRWA Photo by Maysoun Mustafa*

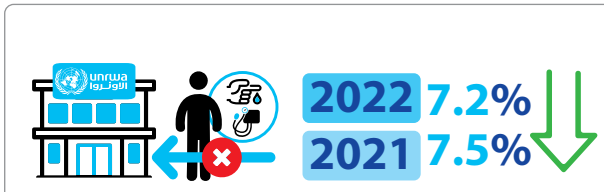
UNRWA Medical Officer checking diabetic Palestine refugee foot at Zarqa HC in Jordan. *©2022 UNRWA Photo*

Defaulters

The UNRWA defines "Defaulters" as patients who did not attend the HCs to get NCD care for one calendar year, neither for follow-up nor for collecting medicines. During 2022, the defaulters who missed follow-up appointments was 7.2 per cent, down from 7.5 per cent in 2021. Health staff used many different means, including home visits, telephone calls and notifications via family members. Field-specific defaulter rates ranged from 5.0 per cent in Lebanon to 9.6 per cent in the West Bank. Following close follow-up, defaulter's rate in the Jordan field dropped from 11.2 per cent to 9.4 per cent. More work is needed in the West Bank and Jordan on defaulters' issue that could be due to the availability of more than one health care provider and possible dissatisfaction among some patients and accessibility barriers mainly in the West Bank.

Case Fatality

The mortality rate among NCD patients registered at UNRWA HCs showed a decrease from 1.8 per cent (or 4,791 deaths) in 2021 to 1.5 per cent (or 4,373 deaths), in 2022. One possible reason behind this decline from 2021 to 2022, or high mortality in 2021, was COVID-19. In 2021, many patients with NCDs died with COVID-19, mostly due to the complications related to the chronic conditions that these patients had. In 2022, less cases with COVID-19 were reported, and even when they contracted COVID-19, the reported cases had mild to moderate symptoms. The case fatality was the highest in Lebanon at 2.3 per cent (712 deaths). Ageing is a reason for death among NCD patients but other factors such as hard living conditions and lack of advanced hospital care were another reason.

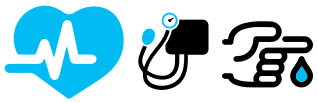


2022 7.2%
2021 7.5%

Defaulters
who missed follow-up appointments

Field-specific Defaulter Rates

Lebanon 5.0%
West Bank 9.6%
Jordan
2022 9.4%
2021 11.2%



2022 4,373 Deaths 1.5%
2021 4,791 Deaths 1.8%

Mortality rate among
patients registered at UNRWA's HCs

Reason is COVID-19

The Way Forward for NCD Care

There are three priority areas for the future of NCD care at UNRWA HCs.

The first is the primary prevention of NCDs. It is obvious that NCDs including DM, hypertension, and their complications are on the continuous rise among Palestine Refugees. This is primarily because of the epidemiological shift of the burden of diseases (from communicable to non-communicable diseases) due to lifestyle changes, diet changes, and prevailing poverty and social stresses. This increase of NCDs is happening in all countries hosting Palestine Refugees. UNRWA continues to provide NCD care at its HCs and to improve its service quality. At the same time, UNRWA realized the importance of strengthening its primary prevention approach through health education and raising awareness of risk factors among Palestine refugees. Within the limited resources, UNRWA will explore possible primary prevention approaches with a special focus on school children in 2023 onwards.

The second is the improved data analysis and interventions. Because of e-health, detailed programme operational information is now available. One example is the HbA1c tests among DM patients. The following table shows the two sets of critical information for diabetes care: per cent of patients who did not do HbA1c test in 2022 (not tested), and per cent of patients whose HbA1c is higher than 9 per cent. The former is a sort of "defaulters" from the HbA1c tests, and it is critical to reduce such HbA1c test "defaulters" as much as possible (close to zero per cent). The latter represents the highest risk groups among diabetes patients, and it is important to prioritize the care for such highest risk groups by supporting them to reduce their HbA1c to less than 9 per cent at the least. The planned new Electronic Medical Records (EMR) system is expected to strengthen such data analysis on NCD including incidence, prevalence, treatment compliance, and patient control status.

Table 9: HbA1c results among diabetes patients by field (including HbA1c not tested)

Field	<7	7 - 9	>9	Not tested	Total
Jordan	22.1%	29.3%	27.6%	21.1%	100%
Lebanon	27.6%	21.2%	13.4%	37.9%	100%
Syria	21.8%	24.2%	15.4%	38.6%	100%
Gaza	29.7%	35.4%	22.3%	12.6%	100%
WB	29.1%	30.2%	21.8%	18.9%	100%
Total	26.2%	30.1%	22.3%	21.3%	100%

The third is updating the technical instruction including treatment guidelines of NCD along with the latest WHO and other international guidelines. UNRWA's current guidelines are in line with WHO's recommendations, but there are several new medicines that have been recently added to the WHO's Essential Medicine List. UNRWA is under strong pressure not only from its doctors, but also from the refugee communities to include such new medicines. Still, it is critically important to assess the current treatment status first, and then identify the need for new medicine and its anticipated benefit for patients. In the above table, for example, the first operational priority is to reduce the per cent of HbA1c "not tested" patients from the current 19 per cent average to as close to zero per cent as possible.

UNRWA will continue cooperation with ministries of health in host countries, other UN entities, NGOs and diabetes associations for technical support and exchange of experiences and seek funding for related projects and activities. This cooperation aims to scale up diabetes and hypertension care provided to Palestine Refugees. In 2022, all fields completed the project supported by the World Diabetes Foundation. In the Jordan field, diabetic foot care also was completed in terms of training MOs and nurses and providing related equipment for early diagnosis and better care of patients' feet. UNRWA will seek continued cooperation and provisions for a new project to support the Lebanon and Syria fields.

Integrating the MHPSS Programme into UNRWA PHC and the FHT Approach

UNRWA aims to protect and promote the mental health of Palestine refugees through its MHPSS services that is implemented in all Agency HCs. Reports from fields during the last four years have confirmed a high occurrence of mental health problems and psychological distress among Palestine Refugees. The COVID-19 pandemic in addition to the challenging social and economic situation aggravated these conditions.

UNRWA's MHPSS strategy is based on the WHO's MhGAP (Mental Health Gap Action Programme) strategy. The strategy seeks to address and enhance individuals and their communities' psychological well-being and empowering the community and individual resilience, implemented in coordination with the FHT approach. MHPSS services were integrated into all HCs, and HC staff received MHPSS training based on their roles. MOs, senior staff nurses, and midwives received a comprehensive two-week training course on MHPSS, while PNs received a one-week MHPSS training, and other support and paramedical staff received at least one day orientation

training. Technical instructions based on WHO and other international standards were developed as reference and guidance to staff during the implementation.

UNRWA's MHPSS aims at responding to the four mental health conditions such as depression, epilepsy, stress-related conditions, and unexplained medical conditions. It also aims to address the needs of gender-based violence victims.

The first step is to screen the high-risk groups identified by using the international screening and scoring tool known as the 12-Item General Health Questionnaire (GHQ-12). The targeted groups include uncontrolled patients with diabetes and/or hypertension, high-risk pregnant women, new mothers receiving postnatal care, caregivers of children with growth problems and patients with severe anaemia, frequent visitors to the out-patient clinic (defined as more than one visit per month), Gender-based Violence (GBV) survivors and other protection cases, clients with relevant symptoms identified through normal service provision, survivors of other traumatic events (persons directly exposed to trauma or witnessing trauma), and school-aged children with special education needs who are referred by schools' health tutors or teachers. If the GHQ-12 score is more than six, HC staff will ask detailed questions and decide whether the person may need MHPSS care or not. In a case where the presence of GBV has become a matter of concern, the health staff may ask questions on GBV with the consent of the person.

In 2022, a total of 182,595 patients at health centres were screened for MHPSS. Of which, 35,274, or 19.3 per cent, were found to have GHQ-12 scores higher than 6. The following table shows the data by field.

The above reflects the immense needs of MHPSS care as one out of five screened having needs for psychological or mental health assistance. Variation was observed among fields, with Gaza having the highest detection rate at 26.4 per cent followed by Syria at 14.2 per cent, the West Bank by 10.1 per cent, Lebanon by 8.4 per cent and Jordan with 5.8 per cent. Such variation needs to be followed up closely by the field officers to enhance screening and identify those in need of MHPSS services.

Of the 35,274 whose GHQ-12 scores were higher than 6, a total of 23,262 patients were cared for their mental health conditions, namely depression (17,089 patients), epilepsy (3,471), psychosis (2,437), and dementia (355). In addition, a total of 7,172 GBV survivors were safetly identified through screening tool.

Table 10: Number and percentage of patients screened for MHPSS through GHQ-12 tool

Field	Total No. of screened	Total No. of those GHQ-12>6	%
Jordan	14,739	873	5.9%
Lebanon	11,320	948	8.4%
Syria	16,164	2,293	14.2%
Gaza	103,898	27,470	26.4%
West Bank	36,474	3,690	10.1%
Total	182,595	35,274	19.3%

Table 11: Number of people screened in 2020, 2021, and 2022

	2020	2021	2022
Total No. of screened	50,810	76,477	182,595
Total No. of these with GHQ-12 > 6	10,838	15366	35,274
%	21.3%	20.1%	19.3%

Table 12: Number of people identified with MHPSS conditions in 2022

Field	Depression			Epilepsy			Psychosis			Dementia		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jordan	115	587	702	20	32	52	20	30	50	2	3	5
Lebanon	103	285	388	122	62	184	65	42	107	3	2	5
Syria	100	548	648	63	58	121	26	31	57	0	0	0
Gaza	4,996	9,454	14,450	1,758	1,204	2,962	530	1,535	2,065	123	218	341
West Bank	99	802	901	70	82	152	20	48	68	1	3	4
Agency	5,413	11,676	17,089	2,033	1,438	3,471	661	1,686	2,347	129	226	355

UNRWA introduced a management health information system for GBV inclusion within the current MHPSS reporting. It is planned to include fully computerized mental health module in the coming new EMR system.

Regarding referral, UNRWA MOs can refer patients with more severe mental health conditions to Psychosocial Counsellors available in some HCs/fields or to external specialists (psychiatrists) contracted by the Agency. These mental health referral systems should be sustained by increasing availability of specialized care, especially in Lebanon and Syria, in the coming years as UNRWA continues to seek additional funds.

Communicable Diseases

The COVID-19 pandemic that affected the whole world since 2020 is still being reported in 2022, even though some hosting authorities stopped the reporting on COVID-19 and considered it as part of an influenza-like illness. Conversely, both Lebanon and Syria reported a cholera outbreak which will later be discussed in further detail. There were no reports on polio cases or other emerging diseases among Palestine refugees. Mumps and measles cases were reported from Gaza in 2022 (288 and 40 respectively), while the other fields reported few cases.

UNRWA continued its cooperation with host authorities with WHO as well and participated in immunization campaigns across all fields where required. UNRWA's focus on strengthening the surveillance of emerging and re-emerging diseases continued to be active. Close coordination with the host countries' Ministries of Health continued the surveillance of communicable diseases, outbreak investigation, and supply of vaccines as well as an exchange of information.

Expanded Programme on Immunization (EPI): Vaccine-Preventable Diseases

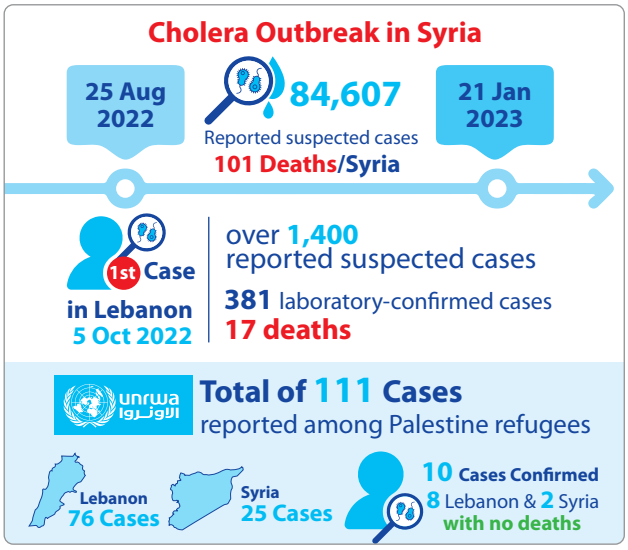
UNRWA's immunization services follow the host countries' EPIs. In 2022, the immunization coverage in all fields for 12-month-old and 18-month-old children registered with UNRWA continued to be above the WHO's target (95.0 per cent). Factors contributing to UNRWA's success in immunization coverage include a consistent supply of vaccines, the enforcement of an appointment system for vaccinations, and continuous follow-up of defaulters by HC staff.

Other Communicable Diseases

Cholera Outbreak in Lebanon and Syria

According to WHO, between 25 August 2022, and 21 January 2023, 84,607 suspected cases of cholera have been reported from all 14 governorates in Syria, including 101 attributed deaths. The first case in Lebanon was confirmed on October 5th, 2022, in which over 1,400 suspected cases have been reported across the country, including 381 laboratory-confirmed cases and 17 deaths. While the outbreak was initially confined to northern districts, it rapidly spread, with laboratory-confirmed cases now being reported from all eight governorates and 18 out of 26 districts. Serotype Vibrio cholerae O1 El-Tor Ogawa was identified as the currently circulating cholera strain, similar to the one circulating in Syria.

As for UNRWA, a total of 111 cases were reported among Palestine refugees (76 from Lebanon and 25 from Syria) out of which 10 cases were confirmed (8 in Lebanon and 2 in Syria) and reported with no deaths.

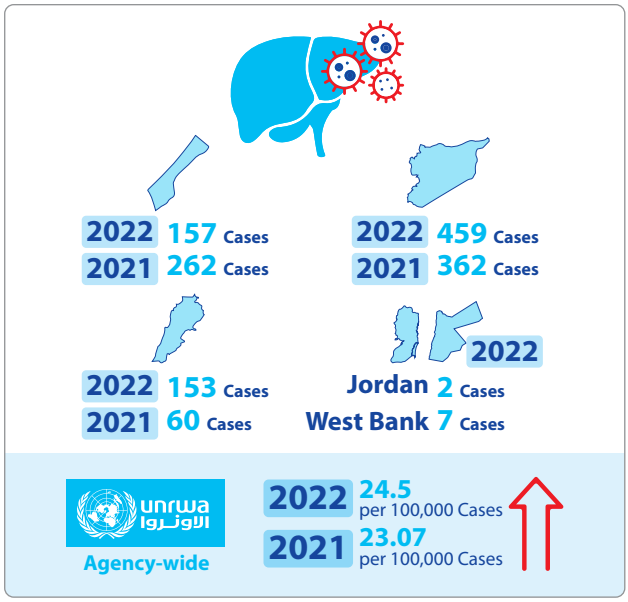


UNRWA in coordination with relevant stakeholders managed to overcome the outbreak and ensured preventive measures in camps and UNRWA installations as well as immunization for the targeted groups (mainly school children) in affected areas.

Viral Hepatitis

The Agency-wide incidence of suspected cases of viral hepatitis (mainly hepatitis A) varied among fields; the reported cases from Gaza were at 157 versus 262 cases in 2021, while for Syria it increased to 459 cases versus 362 in 2021. At the same time, Lebanon reported 153 cases versus 60 cases in 2021. Jordan and the West Bank reported two and seven cases, respectively. Agency-wide incidence in 2022 remained at a similar range of

24.5 versus 23.07 per 100,000 cases in 2021. Causes of viral hepatitis are most probably related to poor hygienic conditions inside some camps as well personal related issues, and more adherence to cleanliness and personal hygiene measures are required.



Typhoid Fever

The Agency-wide incidence of suspected typhoid fever cases decreased further from the previous three years 11.6 cases per 100,000 populations in 2019 to 9.4 in 2020 to 8.0 in 2021) to 7.1 per 100,000 populations in 2022. The highest and most significant incidence is still being observed in Syria at 59.9 per 100,000 populations but lower than that in 2021 (71.6 per 100,000 populations), with a total of 193 out of 226 cases Agency-wide. This high incidence is also attributable to poor water quality and hygienic conditions and the challenging environmental conditions caused by complex economic status and refugees' displacement. At the same time, Gaza reported 20 cases, 13 cases from the West Bank. Lebanon and Jordan and fields reported zero cases.

Tuberculosis (TB)

In 2022 TB remained underreported. During the year, 33 cases were reported. Some 91 per cent of this caseload (30) was recorded in Syria. The remaining two cases were registered in Gaza and one from Lebanon. Out of the these reported cases, 10 were smear-positive, 2 were smear-negative and 21 were extra-pulmonary. Patients diagnosed with TB are managed in close coordination with national TB programmes, while in Lebanon, UNRWA reimburses the costs of anti-TB drugs for Palestine refugees. It is essential to highlight that the figures above are most likely underreported, and therefore, close follow-up with the Ministries of Health in host countries is required.

Brucellosis

In 2022, a total of 226 cases of brucellosis were reported, compared to 204 in 2021. Out of these cases, most were recorded in Syria (193). Cases were also notified in the West Bank (13), Gaza (20), and zero in both Jordan and Lebanon. The relatively high prevalence of the disease in Syria indicates the need to identify the source of infection. There is also a need for more awareness-raising activities for Palestine refugees on the importance of safe food handling, especially the handling of milk and dairy products.

Maternal Health Services

UNRWA maternal health services include family planning, preconception care (PCC), antenatal care (ANC), delivery care, and post-natal care (PNC). During 2022, our staff continued to overcome the effect of the COVID-19 preventive measures that were taken from 2020 till the beginning of 2022. These measures taken by our staff have improved the capacity of women's access to UNRWA health centres, which has led to an increase in the number of women benefiting from maternal health services. This increase varies between fields as well as between HCs in the same field.

Family Planning

UNRWA HCs provide universal access to family planning (FP). FP is implemented as a main part of maternal health services, in addition to supporting women to access counselling services and obtain modern contraceptives, male active participation and engagement were also encouraged. In 2022, utilization of FP services Agency-wide was improved, the total number of new FP users increased by 12 per cent (22,592 in 2021 versus 25,212 in 2022), while the total number of continuing users of contraceptive methods increased by 5 per cent (182,319 in 2021 versus in 190,827 in 2022), and the family planning discontinuation rate increased from 4.8 per cent in 2021 to 5.1 per cent in 2022.

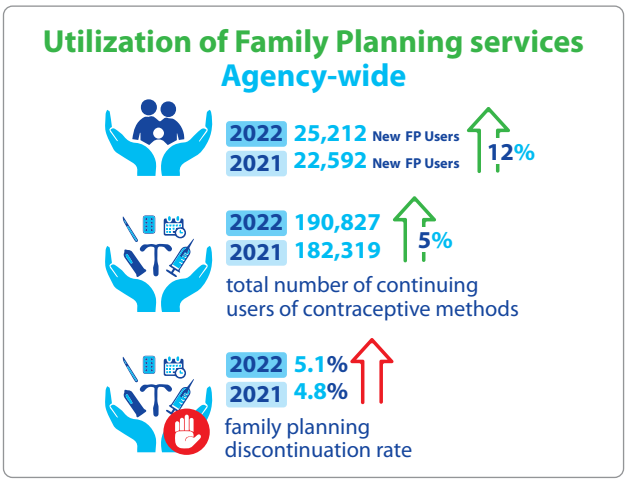


Table 13 : Utilization of UNRWA FP services in 2021 and 2022

Indicator	Year	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Number of new FP users	2021	6,295	1,806	2,171	10,013	2,307	22,592
	2022	5,953	2,082	2,246	11,550	3,381	25,212
	Variance %	-5%	15%	3%	15%	47%	12%
Total number of continuing users at year end	2021	37,266	17,201	11,385	94,847	21,620	182,319
	2022	37,481	16,980	11,843	101,070	23,453	190,827
	Variance %	1%	-1%	4%	7%	8%	5%
Discontinuation rate (%)*	2021	5.2	4.2	5.8	4.5	4.2	4.8
	2022	5.2	5.7	6.2	4.3	4.2	5.1

*(No of discontinuers / total number of remaining FP users x 100)

The distribution of FP users according to contraceptive method remained stable. In 2022, the intrauterine device (IUD) continued to be the most common method 47.3 per cent of users, followed by condoms 27.3 per cent, oral contraceptives (pills) 22.4 per cent and injections 3.0 per cent.

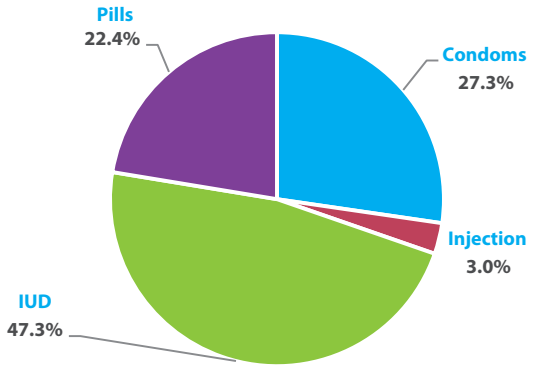


Figure 9 : Contraceptive methods use, Agency-wide, in 2022

Preconception Care

Over the past few decades, controlling Infants Mortality Rate (IMRs) and Maternal Mortality Rate (MMRs) have focused on by providing quality health care at UNRWA. To further control infant and maternal mortality among Palestine refugees, in 2011 the Agency implemented the preconception care programme. Today, this programme is an essential element of maternal health care integrated within the PHC system in UNRWA HCs.

Preconception care intends to prepare women of reproductive age for pregnancy with an optimal state of health. Women are assessed for risk factors, screened for hypertension, DM, anaemia, and oral health diseases. Women are provided with folic acid supplements to help prevent congenital malformations (such as neural tube defects) among their children. At the same time, women who attended PCC usually have early registration for ANC which enable pregnant women to be seen more frequently by UNRWA health staff.

A total of 42,421 women registered for the preconception care programme in 2022, and this number increased by 68 per cent compared to 2021 (25,251 registered women). These achievements were the results of a series of health awareness sessions on preconception care targeting women attending UNRWA HCs for medical, dental, and NCD consultations. The figure below shows the percentage of newly registered pregnant women who attended preconception care in 2022.

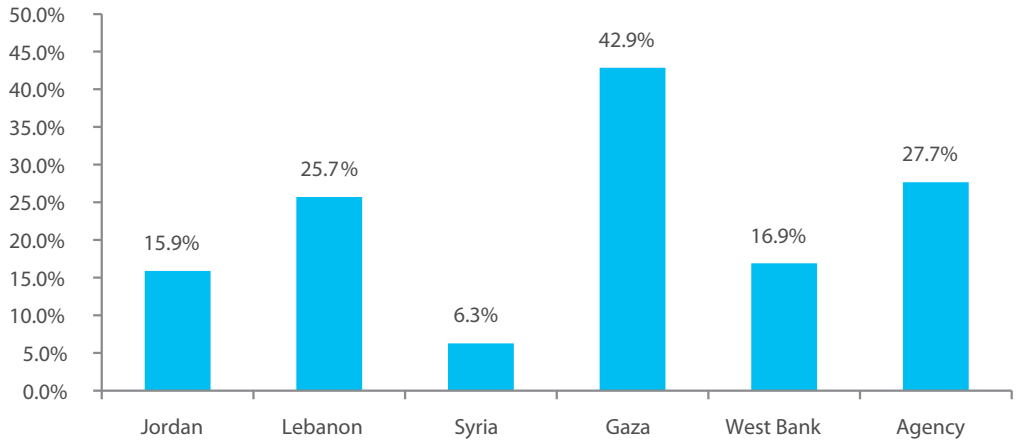


Figure 10: Percentage of newly registered pregnant women who attended PCC in 2022

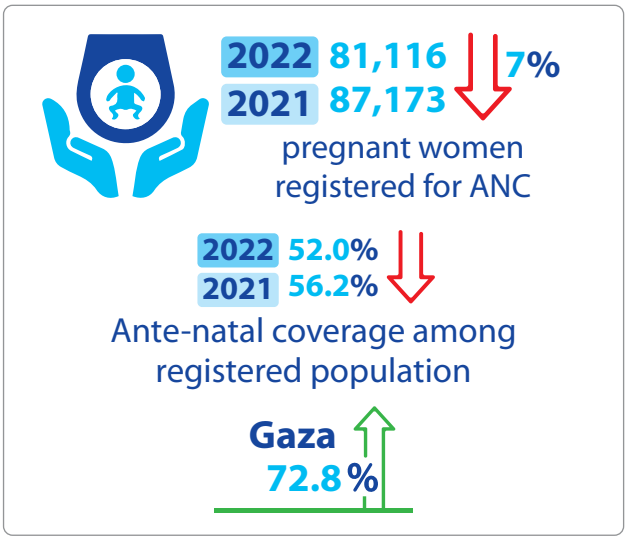
UNRWA provides special health care to meet the needs of newborns, and infants under five years of age. A nurse weighs a Palestine refugee baby in Lebanon at UNRWA health Center in Shatila camp. *© 2022 UNRWA Photo by Dima Farran*

Antenatal Care

To promote early detection and management of risk factors and complications, UNWRA encourages pregnant women to access an initial antenatal assessment as early as possible and attend at least four additional prenatal care visits throughout their pregnancy. Pregnant women receive a comprehensive initial physical examination and regular follow-up care, including screening for pregnancy-related hypertension, gestational diabetes, anaemia, oral health problems and other risk factors. Women are then classified according to their status of pregnancy risk for individualised management. While all pregnant women are provided with iron and folic acid supplementation, UNRWA also started piloting Multiple Micronutrient Supplementation (MMS) implementation research in the Jordan field. UNRWA uses selected indicators for coverage and quality to monitor the performance of ANC services, including ANC coverage, percentage of pregnant women registered for antenatal care in the first trimester, number of ANC visits during pregnancy, tetanus immunization coverage, pregnancy risk status assessment and DM and hypertension in pregnancy.

Antenatal Care Coverage

The percentage of pregnant women registered for ANC decreased by 7 per cent (from 87,173 in 2021 to 81,166 in 2022). In 2022, the coverage rate of all expected pregnancies among the registered refugee population decreased to 52.0 per cent compared to 56.2 per cent in 2021. This calculation is based on the registered population's expected number of pregnancies. The coverage remained the highest in Gaza, which reached 72.8 per cent.



Registration for Antenatal Care in the First Trimester

Early registration will increase the likelihood of positive outcomes for mothers and children and it is considered a key element to focus on while providing quality ANC for Palestine refugee women. UNRWA seeks to safeguard this by ensuring ample time for risk identification, follow-up, and management according to their needs. During 2022, the proportion of pregnant women who registered for ANC in UNRWA HCs during the first trimester of pregnancy was 78.5 per cent compared to 73.0 per cent during 2021. The ratio of pregnant women registered during the second trimester was 17.9 per cent, and during the third trimester was 3.6 per cent. The variation of this rate within the fields reflects the ability of pregnant women to have access to other health care providers.

Table 14: UNRWA Antenatal care coverage in 2022

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Registered population	2,542,999	557,342	674,455	1,754,309	1,123,485	6,652,590
*Expected No. of pregnancies	57,421	7,301	15,324	48,542	27,436	156,023
Newly registered pregnancies	20,054	4,627	6,380	35,341	14,764	81,166
(%) ANC Coverage	34.9	63.4	41.6	72.8	53.8	52.0

* Expected number of pregnancies=Total number of registered population (from UNRWA registration system) multiplied by crude birth rate

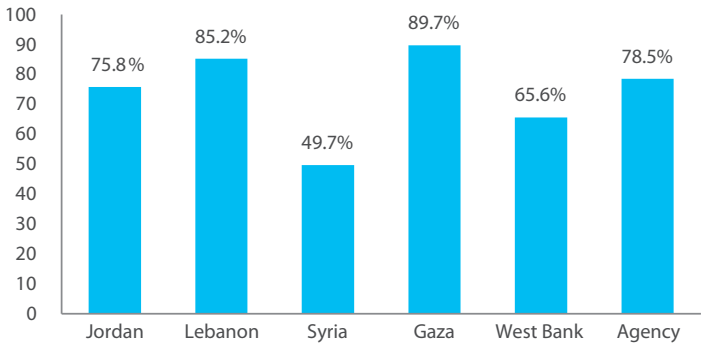


Figure 11: Percentage of pregnant women registered during the first trimester in 2022

Number of Antenatal Care Visits

Within efforts to decrease maternal mortality, UNRWA adopted the WHO new ANC guidelines issued in 2016. These new guidelines increased the number of ANC contacts by health care providers to pregnant women from four to eight. The HD continued to gradually increase the number of ANC contacts among high-risk and alert pregnant women. This improved the percentage of pregnant women who paid 4 visits throughout pregnancy in 2022.

In 2022, the Agency-wide average number of antenatal visits per client was 6.1. The lowest number of visits was in Syria, with an average of 3.9 antenatal visits per client, and the highest in Gaza with 7.6 antenatal visits per client. Agency-wide, some 87.6 per cent of pregnant women attended four or more antenatal visits, with the highest attendance rate in Gaza, at 98.3 percent, and the lowest in Syria, at 54.6 percent.

Risk Status Assessment

The WHO model of ANC classifies pregnant women into two groups: those likely to need only routine antenatal care (50.2 per cent of pregnancy cases), and those with specific health conditions or risk factors that necessitate special care (49.8 per cent of pregnancy cases). UNRWA classifies pregnant women into three categories based on risk: low, alert, and high-risk.

During 2022, Agency-wide, 49.7 per cent were classified as low-risk, 30.1 per cent were an alert-risk, and 20.2 per cent of women were high-risk. The rates varied from one field to another, with the highest high-risk rate of 27.8 per cent in Jordan, followed by 18.6 per cent in the West Bank and 17.9 per cent in Gaza. The high-risk and alert-risk pregnancies received more intensive follow-up than low-risk pregnancies, including referral to specialists as needed.

Table 15: Percentage of pregnant women who made ≥ four antenatal visits in 2021 and 2022

Indicator	Year	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Percentage of pregnant women who paid ≥ four antenatal visits	2021	72	55.1	19.8	94.1	73.8	77.6
	2022	80.5	75.2	54.6	98.3	90.1	87.6
Average number of antenatal visits per pregnant woman	2021	4.6	3.8	2.2	6.6	4.4	5.2
	2022	5.2	4.8	3.9	7.6	5.3	6.1

Tetanus Immunization Coverage

In 2022, 98.5 per cent of pregnant women received adequate immunization against tetanus. As a result of the optimal immunization coverage, no tetanus cases have been reported during the last two decades among mothers and newborns that attended UNRWA ANC services.

Diabetes mellitus and hypertension during pregnancy

Pregnant women are regularly screened for DM and hypertension throughout their pregnancy. Agency-wide, in 2022 the prevalence of DM during pregnancy (pre-existing and gestational) was 7.0 per cent. Almost 17.5 per cent of women with DM during pregnancy

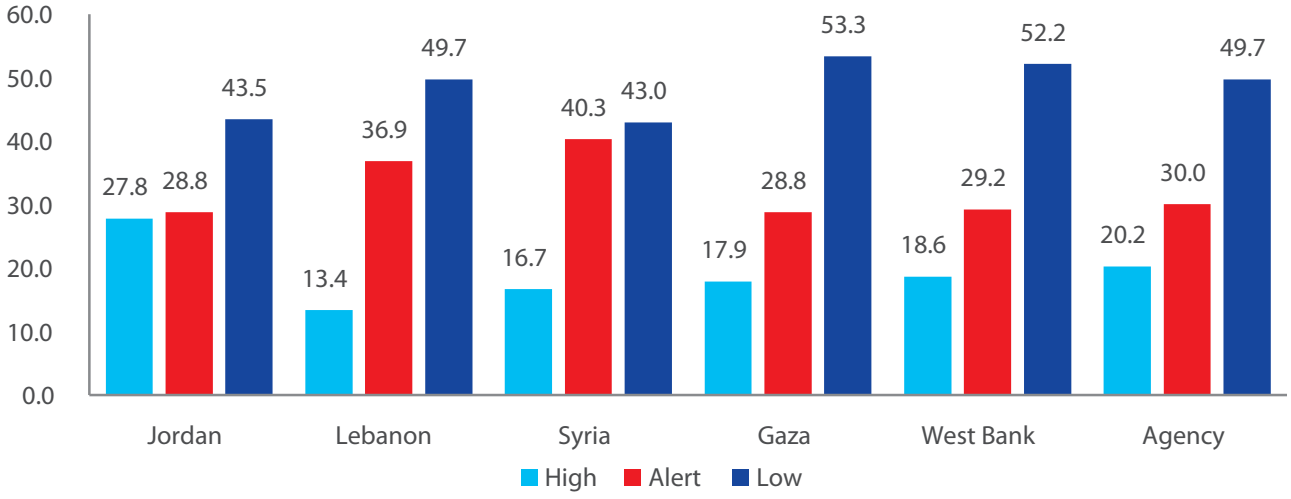


Figure 12: Percentage of ANC cases by risk category in 2022

had pre-existing DM; 46.7 per cent had gestational DM with recovery after delivery, 5.2 per cent were diagnosed during pregnancy and had not recovered after delivery, and 27.2 per cent were still pregnant by the end of 2022. Globally, reported rates of gestational DM range between 2.0 per cent to 10.0 per cent of pregnancies (excluding pre-existing DM) depending on the population studied and the diagnostic tests and criteria employed.

The prevalence rate of hypertension during pregnancy (pre-existing and pregnancy-induced hypertension) was 7.5 per cent. Approximately 29.4 per cent of hypertension cases had pre-existing hypertension and 45.6 per cent recovered after delivery, 7.7 per cent were identified during pregnancy with the condition persisting after delivery, and 13.8 per cent were still pregnant by the end of 2022.

lowest rate was 25.8 per cent in Gaza. This wide variation among the fields is due to several reasons, particularly client preference and prevailing medical practice.

Despite a wide variation among regions and countries, the worldwide caesarean section rates were estimated in 2015 to be around 21.4 per cent, while in the Middle East and North Africa the estimation is at 29.6 per cent[4].

Table 16: Percentage of caesarean section rate, 2022

Field	Total deliveries	Caesarean section rate (%)
Jordan	19,245	33.9
Lebanon	4,326	55.5
Syria	6,038	64.9
Gaza	33,219	25.8
West Bank	14,532	33.1
Agency	77,360	33.9

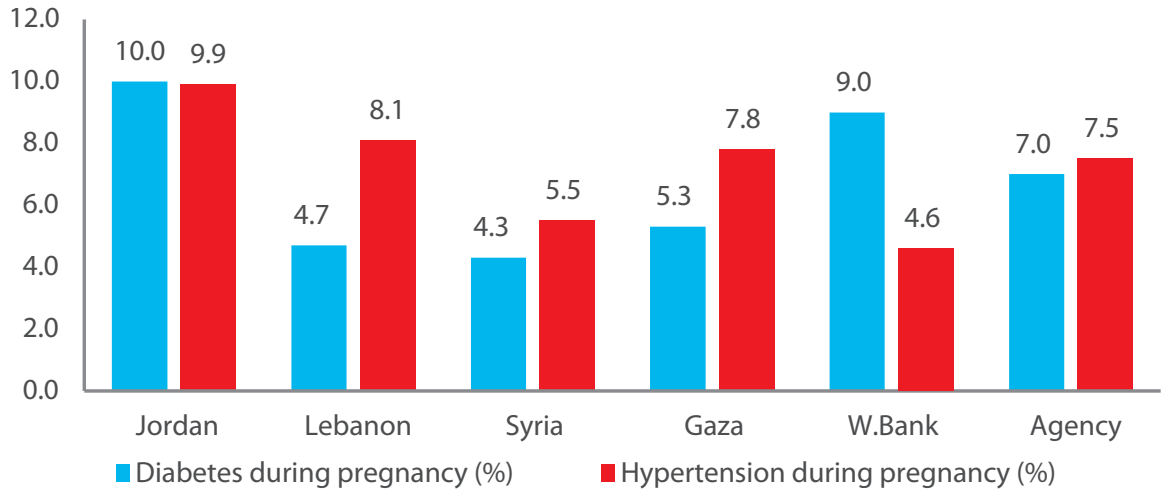


Figure 13: Prevalence of DM and hypertension during pregnancy in 2022

Delivery Care

Place of Delivery

UNRWA subsidizes hospital delivery for all pregnant women. In 2022, Agency-wide, 99.9 per cent of all reported deliveries took place in hospitals, while home deliveries only represented 0.13 per cent. The vast majority of these home births were in Syria.

Caesarean Sections

In 2022, the caesarean section rate among pregnant women assisted through the UNRWA hospitalization schemes was 33.9 per cent. The rate varied widely from one field to another. These rates, however, relate to women in the high-risk category and not to all reported deliveries. The highest rate was in Syria at 64.9 per cent, and the

Monitoring the Outcome of Pregnancy

UNRWA has closely monitored and registered births through a registration system (active surveillance) since 2002 (based on the expected delivery date). The outcome of each pregnancy, including details of the newborns, is recorded in each health facility.

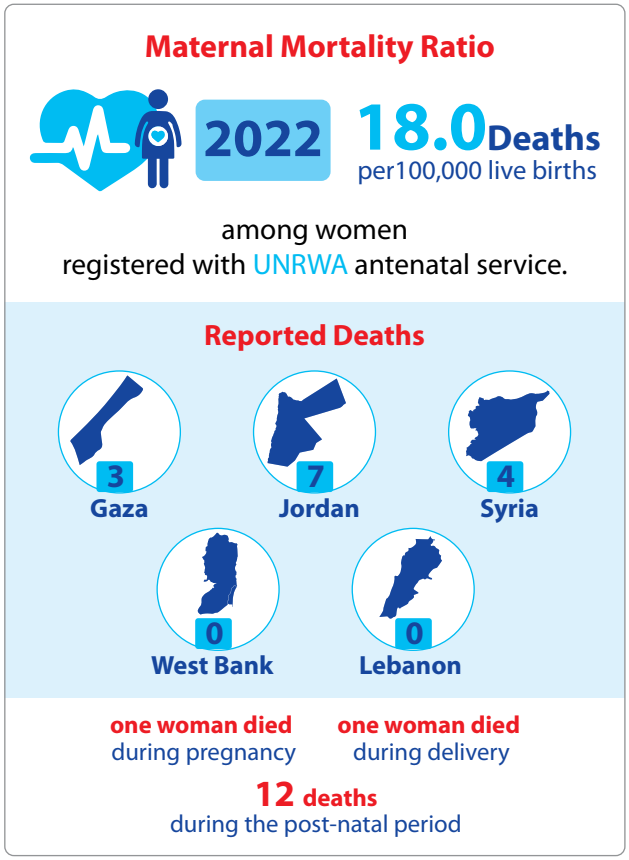
In 2022, the expected number of pregnant women to deliver was 83,314. Among these women, 77,360 infants were born (92.9 per cent), and 5,891 births resulted in miscarriages or abortions (7.1 per cent). The outcome of 63 pregnant women who received ANC at UNRWA health facilities (0.08 per cent) was unknown.

4 The Lancet, «Global epidemiology of use of and disparities in caesarean sections», October 2018

The percentage of unknown pregnancies' outcomes continued to decrease from 6.8 per cent in 2002 to 0.08 per cent in 2022. The Lebanon field reported the highest prevalence of unknown pregnancy outcomes, with 0.68 per cent of unknown pregnancy outcomes. This can be attributed to the worsening of the socio-economic situation, and difficulty with tracking and ascertaining the outcomes of the pregnancies among registered women by health staff.

Monitoring Maternal Deaths

During 2022, a total of fourteen maternal deaths were reported across the five fields. This is equivalent to a maternal death ratio of 18.0 deaths per 100,000 live births among pregnant women registered with UNRWA antenatal service. Three deaths were reported in Gaza, seven deaths in Jordan, four deaths in Syria and no deaths were reported in the West Bank and Lebanon. Following a report on maternal death, UNRWA health staff conducted a thorough assessment using a standardized verbal autopsy questionnaire. In 2022, one woman died during pregnancy, 12 deaths occurred during the post-natal period and one woman died during delivery. Eleven women died in hospital during/ after delivery, two women died at home and one woman died elsewhere. Most maternal deaths were of multi-parity. Based on the causes of death, 28.6 per cent were due to pulmonary embolism (four cases), 21.4 per cent of death cases were due to septic shock (three cases), 14.3 per cent were due to post-partum bleeding (two cases), 7.1 per cent were due to aspiration pneumonitis due to anesthesia (one case), 7.1 per cent were due to eclampsia & disseminated intravascular coagulation (one case), 7.1 per cent were due to Renal Impairment (one case), 7.1 per cent due to Sudden Cardiac Death (one case) and 7.1 per cent were due to acute liver injury attributed to an overdose of antipsychotic medication (Suicide) (one case).



Postnatal Care

UNRWA encourages all women to attend PNC after delivery as soon as possible. PNC services include a thorough medical examination of the mother and the newborn, either at UNRWA HCs or during home visits, and include counselling on family planning, breast feeding and newborn care.

In 2022, out of the 77,360 pregnant women who delivered live births, 75,978 women received PNC within six weeks of delivery, representing a coverage rate of 98.2 per cent compared to 92.9 per cent in 2021. The highest rate was 100 per cent in Gaza.

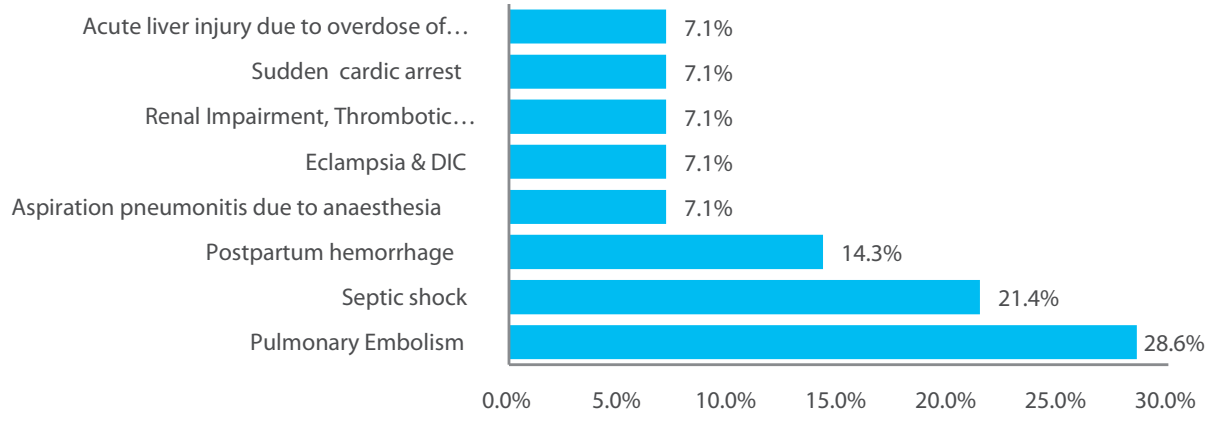


Figure 14: Underlying per cent of causes of maternal mortality cases in 2022

UNRWA Nurse performing Mental Health screening for a Palestine Refugee patient at Shatila HC in Lebanon. *©2022 UNRWA Photo by Dima Farran*

Multiple Micronutrient Supplementation for Pregnant Women

Background

Micronutrient deficiencies are a major public health burden among pregnant women attending UNRWA HCs health centres as they contribute to increased risks of low, preterm and small-for-gestational-age births[5]. Deficiencies of vitamins A, D, E and B-complex, iron, zinc and iodine likely coexist among pregnant Palestine refugee women throughout the Middle East.[6,7], Since the 1990s, UNRWA HD has provided antenatal iron and folic acid (IFA) supplementation to address maternal anaemia; however, effectiveness of the IFA supplementation remained uncertain reflected by a health centre (HC) prevalence of anaemia (haemoglobin <110 g/L) in the 24th week of gestation being 26.3 per cent in 2005 and 37 per cent in 2021.

In 2020, World Health Organization (WHO) updated the antenatal guideline to recommend antenatal MMS use where the prevalence of MNDs represents a public health burden[8], "...in a context of rigorous research." This provided the opportunity for UNRWA to replace IFA with MMS accompanied by planned implementation research, which is a pragmatic, scientific approach that can help guide programmes and policies to improve efficiency, coverage, feasibility, fidelity, and adherence and thereby attainin the intended antenatal health services. Accordingly, the United Nations International Multiple Micronutrient Antenatal Preparation (UNIMMAP) formulated MMS, which provides one Recommended Dietary Allowance (RDA) of 15 essential vitamins and minerals including iron and folic acid in one tablet, and was added to the WHO's Essential Medicines List in 2021[9].

Table 17: UNIMMAP Formulation Multiple Micronutrient Supplementation

Component	Amount
Vitamin A	800 µm
Vitamin D	200 IU
Vitamin E	10 mg
Niacin	18 mg
Folic acid	400 µm
Vitamin B1	1.4 mg
Vitamin B2	1.4 mg
Vitamin B6	1.9 mg
Vitamin B12	2.6 µm
Vitamin C	70 mg
Zinc	15 mg
Iron	30 mg
Selenium	65 µm
Copper	2 mg
Iodine	150 µm

MMS Pilot Program in Two HCs

Since early 2020, UNRWA HD has had numerous discussions, reviews of policies, guidelines, technical instructions, assessment of existing health-centre-based data to understand the prevalence of maternal anaemia and received external assurances of safety and efficacy

5 Bourassa et al. Review of the evidence regarding the use of antenatal multiple micronutrient supplementation in low- and middle-income countries. Ann N Y Acad Sci. 2019;1444(1):6-21.

6 Horino et al. Dietary Inadequacy, Micronutrient Deficiencies, and Approaches to Preventing Poor Nutrition in the Gaza Strip. Food Nutr Bull. 2020;41(4):503-511.

7 MoH, UNICEF, WFP, Jordan Health Aid Society International. Department of Statistics, Biolab, GroundWork. Jordan National Micronutrient and Nutrition Survey 2019. Amman Jordan; 2021.

8 WHO antenatal care recommendations for a positive pregnancy experience. Nutritional interventions update: Multiple micronutrient supplements during pregnancy. Geneva: WHO; 2020. Licence: CC BY-NC-SA 3.0 IGO.

9 WHO Model List of Essential Medicines – 22nd List, 2021. Geneva: World Health Organization; 2021 (WHO/MHP/HPS/EML/2021.02). Licence: CC BY-NC-SA 3.0 IGO.

of MMS. Over time, these activities built constituencies within the Agency to start MMS programming accompanied by rigorous implementation research. The MMS Work Group was organized at UNRWA HD HQ, which was tasked to revise technical instruction, develop education materials, secure resources, and develop a protocol for rigorous implementation research. Due to the proximity to the HQ office and political stability, the Jordan Field Office was chosen to pilot MMS. Through a Memorandum of Understanding with Vitamin Angels, UNRWA received technical assistance from the faculties at Johns Hopkins University, the Sight and Life Foundation, a donation UNIMMAP-formulated, and USP and halal-certified MMS from the Kirk Humanitarian Foundation. In September 2022, as requested by the Director of Health, the MMS was first piloted in two HCs (Amman New Camp and Marka HCs) to test the acceptability, feasibility of workflow, education materials and data collection tools. Between September to December 2022, a total of 2315 MMS bottles were distributed to pregnant women through the two HCs. This MMS pilot was highly appreciated by the Jordan Field Office, HC staff, and our beneficiaries and communities as it further increased the interest and commitment of UNRWA HC staff to participate in the planned MMS program and its evaluation.

MMS Programme Evaluation/Implementation Research in Jordan

In 2023, a 10-month comparative evaluation of MMS program is planned, in which 13 HCs will provide MMS (2 pilot HCs plus 11 randomly assigned HCs) and 12 HCs will continue with the traditional IFA regimen. The evaluation will focus on acceptability, coverage, adherence, feasibility and fidelity of program and evaluation elements, detectable cost and effectiveness of MMS in anaemia prevention compared to IFA. Based on the evaluation results and findings, MMS is planned to scale up in all 25 HCs in Jordan by the end of 2023 and in other fields of operation in 2024.

Child Health Services

The UNRWA Health Department HD continues to provide comprehensive health care services to maintain and improve Palestine refugee children›s health. UNRWA uses multiple approaches to maintain its services and keep Palestine refugee children safe while visiting its HCs. The FHT approach implementation continues at HCs, as these approaches keep our ability to provide health care services for children early during maternal care (preconception care and ANC) and continue for newborns, infants under one year of age, children from one to five years of age and school-aged children and adolescents. UNRWA child health services including newborn medical assessment, periodic physical examinations, immunization, growth monitoring and nutritional surveillance, micronutrient supplementation, preventive oral health, school health services, and referrals for specialised care if needed.

UNRWA child health services are one of the essential investments in health. The impact of the child's health improvement will decrease their morbidity and mortality rates in the future and extend to improve their health and wellbeing during later periods of their life cycle. The age of children covered with child health services was raised from 3 to 5 years old in 2010 to enhance child health outcomes. This decision enabled filling the gap in child health services until the child reaches school age and improves growth monitoring, nutritional surveillances, micronutrients supplementation and fluoride varnish coverage.

UNRWA Medical Oficcer checking a Palestine refugee child at Nuzha HC in Jordan. *©2022 UNRWA Photo by Dima Ismail*

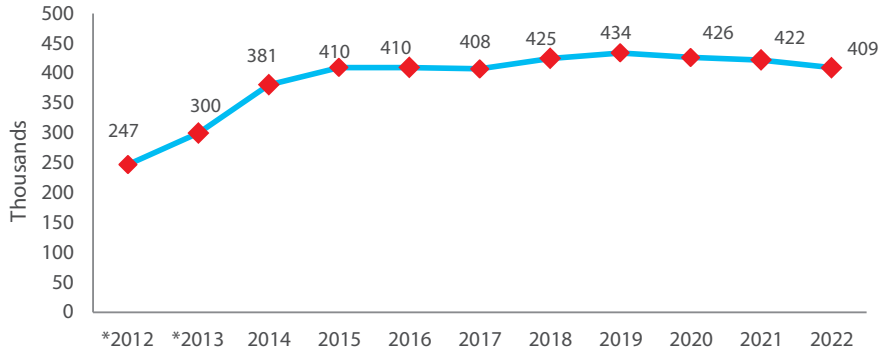


Figure 15: Children 0-5 years under supervision at UNRWA HCs between 2012 and 2022 (*Data not available for Syria)

Childcare Coverage

In 2022, UNRWA HCs continued to provide preventative services to 409,329 children up to 5 years old, a coverage of 53.6 per cent of the estimated number of Palestine refugee children compared to 54.5 per cent during 2021. The basis for this estimation was the number of infants below 12 months of age who have been registered 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.

Immunization

Due to the importance of child immunization as the most reliable primary prevention method, UNRWA health services continue to provide immunization against Tetanus-Diphtheria (DT/Td), Pertussis, TB, Measles, Rubella, Mumps, Polio, Haemophilus influenza type B (Hib), and Hepatitis B. Moreover, the UNRWA HP provides the Rota vaccine in all fields except Syria and the Pneumococcal vaccine in the West Bank, Gaza and Lebanon. In 2020, the UNRWA HP started to provide the Hepatitis A vaccine in Jordan as part of Jordan's National Vaccination Programme. In 2022, immunization coverages for the above-mentioned infectious diseases were 99.6 per cent for children aged 12 months and 98.6 per cent for children aged 18 months. The use of the e-MCH application by mothers supported this coverage. The e-MCH application sends reminders to the mothers to vaccinate their child according to each child's vaccination schedule. This tool's use decreased the number of defaulters and the nurse's need to follow up on the mother for bringing their child to the HC for vaccination.

Growth Monitoring and Nutritional Surveillance

UNRWA health services regularly monitor the growth and nutritional status of children under five years of age. It is considered the second strategy to improve the health of Palestine refugee children. In 2022, the HP started to overcome the effect of the COVID-19 pandemic which led to an increase in the number of children benefiting from growth monitoring services compared to 2021. Available data shows an increase in the percentage of malnutrition among children. This increase is mainly due to an improvement in the number of evaluated children compared with previous years. At the same time, it continues to show the double burden of malnutrition among monitored children. To prevent malnutrition and promote a healthy lifestyle, we established a nutrition guideline for health care staff to counseling mothers on their child's proper nutrition. Accordingly, HC staff encourage mothers to properly practice breastfeeding and best practices for child weaning and nutrition beyond the age of 6 months. Health education also focused on the appropriate use of complementary feeding and micronutrient supplements and the importance of avoiding fast food and sweetened drinks.

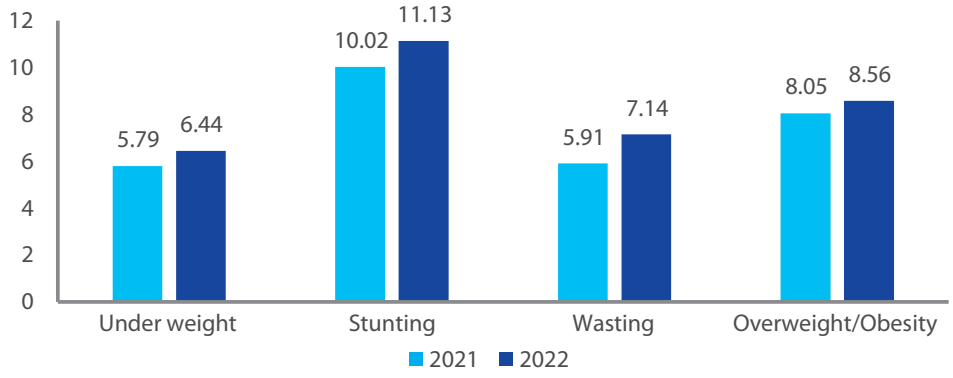


Figure 16: Prevalence of malnutrition among children 0-5 years between 2021 and 2022

The electronic growth monitoring system is integrated within e-Health and is based on revised WHO growth monitoring standards. This integration enabled HC staff to plot the data and interpret growth monitoring results. If the electronic system detects one or more of the four significant growth and nutrition-related problems among children under five years (underweight, wasting, stunting, and overweight/obesity), it sends an alarm.

Table 18: Prevalence of malnutrition among children 0-5 years between 2019 and 2022

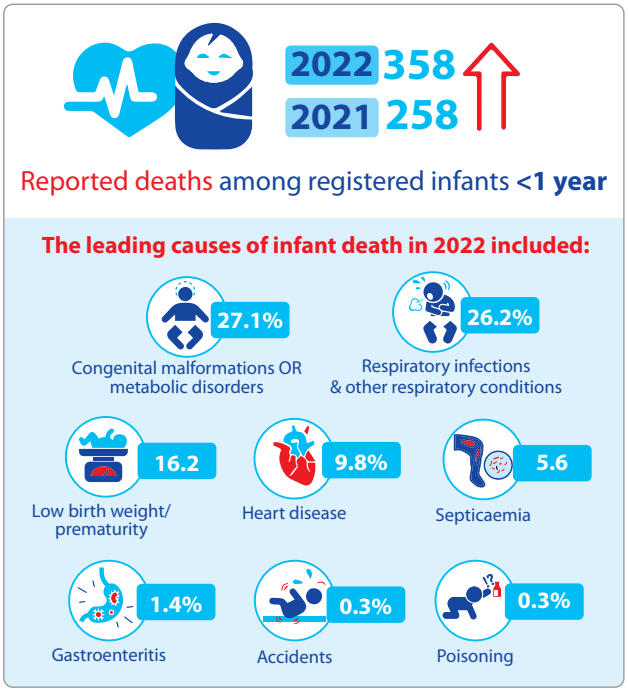
	Underweight	Wasting	Stunting	Overweight/ Obese
2019	6.26	6.4	11.0	8.96
2020	5.12	5.0	8.9	6.92
2021	5.79	10.02	5.91	8.05
2022	6.44	11.13	7.14	8.56

All children were provided with iron and vitamin A supplementation starting from 6 months of age, and this supplementation continues until they turn five years old. Once a child reaches 12 months of age, they are screened for anaemia. Anaemic children who are unresponsive to supplementation are screened for hereditary anaemias, mainly thalassemia and sickle cell anaemia.

Surveillance of Infant and Child Mortality

Infant Mortality

In 2022, there was an increase in the number of reported deaths among registered infants who were less than one year of age across all fields. In 2022, the number of reported deaths among infants reached 358 as compared to 258 in 2021. According to the data, the leading causes of infant death included: congenital malformations or metabolic disorders 27.1 per cent, respiratory infections and other respiratory conditions 26.2 per cent, low birth weight / prematurity 16.2 per cent, heart disease 9.8 per cent, septicaemia 5.6 per cent, gastroenteritis 1.4 per cent, accidents 0.3 per cent, and poisoning 0.3 per cent. This data is comparative to previous years.



Child Mortality

In 2022, there was an increase in the number of reported deaths among registered children between 1-5 years age across all fields. In 2022, the number of reported deaths among infants reached 130 as compared to 81 in 2021. The leading causes of child death were congenital malformations 35.4 per cent, respiratory tract infections and other respiratory conditions 20.8 per cent, heart disease 12.3 per cent, accidents 10.8 per cent, septicaemia 6.2 per cent, gastroenteritis 3.1 per cent, birth trauma 0.8 per cent, and poisoning 0.3 per cent.

There is no apparent difference between causes of death between infants and children living in or outside of the camps. Most of them died in hospitals, and only some children died at home and were not hospitalised 16.6 per cent. In terms of the distribution of deaths by gender, there were slight differences between child mortality among males 48.6 per cent than females 51.4 per cent.

UNRWA provides special health care to meet the needs of newborns, and infants under five years of age. A nurse weighs a Palestine refugee baby in Lebanon at UNRWA health Center in Beddawi camp. *© 2022 UNRWA Photo by Maysoun Mustafa*

UNRWA students participate in the summer camp games, under the title "Keeping Kids Cool." *© 2021 UNRWA Photo By Mohamed Hinnawi*

Oral Health

Preventive oral health services start as soon as the child reaches one year of age by conducting awareness sessions for parents on preventing oral diseases, mainly dental caries and applying fluoride varnish every six months. In high community transmission times, the number of screened children within the two years increased from 35,729 in 2021 to 52,346 in 2022.

School Health

During the 2021/2022 school year, around 555,892 Palestine refugee students were enrolled in UNRWA schools compared with 540,000 during the previous year. The UNRWA HP, in coordination with the Education Department, implemented the School Health Programme (SHP) to improve the health of school's students through planned meetings, school health committees, training on health awareness materials and ensuring the availability of a first-aid kit. SHP offers various services, including medical check-ups for a new school entrance, immunizations, hearing and vision screening, dental check-ups, and deworming. The SHP provides follow-up guidelines for children with special health needs, as well as updated procedures for inspections and improving the schools' environment and schools' canteens. School health services are provided to UNRWA schools' students through HCs and school health teams (doctors, nurses and dentists) according to scheduled visits during the scholastic year.

New School Entrants' Medical Examination

UNRWA schools registered 55,173 new students in first grade during the 2021/2022 scholastic year. Many services have been provided to these newly registered students, mainly carrying out medical examinations, immunization services and specialized follow-up of students as needed. UNRWA succeeded in conducting a medical examination for 99.7 per cent of students during the scholastic year compared to 91.8 per cent during the previous year. As a result of the screening activities, different diseases were detected among the newly enrolled students, including dental caries and gingivitis 78.0 per cent, speech defects 15.9 per cent, vision problems and squint 8.7 per cent, heart disease 1.1 per cent, bronchial asthma 1.1 per cent, and epilepsy 0.3 per cent. There was a sustainability in decreased percentage of students who were diagnosed with health diseases related to personal hygiene, including lice 2.3 per cent and scabies 0.3 per cent compared to the 2020/2021 scholastic year. The newly diagnosed students with disabilities or recognized for their needs for assistive devices (or both) had assistance in being provided eyeglasses, hearing aids, and other prosthetic devices according to their condition and available resources.

Based on the activities of the SHP in 2021, there was decrease in the number of students referred for further care to UNRWA health facilities from 5,763 in 2021 to 5,277 students in 2022. The number of students referred for special assessment increased from 1,093 in 2021 to 2,847 students in 2022. UNRWA HP helped 13,316 students to cover the costs of eyeglasses, which was more than the number of students supported in 2021 (12,538), and 192 students were helped to cover the costs of hearing aids, which was less than the number of students supported in 2021 (284).

Table 19: Number of patients who received financial support from UNRWA for the cost of eyeglasses.

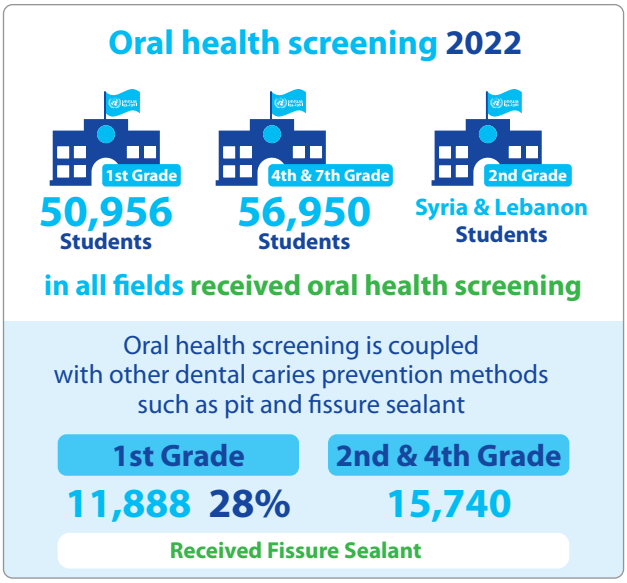
Field	2019/2020	2020/2021	2021/2022
Jordan	1,699	0	3264
Lebanon	6	0	35
Syria	794	831	822
Gaza	4,531	10,283	7689
West Bank	1,545	1,424	1506
Total	8,575	12,538	13316

Screening

Health care screening during the school year 2020/2021 targeted students in the fourth and seventh grades in all fields and included screening for visual and hearing impairment and oral health assessments. Usually, students' screening is conducted during the second semester. In 2022, 96.9 per cent of fourth grade and 96.5 per cent of seventh grade students were screened for visual impairments, with only 48.3 per cent of fourth grade students and 51.0 per cent of seventh grade students conducting hearing screenings as well. The most prevalent morbidity conditions among students in the fourth grade were vision impairment (13.3 per cent) and hearing impairments 0.2 per cent, while among students in the seventh grade 15.6 per cent had visual impairments and 0.2 per cent had hearing impairment.

Oral Health Screening

In 2022, 50,956 students in the first grade in addition to 56,950 students in the fourth and seventh grades in all fields, and second grade students in Syria and Lebanon received oral health screening. in 2022 dentist continued screenings for molar eruption for students at the first and second grade. Oral health screening is coupled with other dental caries prevention methods such as pit and fissure sealant for first graders, 11,888 of which 28 per cent received fissure sealant, and for grades second, fourth, and seventh the number reached 15,740, in addition to applying general fluoride mouth rinsing and teeth brushing campaigns. During the reorientation of the Oral Health Programme towards prevention, oral health screening for UNRWA students has played a significant role in achieving this shift.



Children with Special Health Needs

In the 2021/2022 scholastic year, the HP's School Health Teams, in cooperation with school staff, identified 6,926 students with special health needs. Their school registration records are maintained and monitored by both the HD and the Education Department staff to ensure close follow-up since the school health team provides the needed specialized medical care. These special health needs cases include 870 students with heart disease, 533 students with behavioral problems, 1,566 students with bronchial asthma, 280 students with type 1 DM, and 461 students with epilepsy.

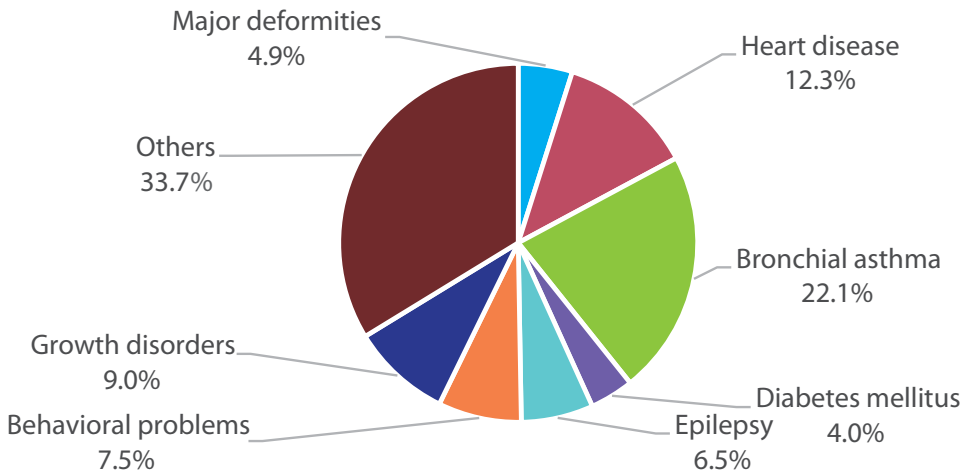


Figure 17: Children with special health needs 2021/2022

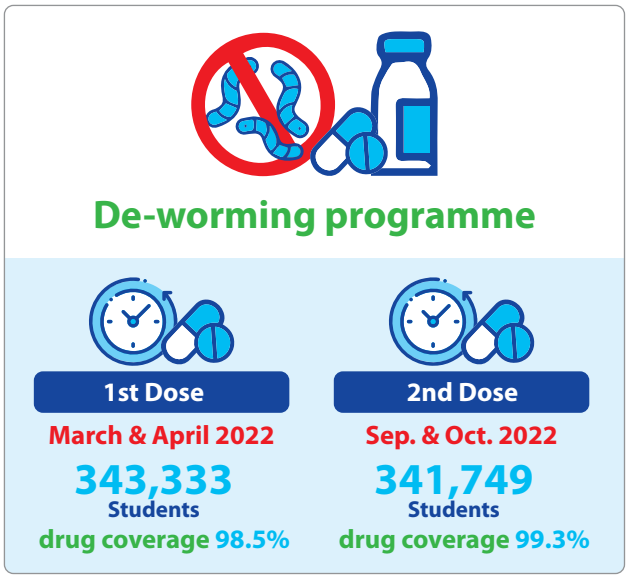
Immunization

The UNRWA Immunization programme for school students is streamlined and follows the host countries' requirements. During the 2021/2022 school year, 99.8 per cent of new entrants in all fields received a booster dose of DT/Td immunization and oral polio vaccine (OPV).

De-Worming Programme

Following WHO recommendations, UNRWA maintains the de-worming programme for children enrolled in UNRWA schools across all five fields. The programme targets students from first to sixth grade, and it consists of the application of two rounds of a single dose of an effective wide-spectrum anti-helminthic medicine.

During 2022, school health teams provided the first dose of the de-worming drug for the first application rounds in March and April 2022 for 343,333 students, the de-worming drug coverage of 98.5 per cent. The second round was conducted during September and October 2022 for 341,749 students (coverage reach 99.3 per cent). Usually, health awareness campaigns accompany the de-worming drug application at schools to emphasise the importance of personal hygiene in preventing the transmission of these diseases.



Global School Health Surveys

Supported by WHO's Eastern Mediterranean regional Office (EMRO), CDC, and UNRWA Department of Education, the Department of Health conducted at UNRWA schools, three WHO global school health surveys in five fields (2022-2023):

1. Global School-based Student Health Survey (GSHS) for sampled students who are 13-17 years old.
2. Global Youth Tobacco Survey (GYTS) for the same GSHS sampled schools with different students.
3. A pilot of a new survey called "the Global School Health Policies and Practices Survey (G-SHPPS) for school administration in all UNRWA schools".

Five training workshops were conducted at the fields to train fields' implementing teams during September and October 2022, all fields concluded data collection by December 2022, except for Syria field, which is expected to finish early 2023.

The first two surveys (GSHS and GYTS) will provide data on young people's health behaviour, monitor their tobacco use and protective factors related to the leading causes of morbidity and mortality among children and adults worldwide. This will guide the implementation and evaluation of prevention and control programmes.

The third survey (G-SHPPS) assesses school health policies and practices to develop priorities, establish programmes, advocate for school resources and establish trends in school health policies and practices.

Final results and findings are expected to be available by the end of 2023.

Oral Health

UNRWA provides oral health care services to Palestine refugees Agency-wide. Among the 130 dental clinics providing these services, 119 are located within the Agency's primary HCs, while the remaining 11 are mobile dental clinics. The primary objectives of the oral health services are (i) to prevent, detect, and manage dental and periodontal disorders, with particular attention paid to at-risk groups; (ii) to promote oral hygiene through active screening, management of vulnerable populations, and targeted health education activities promoting the use of fluoride toothpaste; (iii) to provide an equitable service and expand public health interventions to address oral health determinants; and (iv) to improve ongoing collection, analysis, and interpretation of health data for planning, implementation, monitoring, and evaluation. Additionally, the Agency conducts operational research on oral health in line with World Health Organization (WHO) guidelines and UNRWA's needs to track disease trends and improve the overall oral health status.

UNRWA's health services continue to prioritize preventive oral health components by raising awareness of the importance of preventative oral health during routine MCH care and providing preventive dental care for newly registered NCD patients. This includes dental screenings for women during their first preconception care visit and all

pregnant women, as well as comprehensive oral health assessments for children at the age of one and two, and application of fluoride varnish starting from one year of age and then twice a year until they reach five years old. The Oral Health Programme's staff conducts regular oral health assessments for preschool children and dental screenings for new school entrants, second, fourth, and seventh-grade students, and applied pit and fissure sealant for first and seventh-grade students. Additionally, oral hygiene education continues for all school students across all fields to prevent oral health problems.

An assessment of the Oral Health Programme's staff workload, needs, productivity, and efficiency is conducted in all five fields annually. The Health Programme uses a standardized counting unit to measure the technical workload of the staff, and this assessment is conducted periodically as part of the performance evaluation process. This assessment is also used to identify staffing requirements and the need for reorganizing oral health services. Furthermore, UNRWA conducted an additional assessment in collaboration with WHO/EMRO to evaluate the impact of oral preventive services and to identify improvement opportunities.

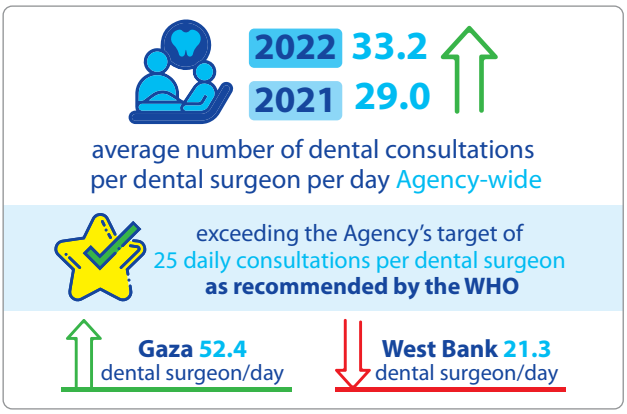
Throughout the MTS strategic period (2016-2022), the total number of dental consultations decreased by 8.8 per cent, with 834,598 consultations held in 2022 compared to 914,712 in 2016. This reduction was particularly evident in curative dental consultations, which can be attributed to UNRWA's shift in strategy to prioritize preventive oral health interventions. This shift was also reflected in the percentage of preventive services, which increased from 39.0 per cent in 2016 to 40.2 per cent in 2022. Additionally, the average daily number of dental consultations per dental surgeon declined from 42 in 2016 to 33.2 in 2022, exceeding the Agency's target of 25 daily consultations per dental surgeon as recommended by WHO.

During the third year of the COVID-19 pandemic, UNRWA dental clinics continued to provide curative and preventive oral health services while adhering to the updated standard infection prevention procedures and measures for COVID-19 transmission in dental clinic settings.

During 2022, a total of 834,598 curative and preventive consultations were provided Agency-wide. The greatest number of curative and preventive interventions were provided in Gaza, with 360,949 consultations, while the West Bank had the lowest dental consultations with only 65,478.

The percentage of preventive dental services provided Agency-wide was 40.2 per cent. Among the five fields, the West Bank had the highest utilization of preventive oral health care at 50.9 per cent, while Lebanon had the lowest utilization with only 18.5 per cent.

The average number of dental consultations per dental surgeon per day Agency-wide increased from 29.0 in 2021 to 33.2 in 2022, exceeding the Agency's target of 25 daily consultations per dental surgeon as recommended by the WHO. The field with the highest workload was Gaza, with an average of 52.4 dental consultations per dental surgeon per day, while the West Bank field had the lowest number of dental consultations at 21.3 per dental surgeon per day.



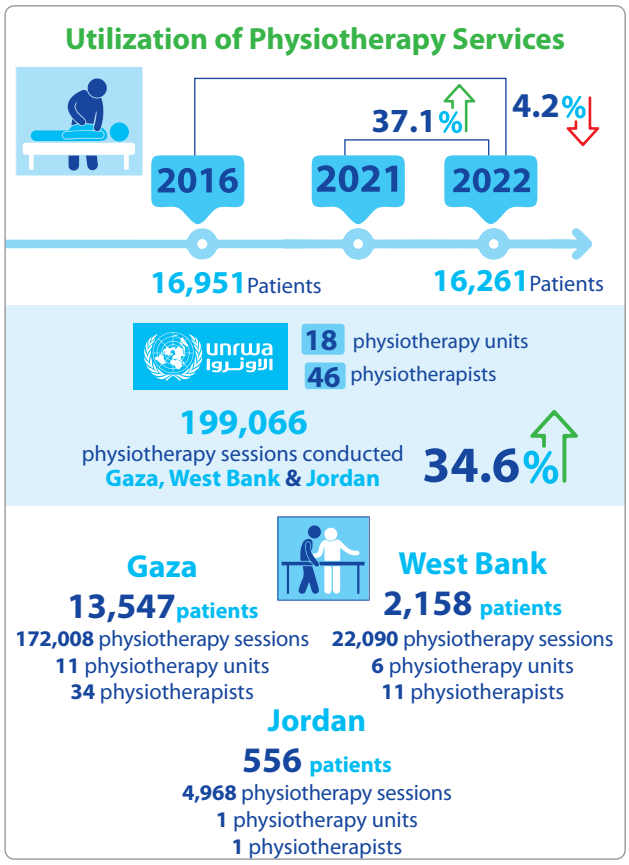
A dentist treats a patient at Shu'fat Health Centre, West Bank. *© 2019 UNRWA Photo by Marwan Baghdadi*

Physical Rehabilitation and Radiology Services

Physiotherapy Services

Throughout the MTS Strategic Period (2016-2022), the utilization of physiotherapy services remained stable, although there was a small reduction of 4.2 per cent in the number of patients who received the service, which decreased from 16,951 in 2016 to 16,261 in 2022. This trend was also observed in the total number of physiotherapy sessions provided.

UNRWA provided physiotherapy services to 16,261 Palestine Refugees in 2022, which is a 37.1 per cent increase compared to the previous year. These services were facilitated through 18 physiotherapy units by 46 physiotherapists in Gaza, the West Bank, and Jordan, with a total of 199,066 physiotherapy sessions conducted, representing a 34.6 per cent increase from 2021. In Gaza, 13,547 patients received 172,008 physiotherapy sessions from 11 physiotherapy units by 34 physiotherapists, while in the West Bank, 2,158 patients received 22,090 physiotherapy sessions from six physiotherapy units by 11 physiotherapists. In Jordan, 556 patients received 4,968 physiotherapy sessions from one physiotherapy unit by one physiotherapist. There was an overall rise in the utilization of physiotherapy services in all fields, which can be attributed to improved patient access to UNRWA's health services and the resumption of all health services in the third year of the COVID-19 pandemic.



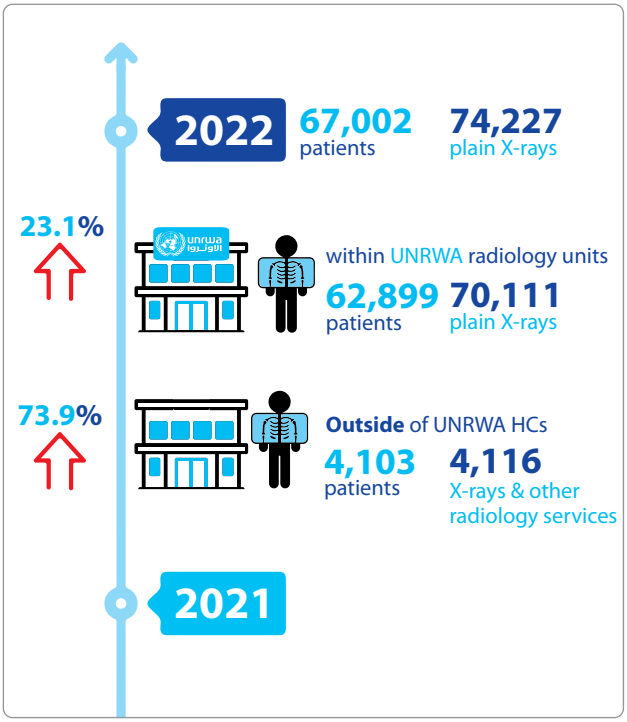
Physiotherapists offer a diverse array of treatment and rehabilitation services, which comprise manual treatment, heat therapy, electrotherapy, and gymnastic therapy. In addition to this, physiotherapists also provide education and training not only to Palestine Refugees with permanent disabilities, but also for their family members, enabling them to handle the physical aspects of their disability in their day-to-day lives. These services aim to promote independence and self-reliance amongst Palestine refugees with disabilities.

Radiology Services

Throughout the MTS strategic period (2016-2022), there was a significant decrease in the utilization of radiology services. The total number of patients receiving plain X-rays reduced by 25.3 per cent, dropping from 89,669 in 2016 to 67,002 in 2022. This downward trend was also evident in the total number of plain X-rays administered during the same period. Furthermore, this decline was even more pronounced in radiology services that were referred to contracted health facilities, with a 61.6 per cent reduction in both the number of referred patients and the number of X-rays conducted in such facilities.

UNRWA runs 21 radiology units across all HCs Agency-wide (seven in Gaza, nine in the West Bank, four in Lebanon, and one in Jordan) to offer plain X-ray services to patients who visit the HCs. In cases where patients require other X-ray services or specialized diagnostic radiology services such as mammography, urography, and ultrasounds, they are referred to contracted services through contractual agreements between UNRWA HCs and hospitals or private radiology centres.

During 2022, a total of 67,002 patients received 74,227 X-rays. Of these, 62,899 patients (representing a 23.1 per cent increase compared to 2021) received 70,111 plain X-rays within UNRWA radiology units, while 4,103 patients (showing a 73.9 per cent decrease compared to 2021) received 4,116 X-rays and other radiology services at contracted radiology units located outside of UNRWA HCs. This upswing in service utilization aligns with the overall trend of increased health service utilization observed in the third year of the COVID-19 pandemic. The primary factor behind the decrease in referred patients and the quantity of X-rays performed at contracted health facilities was the improvement in radiology service capabilities at UNRWA, particularly in the Lebanon field.



Disability Care

The Agency adopts the definition of disability presented in the UN Convention on the Rights of Persons with Disabilities (UNCRPD). This definition 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." One of the Agency's principles of disability inclusion is non-discrimination, ensuring that all Palestine refugees with disabilities have equal opportunities to access and benefit from UNRWA services and programmes, including healthcare.

The HD adopted the "twin-track" approach to disability, which requires working on the social environment (ensuring non-discrimination health services and accessibility to these services) and strengthening services-targeted disability prevention and support persons disabilities.

HD continued during 2022 to provide health services that address or meet the needs of persons with disabilities or both. The health services focused on improving the accessibility of persons with disabilities to health services. Many HCs improved their infrastructure to be more user-friendly for people with disabilities. These improvements included having ramps, elevators, and special restrooms for beneficiaries with physical disability and elderly persons, implementing a Q-tag system and tactile ground surface indicators for the blind and visually impaired.

The second track focuses on disability prevention applied through the FHT approach, the implementation of maternal health services (quality FP services, ANC, peripartum care, and postpartum care), child health services (child growth monitoring, immunization, and screening), as well as prevention, early detection and increased control of patients for NCDs. The Jordan field continues to implement the new hearing test for newborns to detect hearing problems as early as possible to benefit the child from cochlear implant operations. Gaza field continues to provide support for students with the need for speech therapy, hearing aids, and visual aids.

The HP updated e-Health (EMR) system enables the screening of beneficiaries for disabilities and monitoring the services offered to them. This is done at two levels: one is for children under five years as a continuous medical evaluation for the children. The second is integrated within the medical file of beneficiaries above five years. This evaluation system is based on Washington Group Questions, which is an assessment tool to identify people with disabilities. It enables tracking the usual services utilized by persons with disabilities and the time needed to get complete assistance. The data gathered can be used for improving the process of disability inclusion within the HCs. Among 651,720 beneficiaries were screened during 2022, five per cent (32,531 beneficiaries) were registered to have a disability.

Table 20: Number and percentage of patients identified with a disability at UNRWA HCs

Field	Female			Male			Total		
	Screened	With Disability	%	Screened	With Disability	%	Screened	With Disability	%
Jordan	42,150	2,509	6.0%	16,678	1,457	8.7%	58,828	3,966	6.7%
Lebanon	41,077	1,759	4.3%	27,350	1,321	4.8%	68,427	3,080	4.5%
Syria	29,952	1,794	6.0%	12,703	1,319	10.4%	42,655	3,113	7.3%
Gaza	223,018	10,083	4.5%	129,884	6,616	5.1%	352,902	16,699	4.7%
West Bank	78,625	3,345	4.3%	37,754	1,944	5.1%	116,379	5,289	4.5%
Total	414,822	19,490	4.7%	224,369	12,657	5.6%	639,191	32,147	5.0%

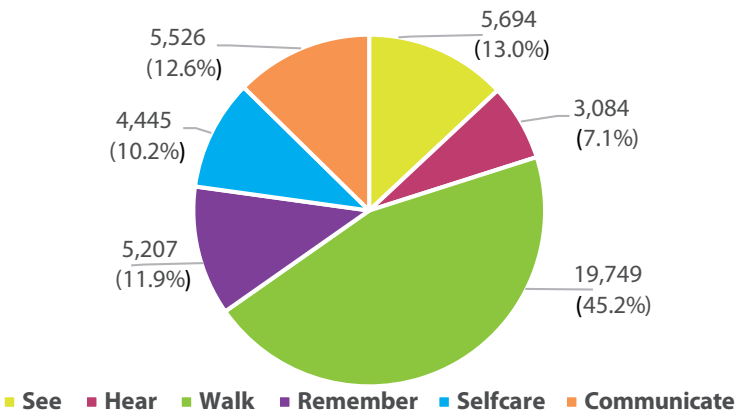


Figure 18: Number and Percentage of type of disability at UNRWA HCs

In addition to prevention, the HD also supplies other essential services to registered refugees whose permanent physical, visual and hearing impairments have been identified via screening in UNRWA HCs. They are eligible for financial support from the HD to cover the costs of assistive devices such as hearing aids, eyeglasses, artificial limbs, wheelchairs, etc. These services were re-opened after suspension during 2020 due to COVID-19 preventive measures, mainly due to the opening of schools for in-person education. Simultaneously, screening at care centres was resumed. In 2021, we provided 12,538 URNWA students with eyeglasses compared to only 8,575 students during 2020, and covered the cost of hearing aids for 284 students compared to 57 students recieving assistance devices in 2020.

Physiotherapy centres operating in Jordan, Gaza and the West Bank do not target persons with permanent disabilities. However, it is recognized that a significant proportion of beneficiaries treated at these HCs are likely to be considered "persons with disabilities" under the definition of the UNRWA Disability Policy (2010) and UNCRPD. However, it is essential to note that data collection regarding physiotherapy services does not differentiate between beneficiaries with and without permanent disabilities.

Pharmaceutical Services

Total Expenditure

In 2022 the total funds spent on medical supplies and equipment from all the funds (General Fund and projects), was approximately US$ 24.81 million. Of this amount, US$16.47 million (66.4 per cent) was from the General Fund and US$1.83 million (7.4 per cent) was from project funds, and US$ 6.49 million (26.2 per cent) was in-kind donation.

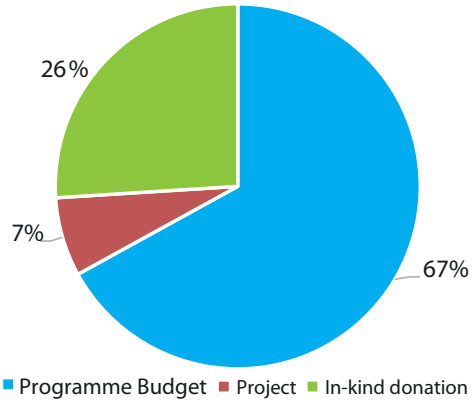


Figure 19: Total expenditure on medical supplies and equipment from the programme budget, project funding and in-kind contributions in 2022

Among the fields, the highest expenditure on medical supplies and equipment was observed in Gaza (US$ 11.6 million) and the lowest was in Lebanon (US$ 2.3 million).

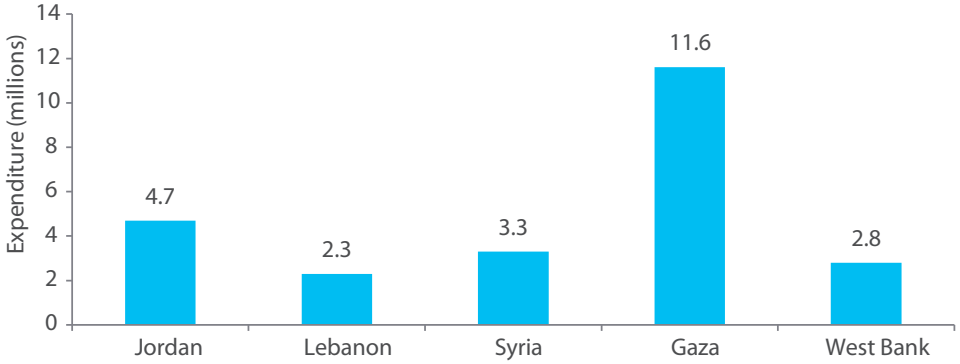


Figure 20 : Expenditure on medical supplies by field in 2022 (US$ million)

Expenditure on Medical Supplies

In 2022, the average expenditure on medical supplies per outpatient medical consultation Agency-wide was US$ 3.15 million, which is an increase from the 2021 with US$ 2.6 million. The average annual expenditure on medical supplies per served person Agency-wide was US$ 7.82 million, which is an increase compared to US$ 5.85 in 2021. The increase of annual expenditure on medical supplies per medical consultation, as well as the increase in expenditure for medical supplies per served refugees, which is mainly due to receiving more in-kind donations reflected as an increase in medical supplies expenditure.

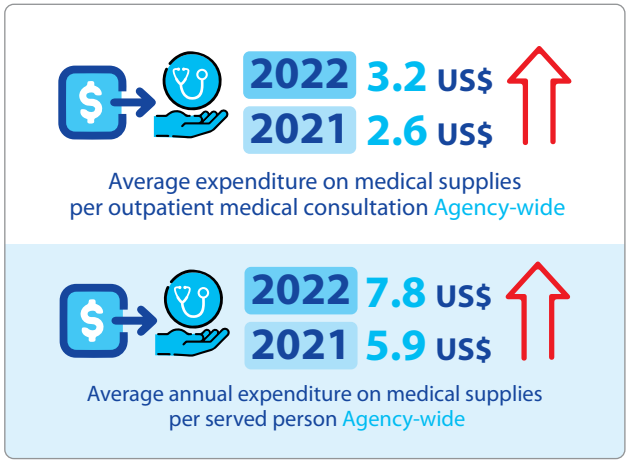


Table 21: Average medical product expenditure (US$) of medical supplies per outpatient medical consultation and per served person in 2022

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency-wide
Expenditure for medical supplies per medical consultations (US$)	3.1	2.5	3.6	3.3	2.9	3.2
Expenditure for medical supplies per served person (US$)	5.5	8.9	10.3	8.9	6.6	7.8

Expenditure on Medicines

The total expenditure on medicines in 2022 was US$ 18.3 million. Analysis of expenditure on different medicines revealed that 41 per cent of the funds were spent on medicines used for the treatment of NCDs, and 12.3 per cent were spent on antimicrobial medicines. Further analysis on NCD drug expenditure shows that 47.6 per cent of funds were spent on hypoglycaemic medications, 21.9 per cent on antihypertensive medications, 14.6 per cent on cardiovascular medications, 4.7 per cent on diuretics, and 11.3 per cent on lipid-lowering agents.

During 2022, medical equipment and related supplies accounted for 26 per cent (US$ 6.51 million) of the total expenditure (GF and project) funds of medical commodities (US$ 18.30 million).

Donations of Medical Supplies

In 2022, UNRWA received several in-kind donations of medical supplies (medicines, medical equipment and others) from key partners and stakeholders including the following:

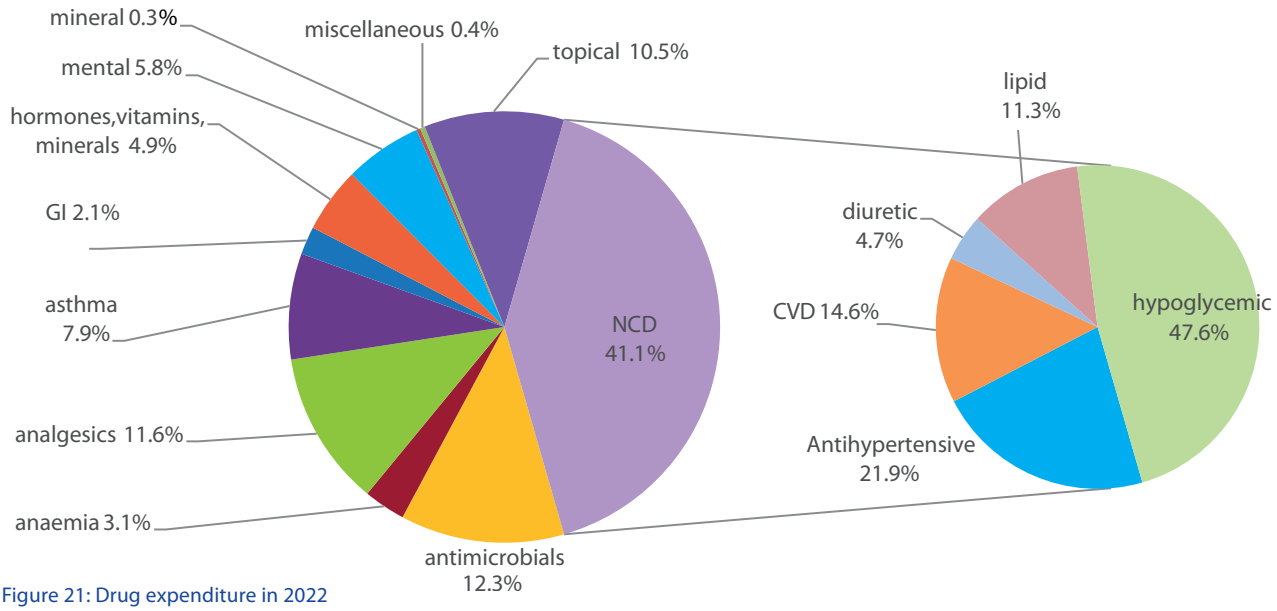


Figure 21: Drug expenditure in 2022

- The MoH of the Palestinian Authority provided Gaza and the West Bank fields with vaccines, iron drops and tablets, medical supplies as well as disposable syringes, needles and PPE.
- The MoH of Jordan supplied in-kind donations of vaccines and contraceptives.
- The MOPH provided Lebanon with vitamins, medications, and Covid rapid test devices.
- UNICEF provided Lebanon with various medical supplies, medicines and PPE items.
- The MoH of Syria and the WHO provided the Syria field with vaccines and modern contraceptives.
- Vitamin Angels supported UNRWA with vitamin supplements.
- St. John Eye Hospital provide Gaza and the West Bank with vision charts, ophthalmoscopes, and portable fundus cameras.
- Novo Nordisk supported UNRWA with insulin vials.
- WHO supported UNRWA with medicines and staff costs.

Antibiotic Prescription Rate

In line with the WHO recommendations, the target antibiotic prescription rate in UNRWA HCs Agency-wide aims to be not more than 25.0 per cent. In 2022, antibiotic prescription rate Agency-wide was 22.2 per cent and ranged from 18.1 per cent in the West Bank to 27.6 per cent in Lebanon. It is worth mentioning that antibiotic prescription rates in all fields except for Jordan and Lebanon had decreased in 2022 as compared to 2021, which is the result of returning the number of medical consultations to pre-COVID-19 periods at Fields and having more stable trends. Antibiotic prescription is a key focus in UNRWA HCs in order to ensure the rationalization and control of antibiotics usage among the Palestine refugee population.

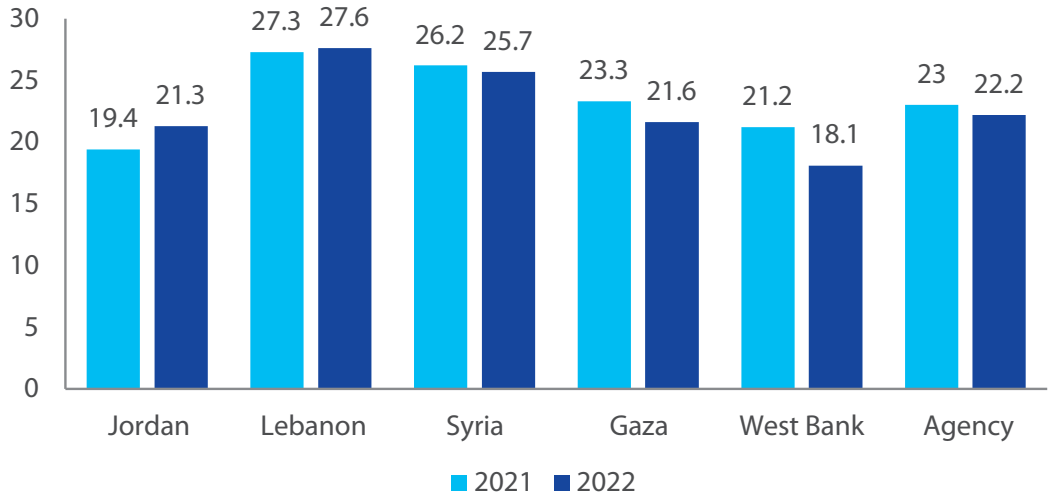


Figure 22 : Expenditure on medical supplies by field in 2022 (US$ million)

A Palestine refugee baby receives his vaccination in Sheikh Radwan Health centre *in Gaza. © 2020 UNRWA Photo*

Output 2.2: Efficient Hospital Support Services

Inpatient care

Every year, the UNRWA Hospitalization Support Programme (HSP) is becoming more critical for Palestine refugees in order to grant them access to secondary and tertiary health care services without incurring a catastrophic health expenditure. In 2022, the program continued to complement the primary health services offered by UNRWA to ensure that Palestine refugees have access to hospital services in the hosting country.

Outsourced Hospital Services

UNRWA provides hospitalisation to Palestine refugees contracting services at discounted prices in governmental, private and NGO hospitals and covering the expenditure with different percentages according to the policy in place in each field. UNRWA hospitalisation policy is defined by the users' eligibility that depends on their access to alternative services, their case's medical urgency, and their economic status. Ensuring the effectiveness and efficiency of HSP has become essential given the Agency's constrained finances in the protracted fragile context UNRWA is operating, which exacerbated access problems to hospitals.

In 2022, a total of 77,744 Palestine refugees received help from UNRWA supported hospitalisation services. The hospitalization support Programme (HSP) expenditure was US$ 29.8 million including programme budget, emergency, and projects, with an average length of in-patient stay of 1.8 days across the five fields of UNRWA operations. Of all hospitalisation cases, approximately 64.3 per cent were women, 40.5 per cent were between 15 and 44 years old, 30 per cent were children below the age of 15 years and 29.5 per cent were over 45 years.

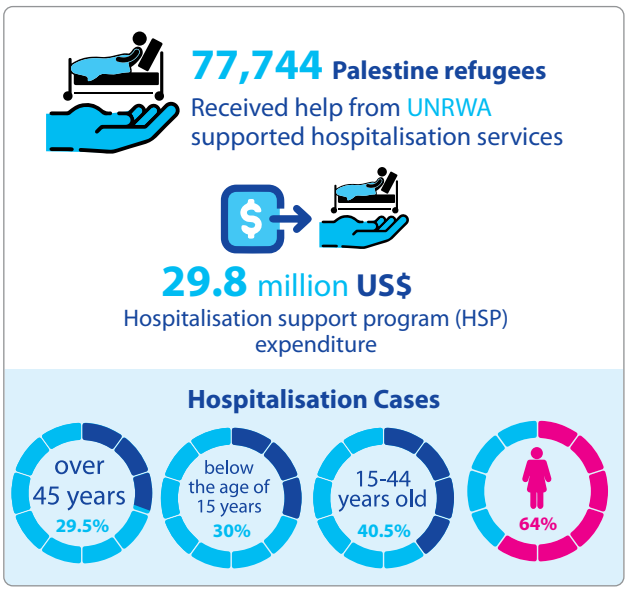


Table 22: Patients who received assistance for outsourced hospital services during 2021 and 2022 in the five fields

	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
2021	2,470	19,729	15,855	14,502	20,708*	73,264*
2022	2,310	23,861	16,110	14,743	20,720 *	77,744*

*Exclude patients admitted to Qalqilya Hospital

The HSP implementation is closely related to the access to hospital services for Palestine refugees and the host countries' governmental health policy. For this reason, caseload, targets, utilization rate per served population, unit cost of the services, number and type of contract with health service providers and staff involved in monitoring are different in each field.

UNRWA operates only one hospital in West Bank, a Palestinian refugee child admitted to Qaliqilia Hospital in West Bank. *© 2019 UNRWA Photo*

In 2022, patients were comparable to those served the previous year and pre-COVID-19 time as the situation stabilized after the pandemic and hospitals went back to their normal routine and schedule.

In Jordan, the number of hospitalised patients slightly decreased this year, but the availability of good public services assures that, despite not being supported by UNRWA, Palestine refugees still can have access to hospitals services without major problems.

In 2022, the number of patients in Lebanon increased by 21 per cent from 2021. After the COVID-19 pandemic and restriction in access to hospitals that were still in place in the first part of 2021, in 2022 the average number of patients per month returned to be around 2,000 for the whole year. The financial crisis that Lebanon has been facing since 2018 was significantly impacted this sector as most of the medicines and medical equipment were purchased from outside of the country and paid for in the U.S. Dollar (US$). The contract signed with hospitals in 2022 accounted for this complex situation and the requests to pay part of the bill in US$ continued. Despite this, the favourable exchange rate with the local currency allowed for a decrease in hospitalization expenditure in 2022. The Health Department maintained its monitoring efforts, reinforcing UNRWA MOs' gate-keeper role and auditing hospital bills regularly.

In Syria and Gaza, the number of patients in 2022 marginally increased from the previous year (+1.6 per cent), but this is in line with the natural increase in the population. In Syria, the caseload is various in response to the needs of a population that rely on UNRWA for the access to hospital services. In Gaza, the Hospitalization Support Programme continues to protect maternal health and other non-urgent matters but it is still an important life-changing health condition to release the pressure on the Ministry of Health hospitals which are collapsing after years of blockade.

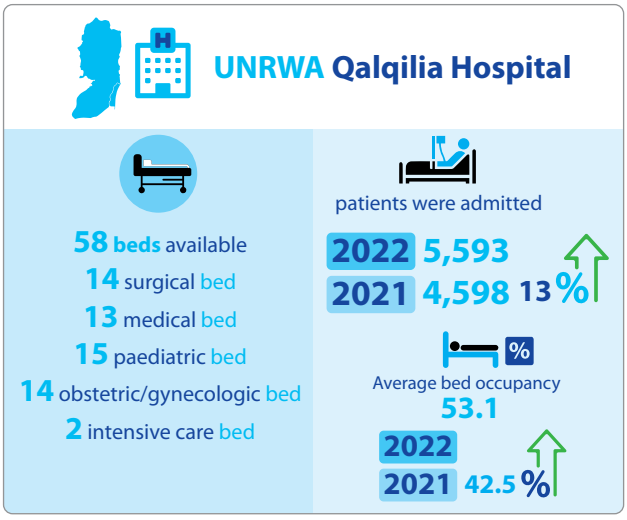
In the West Bank the number of patients was the same as last year proving that already in 2021, the situation was normalized. The caseload is mixed with medical and surgical cases, but it is skewing towards maternal health as vaginal deliveries and caesarean sections are more than half of the caseload and increasing in the last years. This shows that Palestine refugees are relying on UNRWA when it comes to deliveries.

The complexity of the Hospitalization Support Programme requires a common and harmonized database to consolidate data reporting. During 2022 the project of exporting the Lebanon Hospitalization Management System to all other fields has been realized with the collaboration of an IT department in all fields, particularly in Lebanon. The structure of the data collection tool was presented to Jordan, Syria, the West Bank and Gaza Health teams involved in the management of hospitalization referrals, claims, and follow-up. All the requirements for adapting HMS to the field-specific situations were collected and realized as much as possible to respond to user's needs, and the new version was tested and approved. Training was implemented to instruct MOs, Clerks and Chiefs on the use and the system was rolled out to almost all HCs.

Strong collaboration was seen among departments in the Fields, particularly with Finance for the close monitoring of the expenditure, and with HD at HQA which is ongoing. Continuous project writing to seek support of donors to cover budget shortfalls has continued during the year and has become more and more important to assure the coverage of the hospitalization needs of Palestine refugees.

Qalqilya Hospital

In addition to subsidising hospitalisation services in contracted hospitals, UNRWA manages a secondary care facility in Qalqilya, West Bank. Qalqilya Hospital is the only hospital operated by the Agency. Of the 58 available beds, 14 are for surgical, 13 for medical, 15 for paediatric, 14 for obstetric/gynaecologic, and two are intensive care beds. The hospital has also an emergency room and provides outpatient services. It serves UNRWA refugees and non-refugees from the surrounding municipalities in a health service area of around 100,000 people. In 2022, 5,593 patients were admitted to Qalqilya Hospital, increasing by 13 per cent from the 4,598 patients in 2021. The average bed occupancy in Qalqilya Hospital was 53.1 per cent in 2022, increasing from 42.5 per cent the previous year. The average length of stay in 2021 was almost two days.



The hospital this year worked with all the departments that opened for the whole year, and this allowed all the indicators to be back to pre-COVID time. The new Acting Director Dr. Ramzi Abu Yaman worked throughout the year in close collaboration with the local community to realize several maintenances works thanks to volunteering donations made to improve the hospital setting. UNRWA is also working on a revision of the organogram and staff compensation of the hospital to guarantee a comparable situation with the governmental hospital in the country.

Table 23: Inpatient care at the UNRWA Qalqilya Hospital in 2020 and 2022

Indicators	2021	2022
Number of beds	58	58
Persons admitted	4,842	5,493
Bed days utilized	8,990	10,796
(%) Bed occupancy rate	42.5	53.1
Average stay in days	1.86	2

Cross-cutting Services

Nutrition

During 2022, the HD continued to promote healthy lifestyle among Palestine refugees, focusing on maternal nutrition, child nutrition and well-being, patients with NCD, as an essential activities to prevent malnutrition and NCDs. This including sending electronic messages through MCH Application and NCD Application, during Ramadan, a daily tip regarding nutrition were provided to our beneficiaries by MCH and NCD applications and social media. These tips and information supported the health staff counseling regarding healthy life style and outreach awareness activities conducted at HCs and other community institutions specialty schools.

Our health staff continued to focusing on early detecting of malnutrition among children under five years old, the prevention and treatment of micro-and macro-nutrient deficiencies among pregnant women and children, and screening and counseling for NCD diseases especially among HCs attendant over-weight to improve the health of Palestine refugees.

In 2022, the HD improved staff capacity regarding nutrition counselling, supported with electronic nutritional guidelines for health staff. These guidelines focusing on proper nutrition for all beneficiaries, nutrition during pregnant and nursery, infants & toddlers nutrition and proper nutrition for prevention and management of NCDs.

In 2022, the Health Department had an effective role in managing food commodities quality in Gaza & Syria fields. Food commodities specifications were reviewed, and new food specifications were developed. Sampling methods, laboratories, inspection companies and food suppliers were evaluated quality-wise, all these procedures raise the quality for food commodities provided to Palestinian Refugees.

HD reviewed the nutrition brochures distributed in the health centres and updated them in line with the latest updates from WHO. The new brochures will be designed and distributed in 2023.

In 2020, the WHO updated the antenatal guideline recommending use of Multiple Micronutrient Supplementation (MMS), which is a safe and effective evidence-based intervention to improve fetal and maternal health and to reduce risks of adverse pregnancy outcomes, anaemia, and multiple micronutrient deficiencies. Given the chronically high prevalence of maternal anaemia and micronutrient deficiencies among our beneficiaries, reported by both our clinic data and national surveys, UNRWA HD has decided to pilot the antenatal MMS as a standard of ANC, starting in Jordan, and then scaled-up to other fields of UNRWA operation. As per the WHO recommendation, the UNRWA's MMS Programme will be rigorously evaluated and continuously improved using the Implementation Research methodology.

There is research related to the nutrition program at UNRWA that focus on different aspects of health and wellbeing. Some of this research is being conducted in the Gaza strip. One title is "Prevalence and Determinants of Short Stature (SS) among First Graders in UNRWA Schools in the Gaza Strip". This research aims to identify the prevalence and factors contributing to short stature in young children attending UNRWA schools. Another research titled "Evaluation of Iron Deficiency Anemia Management Among Preschool Children Attending UNRWA Health Centres in the Gaza Strip: A Mixed-Study Approach" focuses on assessing the management of iron deficiency anaemia among preschool children. Another research that is conducted in one of Gaza's health centres, titled "Knowledge Attitude and Practice of Weaning Among Mothers and Impact on Child's Health: A Cross-Sectional Study" examines the impact of weaning practices on child health.

A Research is conducted in Jerusalem titled "Determinants of Anemia among Pregnant Women Attending the UNRWA Healthcare Clinics in Jerusalem:

A Follow-Up Study" seeks to understand the underlying factors contributing to anaemia among pregnant women in the West Bank. The research will examine the effectiveness of current anemia management strategies and propose recommendations for improvement.

Laboratory Services

UNRWA offers comprehensive laboratory services across 127 out of 140 HCs. Among the remaining 13 facilities, 11 continue to provide essential laboratory assistance, such as blood glucose, blood haemoglobin, and urine dipstick tests. The other two facilities are located in Syria and are unable to provide laboratory services due to accessibility issues.

Utilization Trend

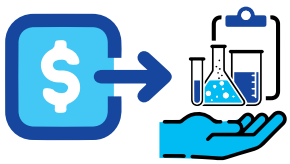
Over the course of the MTS strategic period (2016-2022), there was a 14.0 per cent increase in the overall number of laboratory tests conducted Agency-wide, from 4,368,018 tests in 2016 to 4,978,607 tests in 2022. This increase was primarily attributed to enhanced patient access and greater demand among beneficiaries.

In 2022, UNRWA provided a total of 4.98 million laboratory tests across the Agency, representing a 10.3 per cent increase from the previous year (4.51 million laboratory tests in 2021). Throughout the reporting period, there was an 82.7 per cent increase in laboratory services utilization in Lebanon, a 14.6 per cent increase in Syria, a 7.6 per cent increase in Gaza, a 5.1 per cent increase in Jordan, and a 2.7 per cent increase in the West Bank compared to 2021. This upsurge in the use of laboratory services across all fields reflects a general trend of increased utilization of health services observed in 2022, due to the resumption of all health services, higher demand, and improved patient access to health care services.

As part of the Agency's regular self-evaluation of its programs using the WHO approach for workload measurement, an annual comparison of the workload and efficiency of laboratory services was conducted based on 2022 data. The Agency-wide productivity of laboratory services in 2022 was 49.9 WLUs/hour. In the West Bank, the productivity of laboratory services was 67.9 WLUs/hour, while it was 52.3 WLUs/hour in Jordan, 54.8 WLUs/hour in Gaza, 43.4 WLUs/hour in Lebanon, and 31.1 WLUs/hour in Syria.

Laboratory Costs

The total cost of laboratory services provided across the five fields by UNRWA was US$7,972,743, with US$7,888,340 (98.9 per cent) secured through the Programme Budget, and approximately US$ 84,000 (1.1 per cent) obtained through in-kind donations, projects, or emergency funds. This shows that UNRWA's expenditure on laboratory services is lower than the estimated cost of MoH laboratory services in host countries combined, which is US$21.84 million. Therefore, it can be inferred that UNRWA HCs offer cost-effective and efficient laboratory services.



7,972,743USD

Total cost of laboratory services provided across the five fields

98.9% / 7,888,340US$

Programme Budget

1.1% / 84,000US$

In-Kind Donations

projects, or emergency funds

UNRWA's HCs offer cost-effective and efficient laboratory services

Table 24: Expenditure on laboratory services (US$) by field and Agency-wide in 2022

Cost	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Programme Budget	1,707,575	881,045	562,682	2,442,014	2,295,025	7,888,340
Non-Programme Budget	-	-	81,472	-	2,931	84,403
Total	1,707,575	881,045	644,153	2,442,014	2,297,956	7,972,743

Table 25: Comparative analysis of the annual cost of laboratory services performed at UNRWA facilities and cost of the same services if outsourced to host authorities (US$) in 2022

Cost	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Host authorities	5,568,014	812,884	928,862	7,740,015	6,788,366	21,838,141
UNRWA	1,707,575	881,045	644,153	2,442,014	2,297,956	7,972,743

An UNRWA Medical officer examining a Palestine refugee child from Lebanon in Beddawi camp health center, Lebanon. *©2022 UNRWA Photo by Maysoun Mustafa*

Health communication

The scope of health communication covers all the programmes, sub-programmes and activities that the HD implements. This includes but is not limited to: disease prevention and control, health protection and promotion, medical care services, health care policies, as well as enhancement of the quality of life and health of the Palestine refugees. UNRWA's health communication uses a variety of channels to deliver its messages to varied audiences, including individuals, communities, UNRWA staff and health professionals, and policy makers.

The persisting COVID-19 situation, new outbreak of monkeypox in the world, and cholera becoming widespread in both Syria and Lebanon fields, revealed a crucial need for health awareness campaigns. As part of the response, many kinds of awareness materials were developed and widely distributed via different communication channels (printed materials in addition to using UNRWA social media channels and the UNRWA website). The campaigns focused on ways of prevention and encouraging vaccination for UNRWA staff and Palestine refugees.

During Ramadan, for the third year the HD, in cooperation with the Communications Department, launched a special Ramadan campaign on UNRWA social media platforms to educate UNRWA staff and Palestine refugees about appropriate health and nutrition behaviours during Ramadan and on how to continue protecting themselves and their family members from the COVID-19 pandemic.

Relevant World Health Days 2022 were observed in cooperation with the fields' health programmes. Awareness materials were produced and disseminated through UNRWA HCs, HP mobile applications (e-NCD and e-MCH), and through posting infographics, posters, videos, and social media cards on UNRWA social media platforms. The most important observed health-related world days were:

a. World Health Day theme was, "Our Planet...Our Health, clean our air, water & food." Messages during the campaign focused on how to save our planets.
b. World No Tobacco Day theme was, "Tobacco: Threat to our environment." Messages highlighted the environmental impact of tobacco from cultivation to waste as additional reasons for people who smoke to quit smoking.
c. World Diabetes Day theme was, "Education to protect tomorrow" which is the theme of the second year of the World Diabetes Day 2021-23 campaign "Access to Diabetes Care."
d. Mental Health Day theme was, "Make mental health for all a global priority." Messages shared with Palestine refugees focused on how to look after their own mental health.
e. Breast Cancer Month (Pink October) aimed to raise awareness about the importance of early detection and access to timely, high-quality care and the importance of psychosocial and palliative support for this disease.

Overall, the communication role supported successful preparations of the ninth annual participation of the Director of Health in the 75th World Health Assembly (WHA) on Palestine Refugees' health in cooperation

with the Lancet and other stakeholders highlighting the situation in Gaza after a year of lasting hostility. It supported the preparation, production, and release of the HD annual report (2021).

It also supported revising HD Technical Instructions, Guidelines, MOUs, and other publications, in addition to updating the interface for the SharePoint–Health intranet site and uploaded the related health published materials.

As a part of the HD team, this role also participated in the planning, implementation, and publication of relevant research activities, including production and design of pamphlets, posters, and labels for the pilot programme of Multiple Micronutrient Supplementation (MMS) for Pregnant Women.

Research and Evaluation Activities

In 2022, the Research Review Board (RRB) approved a total of fifteen research proposals on diverse topics, including non-communicable diseases (NCDs), telemedicine, e-health, patient safety, oral health, quality of care, micronutrient deficiencies, maternal and child health, long-term COVID-19, and health policy. These proposals were evaluated by the technical staff in the health department at the field and headquarter level.

Four articles resulting from these research efforts were published in peer-reviewed journals, with UNRWA HD authors serving as co-leads. Additionally, two oral presentations and three poster presentations were delivered virtually at the Lancet Palestine Health Alliance Conference held in 2022. One of the HD posters was awarded the Best Poster prize among more than 40 presented posters.

Despite the ongoing challenges faced by UNRWA due to conflicts, financial crisis, and the long-term impact of COVID-19, the research activities carried out in collaboration with the Health Department have enabled partnerships with academic and research institutions globally. These activities have also supported the sharing of critical findings on the health status of Palestine refugees with the global audience.

Since 2022, the UNRWA Health Program (particularly the research team) has been actively collaborating with researchers to ensure that the proposals meet the research needs and priorities of UNRWA. Looking forward to 2023, the HD research team plans to work closely with academia to foster greater engagement in research activities.

Internship at the Health Department

UNRWA Health Department offers internships for individuals who are interested in gaining practical experience in the fields. Interns are given the opportunity to work alongside UNRWA staff and learn about the health program operations, projects, and activities.

The internship activities at UNRWA vary depending on the department and location where the intern is placed. Some common activities may include conducting research, analysing data, preparing reports, drafting proposals, and assisting with project implementation. Interns may also participate in meetings, workshops, events, and have the opportunity to network with professionals in the agency.

UNRWA Health Department welcomed students from Columbia University and Stanford University, as well as other graduates from Japan, Kenya, and Jordan in

A French delegation from the French embassy in Jordan visited Baqa'a Elementary school and Baqa'a health centre run by UNRWA at Baqa'a refugee camp in Amman. The visit was accompanied by Marta Lorenzo, Director of UNRWA Affairs in Jordan. *© 2021 UNRWA Photo by Sally al-Akhras*

2022 which was a very great opportunity for knowledge sharing and collaboration with diverse backgrounds and expertise the students brought.

Overall, the opportunity for UNRWA Health Department to welcome students and graduates from a diverse range of countries and universities in 2022 is a great way to promote cross-cultural learning, collaboration, and innovation in the field of public health and of course, advocating for UNRWA's health program and services.

Health Response to GBV in Healthcare Settings

Gender-Based Violence (GBV) is a significant public health issue and addressing it in healthcare settings is critical. GBV programming in primary health care includes a comprehensive approach that focuses on safe identification, health response and safe referral. In UNRWA HCs, safe identification is facilitated through active screening for targeted patient groups who are more likely to be exposed to GBV, followed by appropriate referrals to provide other non-medical services. In 2022, out of the total who received screening in the UNRWA HCs, 7 per cent were identified as experiencing GBV. Of those identified, 3 per cent were men and boys and 97 per cent were women and girls. UNRWA's current data system does not report the number of referrals to other services. The UNRWA is in the process of developing a system that records referrals, making sure that those who are identified are supported beyond medical needs if they wish to receive them. In the context of the UNRWA healthcare setting, we adopt GBV programming that is culturally appropriate, gender-sensitive and respectful of the unique needs of Palestine refugees.

Addressing the Gender Gap in the Workforce

The gender gap in the workforce can be addressed through a multi-faceted approach that involves sustained effort over time. The UNRWA HD strives to increase the number of female health workforce, in order to respond to the needs of female patients who prefer to be seen by the same-sex health care professionals. Currently, more than 60 per cent of the total healthcare providers in UNRWA HCs are female. UNRWA also provides training and development opportunities to help doctors and nurses for both sexes to acquire new skills and to advance in their careers through the nursing and family medicine diploma programme. In the headquarters, one female staff represents the women's advisory committee that the Agency leads. Women often face a lack of role models and mentors within their careers. Representation and the committee provide networking opportunities to help women advance in work and encourage a work-life balance in their day-to-day work.

UNRWA aims to lead by example and is committed to achieving gender parity in its workforce. Culturally, female patients are more likely to disclose and share their health concerns with same-sex doctors and nurses. To respond to patients' needs, currently, 60 per cent of the total health staff in all the UNRWA HCs are female, including doctors, specialists, pharmacists, nurses, etc. Nursing and paramedical positions have the highest proportion of female staff, at 86 per cent and 60 per cent, respectively. In addition, several senior posts within the HP are filled with female staff at both field and HQ levels. These steps underscore the commitment to realizing gender parity and patient-friendly health services.

Human Resources for Health Reform

The United Nations Relief and Works Agency for Palestine Refugees (UNRWA) is facing significant challenges in its health workforce due to an increase in annual patient visits and a long-standing funding crisis that has limited its ability to hire additional medical staff. To address this issue, the UNRWA health program assessed staffing needs in its health facilities using the World Health Organization's (WHO) workload indicators of staffing need (WISN) methodology. The purpose of this assessment was to determine the existing staffing norms, estimate the workload on health workers, efficiently utilize the existing workforce, and determine staffing requirements at each health facility.

The Health Programme used the standardized WISN methodology to assess the staffing requirements for all 140 health facilities in the five fields, covering seven categories of health staff. Of these categories, three (MOs, clerks, and cleaners) were updates of previously set norms, while the other four (nurses, pharmacists, laboratory technicians, and dentists) were newly established norms. The nurses category included four sub-categories, namely senior staff nurse, staff nurse, practical nurse, and midwife. The norms for MOs, clerks, and cleaners were established in 2019 as part of phase 1, while the other health categories were completed in 2021 in phase 2.

However, due to the negative impacts of the COVID-19 pandemic on health service utilization patterns, consultation data for 2019 (pre-COVID-19) was utilized for the workload assessment. The WISN results showed that most of the health cadres across the Agency were understaffed, highlighting the urgent need for additional staffing and resources to address this issue.

Table 26: Number and percentage of norms against the posts under programme budget.

Field	Norm	Programme-budget posts	Gap for PB-funded posts	% PB posts against norms
Gaza	1507	887	621	58.9%
Jordan	691	613	78	88.7%
Lebanon	411	288	124	70.1%
Syria	445	316	129	71.0%
West Bank	560	516	44	92.1%

The table provides information about the number of health staff norms required for various fields and the number of posts available under the current program budget. The Gaza field requires the most significant number of health staff norms, with 1,507 posts needed, whereas Jordan requires the lowest number of norms with 691 posts.

When comparing the number of program budget posts against the required health staff norms, it becomes evident that there is a significant shortfall in staff in all fields. The West Bank has the smallest gap, with only 44 posts needed to meet the optimal staffing level. However, in other fields such as Gaza, Lebanon, and Syria, the gap between the required number of staff and the available posts is significant, with 621, 124, and 129 posts needed, respectively. The percentage of program budget posts against norms is lowest for Gaza at 58.9 per cent, indicating a large shortfall in staffing levels.

In summary, the data highlights a significant shortfall in the number of health staff norms required for various fields, particularly in Gaza, Lebanon, and Syria. While the West Bank has a smaller gap, there is still room for improvement. These findings call for a review of staffing policies and the adoption of workload-based norms to address the shortage of health staff in the region. To address the staffing shortage, a multi-year implementation plan was developed in consultation with relevant stakeholders. The plan includes several potential scenarios to ensure that the norms can be funded within budget constraints.

Family Medicine Training

UNRWA recognizes the importance of providing ongoing training to all staff working in UNRWA HCs, not only for the professional development of staff but also for maintaining and improving the quality of health care provision to Palestine refugees. Therefore, the Rila Institute of Health Sciences in the United Kingdom collaborated with UNRWA to tailor a 12-month training course on Family Medicine for UNRWA medical physicians. This is called the FMDP.

The FMDP is tailored to UNRWA's PHC model and its adopted FHT approach. The FMDP provides clinicians with an in-service training model that they can take without disrupting their daily work. The training is also designed to help medical doctors at UNRWA HCs meet the Palestine refugee populations' health needs in the five fields of UNRWA operations.

The diploma programme included different modalities such as face-to-face workshops held in field offices at the beginning of the course, an e-learning platform, regular exams after each unit, and interactive webinars. On-the-job practical training activities were directly provided by local facilitators who specialise in family medicine.

Milestones of FMDP

Since the start of 2015, a total of 125 doctors of UNRWA completed the family medicine diploma courses, as shown in the following table.

Table 27: Number of doctors who completed the family medicine diploma course

Year	Gaza	Jordan	West Bank	Lebanon	Syria	Total
2015 – 2016 (First cohort)	15	-	-	-	-	15
2017- 2018 (Second cohort)	15	15	10	-	-	40
2018 – 2019 (Third cohort)	12	8	-	-	-	20
2019 – 2020 (Fourth cohort)	15	6	10	10	9	50
2020 (Fifth cohort –graduation Feb 2022)	15	10	10	5	10	50
2021/2022 (sixth cohort – graduation July 2022)	15	10	10	13	2	50
No. of UNRWA doctors trained by 2022	87	49	40	28	21	225

The fifth cohort was started in January 2021 instead of June 2020 as per the annual Family Medicine Diploma schedule due to the postponement caused by the COVID-19 pandemic and the delay in signing the contract with the Rila Institute, the fifth cohort included 50 MOs. In June 2021, health department started the sixth cohort which was participated by 50 medical doctors, in which the fifth and sixth cohorts' graduation was on July 2022. Both cohorts' evaluation was carried out based on the scheduled mini exams, situational judgement tests, medical case management, and attendance records of online webinars.

Participants who already graduated with a postgraduate diploma in family medicine provided positive feedback on the training that they received. Key points that they highlighted included the positive impact of their training on the quality and comprehensiveness of their health care services. They believe that they could share knowledge and skills with other colleagues and become more competent and capable of focusing on the prevention of diseases in general and on recognising psychosocial-physical related health problems.

Finance Resources

In 2022 the total HP expenditure amounted to approximately US$ 145.2 million including all funded portals (programme budget, emergency, projects and in-kind), while around US$ 127 million was under the programme budget, corresponding to an estimated expenditure of US$ 21.4 per registered refugee, a slight increase compared to the 2021 total expenditure of US$ 122.4 million or US$ 21.0 per registered refugee. Even if a more conservative approach was used to estimate the per capita expenditure based on the number of the population served by the HP in the Agency (approximately 3 million) rather than the total number of registered refugees (5.9 million), the annual per capita expenditure is US$ 39.7 Agency-wide. WHO recommends US$ 40.0-50.0 per capita for the provision of basic health services in the public sector.

Table 28: Health expenditure per registered Palestine refugee, 2021 and 2022 regular budget (US$)

Year	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
2021	9.5	46.1	15.5	25.3	33.6	21.0
2022	8.7	58.4	19.0	24.5	30.9	21.4

There is a significant expenditure gap per registered Palestine refugee between Lebanon (US$ 58.4) and Jordan (US$ 8.7). This gap is due to the heavy investment in secondary and tertiary care made necessary in Lebanon, where Palestine refugees are denied access to public health services and cannot afford treatment costs at private facilities. Conversely, in Jordan, UNRWA-registered Palestine refugees have access to the government's social and health services.

UNRWA provides a comprehensive PHC delivery through 140 HCs Agency-wide with support accessing secondary and tertiary health care for the most vulnerable Palestine refugees through contracts with hospitals or by reimbursing a high proportion of the costs incurred for inpatient care at public, non-governmental, and private healthcare facilities.

In 2022, the allocation for hospital services represented only 23.3 per cent of the total HP budget and financial constraints represented a significant challenge due to the increase in the served population, worsening of living conditions, and rise of NCDs which are often associated with significant complications and long-term care.

Pharmacy-Amman New Camp Health Centre.
© 2022 UNRWA Photo by Amjad Ghosoun

A Palestine refugee from Lebanon(PRL) receives medicine at Nahr el bared camp NBC health center which has been prescribed by UNRWA doctor after the physical check-up. *© 2022 UNRWA Photo by Maysoun Mustafa*

Table 29 -Breakdown of health expenditure by sub-programme-2022

Sub Programme	Sub Sub-Programme description	Jordan	Lebanon	Syria	Gaza	West Bank	HQ	Total
Hospitalization Services	Hospital Services	667,811	15,701,094	1,485,374	3,299,928	4,542,385		25,696,592
	Qalqilya Hospital					3,422,818		3,422,818
	Tertiary Health Care		671,637					671,637
Total Hospitalization Services		667,811	16,372,731	1,485,374	3,299,928	7,965,203		29,791,048
Primary Health Care	Disability Screening and Rehabilitation	76,946	3,940	264,724	1,028,194	462,775		1,836,579
	Laboratory Services	1,707,575	881,045	644,153	2,442,014	2,297,956		7,972,743
	Oral Health	1,741,181	817,836	500,752	1,385,703	967,452		5,412,923
	Outpatient Services	17,452,092	9,992,017	8,375,419	33,527,577	15,852,571	-	85,199,675
	Pharmaceutical Services	1,574,786	916,153	419,892	1,817,470	1,942,926		6,671,226
	Psychosocial Support Programme		191,016	(0)	164	545,501		736,681
	Radiology Services		104,053		442,933	173,106		720,092
	School Health Services	262,659			456,526	75,431		794,616
	Maternal Health & Child Health Services	96,987						96,987
Total Primary Health Care		22,912,225	12,906,060	10,204,940	41,100,580	22,317,717	-	109,441,523
Programme Management		443,006	650,452	300,717	614,445	704,866	3,187,779	5,901,265
Programme Management Total		443,006	650,452	300,717	614,445	704,866	3,187,779	5,901,265
Health Counsellor					42,630			42,630
Health Counsellor Total					42,630			42,630
Grand Total		24,023,042	29,929,244	11,991,031	45,057,583	30,987,787	3,187,779	145,176,465

section 3 – Data
Part 1 - Agency Wide Trends for Selected Indicators

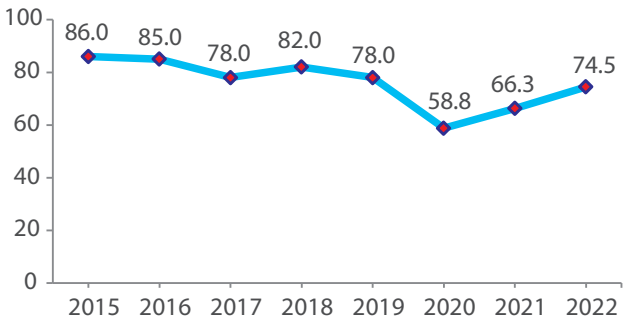


Figure 23: Average daily medical consultations per doctor

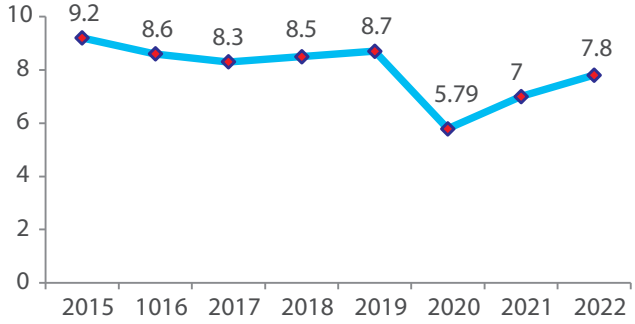


Figure 24: No. of outpatient consultations (million), included Telemedicine.

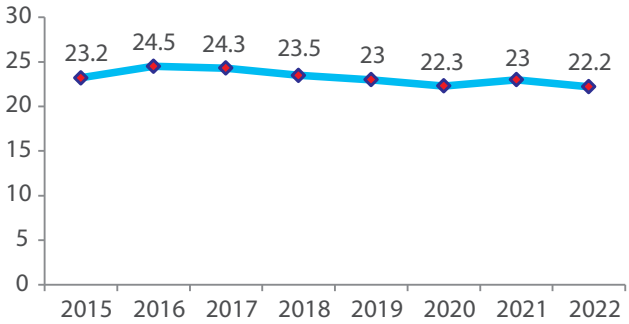


Figure 25: Antibiotics prescription rate

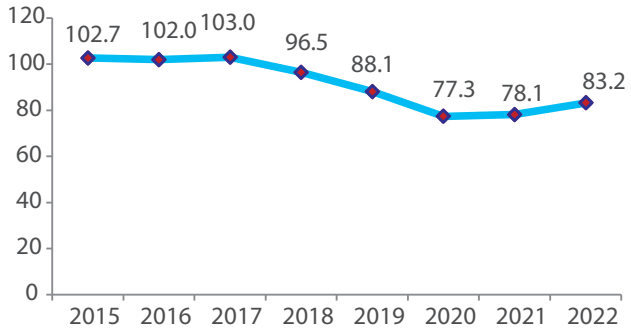


Figure 26: No. of hospitalizations, including Qalqilya hospital (in thousand)

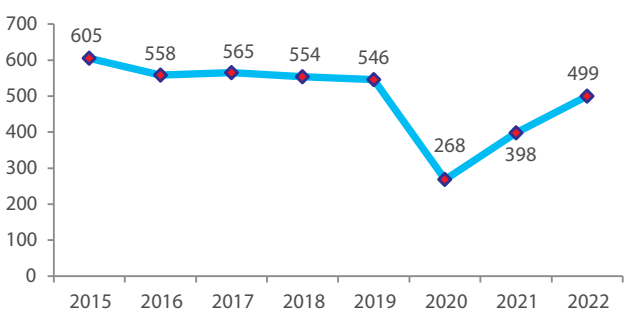


Figure 27: No. of dental consultations (thousand)

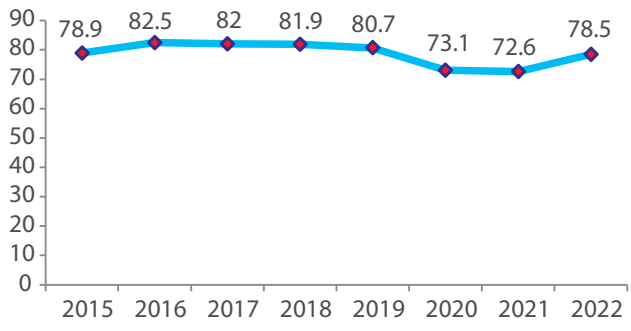


Figure 28: % of pregnant women registered during the 1st trimester

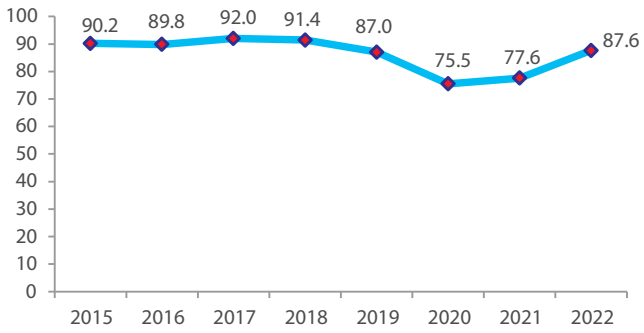


Figure 29: % of pregnant women attending at least 4 ANC visit

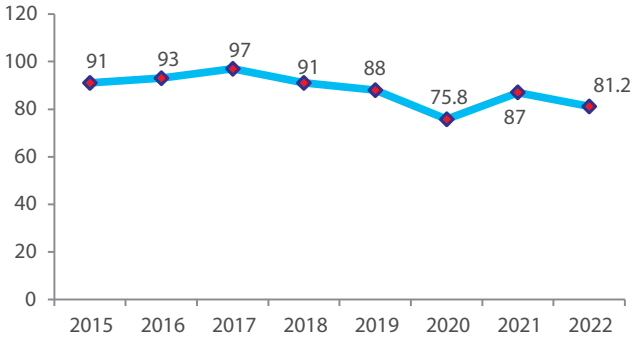


Figure 30: No. of newly registered pregnant women (thousand)

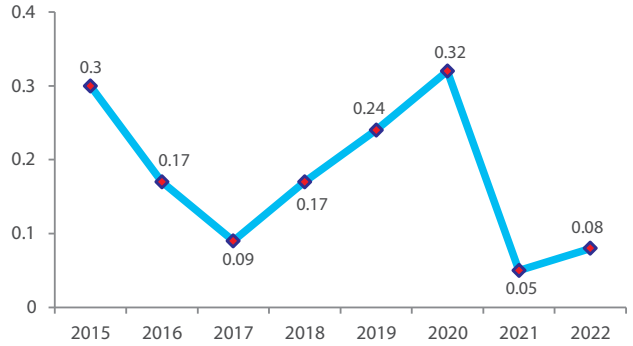


Figure 31: % of delivers with unknown outcome

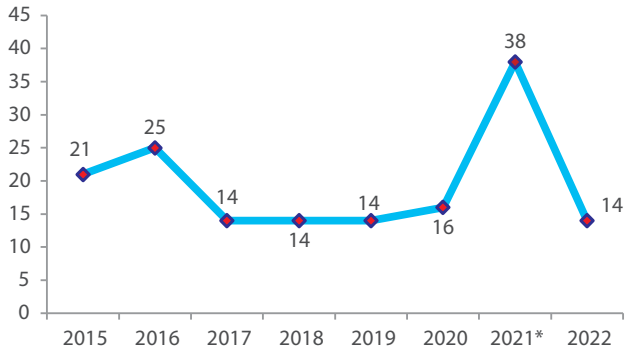


Figure 32: No. of maternal deaths.
* Of the 38 maternal deaths, 27 had COVID-19 reported as the cause of death

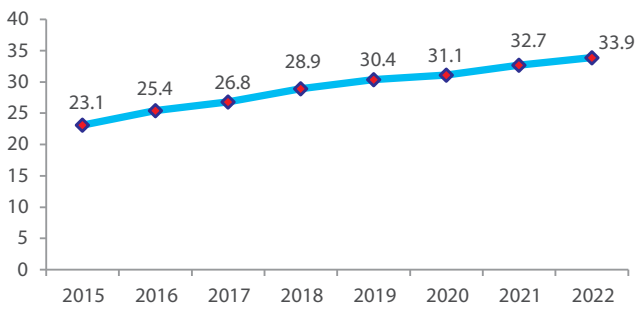


Figure 33: % of caesarean section deliveries

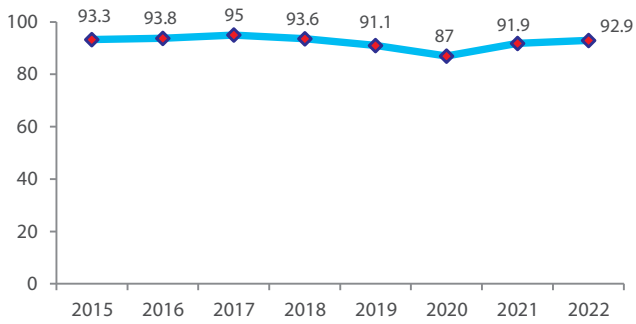


Figure 34: % of women attending PNC within 6 weeks of delivery

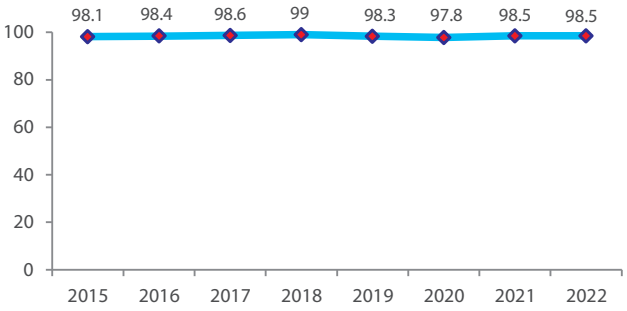


Figure 35: % of pregnant women protected against tetanus.

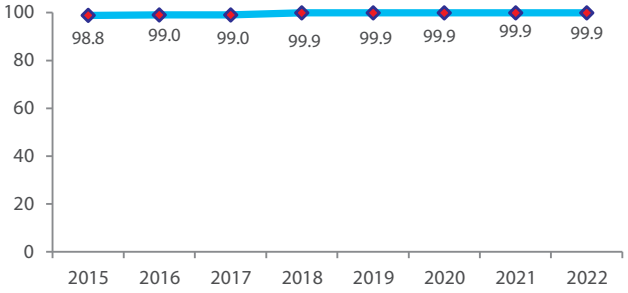


Figure 36: % of deliveries in health institutions

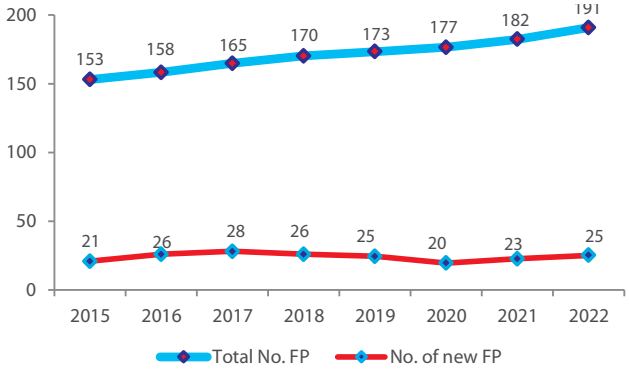


Figure 37: New & total no. of family planning acceptors (thousand)

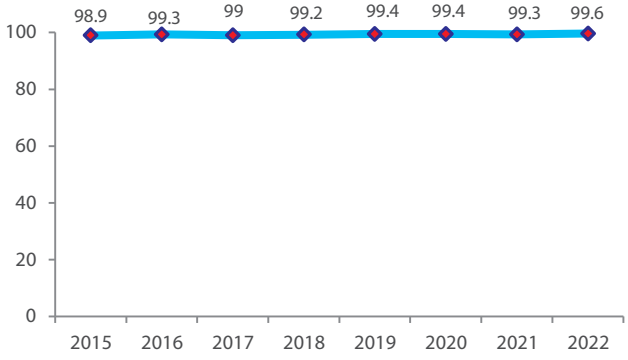


Figure 38: % of children 18 months old who received all EPI booster

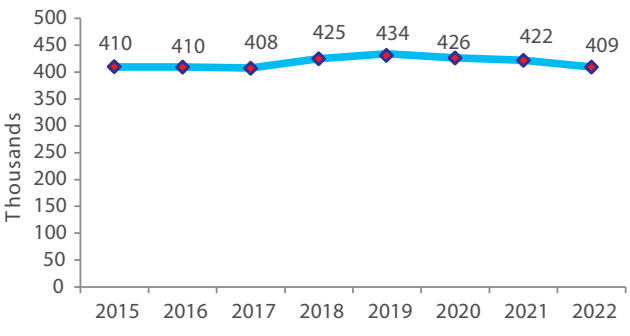


Figure 39: No. of children 0-5 years under supervision (thousand)

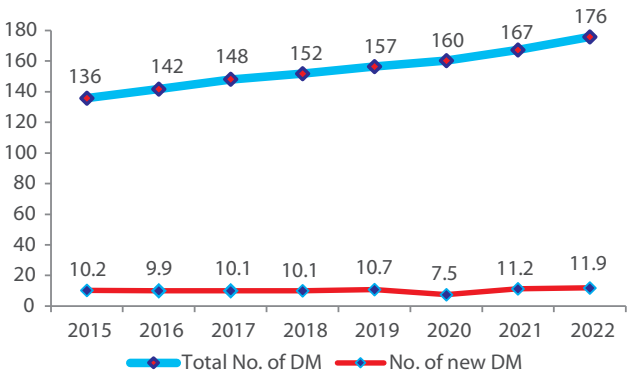


Figure 40: New & total no. of patients with diabetes (thousand)

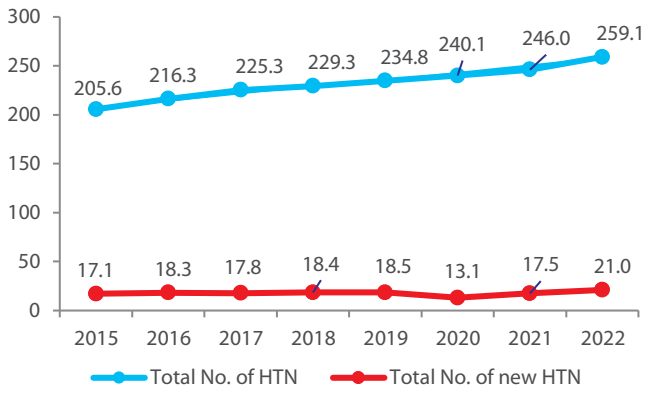


Figure 41: New & total no. of patients with hypertension (thousand)

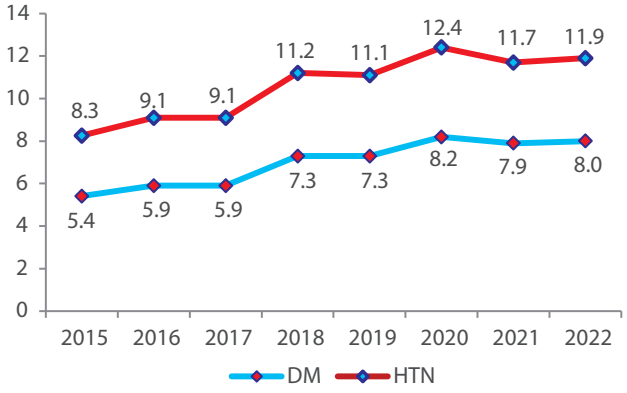


Figure 42: Prevalence of NCD among population served > 18 years

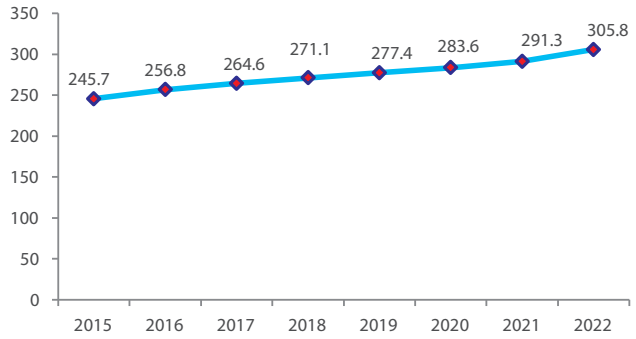


Figure 43: Total No. of all patients with diabetes and/or hypertension (Thousand)

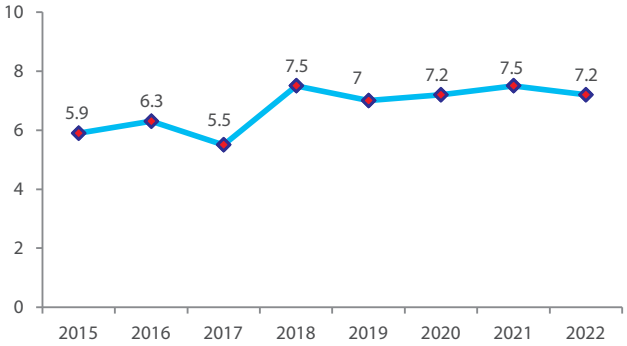


Figure 44: % of NCD patients' defaulters

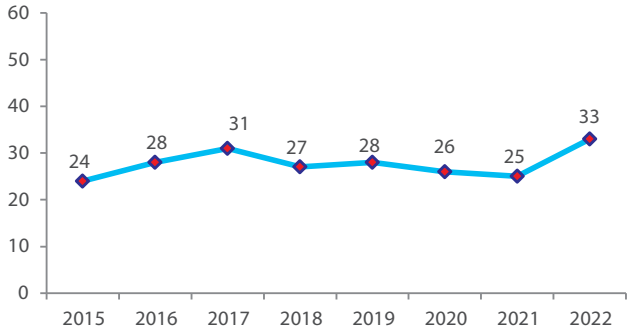


Figure 45: No. of new reported TB cases

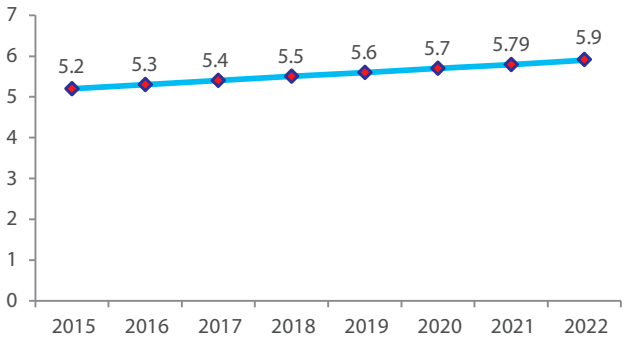


Figure 46: No. of Registered Refugee (millions)

Part -2 CMM (22-2016) Indicators

Table 30: Selected CMM indicators 2022

SO2	Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Refugees' health is protected and the disease burden is reduced	Prevalence of diabetes among population served, 18 years and above	8.2	8.4	7.5	7.4	9.1	8.0
	Percentage of DM patients under control per defined criteria	28.0	44.4	35.5	34.0	35.9	33.4
	Average daily medical consultation per doctor	71.3	87.5	73.9	62.8	77.1	74.5
	Average consultation time per doctor	3.8	2.3	2.5	4.5	3.7	3.5
	Number of HCs fully implementing eHealth system	25	27	22	22	43	139
	Percentage of NCD patients coming to HC regularly	78.3	71.4	73.7	82.1	84.0	79.8
	Percentage of NCD patients with late complications	8.4	7.7	12.2	13.3	11.5	11.1
	Number of EPI vaccine preventable disease outbreaks	0	0	0	0	0	0
	Percentage of women with live births who received at least 4 ANC visits	80.5	75.2	54.6	98.3	90.1	87.6
	Percentage of post-natal women attending PNC within 6 weeks of delivery	87.1	88.5	81.0	100.0	90.8	92.9
	Percentage Diphtheria + tetanus coverage among targeted students	95.7	98.4	98.5	100	100	98.9
	Antibiotic prescription rate	21.3	27.6	25.7	21.6	18.1	22.2
	Percentage of HCs with no stock out of 12 tracer medicines	100	100	91.3	100	100	98.6
	Percentage of preventative dental consultations out of total dental consultations	37.2	18.5	31.1	47.9	50.9	40.2
	Percentage of targeted population 40 years and above screened for diabetes mellitus	17.3%	23.1%	11.8%	27.4%	21.2%	20.9%
	Number of new NCD patients (DM, HT, DM+HT)	8,947	4,449	3,236	9,086	3,286	29,004
	Total number of NCD patients (DM, HT, DM+HT)	85,817	34,032	36,888	106,482	42,626	305,845
	Percentage of children 18 months old that received all booster vaccines	98.8	96.8	97.9	98.5	99.8	98.6
	Number of new TB cases detected	0	1	30	2	0	33
	Percentage of 18 months old children that received 2 doses of Vitamin A	99.7	96.5	85.0	99.4	99.8	99.4
	Number of active/continuing family planning users	37,481	16,980	11,843	101,070	23,453	190,827
	Number of new enrolments in pre-conception care programme	5,271	1,673	788	29,830	4,859	42,421
	Percentage of 4th grade school children identified with vision impairment	19.4	7.8	4.9	13.1	15.6	13.3
	Unit cost per capita	10.2	61.4	20.6	29.0	34.4	24.1
	Percentage of UNRWA hospitalization accessed by Social Safety Net Programme (SSNP)	14.8	30.4	46.6	67.3	2.1	30.7
	Hospitalization rate per 1000 served population	2.7	92.1	49.7	11.4	61.0	26.2
	Hospitalization unit cost	105.1	675.6	227.6	223.8	285.4	370.2

Part 3 – 2022 Data Tables

Table 31: Aggregated 2022 Data Tables

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
31.1 – Demographics						
Population of host countries in million	10,998,531	5,296,814	21,563,800	1,997,328	3,000,021	42,856,494
Total number of registered refugees	2,366,050	487,662	581,018	1,553,868	901,035	5,889,633
Refugees in host countries (%)	21.5	9.2	2.7	77.8	30.0	13.7
Number of persons (individuals) who used UNRWA health services.	467,229	180,206	202,912	936,910	265,775	2,053,032
Total persons eligible UNRWA health services (no.)	2,542,999	557,342	674,455	1,754,309	1,123,485	6,652,590
Refugees accessing (served population) UNRWA health services	865,562	259,036	324,249	1,295,528	428,950	3,173,325
Growth rate of registered refugees (%)	1.7	2.1	2.9	1.4	1.3	2.0
Children below 18 years (%)	24.2	21.6	26.8	40.7	26.5	29.0
Women of reproductive age: 15-49 years (%)	28.6	25.5	27.9	25.1	28.4	27.3
Population 40 years and above (%)	38.6	45.7	37.7	24.1	36.3	34.9
Average family size[10]	5.2	4.7	4.8	5.6	5.6	5.3
Aging index (%)	61.8	81.9	46.0	19.4	51.8	43.7
Fertility rate	3.2	2.7	2.7	3.6	3.6	3.2
Male/female ratio	1:1	1:1	1:1	1:1	1:1	1:1
Dependency ratio	43.3	47.9	46.5	70.0	48.6	51.2
31.2- Health Infrastructure						
PHC facilities (no.):						
Inside official camps	11	14	12	11	18	66
Outside official camps	14	13	11	11	25	74
Total health centres	25	27	23	22	43	140
Ratio of PHC facilities per 100,000 population	1.1	5.6	4.0	1.5	4.9	2.4
Services within PHC facilities (no.):						
Laboratories	25	17	21	22	42	127
Dental clinics:						
- Stationed units	30	19	20	25	25	119
- Mobile units	4	0	2	5	0	11
Total Dental clinics	34	19	22	30	25	130
Radiology facilities	1	4	0	7	9	21
Physiotherapy clinics	1	0	0	11	6	18
Hospitals	-	-	-	-	1	1
Health facilities implementing E-health	25	27	22	22	43	139

10 Current contraceptive practices among mothers of children 0-5 years survey conducted in 2015.

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Strategic Objective 1						
31.3 - Outpatient Care						
Outpatient consultations (no.)						
(a) Face to face consultations						
Male	521,046	365,994	348,384	1,325,106	364,866	2,925,396
Female	949,177	518,252	548,754	1,878,160	620,291	4,514,634
Total (a)	1,470,223	884,246	897,138	3,203,266	985,157	7,440,030
(b) Outpatient consultations specialist						
Male	1,063	2,305	829	5,264	2,761	12,222
Female	24,366	16,577	11,909	22,057	6,729	81,638
Total (b)	25,429	18,882	12,738	27,321	9,490	93,860
Sub-total (face to face & specialist)						
Male	522,109	368,299	349,213	1,330,370	367,627	2,937,618
Female	973,543	534,829	560,663	1,900,217	627,020	4,596,272
Total (a+b)	1,495,652	903,128	909,876	3,230,587	994,647	7,533,890
(c) Telemedicine consultations						
Male	4,616	0	2,232	149,390	0	156,238
Female	7,898	0	3,300	168,593	0	179,791
Total (c)	12,514	0	5,532	317,983	0	336,029
Grand total (a) + (b) +(c)	1,508,166	903,128	915,408	3,548,570	994,647	7,869,919
Average daily medical consultations / doctor[11]	71.3	87.5	73.9	62.8	77.1	74.5
31.4 - Inpatient Care						
Patients hospitalized -including Qalqilya (no.)	2,310	23,861	16,110	14,743	26,183	83,207
Average length of stay (days)	2.0	2.6	0.9	1.4	1.9	1.8
Age distribution of admissions (%):-						
0-4 yrs	0.2	16.7	5.6	7.5	18.2	12.9
5-14 yrs	1.5	7.3	7.8	7.4	38.2	17.0
15-44 yrs	93.7	32.7	39.1	59.8	32.9	40.5
>45 yrs	4.6	43.3	47.5	25.4	10.7	29.6
Sex distribution of admissions (%):						
Male	4.8	47.1	40.0	29.6	28.8	35.7
Female	95.2	52.9	60.0	70.4	71.2	64.3
Ward distribution of admissions (%):						
Surgery	2.9	26.5	39.0	41.2	18.4	28.3
Internal Medicine	8.5	57.1	21.5	4.5	39.6	34.1
Ear, nose & throat	1.1	2.4	5.2	0.0	0.0	1.7
Ophthalmology	0.0	3.7	15.0	15.6	3.5	7.8
Obstetrics	87.4	10.3	19.3	38.7	38.5	28.1

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

* PRS data is included.

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
31.5 - Oral Health Services						
Dental curative consultation – Male (no.)	48,498	27,784	34,137	80,042	13,484	203,945
Dental curative consultation – Female (no.)	76,175	35,009	57,372	108,119	18,665	295,340
(a) Total dental curative consultations (no.)	124,673	62,793	91,509	188,161	32,149	499,285
Dental screening consultations – Male (no.)	25,405	5,146	17,263	51,970	9,476	109,260
Dental screening consultations – Females (no)	48,360	9,069	23,953	120,818	23,853	226,053
(b) Total dental screening consultations (no.)	73,765	14,215	41,216	172,788	33,329	335,313
Grand total of Dental consultations/screening (a) & (b)	198,438	77,008	132,725	360,949	65,478	834,598
% preventive of total dental consultations	37.2	18.5	31.1	47.9	50.9	40.2
Average daily dental consultations / dental surgeon	27.8	24.0	27.6	52.4	21.3	33.2
31.6 - Physical Rehabilitation						
Trauma patients	-	-	-	3,912	476	4,388
Non-Trauma patients	556	-	-	9,635	1,682	11,873
Total	556	-	-	13,547	2,158	16,261
Strategic Objective 2						
31.7 - Family Planning Services						
New family planning users (no.)	5,953	2,082	2,246	11,550	3,381	25,212
Continuing users at end year (no.)	37,481	16,980	11,843	101,070	23,453	190,827
Family planning discontinuation rate (%)	5.2	5.7	6.2	4.3	4.2	5.1
Family planning users according to method (%):						
IUD	39.5	37.2	30.8	50.8	60.4	47.3
Pills	29.1	22.2	25.2	21.3	15.1	22.4
Condoms	27.8	39.3	41.6	24.4	22.8	27.3
Injectables	3.6	1.2	2.4	3.5	1.6	3.0
31.8 - Preconception Care						
No. of women newly enrolled in preconception care programme	5,271	1,673	788	29,830	4,859	42,421
31.9 - ANTENATAL CARE						
Registered population (no.)	2,542,999	557,342	674,455	1,754,309	1,123,485	6,652,590
Expected pregnancies (no.)[12]	57,421	7,301	15,324	48,542	27,436	156,023
Newly registered pregnancies (no.)	20,054	4,627	6,380	35,341	14,764	81,166
Antenatal care coverage (%)	34.9	63.4	41.6	72.8	53.8	52.0
Trimester registered for antenatal care (%):						
1st trimester	75.8	85.2	49.7	89.7	65.6	78.5
2nd trimester	20.6	11.9	32.3	10.1	28.8	17.9
3rd trimester	3.6	2.9	17.9	0.2	5.6	3.6
Pregnant women with 4 antenatal visits or more (%)	80.5	75.2	54.6	98.3	90.1	87.6
Average no. of antenatal visits	5.2	4.8	3.9	7.6	5.3	6.1

12 Expected no. of pregnancies =population X CBR

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
31.10 - Tetanus Immunization						
Pregnant women protected against tetanus (%)	97.1	91.5	99.5	99.4	99.8	98.5
31.11 - Risk Status Assessment						
Pregnant women by risk status (%):						
High	27.8	13.4	16.7	17.9	18.6	20.2
Alert	28.8	36.9	40.3	28.8	29.2	30.0
Low	43.5	49.7	43.0	53.3	52.2	49.7
31.12 Diabetes Mellutes And Hypertenstion During Pregnancy						
Diabetes during pregnancy (%)	10.0	4.7	4.3	5.3	9.0	7.0
Hypertension during pregnancy (%)	9.9	8.1	5.5	7.8	4.6	7.5
31.13 - Delivery Care						
Expected deliveries (no.)	21,012	4,879	6,304	35,872	15,247	83,314
a - Reported deliveries (no.)	19,245	4,326	6,038	33,219	14,532	77,360
b- Reported abortions (no.)	1,767	520	252	2,643	709	5,891
Unknown delivery outcome (no.)	0	33	14	10	6	63
Unknown delivery outcome (%)	0	0.68	0.22	0.03	0.04	0.08
Place of delivery (%):						
Home	0.03	0.09	0.91	0.06	0.08	0.13
Hospital	99.97	99.91	99.09	99.94	99.92	99.87
Deliveries in health institutions (%)	100.0	99.9	99.1	99.9	99.9	99.9
Deliveries assisted by trained personnel (%)	100	100	99.9	100	100	100
31.14 - Maternal Deaths						
Maternal deaths by cause (no.)						
Pulmonary Embolism	2		1	1		4
Septic shock	1		1	1		3
Postpartum hemorrhage	1		1			2
Aspiration pneumonitis due to anaesthesia	1					1
Eclampsia & DIC			1			1
Renal Impairment, Thrombotic thrombocytopenic purpura	1					1
Sudden cardiac arrest				1		1
Acute liver injury due to overdose of antipsychotic (Suicide)	1					1
Total Maternal Mortality	7	0	4	3	0	14
Maternal mortality ratio per 100,000 live births.	36.1	0	66.2	9.0	0	18.0
C-Section among reported deliveries (%)	33.9	55.5	64.9	25.8	33.1	33.9

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
31.15 - Postnatal Care						
Post natal care coverage (%)	87.1	88.5	81.0	100.0	90.8	92.9
31.16 Care Of Children Under Five Years						
Registered population (no.)	2,542,999	557,342	674,455	1,754,309	1,123,485	6,652,590
Registered refugee (no.)	2,366,050	487,662	581,018	1,553,868	901,035	5,889,633
Estimated surviving infants (no.)[13]	56,623	7,250	15,080	47,802	27,016	153,771
Children < 1 year registered (no.)	21,605	4,655	5,346	39,612	11,176	82,394
Children < 1 yea r coverage of care (%)	38.2	64.2	35.4	82.9	41.4	53.6
Children 1- < 2 years registered (no.)	22941	4908	5490	37155	10824	81318
Children 2- < 3 years registered (no.)	20988	4698	5972	37155	10361	79174
Children 3- < 4 years registered (no.)	23819	5029	6861	38315	10787	84811
Children 4- < 5 years registered (no.)	25181	5326	7007	40724	10629	88867
Total children 0-5 years registered (no.)	114,534	24,616	30,676	192,961	53,777	416,564
31.17 - Immunization Coverage						
Immunization coverage children 12 months old (%):						
BCG	100.0	100.0	99.5	99.6	99.4	99.7
IPV	99.9	NA	99.5	99.6	100.0	99.7
Poliomyelitis (OPV)	99.8	99.0	99.0	99.5	100.0	99.6
Triple (DPT)	99.9	99.3	97.0	99.2	100.0	99.4
Hepatitis B	99.9	99.3	99.2	99.2	100.0	99.6
Hib	99.9	99.3	99.2	NA	NA	99.5
Measles	99.6	99.3	0.0	NA	NA	99.6
All vaccines	99.9	99.4	99	99.4	99.9	99.6
Immunization coverage children 18 months old - boosters (%)						
Poliomyelitis (OPV)	98.8	96.7	98.0	98.8	99.8	98.7
Triple (DPT)	98.9	96.7	98.0	98.5	99.8	98.6
MMR	98.8	97.0	97.8	98.3	99.8	98.5
All vaccines	98.8	96.8	97.9	98.5	99.8	98.6
31.18- Growth Monitoring and Nutrional Surveillance						
Infants and Children with Growth Problems (0-5) years of age						
Prevalence of underweight among children aged <5 years	6.05	5.93	9.54	6.8	4.61	6.44
Prevalence of stunting among children aged <5 years	12.77	7.8	13.62	10.5	10.00	11.13
Prevalence of wasting among children aged <5 years	5.69	9.11	7.07	8.4	4.99	7.14
Prevalence of overweight/obesity among children aged <5 years	11.12	9.88	2.59	6.7	12.48	8.56
31.19 - School Health						
4th grade students screened for vision (No.)						
Boys	5,260	1,417	3,205	16,064	1,882	27,828
Girls	5,146	1,486	2,997	14,734	3,064	27,427
Total	10,406	2,903	6,202	30,798	4,946	55,255
4th grade students with vision impairment (%)						
Boys	16.0%	6.6%	4.3%	11.6%	15.2%	11.6%
Girls	23.0%	8.9%	5.5%	14.7%	15.8%	15.0%
Total	19.4%	7.8%	4.9%	13.1%	15.6%	13.3%

13 Expected no. of pregnancies =population X CBR

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
7th grade students screened for vision (No.):						
Boys	6,667	1,263	3,135	14,055	2,000	27,120
Girls	6,125	1,241	3,168	14,485	3,187	28,206
Total	12,792	2,504	6,303	28,540	5,187	55,326
7th grade students with vision impairment (%)						
Boys	17.3%	7.4%	6.4%	13.4%	14.8%	13.4%
Girls	25.5%	13.0%	6.8%	17.7%	16.4%	17.8%
Total	21.2%	10.1%	6.6%	15.6%	15.8%	15.6%
31.20 – Non-Communicable Diseases (NCD) Patients Registered With UNRWA						
Diabetes mellitus type I (no/%)	1,152 (1.3%)	321 (0.9%)	502 (1.4%)	1,716 (1.6%)	587 (1.4%)	4,278 (1.4%)
Diabetes mellitus type II (no/%)	12,870 (15.0%)	3,899 (11.5%)	3,909 (10.6%)	15,498 (14.6%)	6,266 (14.7%)	42,442 (13.9%)
Hypertension (no/%)	31,738 (37.0%)	16,853 (49.5%)	18,995 (51.5%)	48,765 (45.8%)	13,685 (32.1%)	130,036 (42.5%)
Diabetes mellitus & hypertension (no/%)	40,057 (46.7%)	12,959 (38.1%)	13,482 (36.5%)	40,503 (38.0%)	22,088 (51.8%)	129,089 (42.2%)
Total (no. / %)	85,817 (100%)	34,032 (100%)	36,888 (100%)	106,482 (100%)	42,626 (100%)	305,845 (100%)
31.21 - Prevalence of Hypertension and Diabetes						
Served population ≥ 40 years with diabetes mellitus (%)	15.4%	13.9%	13.8%	17.1%	17.9%	15.9%
Served population ≥ 40 years with hypertension (%)	20.7%	24.4%	25.7%	26.8%	22.5%	23.8%
3122 – Management						
Hypertensive patients on lifestyle management only (%)	0.6%	3.1%	0.5%	3.3%	0.2%	1.9%
DM I & II patients on lifestyle management only (%)	0.6%	2.6%	0.7%	4.8%	0.2%	2.3%
Diabetes I & II patients on insulin only (%)	8.2%	8.7%	15.6%	13.0%	11.4%	11.2%
31.23 - Risk Scoring						
Risk status - patients with diabetes mellitus type 1 (%):						
Low	34.0%	54.7%	56.9%	51.1%	16.6%	32.5%
Medium	60.7%	40.1%	39.4%	47.2%	60.6%	54.8%
High	5.4%	5.2%	3.8%	1.6%	22.8%	12.6%
Risk status - patients with diabetes mellitus type 2 (%):						
Low	8.9%	18.7%	21.5%	15.2%	13.4%	14.0%
Medium	58.7%	52.4%	57.0%	63.6%	60.9%	60.5%
High	32.4%	29.0%	21.5%	21.1%	25.7%	25.5%
Risk status - patients with hypertension (%):						
Low	9.5%	17.0%	23.1%	8.7%	7.7%	11.3%
Medium	28.7%	54.5%	58.1%	50.9%	45.0%	46.2%
High	61.8%	28.5%	18.8%	40.4%	47.3%	42.5%
Risk status - patients with diabetes & hypertension (%):						
Low	11.0%	5.7%	5.7%	13.4%	5.2%	9.6%
Medium	45.7%	44.3%	46.1%	55.6%	46.9%	49.3%
High	43.3%	50.0%	48.2%	30.9%	47.9%	41.1%

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Risk factors among NCD patients (%):						
Smoking	14.1	29.9	26.5	9.5	13.9	15.0
Physical inactivity	75.2	37.8	27.0	56.7	36.2	53.8
Obesity	46.6	46.7	32.5	53.1	55.7	49.0
Raised cholesterol	61.0	37.7	42.9	46.1	59.0	51.7
31.24 - Late Complications Among NCD Patients (%)						
Diabetes mellitus type I	1.2	1.6	2.2	2.1	2.9	2.0
Diabetes mellitus type II	5.2	3.8	5.8	7.9	6.6	6.5
Hypertension	6.7	6.7	10.9	9.5	8.3	8.6
Diabetes mellitus & hypertension	10.5	9.8	15.6	19.6	14.6	14.7
All NCD patients	8.4	7.7	12.2	13.3	11.5	11.1
31.25 – Defaulters						
NCD patients defaulting during (no.)	7,619	1,527	2,405	5,426	4,064	21,041
NCD patients defaulting during 2022 (%)	9.4%	5.0%	6.7%	5.4%	9.6%	7.2%
31.26 - Fatality						
Reported deaths among registered NCD patients (%)	1.1%	2.3%	1.3%	1.7%	1.4%	1.5%
Reported deaths among registered NCD patients by morbidity (no):						
Diabetes mellitus	78	53	27	159	50	367
Hypertension	198	277	211	493	132	1,311
Diabetes mellitus & hypertension	650	382	226	1,039	398	2,695
Total	926	712	464	1,691	580	4,373
31.27 - Communicable Diseases						
Registered refugee (no.)						
Population served (no.)	865,562	259,036	324,249	1,295,528	428,950	3,173,325
Reported cases (no.):						
Acute flaccid paralysis	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0
Cholera-suspected	0	76	25	0	0	101
Cholera- Confirmed	0	8	2	0	0	10
Diphtheria	0	0	0	0	0	0
Meningococcal meningitis	0	0	0	3	0	3
Meningitis - bacterial	0	0	4	16	0	20
Meningitis – viral	0	0	1	39	14	54
Tetanus neonatorum	0	0	0	0	0	0
Brucellosis	2	1	146	12	27	188
Watery diarrhoea (>5years)	4,317	3,276	2,806	2,399	1,143	13,941
Watery diarrhoea (0-5years)	4,320	2,953	2,962	8,673	1,968	20,876
Bloody diarrhoea	12	16	25	297	24	374
Viral Hepatitis	2	153	459	161	7	782
HIV/AIDS	0	0	0	0	0	0

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

Field	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
Leishmania	0	0	13	0	1	14
Malaria*	0	0	0	0	0	0
Measles	0	8	8	40	4	60
Gonorrhoea	0	1	0	0	0	1
Mumps	0	12	11	305	19	347
Pertussis	0	0	0	0	1	1
Rubella	0	1	0	0	1	2
Tuberculosis, smear positive	0	0	10	0	0	10
Tuberculosis, smear negative	0	0	2	0	0	2
Tuberculosis, extra pulmonary	0	1	18	2	0	21
Typhoid fever	0	0	193	20	13	226
Crosscutting Services						
31.28 - Laboratory Services						
Laboratory tests (no.)	1,118,835	385,724	496,150	2,192,917	784,981	4,978,607
Productivity (WLUs / hour)	52.3	43.4	31.1	54.8	67.9	49.9
31.29 - Radiology Services						
Plain x-rays inside UNRWA (no.)	0	20,984	0	30,118	19,009	70,111
Plain x-rays outside UNRWA (no.)	569	3,547	0	0	0	4116
Other x-rays outside UNRWA (no.)	0	0	0	0	0	0
Total plain x-ray in and outside UNRWA (no.)	569	24,531	0	30,118	19,009	74,227

31.30- Human Resources	Hq	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Health staff at end of December 2022 (no.)							
Medical care services:							
Doctors	3	99	33	67	214	75	491
Specialists	0	6	8	8	6	6	34
Pharmacists	1	2	23	16	71	68	181
Dental Surgeons	0	30	15	25	29	17	116
Nurses	1	250	86	115	322	246	1,020
Paramedical	7	128	44	80	151	76	486
Admin./Support Staff	2	70	70	68	116	79	405
Labour category	0	86	24	66	86	71	333
Sub-total	14	671	303	445	995	638	3,066
International Staff	7						7
Grand total	21	671	303	445	995	638	3,073
Health personnel per 100,000 registered refugees:							
Doctors	4.2	6.8	11.5	16.5	8.3	8.7	4.2
Dental surgeons	1.3	3.1	4.3	2.2	1.9	2.1	1.3
Nurses	10.6	17.6	19.8	24.9	27.3	18.1	10.6

Part 4 - Selected Survey Indicators

Infant and child mortality survey, 2013

Table 32: Infant and child mortality

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

Decayed/Missing/Filled Surface (DMFS) Survey, 2010

Table 33: Descriptive: Total number of decayed surface (DS), filled surface (FS) and DMFS sorted by age group

Age group	DS Mean, SE (95%CI)	FS Mean, SE (95%CI)	DMFS Mean, SE (95%CI)8
11-12 year	3.27, 0.34 (2.61 – 3.94)	0.49, 0.13 (0.24 – 0.74)	3.83, 0.38 (3.08 – 4.58)
13 years	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 years	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 34: 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
13 years	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 years	males	3.75 0.85 (2.03 – 5.48)	1.11 0.47(0.16 – 2.06)	4.87 0.90 (3.05 – 6.68)	80.4	15.3
	females	2.57 0.57 (1.43 – 3.70)	0.81 0.22 (0.36 – 1.25)	3.72 0.65 (2.42 – 5.03)	69.0	21.8

Table 35: 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

Decayed/missing/filled teeth (DMFT) survey conducted in 2016

Table 36: Prevalence of Dental Caries (DMFT/S>0) in the permanent dentition by Field, 2016

Field	No.	%	CI 95%
Jordan	262	68.4	63.5 – 73.0
Lebanon	287	73.6	68.9 – 77.8
Syria	134	45.9	40.1 – 51.8
Gaza	309	70.7	66.2 – 74.9
West Bank	271	79.7	75.0 – 83.9
Agency	1263	72.8	70.5 – 75.0

Table 37: Prevalence of dental sealants on permanent teeth, by Field, 2016

Indicator	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency	CI 95%
Prevalence of dental sealants	4.2	431.5	0.0	1.6	1.8	9.8	(CI 95%: 8.4-11.4)

Table 38: Prevalence of Dental Caries (DMFS) results 2011 and 2016

Year	Jordan	Lebanon	Syria	Gaza Strip	West Bank	Agency
2011	71.1	68.5	71.8	68.8	85.1	73.1
2016	68.4	73.6	45.9	70.7	79.7	72.8

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

Table 39: 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
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 40: Total fertility rates among mothers of children 0 to 3 years of age who attended the Maternal and Child Health centres

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 41: Selected anaemia survey indicators

Indicator	Jordan	Lebanon	Syria	Gaza	West Bank	Agency
Percentage of infants breastfed for at least one month	75.9	87.2	78.3	65.0	87.1	78.9
Prevalence of exclusive breast feeding up to 4 months	24.0	30.2	40.3	33.3	34.5	32.7
Prevalence of anaemia among children < 3 years of age	28.4	33.4	17.2	54.7	34.2	33.8
Prevalence of anaemia among pregnant women	22.5	25.5	16.2	35.6	29.5	26.3
Prevalence of anaemia among nursing mothers	22.2	26.6	21.7	45.7	23.0	28.6
Prevalence of anaemia among school children						
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

Annex -1 Donor Support to The UNRWA Health Programme During 2022

Table 42: Donor support to the UNRWA health programme

Funding Portal	Donor	US$D Amount	Title	Fund code
Programme Budget	Austria	2,708,865	Supporting UNRWA Health Programme in Gaza and West Bank 2022	GF22022
	Germany	18,518,519	UNRWA basic services in the context of the Syria crisis in Lebanon and Jordan phase III	GF22032
	Japan	462,962	Support for education and healthcare to Palestine refugees in Lebanon	GF22012
	Japan	2,250,000	Enhancing the human security of Palestine refugees in the West Bank by delivering health care services	GF22009
	Jordan	2,996,883	In-kind donation of vaccines and family planning supplies	GI00000
	Lebanon	16,804	In-kind donation of vitamins, medicine and COVID 19 rapid test devices	GI00000
	Luxembourg	481,605	Supporting the provision of health care for Palestine refugees in Gaza Strip	GF22026
	Palestine	2,427,009	In-kind donation of various medical supplies, medicines and PPE items	GI00000
	Local Government of Andalucia, Spain	369,129	To cover MCHC and GBV in Syria	GF22019
	Regional Government of Asturias, Spain	63,700	To cover MCHC in Gaza	GF22018
	Barcelona City Council, Spain	92,502	To cover MCHC program in Sabra HC in Gaza	GF22029
	Regional Government of Basque, Spain	194,775	Health Points in WB 2022	GF22028
	Bilbao Local Council, Spain	23,026	MCHC program in Bureij HC, Gaza	GF22005
	Local Council of Castello, Spain	56,756	Cover MCHC program in Jabalia HC in Gaza	GF22001
	Local Council of Castello, Spain	60,207	Support MCHC in Jabalia HC, Gaza	GF22027
	Castilla La Mancha Regional Government, Spain	67,177	MCHC in West Bank	GF22004
	Local Government of Catalonia, Spain	300,557	To support MCHC and GbV prevention at Deir el-Balah Health Centre	GF22020
	Local Government of Catalonia, Spain	309,204	MCHC and GbV prevention at Askar and Balata Health Centres, West Bank	GF22035
	Extremadura Regional Government, Spain	193,798	To cover MCHC program in Gaza	GF22030
	La Rioja Government, Spain	113,895	Support MCHC in West Nuseirat HC, Gaza	GF22010
	Local Government of Navarra, Spain	136,493	MCHC in Gaza (Shouka Health Centre)	GF22002
	Local Government of Navarra, Spain	115,494	Health Point in WB	GF22003
	Local Government of Navarra, Spain	305,527	To Support Health in the West Bank	GF22021
	Valencia City Council, Spain	65,717	MCHC in Tulkarem HC in WB	GF22013
	Zaragoza Regional Government, Spain	45,664	Health points intervention in Azzoun and Silat al-Daher in West Bank	GF22008
	Syria	82,438	In-kind donation of Hormonal Contraceptive and vaccines	GI00000

Funding Portal	Donor	US$D Amount	Title	Fund code
Programme Budget	UNRWA USA National Committee	638,012	UNRWA USA Support to GFO Health Centre Staff	GF22037
	Vitamin Angels	23,904	In-kind donation of Vitamins	GI00000
	UNICEF	495,778	In-kind donation of various medical supplies, medicines and PPE items	GI00000
	WHO	307,780	In-kind donation of staff costs and medicine	GI00000
	Novo Nordisk	4,800	In-kind donation of Insulin Vials	GI00000
	St. John Eye Hospital	49,362	In-kind donation of Vision chart, Ophthalmoscopes and Portable Fundus Camera	GI00000
	Private Sector Funding	93,625	In-kind donation of medical supplies and equipment	GI00000
Emergency Appeal (oPt)	Germany	1,116,071	Support to UNRWA COVID-19 response: ensuring that Palestine refugees are able to meet their basic needs, mitigating a further deterioration in their humanitarian and socio-economic conditions	PR22002
	Japan	2,911,752	Emergency Grant Aid in response to the deterioration of the humanitarian situation in the Gaza Strip	PR22024
	Bilbao Local Council, Spain	4,372	Support COVID-19 intervention in Gaza	PR22008
	ECHO	3,046,199	Responding to the impact of emergency on the psychosocial well-being and mental health of Palestine refugee children in the Gaza Strip and strengthening UNRWA's engagement in inter-agency planning and coordination, Palestinian Occupied Territory	PR22044
	Muslim Charity Helping the Needy	75,000	Supporting Palestine refugees' access to health care in the Gaza Strip	PR22019
	UNRWA USA National Committee	521,956	2022 UNRWA USA Support to Gaza Mental Health and Psychosocial Support (MHPSS)	PR22026
	Private Sector Funding	40,000	Emergency Appeal 2022: Providing 2,600 women with support to access mammograms	PR22058
	Sbitany & Sons Co. LTD.	31,230	MHPSS School Activities in Gaza	PR22015
Projects	Germany	13,531,933	UNRWA Digital Transformation in Health and Education	PQ22040
	Japan	1,000,000	Support to the UNRWA Health Program, HQA	PQ22011

Funding Portal	Donor	US$D Amount	Title	Fund code
Projects	Japan	800,694	A human rights-based approach in UNRWA health services focusing on inclusion of vulnerable groups among Palestine Refugees, HQA	PQ22012
	Japan	63,945	Staff costs of Junior Professional Officer, assigned to UNRWA in Health Dept. HQ Amman	IQ20A05
	Japan	64,883	Staff costs of Junior Professional Officer, assigned to UNRWA in Health Dept. HQ Amman	IQ20A06
	Luxembourg	515,404	Supporting the provision of health care for Palestine refugees in Gaza Strip	PQ22056
	Castilla y León Regional Government, Spain	83,907	Laboratory equipment in Syria	PQ22003
	Local Government of Navarra, Spain	73,496	MCHC in Gaza (Shouka Health Centre)	PQ22004
	Zaragoza City Council, Spain	100,196	Support Health Program through providing medical equipment in West Bank	PQ22008
	UNICEF	125,000	UNRWA health systems strengthened to provide integrated health, nutrition and early child-hood interventions and services in UNRWA Health Centres- Jordan Field	PQ22051 & IQ22051
	WHO	10,000	Implementation of Global Young Tobacco Survey - GYTS, (HD/HQA)	PQ22044
	WHO	15,000	To design and conduct GSHS and GSHPPQ surveys among 13–17-year-olds in the schools man-aged by UNRWA	PQ22058
	Palestine Children's Relief Fund (PCRF)	300,000	To cover specifically the cancer medication for kids under 18 years old in Palestine refugee (PRS & PRL) camps, Lebanon	PQ22H01
	Vitamin Angels	129,016	Evaluation of Multiple Micronutrient Supplementation (MMS) program in UNRWA health clinics in Jordan	PQ22027
	St. John Eye Hospital	45,827	Strengthening existing health systems in the Gaza Strip through sustainable Inclusive Eye Health services, Gaza Strip	PQ22006
	St. John Eye Hospital	34,980	Strengthening existing health systems in the Gaza Strip through sustainable Inclusive Eye Health services, PEC training "Direct Ophthalmoscope Unit with LED Heine"	IQ21071
Syria Appeal	Germany	653,136	Supporting UNRWA COVID-19 Response to the most vulnerable Palestine refugees in Jordan	PQ22S21
	Italy	1,495,513	Supporting UNRWA for provision of Comprehensive Health Care Services to Palestine Refugees from Syria and in Jordan-Phase II	PQ22S31
	Japan	2,850,000	Emergency Grant Aid in response to the humanitarian crisis in Syria, Lebanon and Jordan	PQ22S03
	Palestine	52,324	Covering 10% of COVID-19 hospitalization expenses in Lebanon	PQ21S27
	Palestine	217,145	Pharmaceutical supplies to UNRWA Lebanon Field Office for donation to the Palestinian Red Crescent in Lebanon (in-kind donation)	IQ22S15
	Local Government of Andalucia, Spain	52,733	To cover MCHC and GBV in Syria	PQ22S22
	Regional Government of Basque, Spain	834,339	Humanitarian Strategy to support the second phase of Gender project in LFO	PQ22S04
	OCHA	500,000	Provision of life-saving health care services to Palestine Refugees in Syria	PQ22S33
	UNICEF	211,455	Pregnant women have access to proper maternal health and nutrition care, Syria	PQ22S30
	UNHCR	77,664	Health assistance for Palestinian persons arriving from Syria to Egypt	PQ22S12

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

Table 43: Agency-wide CMM 2016-22

	Output 2.1 people-centred primary health care system using FHT model	Activities
2.0.a Prevalence of diabetes among population served 18 years and above (Health) 2.0.b Percentage of DM patients under control per defined criteria (Health) 2.0.c Maternal mortality ratio (per 100,000 live births) (Health) 2.0.d Degree of alignment with UNRWA protection standards of health services (Health/Protection)	**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.f Number of health centres integrating the MHPSS technical **instructions into the Family Health Team approach** 2.1.g Percentage of positive MHPSS cases assisted **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 births 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 2.1.o Percentage of HCs with no stock out of 12 tracer medicines 2.1.t Percentage of protection mainstreaming recommendations from internal protection audits implemented (Health/Protection)	**Outpatient** 2.1.1.b Number of staff trained on comprehensive MHPSS response **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 **school health services** 2.1.1.m Percentage of 4th grade school children identified with vision impairment 2.1.1.n Unit cost per capita
	Output 2.2 efficient hospital support services	Activities
	2.2.a Percentage of UNRWA hospitalization accessed by SSNP	2.2.1.a Hospitalization unit cost

Table 44: Agency-wide Common Indicators

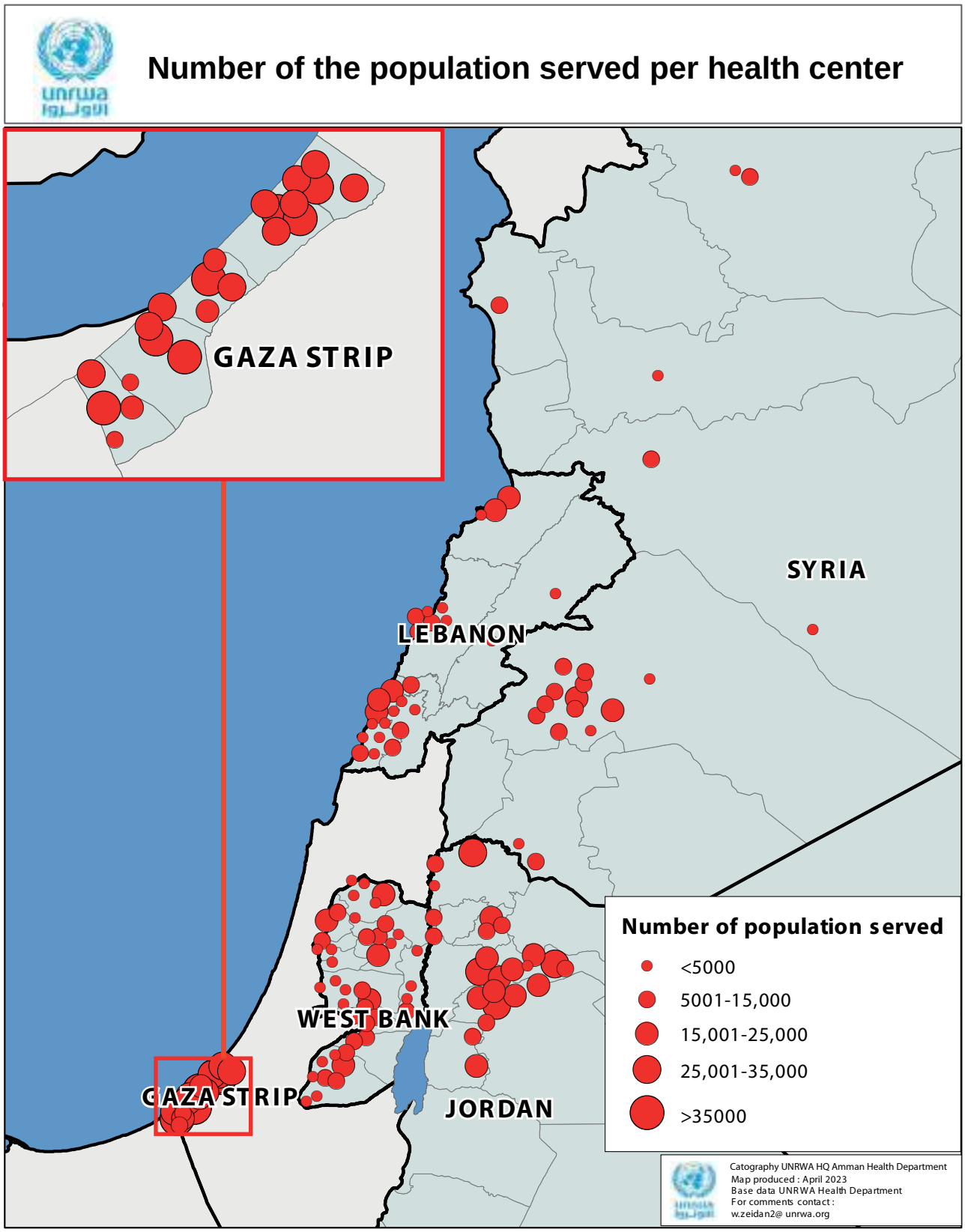
Indicator	
Average daily medical consultations per doctor	Number of medical consultations seen by doctor during given quarter / Number of working days for the same doctor during the same quarter
Antimicrobial prescription rate	No. of patients receiving antibiotics prescription / All patients attending curative services (general outpatient at health centres+ sick babies + sick women + sick NCD) X100
% Preventive dental consultations of total dental consultations	No. of preventive dental consultations / Total no. of preventive & curative dental consultations X100
% 4th-grade school children identified with vision defect	No. of 4th-grade school children identified with vision impairments / No. of 4th-grade school children screened by UNRWA school health programme X100
% Health centres implementing at least one ehealth module	No. of HCs implementing at least one ehealth module / Total No. of HCs X100
% Health centres with no stock-outs of 12 tracer items	No. of HCs with no stock-outs of 12 tracer items / Total no. of HCs X100
% Pregnant women attending at least 4 ANC visits	No. of pregnant women attending at least 4 ANC visits / No. of women with live births X100
% 18-month-old children that received two doses of Vitamin A	No. of children 18 months old that received two doses of Vitamin A / Total no. of children 18 months old X100
No. of women newly enrolled in Pre-Conception Care programme	No. of women newly enrolled in Pre-Conception Care programme
% Women attending PNC within six weeks of delivery	No. of women attending postnatal care within 6 weeks of delivery / No. of women with live births X100
No. of continuing family planning acceptors	No. of continuing family planning acceptors
Diphtheria and tetanus (dT) coverage among targeted students	No. of school children that received dT / Total no. of school children targeted X100
% Targeted population 40 years and above screened for diabetes mellitus	No. of patients 40 years and above screened for diabetes / (Total no. of served population 40 years and above) – (total no. of diabetes patients currently registered in NCD programme) X100
% Patients with diabetes under control according to defined criteria	No. of DM patients defined as controlled according to HbA1C or postprandial glucose criteria / Total no. of DM patients X100
No. of new NCD patients in the programme	No. of new NCD patients in the programme (Diabetes mellitus; Hypertension; Diabetes mellitus & hypertension)
Total No. of NCD patients in the programme	Total No. of NCD patients in the 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 / Total no. of children 18 months old X100
No. of new TB cases detected	No. of new TB cases detected (smear-positive + smear-negative + extra pulmonary)

Annex3 - Health Department Research Activities and Published papers

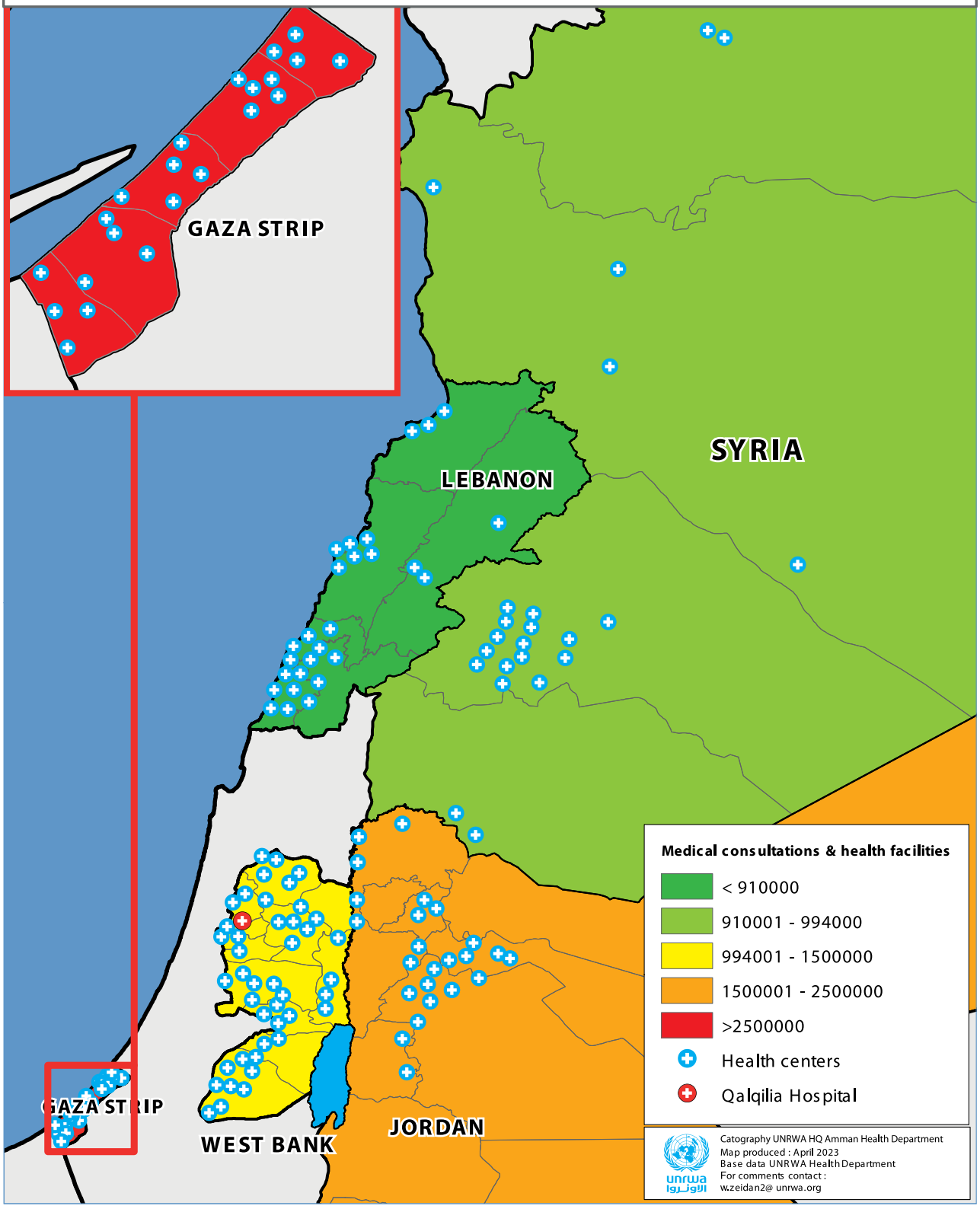
Table 45: Health department published papers/Abstracts

S. N	Month/year of publication	UNRWA author(s)	Title	Citation	Type of publication	Language	Web site (if applicable)
1	April,2022	Shahin, yousef	Diabetes care to Palestine Refugees during COVID 19 pandemic	Diabetes Research and Clinical Practice (2022).	Journal abstract	English	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9164763/pdf/main.pdf
2	June,2022	Zaqqout, Randa F., and Bassam Abu Hamad	Risk factors for hearing impairment in infants and toddlers in the Gaza governorates: a case-control study	The Lancet, 399, S41.	Journal Abstract	English	https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2901176-X
3	June,2022	Alqedra, Emad, and Yousef Aljeesh	Oral health problems among patients with type 2 diabetes attending UNRWA health centres in Gaza governorates: a cross-sectional study	The Lancet, 399, S20.	Journal Abstract	English	https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(22)01155-2.pdf
4	June,2022	Albeik, Shatha, Suha Saleh, Yassir Turki, Ayoub Mousa, Nada Abu Kishk, Mengxin Tan, Yousef Shahin, and Akihiro Seita.	Barriers and solutions to implementing a multisectoral action plan to prevent and control non-communicable diseases within UNRWA settings: a mixed-methods study	The Lancet, 399, S28.	Journal Abstract	English	https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)01163-1/fulltext
5	July,2022	Orubu, Ebiowei SF, Shatha Albeik, Carly Ching, Rana Hussein, Ayoub Mousa, Masako Horino, Rabie Naqa, Mohammad Elayyan, Rawan Saadeh, and Muhammad H. Zaman	A Survey Assessing Antimicrobial Prescribing at United Nations Relief and Works Agency Primary Health Care Centers in Jordan	The American journal of tropical medicine and hygiene	Journal article	English	https://www.ajtmh.org/view/journals/tpmd/107/2/article-p474.xml
6	October, 2022	Rimawi, Asmaa, Adarsh Shah, Henry Louis, David Scales, Jawad Abu Kheiran, Nashat Jawabreh, Sofia Yunez, Masako Horino, Akihiro Seita, and Bram Wispelwey.	Community Health Worker Program Outcomes for Diabetes and Hypertension Control in West Bank Refugee Camps: A Retrospective Matched Cohort Study	Global Health: Science and Practice	Journal abstract	English	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9622278/pdf/GH-GHSP220115.pdf
7	Dec,2022	Jamal, Zeina, Zoheir ElKhatib, Shatha AlBaik, Masako Horino, Mohammed Waleed, Farah Fawaz, Giulia Loffreda, Akihiro Seita, Sophie Witter, and Karin Diaconu	Social determinants and mental health needs of Palestine refugees and UNRWA responses in Gaza during the COVID-19 pandemic: a qualitative assessment	BMC public health	Journal Article	English	https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-022-14771-9
8	Dec,2022	Jamaluddine, Zeina, Gloria Paolucci, Ghada Ballout, Hussam Al-Fudoli, Louise T. Day, Akihiro Seita, and Oona MR Campbell.	Classifying caesarean section to understand rising rates among Palestinian refugees: results from 290,047 electronic medical records across five settings	BMC Pregnancy and Childbirth 22, no. 1	Journal Article	English	https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-022-05264-z
9	Dec,2022	Katherine Rouleuo, Shatha Albeik, Sayed shah, Kenneth yakubu , Akihirio Seita	Integrated People-Centered Health Care.	Making Health Systems Work in Low- and Middle-Income Countries:	Chapter 24 Textbook for Public Health Practitioners	English	

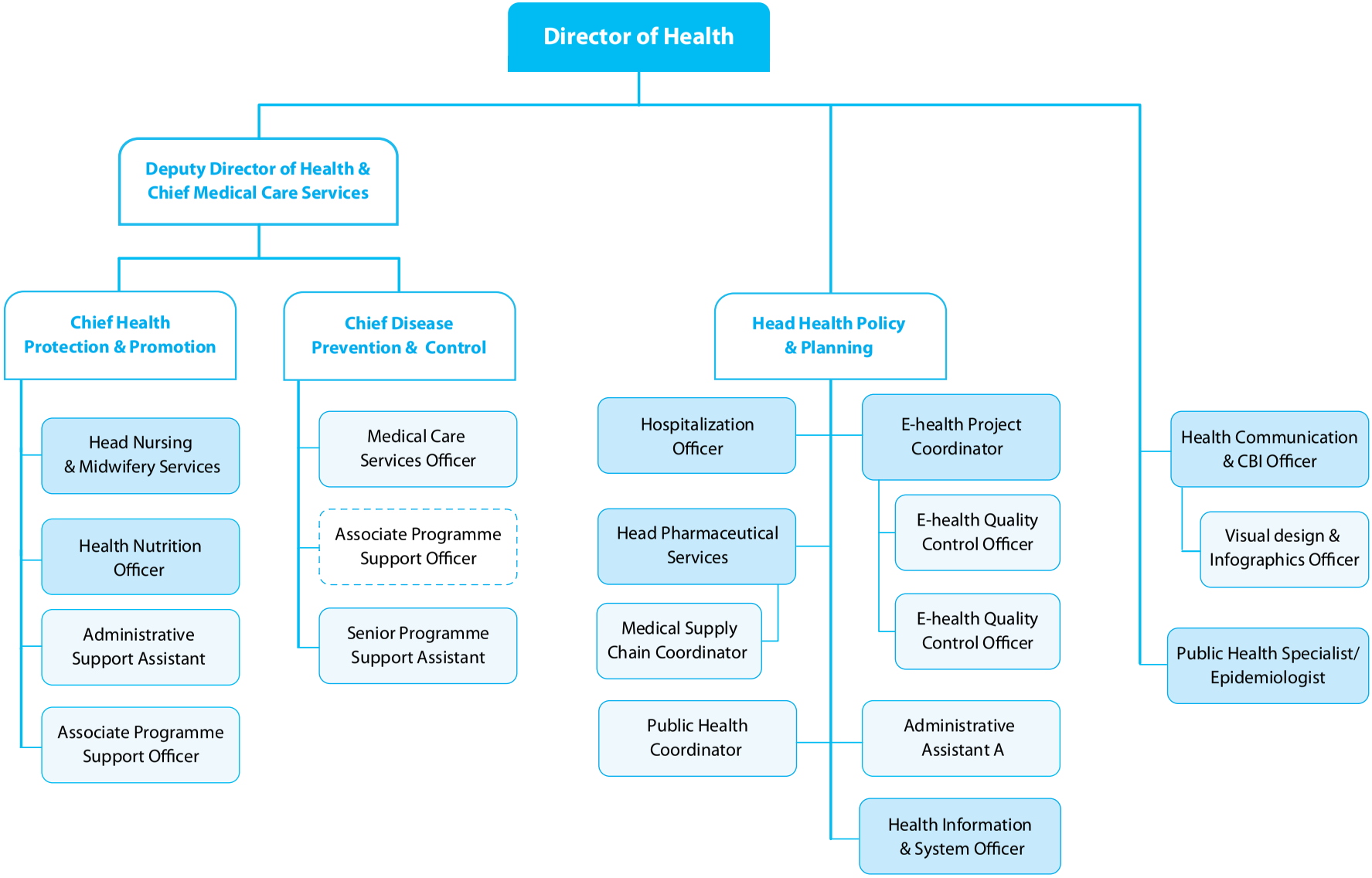
Annex 4 – Health Maps



Number of medical consultations and distribution of health facilities per Field



Annex 5 - Depatrtment of Health at UNRWA HQ, Amman Organizational Chart



Annex 5 - Contacts of Senior Staff of the UNRWA Health Programme

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