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**Submissions from entities in the United Nations system, international
organizations and other stakeholders on their efforts in 2023 to
implement the outcomes of the WSIS**

Submission by

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

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 27th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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UNRWA Inputs: Flow of information for the follow-up to the World Summit on the Information Society

WSIS Action Line C7: ICT Applications/e-Health

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA or ‘the Agency’) health programme provides preventive and curative primary health care for Palestine refugees across the Agency’s five fields of operation - Gaza, the West Bank, Syria, Lebanon and Jordan - through a network of 140 health centres.¹ In 2022, UNRWA provided primary health care to over two million Palestine refugees through 7.4 million patient consultations.

e-Health

Introduced as part of a comprehensive strategic reform of the Agency’s health programme,² e-Health is a patient-centred, cloud-based application that allows UNRWA to generate electronic medical records. e-Health utilizes the International Statistical Classification of Diseases (ICD), version 11,³ the global standard for diagnostic health information, trends and statistics. ICD defines all injuries and diseases, listing them in a comprehensive, hierarchical fashion; translating the diagnoses of these conditions from words into an alphanumeric code, which permits the easy storage, retrieval and analysis of data.

Through e-Health, Agency health centre staff are able to easily collect, store, access, communicate and compare patient data, facilitating longer doctor / patient consultations and reduced waiting times. This has resulted in health staff being able to provide more accurate medical advice based on patient medical histories that can be easily retrieved.⁴ The system also facilitates evidence-based decision-making, planning and reporting capabilities through the automatic generation of 22 standard reports. In this regard, e-Health includes modules on outpatient services, non-communicable diseases (NCDs), maternal and child health, dental care, laboratory testing, pharmacy, and outpatient and other specialist care (ophthalmology, cardiology and gynecology). Real-time data from these modules is used to populate sixteen dashboards, based on the Power BI application, that provides easy-to-use information to support data-driven decision-making. In 2023, UNRWA completed the transfer of the system to a cloud-based platform, hosted by the United Nations International Computing Centre to improve its performance, accessibility and data security. As at the end of September 2023, e-Health is operational in 139 of the Agency’s 140 health centres and stores the medical records of just under four million patients.

¹ The UNRWA health programme also supports patients in accessing secondary and tertiary health care.

² e-Health was part of a wider strategic reform of Agency health programming that centred around the introduction of the Family Health Team (FHT) approach; a person-centred primary health-care package focusing on the provision of comprehensive and holistic care for the entire family. The FHT approach emphasizes long-term provider-patient / family relationships and is designed to improve the quality, efficiency and effectiveness of health services, especially for NCD patients. The approach has contributed to improving the quality of primary health-care provision through a more efficient re-distribution of duties among medical staff.

³ For further information, please see <https://www.who.int/standards/classifications/classification-of-diseases>.

⁴ Patient medical histories can be easily retrieved thanks to access rights granted to specific health centres.

UNRWA has also made strides to provide enhanced care for new and expectant mothers and NCD patients through the launch of mobile applications on maternal and child health (e-MCH) and NCDs (e-NCD), both of which can be easily downloaded to mobile phones. These applications, linked to e-Health, allow patients to retrieve their own medical records and instantly access health advice. In addition, e-MCH and e-NCD facilitate the provision of medical care by customized push notifications that alert users to upcoming appointments. Both applications have proven effective in improving medical staff/ patient interactions while reducing the number of phone inquiries and in-person visits to health centres. Since its 2019 introduction, e-MCH has been downloaded by 266,745 users while e-NCD, launched in 2020, has been downloaded by 192,271 users.⁵

In 2022, the Agency initiated the development of a new Electronic Medical Records (EMR) system. The new EMR will replace the existing e-Health system and will introduce more comprehensive functionalities that are not available in the existing e-Health, such as modules on mental health, gender-based violence, school health and hospital referrals. In addition, the EMR is intended to have a patient portal functionality that will enable all patients registered with UNRWA health centres to access their clinical records, lab investigation reports and other diagnostic results, and to book or cancel appointments. The new system is scheduled to be rolled out to all fields by mid-2025.

WSIS Action Line C7: ICT Applications/e-learning

The UNRWA education programme provides quality basic education to over 543,000 Palestine refugee children in 706 schools across Gaza, the West Bank, Syria, Lebanon, and Jordan.⁶ In addition, the Agency operates eight vocational training centres (VTCs) for 8,000 technical and vocational education and training (TVET) students and two Educational Science Faculties (ESF) for around 2,000 trainee teachers. The programme is supported by nearly 20,000 education staff, including approximately 18,000 teachers.

EMIS and e-SRS

Integral to the UNRWA education system is evidence-based policy, planning and decision making at all levels of the system. To this end, during the 2016/17 academic year, the Agency launched an UNRWA-wide Education Management Information System (EMIS) that covers basic education. It consists of: (i) a student module that includes data on student registration, achievements, health records and behaviour, and class formation; and (ii) a staff module, introduced during the 2019/20 academic year, which includes data on employee registration, staff transfers, promotions, terminations, duties, attendance, leave, performance, and in-service training. The EMIS will be enriched with a school premises and class formation module and a portal for parents, both of which are under development and expected to be completed during the 2024/25 academic year.

The Electronic Student Registration System (e-SRS), a tool that supports TVET programming across the five fields of Agency operation, was launched in 2018. The system facilitates student admission and academic processes from registration through graduation, providing a comprehensive structure for the registration, storage and retrieval of students' academic

⁵ User download numbers of the e-MCH and e-NCD applications are accurate as at 30 September 2023.

⁶ School enrolment data as at the end of the 2022/23 academic year.

information while gathering data for TVET reporting purposes. A dedicated module of the system, also available through a mobile application, allows students to view their academic information and progress.

The reports generated from both EMIS and e-SRS have strengthened the Agency's capacity to identify trends in relation to key indicators on access, quality, inclusiveness, and overall efficiency of the UNRWA education system, take action to address risks and emerging challenges in the aforementioned areas, and plan the allocation of Agency resources with greater efficiency.

Following an assessment of EMIS, in 2023 UNRWA embarked on a four-year EMIS reform strategy designed to improve the efficacy of the system. Through this initiative, the policy and regulatory basis for the use of EMIS will be strengthened and the capacity to fully utilize the system at the field level will be built. In parallel, upgrades to e-SRS were also initiated to: (i) improve the functionality of the system's modules; (ii) standardize students' ID structure in all VTCs; (iii) automate students marks reports, transcripts and certificates; (iv) enhance the system's data analytics, including reporting against key performance indicators; and (v) introduce an online application portal. These changes are expected to be completed in 2024.

e-learning

In 2020 and 2021, the COVID-19 pandemic challenged the delivery of UNRWA education programming on an unprecedented scale and accelerated the Agency's plans for the digitalization of its education services. To this end, in 2022, UNRWA launched its information and communications technology for education (ICT4E) strategy, which serves as a road map for how information and communication technology (ICT) can better serve students, Agency education staff and system management, especially during times of emergency. The strategy seeks to strengthen learning, teaching and student support and management through: (i) improving access to devices and internet connectivity for students, teachers, and education managers; (ii) the creation of online curriculum, learning and communication platforms; and (iii) building the capacity for learning, teaching and education management in the field of educational technology.

The ICT4E strategy built on the lessons drawn from the April 2021 introduction of the UNRWA-wide [Digital Learning Platform](#) (DLP). The DLP acts as a content-repository, enabling students, parents and Agency education staff to view and download self-learning materials at any time, regardless as to whether remote, blended or in-person learning is being implemented. A parallel effort by the education programme is focusing on further strengthening the quality of online learning materials.

In 2023, UNRWA commenced the transformation of the DLP into a more comprehensive interactive Learning Management System (LMS). The LMS will support a virtual learning environment that facilitates: (i) safe, two-way communication between students, teachers, and Agency education staff; (ii) the tracking of student engagement and progress; (iii) online student assessment; and (iv) enhanced remote and in-school learning. The system will be based on Microsoft Teams and will enable the collection of data on online learning assessments, student engagement and other key indicators. The LMS will be piloted during the 2023/24 academic year in UNRWA schools in the West Bank prior to being rolled out Agency-wide.

The implementation of the ICT4E is supported by the Kreditanstalt für Wiederaufbau (KfW). This partnership covers the: (i) provision of tablets for students and teachers that can be loaned to vulnerable students in case of the introduction of emergency remote learning; (ii) equipping of school ICT laboratories; and (iii) upgrading internet connections to schools. Through a separate initiative, between 2024 and 2026, solar panels will be installed in 59 UNRWA schools where power supply is a major challenge.

During the 2022/23 academic year, an online learning platform was also introduced in all VTCs. The platform, based on Microsoft Teams, provides training materials, online tutorials and class discussion forums for TVET courses, thereby improving the continuity of learning for students during times of crisis.

WSIS Action Line C7: ICT Applications/e-government

The Agency maintains active records of 5.9 million Palestine refugees and just under 800,000 other service-eligible persons⁷ in its RRIS. These records constitute the mother database for UNRWA's management of its health, education and relief services. In this regard, new births, deaths, marriages, divorces and changes of residence are recorded each time registered persons provide relevant documentary proof and request the update of their family registration card.⁸

In 2023, the Agency launched an interactive bilingual mobile platform, eUNRWA, to enhance registration services for Palestine refugees and other eligible persons. After installing this platform on a smartphone and creating their personal account, Palestine refugees and other eligible persons can: (i) view their registration information; (ii) update their address and contact details; (iii) submit registration applications for new descendants, marriages, divorces, deaths and other amendments; (v) track the status of their registration applications; and (vi) download their Family Registration eCard to enable access to the Agency's other services, including healthcare, basic education, TVET, targeted microfinance products and relief and social services. The eCard has a QR code authentication and is recognized as official proof of registration by governmental authorities within UNRWA's fields of operations and beyond.

eUNRWA dispenses with the need for a physical presence in an UNRWA office. This initiative contributes to Agency efforts to improve service delivery effectiveness and efficiency. As at the end of September 2023, approximately 90 per cent of the over 50,000 monthly registration transactions were made through the platform rather than in-person.

⁷ "Other service-eligible persons" refers to those who, at the time of original registration, did not satisfy all of the UNRWA Palestine refugee criteria but were determined to have suffered significant loss or endured considerable hardship for reasons related to the conflict of 1948 in Palestine, and those who belong to the families of "other registered persons".

⁸ The UNRWA family registration card lists all registered family members and is used by Palestine refugees and other service-eligible persons to demonstrate their registration with the Agency.