

COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

**Twenty-eighth session
Geneva, 7-11 April 2025**

Submissions from entities in the United Nations system, international organizations and other stakeholders on the progress made in the implementation of the outcomes of the WSIS during the past 20 years

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 CSTD secretariat that will inform the substantive discussion at the CSTD on the progress made in the implementation of the outcomes of the WSIS during the past 20 years during its 28th annual session in April 2025, in response to the request by the Economic and Social Council, in its resolution E/RES/2023/3, to the CSTD to conduct such substantive discussions and to report thereon, through the Economic and Social Council, to the General Assembly.

<p>DISCLAIMER: The views presented here are the contributors' and do not necessarily reflect the views and position of the United Nations or the UN Trade and Development.</p>

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 141 health centres.¹ In 2023, UNRWA provided primary health care to over 1.8 million Palestine refugees through 6.9 million patient consultations.²

e-Health

Introduced as part of a comprehensive strategic reform of the Agency’s health programme,³ e-Health is a patient-centred, cloud-based application that allows UNRWA to generate electronic medical records. e-Health utilises the International Statistical Classification of Diseases (ICD), version 11,⁴ 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.⁵ 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 2024, e-Health is operational in 140 of the Agency’s 141 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 Please note that the number of UNRWA health centres as well as the number of consultations provided and patients served includes data inclusive of Gaza up to the end of Quarter 3, 2023. Data for Gaza is unavailable beyond this date due to the suspension of regular operations by UNRWA following the onset of the humanitarian crisis in October 2023.

³ 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.

⁴ For further information, please see <https://www.who.int/standards/classifications/classification-of-diseases>.

⁵ 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 280,984 users while e-NCD, launched in 2020, has been downloaded by 216,716 users.⁶

In 2022, the Agency initiated the development of a new Electronic Medical Records (EMR) system plan. 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 540,000 Palestine refugee children in 706 schools across Gaza, the West Bank, Syria, Lebanon, and Jordan.⁷ In addition, the Agency operates eight vocational training centres (VTCs) for 5,500 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 over 21,000 education staff, including approximately 18,300 teachers.⁸

ICT 4 Education

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) availing digital teaching and learning resources that are relevant to host country curricula in each of the five fields of operation and (iii) enhancing the capacities of the stakeholders in learning, teaching and managing education with the support of digital technologies.

⁶ User download numbers of the e-MCH and e-NCD applications are accurate as of September 2024.

⁷ School enrolment data as at the end of the 2023/24 academic year.

⁸ Please note that the number of students enrolled in UNRWA schools, the number of Agency schools and the number of education staff and teachers includes data inclusive of Gaza up to the end of Quarter 3, 2023. Data for Gaza is unavailable beyond this date due to the suspension of regular operations by UNRWA following the onset of the humanitarian crisis in October 2023. The number of technical and vocational education and training students and the number of trainee teachers exclude data from Gaza.

The operationalisation of this strategy over the next 2 years has given precedence to improving digital experiences of all stakeholders but is facing important challenges of different natures including funding, recurrent conflicts and crisis, to meet the minimum under each enabler.

Another critical challenge is the lack of sustainable and reliable funds to implement the strategy plan, many donors and partners have divergent preferences in terms of field of operation to support and of the needs' area they allow according to their policies, what limited UNRWA's capacity to deliver results on this strategy in all the fields. For example, the operationalization of digital education requires altogether a sustainable funding mechanism in place to procure adequate devices, IT equipment in schools; provision of sustainable sources of electricity in schools (as solar panels), partnerships with content developers to improve access to digital learning content, and with other institutions to cater for capacities of teachers in digital pedagogy practices. Beyond these, UNRWA must act to avoid creating discrepancies and digital divides between students, therefore equity and equality must prevail in the distribution of resources between and within the fields of operation. UNRWA team developed a comprehensive plan to mobilize resources and be able to support all the fields on the implementation of this plan. The proposal is available for donors and have been shared with potential partners.

Despite the many challenges in 2024, UNRWA has benefitted partners interest, particularly the Kreditanstalt für Wiederaufbau (KfW) that has continually provided funding to incrementally equip schools and capacitate teachers through a series of projects since 2022. This partnership with KfW 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; (iii) upgrading internet connections to schools, installing solar panels in schools that are in need of sustainable source of electricity, and supporting the capacity building of the education stakeholders including teachers, education staff and students with the aim to build their digital experiences and ensure their readiness to support the digital transformation of the educational functions.

UNRWA has adopted blended learning approach as the core for digital education in its schools. To that end, digital tools, Apps, and resources, are being used to supplement existing traditional resources including textbooks, by leveraging on the UNRWA approved digital ecosystem to enrich the teaching and learning experiences of UNRWA teachers and students and facilitate teachers' communication and administrative work. Respectively, UNRWA has developed a competency framework for digital teachers. This competency framework is built as a synthesis of internationally recognized frameworks such as the UNESCO ICT Competency Framework for Teachers ICT-CFT (2018), the European Framework for the Digital Competence for Educators DigCompEdu (2017), and UNESCO AI competency framework for teachers- AI-CFT (2024), contextualized for UNRWA education program. Further, this Framework is to inform and guide the initial design of capacity-building activities for teachers through its descriptors which will be revisited at later stages to regularly incorporate feedback from practices in the Fields.

This framework was adapted to the unique working context of UNRWA and considering teachers profiles regarding their digital competencies that resulted from the baseline survey that was completed in February 2024. The Framework comprises seven competency domains including *digital foundational skills, lesson planning, delivery of teaching and support to learning in a*

blended classroom, assessment, communication, administration, and professional development. As more Artificial Intelligence (AI) systems and tools become accessible to the public and are integrated into the Learning Management Systems (LMSs), AI competencies for teachers are also necessary. At this stage, the capacity building plan for teachers will focus on the basic level of the AI-CFT to raise awareness of teachers on the ethical considerations and human-centered approach in using of AI in education, especially that the use of AI in education is not yet regulated in host countries, and UNRWA digital ecosystem is still under development. Enabling the use of AI in the teaching and learning in UNRWA schools will be considered once the foundations (digital experiences) for the digital transformation of educational functions are in place, and in synergy with host countries relevant regulations.

UNRWA is piloting digital education in the West Bank and has already developed training materials for teachers in light of the developed competency framework for a digital teacher. The training of master trainers on digital pedagogy was completed in September, which will be cascaded at school level during the academic year to capacitate teachers of core subjects in grade 8 including mathematics, Sciences, Arabic and English.

In terms of digital learning resources, UNRWA opted to work with third parties that host or have developed digital learning contents, ideally the open access resources. The identified digital learning resources will be subjected to UNRWA internal review process, to ensure their relevance to the curricula and alignment with UN principles. Only digital learning materials that have been vetted through the internal review process will be accessible to UNRWA education community through our internal platform. UNRWA is exploring many options to working with third parties on this matter. The current initiative with Learning Equality Foundation (LEF) aims to explore their Kolibri platform, by leveraging on the artificial intelligence to map out digital learning materials that are relevant for the curricula used in the West Bank, in core subjects including mathematics, Sciences, Arabic and English for grade 8. For the remaining other fields of operation such as Jordan, the process goes manually but the current initiative with LEF could guide the future use of AI in this mapping process including the internal validation process as all materials must be aligned to UN principals.

WSIS Action Line C7: ICT Applications/e-government

The Agency maintains active records of six million Palestine refugees and just under 800,000 other service-eligible persons⁹ 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.¹⁰

⁹ "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".

¹⁰ 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.

In February 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 health care, 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 2024, over 90 per cent of the approximately 50,000 monthly registration transactions were made through the platform rather than in-person.