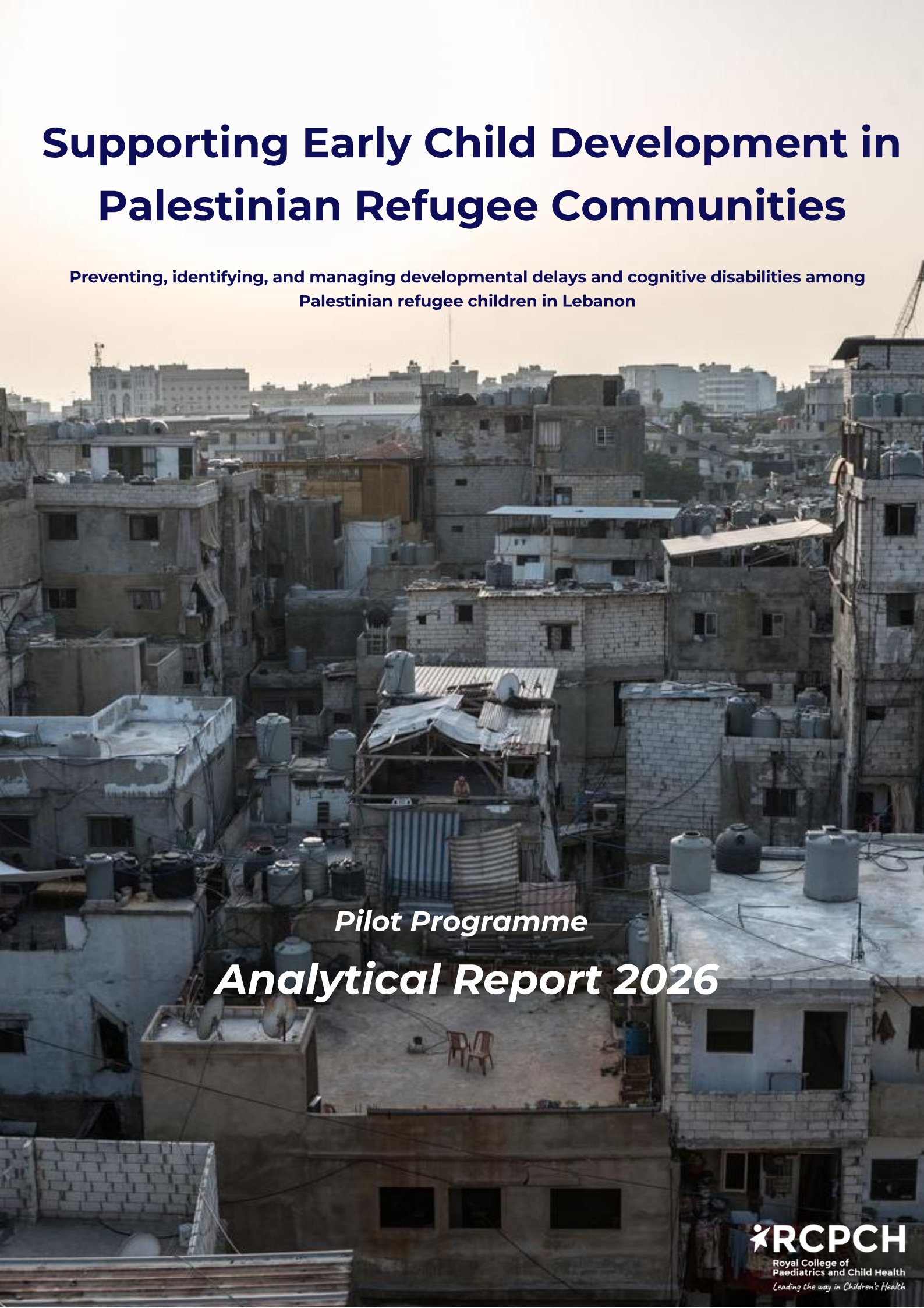
Supporting Early Child Development in Palestinian Refugee Communities

Preventing, identifying, and managing developmental delays and cognitive disabilities among Palestinian refugee children in Lebanon



Pilot Programme

Analytical Report 2026

RCPCH
Royal College of Paediatrics and Child Health
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Contents

RCPCH Global

Introduction

This report presents the context, rationale, and implementation of the joint programme delivered by **Medical Aid for Palestinians (MAP)** and the **Royal College of Paediatrics and Child Health (RCPCH)** in partnership with the **United Nations Relief and Works Agency (UNRWA),** the **Palestinian Red Crescent Society (PRCS)** and the **Palestinian Disability Forum (PDF)** to strengthen early child development (ECD) assessment and care for Palestinian refugee children living in Lebanon.

Palestinian refugee communities in Lebanon face compounded vulnerabilities: poverty, discrimination, reduced access to national systems, and collapsing public services. Within this environment, children with developmental delays and disabilities are at high risk of late identification and inadequate support. This programme aims to address gaps across prevention, early identification, and management of developmental and cognitive delays

Background and programme context

RCPCH in Palestine

RCPCH has a long history of engagement in strengthening child health services in Palestine:

- **1999–2012**: Development of a diploma in Palestinian Child Health (53 graduates) in partnership with the Paediatric Society of Palestine (PSP)
- **2012**: Development of a Master course in Child Health (MACH) at Al-Quds University
- **2015–2017**:Development and implementation of a multi-year programme in West Bank and Gaza aiming to improve multidisciplinary care for children with delays and disabilities in partnership with Juzoor for Health and the Islamic University of Gaza
- **2019**: Scoping exercise and consultations with local counterparts in Lebanon on the need to improve and integrate developmental care for Palestinian refugees particularly around cognitive impairments

This longstanding involvement-built foundations for the expansion of collaborative work into Lebanon leading to the design and pilot of a new programme aiming to improve the prevention, identification and management of children with developmental delays and disabilities. This programme was implemented in PRCS hospitals and UNRWA health centres by RCPCH and Medical Aid for Palestinians (MAP) and financed by a generous legacy.

MAP/RCPCH Collaboration

MAP supports the provision of sustainable, locally-led healthcare services across oPt and Lebanon. Its programmes cover women and child health, disability, MHPSS, emergency response, and hospital care. MAP has operated for over 30 years and works both directly and through local partners.

The Royal College of Paediatrics and Child Health (RCPCH) is the professional body for paediatricians in the United Kingdom and has a large membership of paediatric experts both in the UK and Internationally. The RCPCH through the RCPCH Global team works with local partners, ministries, INGOs and NGOs in a wide range of low- and middle-income countries, as well as in some humanitarian crises where circumstances and comparative advantage allow, to improve the quality of clinical care for children in hospitals and health centres.

Over the years, MAP and RCPCH have collaborated on various programmes to improve the quality of health services for Palestinian children across West Bank, Gaza and Lebanon with RCPCH providing the clinical expertise and MAP their extensive experience running programmes in the context of the Palestinian refugee camps.

Country context: Lebanon

Lebanon is a small country with a population of 6.8 million with a quarter being refugees. It currently faces one of the world's most severe economic crises, compounded by the 2020 Beirut port explosion, the effects of COVID-19 and more recently by the conflict with Israel which pulled Lebanon back into war with Israel.

The economic crises has prompted currency devaluation and hyperinflation creating widespread poverty and inability to afford essential goods for most Lebanese.

In addition to this, the crises has led to a severe deterioration of the availability and affordability of health services across the country restricting access to basic services and medications for the majority of the population.

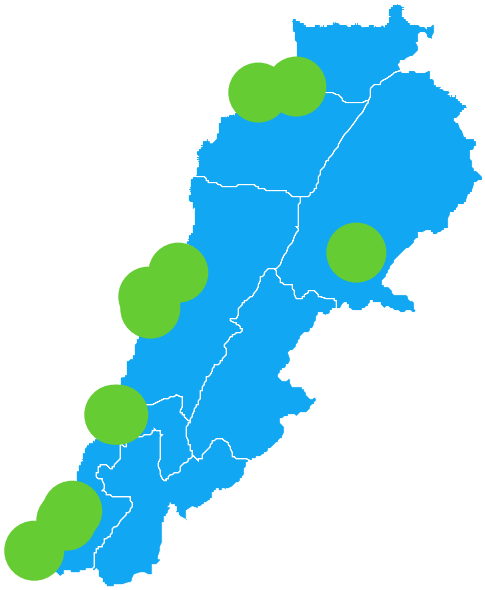
- 34% of children could not access healthcare
- 40% of doctors have left the country
- 50% of families were unable to obtain medicines they needed

Palestinian refugees in Lebanon

There are around 500,000 UN registered* Palestinian refugees living across 12 camps in Lebanon. 93% of Palestinians live in poverty representing one of the most marginalised groups in the country. They are denied access to public services and have restricted employment and property rights leading to high unemployment and severe overcrowding of the camps.

To access healthcare, Palestinians rely on UNRWA primary care services, PRCS hospitals and small NGOs providing various therapeutic and rehabilitation services across the camps.

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) was created by the UN General Assembly in 1949 to assist Palestinians who were displaced during the 1948 Arab-Israeli conflict, known as the Nakba, and their descendants. Its mandate includes providing education, health care, social services, emergency assistance, and infrastructure support to registered refugees, making it the only UN agency dedicated to a specific regional refugee population. UNRWA operates 64 schools and 27 primary health centres across Lebanon.



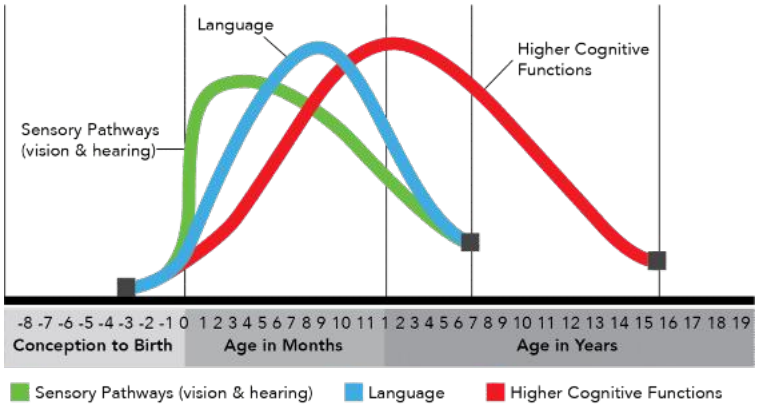
Lebanon: Palestinian refugee camps

* Registration with UNRWA is voluntary; deaths as well as emigration remain often unreported, and refugees can continue registering newborns as they move abroad through the UNRWA online registration system https://www.unrwa.org/where-we-work/lebanon?__cf_chl_f_tk=kG8OuXLzbwOTpf8ZQucEjRUJNKcz.h7Twa2r1FMZvPw-1783339063-1.0.1.1-KmSMFxN4_peS.Bebwk69JPw6lu7G8qxRJAdnGJTJSCU

The global importance of Early Child Development

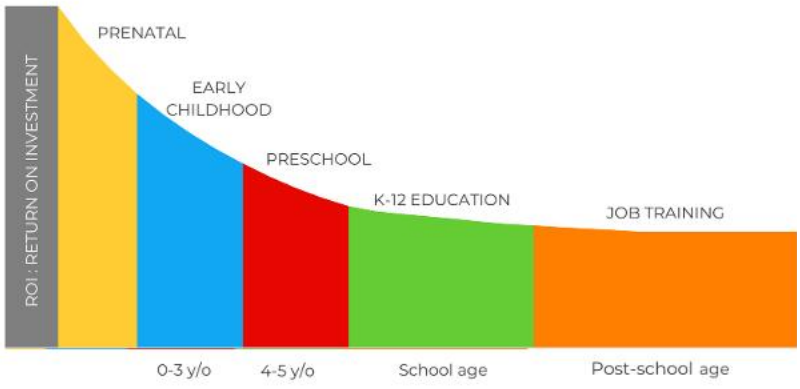
Globally, an estimated 250 million children under 5 are at risk of poor physical and neurological development, leading to life-long disability, frequently as a result of undiagnosed and untreated Early Childhood Development (ECD) challenges. Almost 9 in 10 of these children live in low- and lower-middle income countries. [1] Developmental delay is defined as any delay, predominating in early childhood, in reaching population standardised thinking, social, language or motor development skills.[2] Children with delays – compounded by poverty and lack of access to health and welfare services – 'perform less well at school, earn less as adults...and are less able to economically provide for their children, leading to intergenerational poverty transmission'.[3] [4]

Early childhood is widely recognised as the best time to mitigate adverse events, identify delays, and introduce evidence-based effective therapeutic interventions.[6] [7] In the first few years of life, more than 1 million new neural connections are formed every second. Sensory pathways like those for basic vision and hearing are the first to develop, followed by early language skills and higher cognitive functions.[8]



Human Brain Development - Synapse formation dependent on early experiences[1]

Effective low-cost intervention strategies, including home-based and parent-led care, are available and suitable in low-income settings. Both clinical and economic cost efficiency analyses point to the relative value of early intervention as the primary route to addressing the developmental challenge.[9]



Economic impact of investing in early childhood learning [2]

Expansion of utilisation, however, depends on significant strengthening of integrated healthcare and welfare services including better surveillance data, better inclusion in health sector policy and investment, better clinical awareness and supportive guidance, better linkage between health and education sectors, and reduction in social stigma. For most of the world's population – particularly those living in low- and middle-income countries (LMICs) – resources remain scarce and, whilst data on prevalence of developmental disabilities are extremely limited, we continue to see major gaps in understanding and addressing their spread globally.

The programme

Overview

The importance of investing in child development is globally recognised. However, for children living in humanitarian settings, where the convening power of stable government is absent, there is little existing multisectoral and coordinated support and it is critically important to try to establish cross sectoral partnerships to prevent and if needed manage the consequences of developmental delays and/or disabilities.

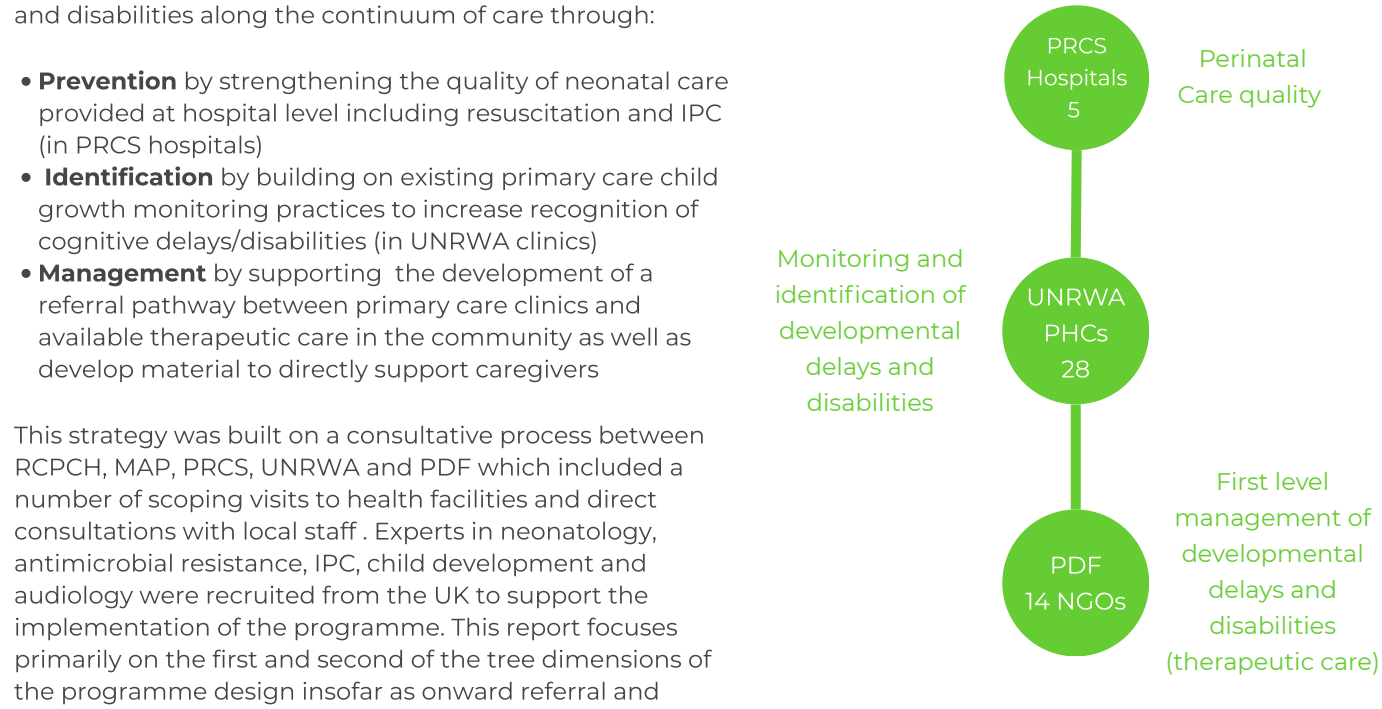
In the Palestinian refugee camps in Lebanon, RCPCH and MAP have initiated a partnership with the local primary care provider for Palestinian refugees (UNRWA), the secondary level of care provider (PRCS) and the umbrella coordinating body of small NGOs providing therapeutic care in the community (PDF)to address the challenge of early identification and support for children with cognitive disabilities and developmental delays.

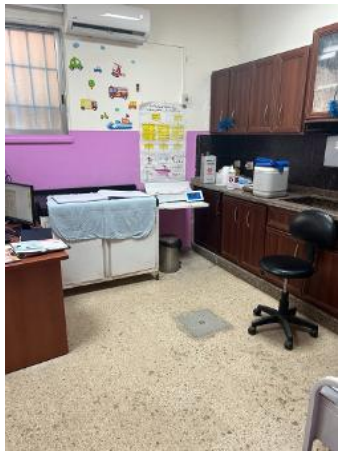
Strategy

The programme aimed to address the need to prevent, identify and manage children with developmental delays and disabilities along the continuum of care through:

- **Prevention** by strengthening the quality of neonatal care provided at hospital level including resuscitation and IPC (in PRCS hospitals)
- **Identification** by building on existing primary care child growth monitoring practices to increase recognition of cognitive delays/disabilities (in UNRWA clinics)
- **Management** by supporting the development of a referral pathway between primary care clinics and available therapeutic care in the community as well as develop material to directly support caregivers

This strategy was built on a consultative process between RCPCH, MAP, PRCS, UNRWA and PDF which included a number of scoping visits to health facilities and direct consultations with local staff . Experts in neonatology, antimicrobial resistance, IPC, child development and audiology were recruited from the UK to support the implementation of the programme. This report focuses primarily on the first and second of the tree dimensions of the programme design insofar as onward referral and therapeutic care pathways are complex and challenging in this context, requiring significant, sustained and reliable resourcing and engagement.



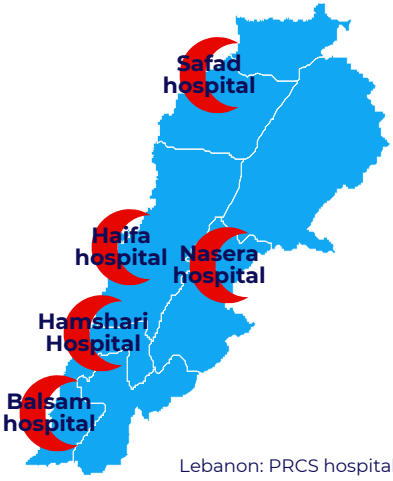


Implementation

Strengthening the quality of neonatal care

The Palestinian Red Crescent Society (PRCS) is responsible for the provision of facility-based perinatal/ neonatal care in five (5) PRCS hospitals in Lebanon. These PRCS hospitals are strategically embedded in the Palestinian refugee camps to enhance the accessibility of healthcare services. PRCS also has an ambulance service composed of 26 ambulances.

The overarching goal of the programme was to build a network of high-quality perinatal and neonatal care services, including provision of essential newborn care at all facilities, with intermediate neonatal care and more advanced capacity for complex case management, developed as appropriate in each participating hospital. As such PRCS hospitals would become the primary provider for maternal and newborn care for Palestinians in the country.



Lebanon: PRCS hospitals

In order to achieve this goal, a strategy supporting key aspects of perinatal/neonatal care was developed and tailored to each facility based on the state of operational development of their respective neonatal units (ranging from fully functional to not available).

The core of this strategy was to support the development of human resource capacity in each participating PRCS hospital, building a high-quality perinatal and neonatal team within each facility appropriate to its needs and service development aims. Building teams requires long-term, sustained support through technical training, as well as mentoring and development of systems of care delivery. Alongside training and mentoring, the strategy and programme had planned to support key aspects of equipment, consumables and medicines to ensure the hospital teams were able to operate optimally.

At present, it isn't possible to pursue the development of a neonatal network nor to offer long term capacity building for each of the PRCS facilities in Lebanon, however, MAP and RCPCH, supported by UNICEF, were able to draw some insights from the Lebanon experience to support the restoration of neonatal care capacity in functional hospitals in Gaza.

Infection prevention control (IPC) and antimicrobial stewardship

- Facility assessments looking at IPC education, hand hygiene, PPE and cleaning products, microbiology lab, disposable sharps, Antibiotic policy, SSD, pharmacy, laundry, IPC committee, toilet and changing facilities etc.
- Workshops on the importance of good antimicrobial stewardship


Antibiotic stewardship - workshop

Technical training on newborn resuscitation and early newborn care (ENC1&2)

- Technical training of 35 clinicians working in neonatology/maternity across 5 PRCS hospitals by UK clinicians
- Provision of training kits and job aids for refresher trainings and implementation


Newborn mannikins used for training

System strenghening

- Levels of care and creation of a neonatal network
- Design & Layout of neonatal units
- Transport and referrals processes
- Baby friendly initiative



Workshop on layout optimisation for neonatal units

Identification of developmental delays/disabilities & hearing screening

UNRWA delivers basic health services and is responsible for providing a healthy living environment for Palestinian refugees.
For over 60 years, the UNRWA Health programme has been delivering comprehensive primary health care (PHC) services, both preventive and curative, to Palestine refugees, and helping them access secondary and tertiary health care services.
In Lebanon alone, UNRWA operates 27 primary health facilities and has formed an arrangement with the Palestine Red Crescent Society (PRCS) hospitals to guarantee equity for Palestinian refugees in access to secondary health care.

An application that tracks the health of mother and child (UNRWA) [3]

UNRWA has also adopted the Family Health Team (FHT) approach offering comprehensive primary health services based on holistic care of the entire family, emphasizing long-term provider-patient relationships and ensuring person-centeredness, comprehensiveness and continuity.

Developmental monitoring

Building on the strong growth monitoring and immunisation work carried out by the FHTs and on existing UNRWA technical guidelines which clearly recognise the importance of the first three years of a child life "as crucial for mental development as they are for physical development", this programme proposes, in addition to, assessing children's gross motor skills (sitting, crawling, standing, walking) to systematically integrate other domains of development such as cognitive skills; fine motor skills, language skills and behaviour/socio-emotional development in order to identify children with developmental disabilities early enough to provide them with effective early support.

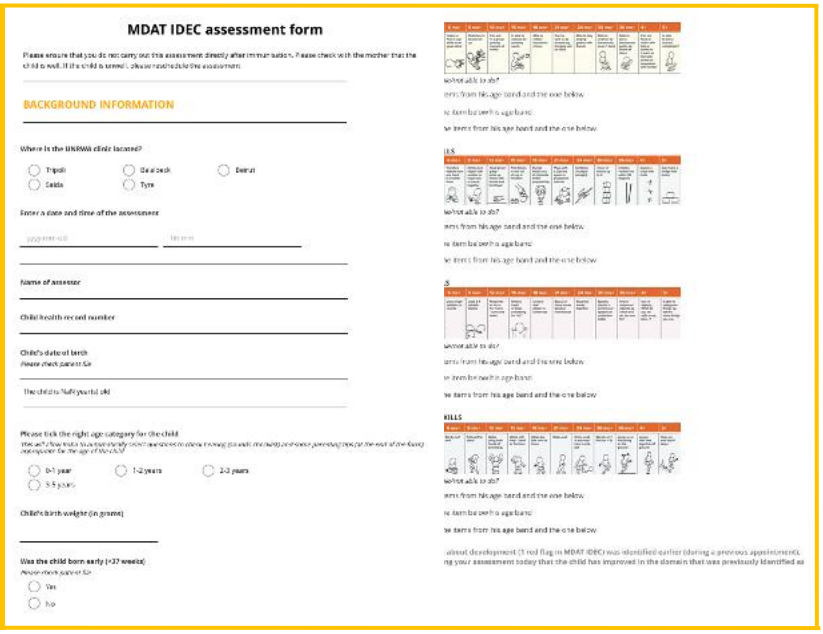
One of the core element of this work has been to select, adapt and pilot an assessment tool to enable a systematic, standardised, and validated measurement of a child developmental progress permitting:

- Monitoring (regular checks against developmental milestones) of changes over time
- Identification of delays at specific key ages of development in order to identify not just severe, but mild to moderate delays/problems, with potentially significant downstream effects on school age outcomes
- Appropriate referrals
- Opportunities for early parental engagement

The MDAT IDEC was selected to be piloted in five UNRWA clinics. The tool is:

- Validated
- Simple, free & quick (10 mins) to administer
- Has a simple kit that can be sourced locally
- Offers regular monitoring (MDAT) between 0 and 5 years old
- Do not require specialist clinicians to administer it
- Comes with a training package
- Do not require additional resources (other than the kit) or change in infrastructure

The MDAT IDEC was adapted and transformed into an online interactive form (using Kobo toolbox).



RCPCH Global

UNRWA Family Health Team's members from 5 pilot clinics (28 in total) were trained by a team of UK clinicians in using the adapted version of the MDTA IDEC tool which includes additional questions on hearing (based on the UK red book) as well as some generic parenting advice adapted to the age of the child.

The FHTs were fully inducted on using the online Kobo form, however, the programme aims to get the monitoring tool fully embedded in the UNRWA online patient file system to optimise data entry and tracking of individual children.

MDAT IDEC training: Milestone table (left) & assessment kit (right)

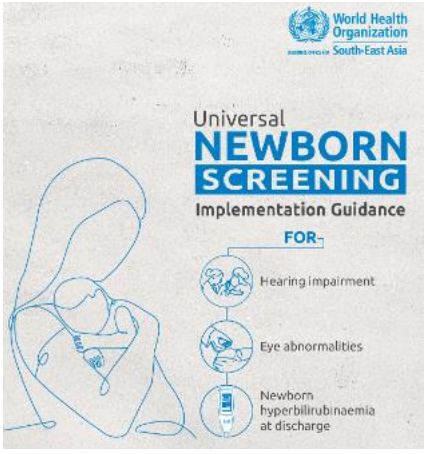
Parental advice developed for the programme

It was clear that the trainees felt the need to use a more systematic approach to monitoring child development but were reticent to do so without any sense of what they could do with/for families and children where issues arise. During and following the training, considerations around updating guidelines (SOPs) and electronic patient file system (e-health) at central level, identification of "champions/master trainers" in each facility, supportive mentorship, caregiver support (such as home based parent led interventions for milder issues) and referral pathways for children flagged as having significant delays (requiring clinically and technologically advanced diagnosis and support) were discussed and identified as challenges and subsequent priorities for the programme.

Hearing screening

In addition to monitoring children's social, fine and gross motor skills and language development, it was agreed with UNRWA Lebanon that there was a gap in systematically testing children's hearing. The newborn check carried out during the registration of all new babies with UNRWA services (within the first 10 days of life) was identified as a good entry point to testing newborn's hearing considering Palestinian babies can be born in PRCS hospitals or private and public Lebanese hospitals where hearing screening is not systematically part of the routine care delivered.

The programme supported the remote training of 34 staff from all parts of Lebanon, refreshing their skills to carry out newborn checks and introducing a hearing screening programme. Otoacoustic devices were provided to all pilot clinics and the FHTs were trained on how to use, store and maintain them by a technician.



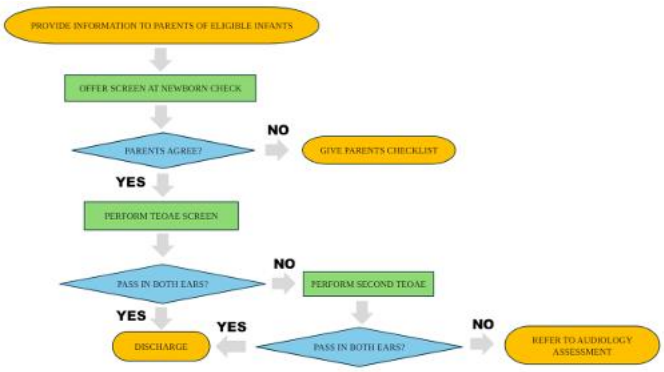
WHO guidelines (2024) [4]

WHO recommendation for Universal Newborn Hearing Screening

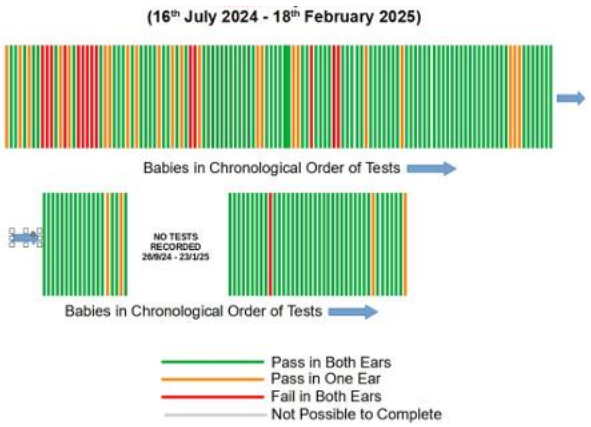
Universal newborn hearing screening (UNHS) with otoacoustic emissions (OAE) or automated auditory brainstem response (AABR) is recommended for early identification of permanent bilateral hearing loss (PBHL). UNHS should be accompanied by diagnostic and management services for children identified with hearing loss.

Type of devices provided to UNRWA pilot clinics [5]

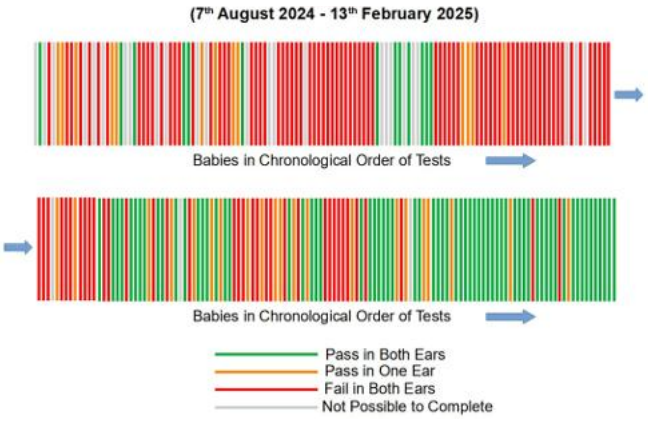
Following the training, the five selected clinics started to systematically screen newborns during their first check. Some more successfully than others (see below test results for two of the clinics).
The review of the data together with feedback sessions conducted with the FHTs highlighted a number of challenges including environmental noise. Subsequently, recommendations were made around probe fit, maintenance of the equipment and possible modification of the environment (i.e. portable sound reduction options etc.) to optimise the use of the devices and ultimately reduce the number of false positives.



Screening pathway



Health centre 1 - test results over 8 months



Health centre 2 - test results over 7 months

The above graphics show test results for two of the clinics involved in the pilot, with one showing mainly "pass in both ears" and the other mainly "fail in both ears". The results for HC 2 prompted some questions around the likeliness that the "failed" were false positive due to temporary issues such as minor fluid or debris in the ear canal or technological/implementation issues such as badly fitted probs or environmental noise. Results for both HCs show an increasing pass rate as testers gain experience

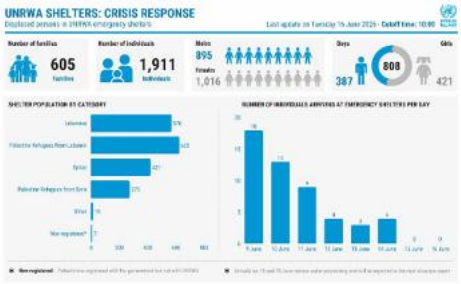
Challenges & next steps

With the war in Gaza having extended to Lebanon during 2025 and 2026, PRCS hospitals and UNRWA clinics have been operating in a state of emergency providing relief to displaced populations whilst trying to continue operating routine services. Both organisations work under extreme pressure suffering from the ongoing hostilities, creating regular disruption in care, and from a chronic lack of funding exacerbated by more recent restrictions. Attempting to operate a long-term model of systemic, institutional and cultural change around child development and disability is extremely challenging, but all the more important.

The confluence of newly emerging geopolitics and sharp changes in the global health and aid financial architecture, on top of decades' long chronic local and regional instability and intermittent outbreaks of violence has created a challenging environment in which to implement the programme in its current form.

Although we have had to pause work on the ground in refugee camp communities in Lebanon, we have been able to continue and extent our engagement with UNRWA both with colleagues in the Lebanon office and at UNRWA HQ in Jordan, where we are aiming to provide technical support and input to the formulation of SOPs to include systematic developmental monitoring and the management of disabilities into guidelines with the ultimate goal of rolling it out to all 5 fields (Jordan, Gaza, West Bank, Syria and Lebanon).

Destroyed buildings at the site of an Israeli strike in the southern Lebanese area [Kawnat Haju/AFP][6]



UNRWA Situation Report #13 on the Lebanon Emergency Response 2026 [7]

References

Text

[1] Lancet (2016) Early Child Development Series.
[2] Khan I, Bennett, Leventhal L, Affiliations. Developmental Delay.
[3] Grantham-McGregor S, Cheung YB, Cueto S, et al. Series, child development in developing countries. Developmental potential in the first 5 years for children in developing countries. Child Care Health Dev. 2007;33(4):502–2.
[4] Lu C, Cuartas J, Fink G, Mccoy D, Liu K, Li Z et al. Inequalities in early childhood care and income development in low/middle-income countries: 2010–2018. 2020;2010–8.
[6] Daelmans B, Black MM, Lombardi J, Lucas J, Richter L, Silver K et al. Effective interventions and strategies for improving early child development. BMJ. 2015.
[7] The United Nations Convention on the Rights of the Child (1989) reflects the critical importance of positive early childhood development in enabling children to achieve their full growth and development potential. Good early child development underpins the achievement of many of the other SDG targets; https://www.unicef.org/media/145336/file/Early_Childhood_Development_-_UNICEF_Vision_for_Every_Child.pdf
[8] https://developingchild.harvard.edu/resources/inbrief-science-of-ecd/
[9] https://heckmanequation.org/resource/the-heckman-curve/

Graphics

(if not produced directly from programme)

[1] https://thechildrenscentersc.org/why-early-education-matters/
[2] https://heckmanequation.org/resource/the-heckman-curve/
[3]An application that tracks the health of mother and child: every pregnant women's dream! https://www.unrwa.org/newsroom/features/application-tracks-health-mother-and-child-every-pregnant-women%E2%80%99s-dream
[4]Universal newborn screening: Implementation guidance. New Delhi: World Health Organization, Regional Office for South-East Asia; 2024. Licence: CC BY-NC-SA 3.0 IGO. https://iris.who.int/server/api/core/bitstreams/1bc93a8d-b367-4ee0-9581-f1a00965894e/content
[5]https://www.interacoustics.com/oae-devices/otoread
[6]Israeli attacks on southern Lebanon kill two girls, damage hospital | US-Israel war on Iran News | Al Jazeera https://aje.news/gog8gv
[7]UNRWA Situation Report #13 on the Lebanon Emergency Response 2026 (22 June 2026) https://reliefweb.int/report/lebanon/unrwa-situation-report-13-lebanon-emergency-response-2026-22-june-2026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