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Short communication

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**ABSTRACT** Palestinian refugees served by the United Nation Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) are experiencing increasing rates of diagnosis of non-communicable diseases. In response, in 2011 UNRWA initiated an Agency-wide programme of primary healthcare reform, informed by the Chronic Care Model framework. Health services were reorganized following a family-centred approach, with delivery by multidisciplinary family health teams supported by updated technical advice. An inclusive clinical information system, termed e-Health, was implemented to collect a wide range of health information, with a focus on continuity of treatment. UNRWA was able to bring about these wide-ranging changes within its existing resources, reallocating finances, reforming its payment

mechanisms, and modernizing its drug-procurement policies. While specific components of UNRWA's primary healthcare reform are showing promising results, additional efforts are needed to empower patients further and to strengthen involvement of the community.

## Réforme des soins de santé primaires à l'Office de secours et de travaux des Nations Unies pour les réfugiés de Palestine dans le Proche-Orient

**RÉSUMÉ** Les réfugiés palestiniens secourus par l'Office de secours et de travaux des Nations Unies pour les réfugiés de Palestine dans le Proche-Orient (UNRWA) sont confrontés à une recrudescence des maladies non transmissibles. En conséquence, l'UNRWA a lancé en 2011 un programme de réforme des soins de santé primaires à l'échelle de l'Office, guidé par le modèle de soins chroniques. Les services de santé ont été réorganisés sur la base d'une approche orientée vers la famille, avec des prestations de santé dispensées par des équipes de médecine familiale multidisciplinaires soutenues par un conseil technique mis à jour. Un système d'information clinique exhaustif, appelé e-Health, a été mis en œuvre pour collecter une grande quantité d'informations, l'accent étant mis sur la continuité du traitement. L'UNRWA a été en mesure de mener ces changements d'envergure à partir des ressources existantes, en réattribuant des fonds, en réformant ses mécanismes de paiement, et modernisant ses politiques d'approvisionnement en médicaments. Si les composants spécifiques de la réforme de l'UNRWA en matière de soins de santé primaires donnent des résultats prometteurs, davantage d'efforts doivent être déployés pour autonomiser davantage encore les patients et renforcer l'engagement communautaire.

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## Introduction

The burden of noncommunicable diseases (NCDs) is high among many refugee populations (1–5). Tragically, the Middle East has a long experience of forced migration (1). Hypertension and diabetes are widespread among Syrian and Iraqi refugees displaced to Lebanon (2–5). Palestinian refugees scattered across the WHO Eastern Mediterranean Region experience patterns of NCDs that are similar to those in non-refugee Palestinians living in the West Bank and Gaza (6–8).

Although Palestinian refugees do have partial access to health services in some host countries, their health needs are mostly met by the United Nation Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), which provides assistance through its network of 138 primary health centres. There is a widespread consensus that primary healthcare should play a central role in effective management of NCDs (9). Consequently, in 2011 UNRWA initiated extensive reform of the structure of primary healthcare, designed to respond appropriately to the growing burden of NCDs among Palestinian refugees (6).

This paper analyses the current response of UNRWA to the changing needs of Palestinian refugees and outlines a way forward. The primary healthcare reform is analysed in the light of the Chronic Care Model (CCM).

## Chronic care model

The CCM has been a major influence on the management of NCDs in many countries (9). It envisages organization of services around health teams, adherence to evidence-based guidelines, support for self-management, and development of appropriate information systems (10). In 2002, the WHO adapted the CCM to the circumstances of low- and middle-income countries (LMICs). Community empowerment and effective integration of the components of the model into existing health system assets were included in the updated model (Table 1) (9,11).

## Analysis of primary healthcare reform

### Delivery system design

Inspired by the success of a similar policy in Egypt (12,13), UNRWA's primary healthcare reform is designed to have a family-centred perspective. Each family is assigned to a specific multidisciplinary family health team (FHT), staffed by doctors, midwives and nurses. Consequently, health care is no longer provided vertically, based on the doctors' specialization, but horizontally, according to the health needs of the family (14). Task shifting is a major pillar of UNRWA's reform. Maternal, child and NCD services are mainly provided by nurses and midwives, who play the role of gate-keepers, referring to doctors only when complications arise, aided by carefully designed guidelines, termed technical instructions (TIs). Compelling evidence

suggests that these groups can provide high-quality care (15,16). UNRWA is now conducting a wide-ranging assessment of human resource allocation to inform future policies on task shifting systematically (17).

### Decision support

Clinical protocols play a critical role in improving healthcare quality (18,19). In 1993, UNRWA launched its NCD programme to tackle diabetes and hypertension. Since then, it has adopted and regularly updated an increasing number of TIs, working closely with the WHO. TIs are made available to nurses and midwives delivering services for those with NCDs (20). The aim is to standardize the management of preventative and curative services, with algorithms to plan follow-up encounters. TIs also seek to increase efficiency, by limiting access to doctors to those who need their specialist expertise. This gives patients more time for high-quality interactions and protects doctors from excessive workload. Since implementation of UNRWA's reform in 2011, the average number of consultations per day has reduced by 8.7% (6).

### Clinical information systems

Clinical information systems should underpin the effective functioning of the CCM (21,22). However, experience in both developed and resource-constrained countries has highlighted the massive challenges in implementing them (23,24). Nevertheless, UNRWA has succeeded in developing its own electronic medical record system, e-Health. This in-house development has helped to contain costs (6). e-Health was piloted in Jordan and subsequently rolled out to the majority of UNRWA's health centres across the WHO Eastern Mediterranean Region. The system was carefully designed to complement the FHT component of the reform. Individual patient's records are integrated to create family files that are designed to enhance continuity of care. When any family member attends a health centre, the record highlights non-attendance by other members. UNRWA evaluations show that e-Health provides accurate information about numbers of patients, services provided and outcomes of care (25–29).

### Health systems

Strong systems of governance are critical to successful reforms (30). The UNRWA Headquarters in Amman led the reform, taking account of the Agency's existing assets. The Agency revised its financial allocation strategy to ensure that the provision of health services remains free of charge for all Palestinian refugees. The drug-procurement policies were also redesigned (31). Health information systems units were established at all levels to facilitate the collection and utilization of electronic data to inform policy making (25–29). Furthermore, new staff payment mechanisms are regularly updated in order to incentivize the health workforce. The UNRWA Headquarters also convenes regular meetings with frontline staff to streamline strategies across operational fields.

### Self-management support

UNRWA's primary healthcare reform seeks to strengthen patient–provider encounters and, in turn, to foster patients' ability to self-manage their conditions (14). However, a recent clinical audit conducted across UNRWA's operational fields identified weaknesses in lifestyle counselling and limited evidence of self-management of NCDs (32). Consistently, self-management of diabetes in Jordan and Saudi Arabia is a particular problem (33,34). In Saudi Arabia, it is constrained by the exclusion of glucometers from patients' benefits packages (34). The same exclusion applies to UNRWA because of budget limitations. However, in the light of promising results from some LMICs for the use of mobile phones as a means to improve NCD self-management (24, 35–38), UNRWA has recently piloted an SMS reminder system (39).

### Community

UNRWA has piloted community participation initiatives in Jordan and the Syrian Arab Republic, seeking to incorporate them within the Agency's broader primary health reform. Community volunteers are tasked to promote healthy behaviour and to detect patients who do not adhere to NCD treatment. However, budget constraints have curbed the systematic adoption of such policies. UNRWA is currently exploring potential strategies to implement affordable community-based initiatives. A recent diabetes campaign exemplifies the Agency's pledges on community participation (6).

The beneficial effects of community-based initiatives in NCD management have been reported in several LMICs, suggesting that they could be "successfully introduced across varied cultural settings and within diverse health systems" (40). Peer-run educational strategies have also attracted attention (41). The British Expert Patient Programme has attracted much attention and lessons could be learnt from it (42).

## Conclusions and way forward

Since its establishment in 1949, UNRWA has always responded to emerging challenges. In 1985, the New England Journal of Medicine celebrated the "impressive achievements of the Agency in the fields of sanitation and preventative services for communicable diseases" (43). However, over the last 15 years, the growing burden of NCDs faced by Palestinian refugees has created a need for massive reorganization of healthcare delivery.

In 2011, UNRWA's primary health reform was launched. While scientifically rigorous evaluation of its impact is needed, some cautious optimism is justified. From its outset, the Agency has based its reform on the CCM, which is seen as an appropriate framework to guide primary

healthcare policies (44). The result is that, in 2014, the WHO Regional Office for the Eastern Mediterranean depicted UNRWA's healthcare policy as "a good example of how primary health care reform… …could improve quality of care and patient satisfaction under difficult situations" (45).

Some components of the reform have already achieved positive results. Khader and colleagues highlighted the role played by e-Health in supporting drug-procurement policies, monitoring NCD risk factors, and evaluating the quality of care over time by identifying the occurrence of late complications of NCDs (25–29). Additionally, the Agency's internal assessments reported widespread satisfaction with the new FHT approach among both providers and patients. Yet, progress in improving self-management and community participation raises some concerns. Patient self-management of NCDs has been weak both before and after the reform (32,46), whereas implementation of innovative and affordable community-oriented initiatives remains under consideration.

Hopefully, evidence can inform the way forward. Educational policies targeting patients and families need to be designed to support patient self-management (47,48). It is critical to involve the community in peer education. A recent Cochrane review highlights the crucial role of group-based self-management training strategies (49, 50). Moreover, the use of technology can support adherence to protocols and facilitate patients' follow-up (51–54).

Community strengthening is especially relevant given the upcoming mental health policy of UNRWA. Despite shrinking resources, the Agency has pledged to integrate mental health services within its basic package of health services, and the Mental Health and Psychosocial Support and Protection (MHPSP) programme is currently being piloted in Gaza (6).

This paper analyses UNRWA's primary healthcare reform in the light of the CCM framework, on which it is based. The Agency has responded positively to the recent calls of the WHO Director-General Margaret Chan to address the failures to deliver in the light of the Alma Ata primary healthcare principles (55). The forthcoming mental health policy demonstrates the Agency's willingness to go beyond its financial constraints. However, the areas of self-management and community participation urgently need further commitment.

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In 2011, UNRWA's primary health reform was launched. While scientifically rigorous evaluation of its impact is needed, some cautious optimism is justified. From its outset, the Agency has based its reform on the CCM, which is seen as an appropriate framework to guide primary healthcare policies (44). The result is that, in 2014, the WHO Regional Office for the Eastern Mediterranean depicted UNRWA's healthcare policy as "a good example of how primary health care reform… …could improve quality of care and patient satisfaction under difficult situations" (45).

Some components of the reform have already achieved positive results. Khader and colleagues highlighted the role played by e-Health in supporting drug-procurement policies, monitoring NCD risk factors, and evaluating the quality of care over time by identifying the occurrence of late complications of NCDs (25–29). Additionally, the Agency's internal assessments reported widespread satisfaction with the new FHT approach among both providers and patients. Yet, progress in improving self-management and community participation raises some concerns. Patient self-management of NCDs has been weak both before and after the reform (32,46), whereas implementation of innovative and affordable community-oriented initiatives remains under consideration.

Hopefully, evidence can inform the way forward. Educational policies targeting patients and families need to be designed to support patient self-management (47,48). It is critical to involve the community in peer education. A recent Cochrane review highlights the crucial role of group-based self-management training strategies (49, 50). Moreover, the use of technology can support adherence to protocols and facilitate patients' follow-up (51–54).

Community strengthening is especially relevant given the upcoming mental health policy of UNRWA. Despite shrinking resources, the Agency has pledged to integrate mental health services within its basic package of health services, and the Mental Health and Psychosocial Support and Protection (MHPSP) programme is currently being piloted in Gaza (6).

This paper analyses UNRWA's primary healthcare reform in the light of the CCM framework, on which it is based. The Agency has responded positively to the recent calls of the WHO Director-General Margaret Chan to address the failures to deliver in the light of the Alma Ata primary healthcare principles (55). The forthcoming mental health policy demonstrates the Agency's willingness to go beyond its financial constraints. However, the areas of

self-management and community participation urgently need further commitment.

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