Reimagining refugee camps: Toward ethical, sustainable, and integrated health systems

Maia C. Tarnas¹, Sahar Al-Jobury², Najwa Al-Dheeb³, Albaraa Quradi⁴, Nesrine Metry⁵, Samir Hadjiabduli⁶, Ibrahim Awad⁴, Carly Ching⁷, Daniel M. Parker^{1*}, Muhammad H. Zaman^{7,8*}

- 1. Department of Population Health and Disease Prevention, University of California, Irvine
- 2. United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)
- 3. United Nations Children's Fund (UNICEF)
- 4. Center for Migration and Refugee Studies, American University in Cairo
- 5. United Nations Refugee Agency (UNHCR)
- 6. International Organization for Migration (IOM)
- 7. Department of Biomedical Engineering, Boston University
- 8. Boston University Center on Forced Displacement

Abstract

The existing model for health provision in refugee camps is not fit for purpose, especially for protracted displacement. As individuals are increasingly displaced beyond the temporary period for which camps are designed, it is critical that we reimagine care provision in such settings, especially given individuals' dynamic and complex needs throughout their displacement. This Commentary reflects ongoing discussions from an interdisciplinary group that began at a 2024 workshop in Cairo, Egypt. As numerous challenges, including defunding and division between refugee and host communities, continue to worsen in the current political climate, it is imperative that we critically examine how our current system for health provision in displacement settings can made more ethical, sustainable, and integrated.

Commentary

Forced displacement is a major challenge to individuals' and communities' wellbeing, with consequences for all aspects of wellbeing, including health, education, occupation, shelter, and security (Tarnas et al., 2023). At the end of 2023, over 117.3 million people were forcibly displaced, the majority of whom were displaced internally (UNHCR, 2024). Of the 31.6 million registered refugees, 66% have been displaced for at least five years (World Bank Group, 2024). By definition, refugee camps are meant to be temporary while addressing basic needs. However, the reality is starkly different: camps often endure for decades, growing into mini-cities despite being constructed with temporary materials. There are several examples of refugee camps that have existed for generations. Algeria has hosted Sahrawi refugees in harsh desert environments since their 1975 displacement from Western Sahara. Nearly 174,000 individuals require humanitarian aid, and food insecurity, malnutrition, and anemia are widespread (United Nations, 2024). Likewise, Mae La refugee camp was established on the Thailand-Myanmar in 1984 and now hosts over 35,000 individuals who have fled armed conflict. Shelters there remain "temporary" and vulnerable to frequent environmental events. Between 2009 and 2017, Mae La

^{*} Co-senior authors

experienced outbreaks of seven different diseases (Altare et al., 2019), and poor mental health is widespread ("Losing Hope in Mae La," 2017).

These settings should be considered dynamic and complex ecosystems that change over time and space rather than as stagnant bodies. This is rooted in a desire to provide for health holistically, considering the multi-scale interactions between humans, their environments, and their broader social and legal rights and statuses (Tarnas et al., 2023). The liminal space of camps between temporality and semi-permanence (and in many instances, permanence) is not well-understood, nor is care provision in each stage.

Here, we suggest that the lack of distinction between emergency phases of displacement (i.e., the initial response with assumed temporality) and protracted displacement (i.e., long-term or permanent settlement) complicates efforts to adapt health provision to evolving needs. Health priorities shift over time, with acute crises in the early stages often giving way to chronic and structural health challenges in long-term settlements—yet cycles of emergency can persist during ongoing conflict. Central to this problem is the need to (re)center individuals and communities in all areas and throughout the duration of camps; this also includes bridging the gap between refugees and host communities. These changes should be cemented through legal reforms that elevate flexible and self-sufficient models attuned to the realities of protracted displacement. Though the prevailing narrative around camps is one of temporality, lived experience is often vastly different and thus our approach to camps - and health provision in them - should elevate that experience.

Health systems that are tailored to unique phases of displacement

Protracted displacement often necessitates health systems distinct from those required during the initial emergency phase, and the transition to long-term management is a critical consideration. Given this, these systems (and interventions generally) need to be tailored to emergency versus protracted displacement and, in connection, camps' changing context and timeline, with attention given to the transition between phases (including establishing a common definition of these phases and their differentiation).

While each emergency presents unique contextual challenges, there are also commonalities. These shared elements offer opportunities for proactive responses to ongoing displacement. A comprehensive knowledge base, compiled from diverse experiences and scenario types, could be a valuable resource for new emergencies. Such a repository could balance the agility needed to address the chaos of complex emergencies with the foresight to plan for future crises. By leveraging lessons learned from past emergencies, responses could become more efficient and effective over time.

There is also potential for deeper engagement of displaced persons in the management process. For instance, displaced individuals could work alongside humanitarian aid workers in various roles, providing an invaluable perspective while gaining skills and experience to assume those responsibilities during the long-term phase. This approach empowers displaced persons to take on leadership roles while also ensuring that the community's identified needs are prioritized and addressed in culturally appropriate ways. Institutionalizing mechanisms to enable meaningful

participation by displaced persons can enhance the efficacy of health systems and support long-term resilience in camps. Furthermore, fostering knowledge exchange across similar contexts—such as between refugee camps—could enhance the effectiveness of management strategies and build resilience.

Critical to this conversation is the role of the host community and their relationship with displaced individuals. Recognizing and responding to the interests and concerns of the host community is crucial, especially during protracted displacement. In such settings, the health needs of displaced individuals frequently move towards the health needs of the host community, and these are expected to be attended to with already strained resources. Preparing for this transition, including proactively defining and identifying when this phase-shift occurs, should be an ongoing component of camp scenario planning and interventions.

Community-centered approaches must be prioritized

Shifting to a person-centered approach in camp management and care provision could allow for displaced individuals to play an active role in their own communities. Not only do individuals know the priorities and needs of their community better than outside organizations, but they also frequently have skills and tools that can benefit their community (and may be received better than those provided by perceived outsiders). These community-empowerment approaches can help shift toward self-sufficient camp models that are able to limit their reliance on state-based provision of services. Of course, the ability to capacity build in camps is often limited, and thus long-term support for such a shift is required to change the status quo.

Advocating for the inclusion of the community in planning about itself is certainly not new (e.g., "Nothing about us without us"). However, implementation of it (in either the short or long term) requires proactive consideration before the onset of a displacement event, which is likely difficult to achieve without larger reforms towards camp management. Investment in this approach also requires acknowledging that camp situations often persist beyond discrete emergencies, though these inclusive models should also be used in such short-term settings (when they exist). This is another opportunity in which to engage the host community.

Legal reform and flexible, self-sufficient models are needed

An overarching issue in this conversation is that reform of laws and policies must be prioritized to make meaningful change or progress. Political change can often feel too vast or impractical to focus on, particularly during emergencies. Yet, there is a growing recognition that social factors are important predictors of health outcomes. This is especially true for displaced populations, where social and political contexts become inescapable determinants of health.

The circumstances that force populations to flee—conflict, persecution, collapse of public order, and structural inequality—are fundamentally tied to social and structural determinants of health. These links extend beyond displacement. Once people are uprooted, their health and wellbeing are shaped by the legal and political environments they navigate: their legal status in host countries, their security, and the extent to which their rights are protected. Social and political

systems, in turn, mediate (and frequently control) access to healthcare, shelter, and other basic needs but often fail to fully include displaced individuals in civic life.

Moreover, the current legal guidance has not left room for the creation of self-sustaining camp models (perhaps largely because legally, camps are meant to be temporary). Such a change to the standard state-based camp model (and associated health systems) would require significant overhaul that is unlikely to be done without larger structural and institutional backing. Legal reform could normalize this approach to camps, while also emphasizing the relationship with the host community, which could in turn help create more ethical camp settings and work toward acknowledging and improving relationships with host communities through establishing precedent and enforceable standards. However, 'who' should do the legal reforming and who will enforce any existing laws remain open questions.

Conclusions

The current provision of healthcare in camps is insufficient, though change in this area does require consideration of policies and their enforcement, funding, access, and capacity constraints, as well as the abilities of the already-strained human resources. As forced displacement is unlikely to slow soon, we must critically evaluate whether our current systems are fit for purpose. Since existing models that prioritize perceived temporality despite persistent evidence to the contrary do not meet the dynamic needs of individuals, especially in the long-term, tailored interventions that respond to changing camp contexts are critical. There is also a need to recenter approaches to care on communities and individuals as part of longer-term legal reforms that elevate self-sufficient camp models and prioritize building bridges with host communities. This is especially true given recent humanitarian funding cuts (United Nations, 2025).

Future efforts should prioritize structured mechanisms to identify key intervention areas based on feasibility and impact. Meaningful engagement across stakeholders is essential to breaking down humanitarian silos and ensuring policies that are effective and enduring. Through shifting the focus toward displaced individuals themselves—centering their agency, self-sufficiency, and integration into civic life—we can move beyond short-term relief toward sustainable, rights-based solutions. Refugee health must be treated not as a temporary crisis but as a fundamental commitment to dignity, equity, and justice.

Funding

The conference was supported primarily with funds from the Center for Forced Displacement at Boston University and in part from the Parker Group at the University of California, Irvine.

Acknowledgements

This perspective is informed by a two-day workshop (October 27 - 28, 2024) that occurred at the American University in Cairo, in collaboration with the Center for Forced Displacement at Boston University, the Center for Migration and Refugee Studies at The American University in Cairo, and the Parker Group at the University of California, Irvine.

References

- Altare, C., Kahi, V., Ngwa, M., Goldsmith, A., Hering, H., Burton, A., & Spiegel, P. (2019).

 Infectious disease epidemics in refugee camps: A retrospective analysis of UNHCR data (2009-2017). *Journal of Global Health Reports*, 3.

 https://doi.org/10.29392/joghr.3.e2019064
- Losing hope in Mae La. (2017, January 3). *BBC News*. https://www.bbc.com/news/magazine-38423451
- Tarnas, M. C., Ching, C., Lamb, J. B., Parker, D. M., & Zaman, M. H. (2023). Analyzing health of forcibly displaced communities through an integrated ecological lens. *The American Journal of Tropical Medicine and Hygiene*, 108(3), 465–469.
 https://doi.org/10.4269/ajtmh.22-0624
- UNHCR. (2024). *Global Trends Report 2023*. The UN Refugee Agency. https://www.unhcr.org/global-trends-report-2023
- United Nations. (2024, December 3). Far from the headlines: After 50 years refugees from Western-Sahara are still in camps. United Nations Regional Information Centre for Western Europe. https://unric.org/en/far-from-the-headlines-after-50-years-refugees-from-western-sahara-are-still-in-camps/
- United Nations. (2025, February 28). *US aid cuts will make world 'less healthy, less safe and less prosperous*. 'UN News. https://news.un.org/en/story/2025/02/1160646
- World Bank Group. (2024, June 25). Forced Displacement.

 https://www.worldbank.org/en/topic/forced-displacement