

# Relationship between housing and health in conflict-affected Gaza and policy implications for reducing health inequities

Faisal Yousef Sabah<sup>1</sup> and Samer Abuzerr<sup>2</sup>

<sup>1</sup>Geographic Information Systems Department, Faculty of Information Technology, Arab American University, Jenin, State of Palestine. <sup>2</sup>Department of Medical Sciences, University College of Science and Technology, Khan Younis, Gaza, Gaza Strip, State of Palestine (Correspondence to Samer Abuzerr: samer\_516@hotmail.com).

## Abstract

**Background:** Poor housing infrastructure, displacement and limited access to healthcare exacerbate health inequities and have negative impact on the wellbeing of residents in conflict-affected areas such as Gaza.

**Aim:** To explore the relationship between housing conditions and health outcomes due to the war in the Gaza Strip.

**Methods:** Using a semi-structured questionnaire, we conducted focus group discussions with 25 participants aged  $\geq 18$  years in the Gaza Strip, and in-depth interviews with 10 key informants, between May and August 2024. Using NVivo software, we conducted thematic analysis to explore how housing conditions impacted health outcomes.

**Results:** Participants reported inadequate housing, characterized by overcrowding, structural damage and poor sanitation, which contributed to significant physical health problems, including respiratory infections and waterborne diseases. Psychological stress and mental health issues were prevalent among the displaced individuals and lack of access to healthcare exacerbated health disparities among them.

**Conclusion:** There is a critical link between housing conditions and health outcomes in Gaza. We recommend policy changes that will improve housing infrastructure and enhance access to health services, as well as psychosocial support for displaced populations in Gaza Strip, as this could help reduce health inequities and mitigate the long-term health impact of displacement.

Keywords: housing, health outcome, conflict-affected region, displacement, health inequity, Gaza

Citation: Sabah FY, Abuzerr S. Relationship between housing and health in conflict-affected Gaza and policy implications for reducing health inequities. *East Mediterr Health J.* 2025;31(2):141–147. <https://doi.org/10.26719/2025.31.2.141>.

Received: 17/09/2024; Accepted: 08/12/2024

Copyright: © Authors 2025; Licensee: World Health Organization. EMHJ is an open access journal. All papers published in EMHJ are available under the Creative Commons Attribution Non-Commercial ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

## Introduction

The Gaza Strip, a densely populated coastal territory bordered by Israel, Egypt, and the Mediterranean Sea, has long been a focal point of conflict. Recent hostilities have caused unparalleled destruction to residential buildings, healthcare facilities, and water, sanitation, and hygiene (WASH) infrastructure, devastating civilian lives and infrastructure (1–4). Satellite imagery from the United Nations Operational Satellite Applications Programme reveals widespread structural damage, severely compromising homes, hospitals, and essential utilities (5). This destruction has significantly restricted access to safe shelter, healthcare, and basic sanitation for Gaza's residents. Additionally, frequent evacuation orders by the Israeli military have exacerbated the displacement crisis, forcing civilians into overcrowded shelters and public facilities, increasing the number of internally displaced persons (IDPs) to alarming levels (6).

The repercussions of this situation on health and wellbeing are severe. As of December 2023, approximately 1.7 million Palestinians in Gaza were internally displaced, many residing in makeshift shelters such as schools and temporary camps (7). These shelters often lack proper

sanitation, ventilation, and access to potable water, leaving residents vulnerable to communicable diseases, including respiratory infections and waterborne illnesses. (7–9). The healthcare crisis is further intensified by the destruction of medical facilities and an ongoing blockade that restricts the entry of medical supplies, severely limiting healthcare access for an already vulnerable population (10).

Beyond physical health, the displacement crisis has profound mental health implications. Continuous exposure to violence and uncertainty contributes to high levels of stress, anxiety, and trauma among displaced individuals and families. However, access to mental health services remains limited, exacerbating the psychological toll of displacement and unsafe living conditions. The intersecting challenges of physical displacement, damaged infrastructure, and restricted healthcare access underscore the urgent need for interventions that address both physical and mental health needs in Gaza (11). The unique and protracted nature of the conflict in Gaza highlights the critical importance of addressing housing and health inequities. Repeated displacement, infrastructure destruction, and limited access to essential services have left large segments of the population at heightened risk for physical

and mental health issues. The inadequate housing not only exacerbates existing health disparities but also increases the vulnerability of already at-risk populations (2, 12, 13).

This study investigates the relationship between housing conditions and health outcomes for displaced individuals in Gaza. It focuses on the impact of infrastructure damage, overcrowding, and resource limitations. By examining the experiences of displaced individuals, the research sheds light on the immediate and long-term health implications of Gaza's housing crisis. The findings aim to inform policymakers, humanitarian organizations, and healthcare providers working to address the complex challenges of displacement, shelter inadequacy, and lack of access to healthcare. This study contributes to the growing body of evidence on the health impact of housing insecurity in Gaza, offering insights to enhance resilience and guide future interventions that prioritize comprehensive care for affected populations.

## Methods

### Study design

This qualitative study investigated the relationship between housing conditions and health outcomes in Gaza, focusing on identifying policy implications to reduce health inequities. Employing an interpretivist approach, the study captured participants' experiences through semi-structured interviews and focus group discussions. The research team, trained in sensitive interviewing techniques, facilitated data collection to ensure a thorough understanding of the participants' perspectives.

### Study setting and population

The study was conducted in the Gaza Strip, a region significantly affected by prolonged conflict, military escalations, and economic hardships. This context, characterized by damaged housing and healthcare infrastructure, provided a relevant setting to explore how housing conditions contribute to health disparities. Participants included internally displaced persons, residents of makeshift shelters, and those in structurally compromised buildings. Key informants, such as healthcare professionals, housing experts and policymakers, were also interviewed to contextualize systemic challenges and identify actionable solutions.

### Sampling strategy

Using purposive sampling, the study recruited 25 participants to reflect diverse demographic profiles, including gender, age, household size, and displacement duration. Ten key informants provided institutional perspectives. Recruitment was conducted through community organizations, local health facilities, and NGOs operating in Gaza, ensuring a range of experiences and insights.

### Data collection

Data collection took place between May and August 2024 using semi-structured interviews and focus group discussions. Interviews, lasting 45–60 minutes, were conducted in participants' homes or nearby community centres, focusing on housing conditions, health impact, and coping mechanisms. Focus groups of 6–8 participants facilitated collective dialogue on shared experiences and potential solutions. An interview guide, developed in consultation with local experts, and literature reviews, included open-ended questions such as “How do you think your current housing situation affects your health?” and “What changes could improve your housing and health conditions?” Data were audio-recorded with participant consent, and nonverbal cues were noted.

### Inclusion and exclusion criteria

Eligible participants were Gaza residents aged 18 years or older with firsthand experience of inadequate housing affecting health. Fluency in Arabic and informed consent were required. Excluded were individuals under 18, those without Arabic proficiency, and those without relevant housing challenges.

### Contextual challenges

Security concerns and logistic barriers due to the ongoing conflict posed challenges during data collection. Flexible scheduling and safety measures for both participants and interviewers helped mitigate these issues.

### Data analysis

Thematic analysis, supported by NVivo software, was used to explore how housing conditions impact health outcomes. Data saturation was achieved after 25 interviews. Audio recordings were transcribed verbatim in Arabic, then translated into English by bilingual researchers, ensuring linguistic and cultural accuracy. Multiple researchers independently coded the data, resolving discrepancies through consensus during team meetings. Member checking with participants validated findings, enhancing credibility. Key themes included physical housing aspects (e.g. overcrowding and sanitation), psychological impact of displacement, access to healthcare, and perceptions of health inequities (14).

### Ethics considerations

The study received ethics approval from the University College of Science and Technology Ethics Committee (UCST/5/2024). Informed consent was obtained, and participants were assured of their confidentiality, anonymity, and the right to withdraw. Data were securely stored, and pseudonyms were used. Interviews were conducted with sensitivity to minimize emotional distress, particularly given the difficult nature of discussing housing and health challenges.

This rigorous and context-sensitive methodology allowed the study to generate meaningful insights into

the health inequities faced by displaced individuals in Gaza.

## Results

### Participants' demographics

Twenty-five participants (12 male and 13 female, aged 25–65 years) were interviewed, representing a diverse cross-section of individuals living in Gaza. The average household size was 6.4 members. Fourteen of the participants were internally displaced persons living in temporary shelters or makeshift housing, while the remaining 11 resided in structurally compromised buildings.

### Themes identified

Thematic analysis identified 4 primary themes: (1) physical deterioration of housing infrastructure; (2) psychological impact of displacement; (3) barriers to healthcare access; and (4) social isolation. These themes were further broken down into subthemes, such as lack of sanitation, overcrowding, and pest infestation, contributing to poor health outcomes. In terms of psychological impact, subthemes included chronic stress, family dynamics and feelings of insecurity. Some interviews with key informants were constrained by time and logistic limitations. However, the housing and healthcare experts consulted did provide meaningful insights into the broader systemic challenges faced in Gaza, such as resource scarcity, inadequate infrastructure, and the limited capacity of the health system to cope with displacement-related health issues. Their input was triangulated with the experiences of displaced persons, ensuring a comprehensive understanding of the issues at hand.

### Physical housing conditions

Participants consistently highlighted the deteriorating physical conditions of their homes as a key contributor to poor health outcomes. Many internally displaced persons and residents of damaged buildings reported living in overcrowded spaces with inadequate ventilation, poor insulation and damaged infrastructure. Participants frequently mentioned specific issues such as leaking roofs, broken windows and unsanitary environments, including a lack of proper sanitation facilities and the presence of pests, such as rodents and insects. These conditions contributed to unpleasant living environments and exacerbated existing health issues, leading to increased respiratory problems, skin infections and stress-related illnesses. Accumulation of these factors gave a fuller picture of the significant challenges faced by individuals living in such precarious conditions. One participant noted:

*"Our house was damaged during the last war, and since then, we have no proper windows or doors. The wind and dust come in all the time, and my children are constantly sick with respiratory problems."*

Many families reported that their homes lacked clean water, functioning sanitation systems, or electricity, which intensified the risk of infectious diseases. Key informants confirmed that damaged housing infrastructure, coupled with limited access to repair services, was a primary factor contributing to poor health outcomes in Gaza. They emphasized the need for urgent structural improvements and sustainable solutions to address the long-term health risks associated with substandard housing.

### Psychological and social impact of displacement

Displacement emerged as a central theme in the experiences of many participants, who described the profound psychological toll of being uprooted from their homes. Feelings of insecurity, helplessness and chronic stress were pervasive, particularly among internally displaced persons who had experienced multiple displacements. Beyond individual suffering, the psychological impact extended to entire families, often leading to disruption in family dynamics. Participants frequently reported increased tension and conflict within households as they struggled to adjust to their new living conditions and the uncertainty of their situation. Parents, in particular, expressed feelings of guilt and helplessness over their inability to provide stability for their children, who were also affected by the displacement.

In addition to family-level impact, displacement contributed to social isolation. Many participants were forced to leave behind their communities and long-established support networks, leading to a sense of detachment and loneliness. The breakdown of these social connections weakened community cohesion, which had previously played a critical role in providing emotional and practical support. This isolation, in turn, hindered the ability of families to access essential resources, services and even informal social support, exacerbating the overall psychosocial strain. One female participant expressed the devastating effects of multiple displacements:

*"I don't know how many times we've moved since the war started. Every time we move, it feels like we lose a part of ourselves. My children have nightmares, and we are always afraid of what will happen next."*

The psychological stress experienced by participants often manifested in physical health issues, such as chronic headaches, gastrointestinal problems and sleep disturbances. Healthcare professionals noted a significant increase in mental health conditions such as anxiety, depression and post-traumatic stress disorder among displaced populations. These professionals also highlighted the compounding impact of social isolation and the loss of community support, which exacerbated mental health challenges. The lack of mental health services and trained specialists in Gaza was a major concern, with participants and key informants reporting

significant shortages in essential medications for treating mental health conditions and qualified professionals to provide psychosocial support. This shortage of specialists and medication was particularly acute for conditions such as post-traumatic stress disorder and chronic anxiety, which have become increasingly prevalent among displaced individuals.

Participants emphasized that comprehensive psychosocial interventions are urgently needed, which must address individual mental health needs as well as the broader social and family-level dynamics affected by displacement.

### **Barriers to healthcare access**

Security concerns (32%) were the most frequent barrier to healthcare access, indicating that ongoing conflict severely limited individuals' willingness or ability to seek medical care. This was followed by lack of specialized healthcare providers (28%), which highlighted a critical gap in the system, preventing individuals from receiving necessary care for specific health conditions. Infrastructure damage (24%) also played a substantial role, as damaged facilities hindered access to essential services, while displacement and population movements (16%) reflected the challenges faced by those forced to migrate, complicating their access to stable healthcare options.

The destruction of local clinics and hospitals meant that patients often had to travel long distances to access basic healthcare services, including maternal and child health care, which many participants emphasized as critical for their families. This lack of access exacerbated existing health issues and created a sense of despair and helplessness among internally displaced persons and other affected populations. One participant stated:

*"We live in a damaged building far from the city centre. When my son gets sick, it is difficult to find transportation, and even if we do, the hospitals are overwhelmed."*

Healthcare costs, especially for displaced families with limited financial resources, were another major concern. Many participants expressed frustration with the healthcare system, citing long waiting times, understaffed facilities and a shortage of medical supplies.

Key informants corroborated these findings, explaining that the destruction of healthcare infrastructure, combined with the ongoing blockade, had severely restricted access to basic and specialized health care. They also noted that the health system was struggling to cope with the increased demand for services, particularly in areas heavily affected by conflict.

### **Perceived health inequities**

Participants expressed a strong sense of injustice regarding the inequitable distribution of resources and services. Those living in severely damaged areas or temporary shelters felt marginalized and forgotten by authorities. They highlighted the unequal access to health

care, clean water and basic living conditions among the internally displaced persons in Gaza.

One participant remarked:

*"It feels like we are left to suffer. People in other parts of Gaza may have problems, but here, we do not even have basic things like clean water or a roof over our heads."*

Participants perceived that their housing conditions directly contributed to these inequities, as those in poorer or damaged areas experienced worse health outcomes than others.

Key informants reinforced these perceptions, acknowledging the deep-seated inequities in the housing and healthcare systems in Gaza. They emphasized the urgent need for policy reforms that will prioritize rebuilding infrastructure, ensuring equal access to health care and addressing the causes of health disparities in affected regions.

## **Discussion**

This study highlights the intricate relationship between housing conditions and health outcomes in Gaza, emphasizing critical areas for policy intervention. The findings align with previous research on the adverse effects of poor housing and displacement on health, while shedding light on challenges unique to Gaza's context, exacerbated by the ongoing siege and instability. The poor housing conditions in Gaza—marked by overcrowding, structural damage, and unsanitary environments—significantly contribute to poor health outcomes. These findings corroborate those of Hussein et al, who reported a similar impact on health in Gaza, including increased respiratory infections and waterborne diseases (15). Our study aligns with D'Alessandro and Appolloni's observations of poor housing exacerbating health issues in conflict zones, and Spiegel et al's findings on respiratory problems in overcrowded refugee settings like Syria (16). The prevalence of respiratory problems among participants, attributed to inadequate ventilation and overcrowding, mirrors findings in other conflict-affected areas, such as those reported by Spiegel et al in the Syrian refugee crisis (17).

Mental health challenges were another critical issue, with participants reporting high levels of psychological stress, anxiety, and depression. These findings echo Gammoh et al's research on the mental health toll of displacement in Gaza and align with broader literature on the psychological impact of displacement and loss (18). Chronic stress and disrupted social networks further exacerbate these issues, highlighting trends in other conflict-affected regions (19, 20). Our findings add to the growing body of evidence indicating that displacement disrupts social and support networks and exacerbates mental health challenges, as observed in other conflict-affected regions (21, 22).

Our results reveal significant barriers to healthcare access, including logistic challenges and financial constraints, consistent with the findings of Lazar et al

(23). The destruction of medical facilities and limited transportation options reported by our participants reflected the broader systemic issues faced in Gaza. Healthcare access emerged as a significant barrier. Participants cited logistic challenges, financial constraints, and destroyed infrastructure as key obstacles, consistent with WHO reports on conflict-related healthcare disruptions. These systemic issues reinforce inequities in healthcare access between Gaza and more stable regions (24).

Participants expressed feelings of marginalization and injustice, resonating with Maio et al's findings in conflict zones. These disparities highlight the urgent need for policies that will address the immediate humanitarian needs and long-term structural inequities to reduce health disparities (25). The disparity in resource distribution and access to basic services is a recurring theme in the literature, highlighting the need for equitable policy responses (7). Our study reinforces the call for policies that address immediate humanitarian needs and long-term structural inequities that perpetuate health disparities.

Given the ongoing siege and restrictions on building materials, the study recommends prioritizing the repair of structurally compromised housing and shelters, while ensuring adequate sanitation, pest control and insulation. Collaboration between government authorities, international aid organizations and policymakers is essential to address these issues effectively. Establishing mobile healthcare services in isolated areas could mitigate transportation barriers to care.

The integration of mental health support into relief efforts is vital. Community-based programmes, including counselling services, community-building initiatives, and mental health awareness campaigns, can help address the chronic stress and psychological impact of displacement. A comprehensive strategy for health and housing in Gaza should account for the unique challenges posed by the conflict, including reconsidering resilience models in light of the specific risks faced in Gaza.

While the study provides valuable insights, limitations must be acknowledged. The sample size, although

sufficient for qualitative research, may not fully capture the diversity of experiences within Gaza's population. The cross-sectional design limits the ability to observe changes over time, and researcher bias may have influenced data interpretation despite rigorous analysis and consensus-building.

Future research should consider longitudinal studies to track changes in housing and health outcomes, offering a dynamic understanding of these evolving issues. Comparative analyses across conflict-affected regions could contextualize Gaza's findings and identify commonalities and differences. Expanding the sample size and incorporating quantitative methods could provide a more comprehensive and generalizable perspective, complementing the qualitative data.

This study underscores the urgent need for integrated approaches to housing and healthcare in Gaza. The findings provide a framework that can inform humanitarian responses in other conflict-affected regions, emphasizing equitable policy interventions and long-term strategies to address the immediate and structural health inequities.

## Conclusion

This study highlights the critical link between housing conditions and health outcomes in Gaza. Poor housing characterized by overcrowding, structural damage and unsanitary conditions exacerbates physical health problems and contributes to psychological stress among displaced populations. Barriers to healthcare access and systemic inequities further compound these issues. To address these challenges, the study calls for urgent policy interventions, including the reconstruction of housing infrastructure, improved healthcare access and enhanced mental health support. Long-term strategies should focus on building resilient housing systems and promoting health equity. The findings emphasize the need for immediate and systemic changes to mitigate the health impact of conflict and improve the wellbeing of affected communities.

## Acknowledgements

We would like to extend our gratitude to all the participants who generously shared their experiences and insights, making this study possible. Special thanks are due to the field researchers and local organizations that facilitated access to temporary shelters and provided invaluable support during data collection.

**Funding:** None.

**Conflict of interest:** None declared.

## Relation entre le logement et la santé dans les zones touchées par le conflit à Gaza : implications politiques pour réduire les inégalités sanitaires

### Résumé

**Contexte :** La précarité des infrastructures de logement, les déplacements forcés et un accès restreint aux soins de santé amplifient les inégalités sanitaires et nuisent au bien-être des résidents dans les zones touchées par le conflit, comme à Gaza.

**Objectif :** Examiner les liens qui existent entre les conditions de logement et les résultats sanitaires dus à la guerre dans la bande de Gaza.

**Méthodes :** À l'aide d'un questionnaire semi-structuré, nous avons mené des discussions de groupe avec 25 participants âgés de 18 ans et plus dans la bande de Gaza, ainsi que des entretiens approfondis avec 10 informateurs clés, entre mai et août 2024. À l'aide du logiciel NVivo, nous avons effectué une analyse thématique pour évaluer dans quelle mesure les conditions de logement ont eu un impact sur les résultats sanitaires.

**Résultats :** Les participants ont signalé des conditions de logement inadéquates, marquées par la surpopulation, des détériorations structurelles et de mauvaises conditions d'assainissement, ce qui a entraîné des problèmes de santé physique importants, tels que des infections respiratoires et des maladies d'origine hydrique. Le stress psychologique et les problèmes de santé mentale étaient fréquents chez les personnes déplacées, et le manque d'accès aux soins de santé a exacerbé les disparités sanitaires parmi ces populations.

**Conclusion :** Il existe un lien critique entre les conditions de logement et les résultats sanitaires à Gaza. Nous recommandons des changements en termes de politiques qui permettront d'améliorer l'infrastructure de logement et de renforcer l'accès aux services de soins de santé, ainsi qu'un soutien psychosocial pour les populations déplacées dans la bande de Gaza. Cela est susceptible de réduire les inégalités sanitaires et d'atténuer l'impact à long terme de ces déplacements sur la santé.

### العلاقة بين السكن والصحة في قطاع غزة المتضرر من الصراع وتداعيات السياسات الرامية إلى الحد من عدم المساواة في مجال الصحة

فيصل يوسف صباح، سامر أبو زر

#### الخلاصة

الخلفية: يؤدي ضعف البنية الأساسية للإسكان والنزوح ومحدودية فرص الحصول على الرعاية الصحية إلى تفاقم أوجه الجور في مجال الصحة، ويؤثر سلبًا على عافية السكان في المناطق المتضررة من النزاعات مثل غزة.

الأهداف: هدفت هذه الدراسة إلى استكشاف العلاقة بين ظروف الإسكان والمخرجات الصحية الناجمة عن الحرب في قطاع غزة.

طرق البحث: استخدمنا استبيانًا شبه منظم لإجراء مناقشات جماعية مركزة مع 25 مشاركًا تبلغ أعمارهم 18 عامًا فأكثر في قطاع غزة، ومقابلات وافية مع 10 مصادر معلومات رئيسية، في الفترة بين مايو/أيار وأغسطس/آب 2024. كما استخدمنا برمجية NVivo لإجراء تحليل مواضيعي للوقوف على كيفية تأثير ظروف الإسكان على المخرجات الصحية.

النتائج: أفاد المشاركون بأن السكن غير لائق، ويتسم بالاحتفاظ، والضرر الهيكلي، وتردي خدمات الصرف الصحي، مما ساهم في ظهور مشكلات صحية بدنية جسيمة، منها الأمراض التنفسية والأمراض المنقولة بالمياه. كما أشاروا إلى انتشار الإجهاد النفسي ومشكلات الصحة النفسية بين النازحين، وقد كان لعدم الحصول على الرعاية الصحية دور في تفاقم التفاوتات الصحية فيما بينهم.

الاستنتاجات: ثمة علاقة بالغة الأهمية بين ظروف الإسكان والمخرجات الصحية في غزة. ونوصي بإدخال تغييرات على السياسات من شأنها تحسين البنية الأساسية للإسكان وتعزيز الحصول على الخدمات الصحية، وكذلك تقديم الدعم النفسي الاجتماعي للسكان النازحين في قطاع غزة، إذ إن ذلك قد يساعد في تقليص أوجه الإجحاف في مجال الصحة، وتخفيف الأثر الصحي الطويل الأمد للنزوح.

### References

1. Sabah FY. Assessment of residential satisfaction with internationally funded housing projects in Gaza Strip, Palestine. *Frontiers in Built Environment*. 2023;9:1289707. <https://doi.org/10.3389/fbuil.2023.1289707>
2. Abu Hamad B, Jones N, Gercama I. Adolescent access to health services in fragile and conflict-affected contexts: The case of the Gaza Strip. *Conflict and health*. 2021;15(1):40. <https://doi.org/10.1186/s13031-021-00379-0>
3. Farhat T, Ibrahim S, Abdul-Sater Z, Abu-Sittah G. Responding to the Humanitarian Crisis in Gaza: Damned if You do... Damned if You don't! *Annals of Global Health*. 2023;89(1). <https://doi.org/10.5334/aogh.3975>

4. Shehab AM, Kandar MZ. Reviewing the factors of the increasing needs for residential housing in the Gaza Strip. *J Appl Sci Environ Sustain*. 2016;2:59-75. [https://www.researchgate.net/profile/Abdalahim-Shehab-2/publication/355215836\\_Reviewing\\_the\\_Factors\\_of\\_the\\_Increasing\\_Needs\\_for\\_Residential\\_Housing\\_in\\_the\\_Gaza\\_Strip/links/616903b13851f9599408799f/Reviewing-the-Factors-of-the-Increasing-Needs-for-Residential-Housing-in-the-Gaza-Strip.pdf](https://www.researchgate.net/profile/Abdalahim-Shehab-2/publication/355215836_Reviewing_the_Factors_of_the_Increasing_Needs_for_Residential_Housing_in_the_Gaza_Strip/links/616903b13851f9599408799f/Reviewing-the-Factors-of-the-Increasing-Needs-for-Residential-Housing-in-the-Gaza-Strip.pdf)
5. UNOSAT. Gaza Strip 8th Comprehensive Damage Assessment. The United Nations Operational Satellite Applications Programme 2024; <https://unosat.org/products/3904>.
6. UNOCHA. Humanitarian Situation Update #187 – Gaza Strip – OCHA. United Nations Office for the Coordination of Humanitarian Affairs. 2024; <https://www.un.org/unispal/document/sitrep-187-ocha-05jul24/>.
7. OCHA. Humanitarian Situation Update #190 | Gaza Strip. United Nations Office for the Coordination of Humanitarian Affairs. 2024; <https://www.unocha.org/publications/report/occupied-palestinian-territory/humanitarian-situation-update-190-gaza-strip>.
8. Al-Jadba G, Zeidan W, Spiegel PB, Shaer T, Najjar S, Seita A. UNRWA at the frontlines: managing health care in Gaza during catastrophe. *The Lancet*. 2024;403(10428):723-6. [https://doi.org/10.1016/S0140-6736\(24\)00230-7](https://doi.org/10.1016/S0140-6736(24)00230-7)
9. Asi Y, Mills D, Greenough PG, Kunichoff D, Khan S, Hoek JVD, et al. 'Nowhere and no one is safe': spatial analysis of damage to critical civilian infrastructure in the Gaza Strip during the first phase of the Israeli military campaign, 7 October to 22 November 2023. *Conflict and Health*. 2024;18(1):24. <https://doi.org/10.1186/s13031-024-00580-x>
10. Holail S, Saleh T, Xiao X, Xiao J, Xia G-S, Shao Z, et al. Time-series Satellite Remote Sensing Reveals Gradually Increasing War Damage in the Gaza Strip. *National Science Review*. 2024;nwae304. <https://doi.org/10.1093/nsr/nwae304>
11. Abu-Ras W, Almoayad F, Bakry HM, Alammari D, Kelly PJ, Aboul-Enein BH. Interventions to promote mental health in the Occupied Palestinian Territories and Palestinian refugees: A scoping review. *International Journal of Social Psychiatry*. 2024;00207640241259995. <https://doi.org/10.1177/00207640241259995>
12. Bogale B, Scambler S, Mohd Khairuddin AN, Gallagher JE. Health system strengthening in fragile and conflict-affected states: A review of systematic reviews. *PloS one*. 2024;19(6):e0305234. <https://doi.org/10.1371/journal.pone.0305234>
13. Hamshari S, Hamadneh S, Ghneem M, Khalaf R, Daqqa S, Alwafa RA, et al. Barriers faced by primary healthcare providers in addressing emergencies in the Northern region of Palestine before and during the Gaza war. *BMC primary care*. 2024;25(1):261. <https://doi.org/10.1186/s12875-024-02512-3>.
14. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology*. 2006;3(2):77-101. <https://doi.org/10.1191/1478088706qp0630a>
15. Hussein S, Ahmed SK, Qurbani K, Fareeq A, Essa RA. Infectious diseases threat amidst the war in Gaza. *Journal of Medicine, Surgery, and Public Health*. 2024;2:100067. <https://doi.org/10.1016/j.glmedi.2024.100067>
16. D'Alessandro D, Appolloni L. Housing and health. An overview. *ANNALI DI IGIENE MEDICINA PREVENTIVA E DI COMUNITÀ*. 2020;32(5 Suppl 1):17-26. <https://doi.org/10.7416/ai.2020.3391>
17. Spiegel P, Abraham O, Altare C, Rajashekharaiiah H. Public Health in Settings of Conflict and Political Instability. *Manson's Tropical Diseases, Fourth Edition*: Elsevier; 2023. p. 25-32. <https://doi.org/10.1016/B978-0-7020-7959-7.00004-X>
18. Gammoh O, Sayaheen B, Alsous M, Al-Smadi A, Al-Jaidi B, Aljabali AA. The Prevalence and Correlates of Depression, Anxiety, and Insomnia among Camp Residing Palestinian Women Migrants during the Outbreak of the War on Gaza: A Cross-Sectional Study from Jordan. *Medicina*. 2024;60(8):1228. <https://doi.org/10.3390/medicina60081228>
19. Williams R, Kemp VJ, Alexander DA. The psychosocial and mental health of people who are affected by conflict, catastrophes, terrorism, adversity and displacement. *Conflict and Catastrophe Medicine: A Practical Guide*. 2014;805-49. [https://doi.org/10.1007/978-1-4471-2927-1\\_49](https://doi.org/10.1007/978-1-4471-2927-1_49)
20. Abed Alah M. Shattered hierarchy: how the Gaza conflict demolished Maslow's pyramid of needs. *Current Psychology*. 2024;1-7. <https://doi.org/10.1007/s12144-024-05784-1>
21. Miller KE, Rasmussen A. The mental health of civilians displaced by armed conflict: an ecological model of refugee distress. *Epidemiology and psychiatric sciences*. 2017;26(2):129-38. <https://doi.org/10.1017/S2045796016000172>.
22. Silove D, Ventevogel P, Rees S. The contemporary refugee crisis: an overview of mental health challenges. *World psychiatry*. 2017;16(2):130-9. <https://doi.org/10.1002/wps.20438>
23. Lazar M, Davenport L. Barriers to health care access for low income families: a review of literature. *Journal of community health nursing*. 2018;35(1):28-37. <https://doi.org/10.1080/07370016.2018.1404832>
24. WHO. Accessing essential health services in fragile, conflict-affected and vulnerable settings. World Health Organization. 2021; <https://www.who.int/activities/accessing-essential-health-services-in-fragile-conflict-affected-and-vulnerable-settings>.
25. Di Maio M, Leone Sciabolazza V. Conflict exposure and health: Evidence from the Gaza Strip. *Health Economics*. 2021;30(9):2287-95. <https://doi.org/10.1002/hec.4364>
26. Nicol LA, Knoepfel P. Resilient housing: a new resource-oriented approach. *Building research & information*. 2014;42(2):229-<https://doi.org/10.1080/09613218.2014.862162>
27. Elinwa UK, Moyo N. Post-disaster housing: A complex systems approach to social resilience. *Open House International*. 2018;43(4):31-40. <https://doi.org/10.1108/OHI-04-2018-B0005>