



Juzoor for Health and Social Development

A War on Health

Gaza's Battle for Survival in a Shattered Health System

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Today's Israeli war on Gaza has become one of the worst humanitarian and health crises in modern history, as six months of relentless bombardment have brought about unprecedented levels of suffering. While global attention goes to the lethality of the war, with tens of thousands of Palestinians killed and many more injured, little attention is given to the profound destruction and irreversible damage inflicted on the region. The effects of this war have been multifaceted, creating hidden problems, particularly health ones, that are too far beyond human imagination. Unfortunately, war does not happen to those killed, but to everyone else left alive. With bombardments having destroyed Gaza's health sector – and invariably compromising the population's chances of survival – those still alive are left to pay the heavy price of living.

Historical Context

Before 7 October 2023, the Gaza Strip had fallen victim to years of conflict, warfare, blockade, violence, restriction of movement, and extremely poor living conditions. For 16 years, Palestinians in Gaza have been isolated and trapped, with little to no way of sustaining life and building a future. Even before the recent war, 45% of the Gazan population already lived in multidimensional poverty and faced numerous health challenges including extreme hunger, lack of access to quality water, and unemployment – to name a few. These factors contributed to a prevalence of diseases, malnutrition, and poor overall health conditions. In 2012, the United Nations published a report that concluded that by 2020, Gaza would lack any essential services needed to provide a barely acceptable standard of life without substantial investment into its infrastructure.¹ Years later, the situation has reached an unprecedented level of catastrophe.

Gaza's exposure to recurrent hostilities in the last decade had previously devastated its human infrastructure, with the health system bearing the heaviest burden. The region's healthcare system stood and remains one of the most affected aspects of the ongoing conflict. It has suffered cumulative destruction from years of wars, with the most recent escalations exacerbating these conditions. Before the war, Gaza's healthcare system was crippled at best, with 36 hospitals and around 3,000 beds serving a population of over 2 million people. The system, which was still in the process of rebuilding itself from previous destruction, heavily relied on external aid for medical supplies and equipment. Due to underfunding and the blockade restricting the entry of aid such as vital medications and surgical supplies, the system faced chronic shortages and inadequate provision of healthcare services. Right before October 7, almost a quarter of drugs categorized as "essential" were already out of stock in Gaza.² In the period from 2019 to 2021, only 55% of essential medicines were available in the Ministry of Health's Central Drugs Store.³

¹ United Nations, Gaza in 2020: A liveable place? August 2012. <https://www.un.org/unispal/document/auto-insert-195081/>

² Christopher Mason, Gaza's health care system crippled before — and after. 17 March 2009. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2653578/>

³ Wafa Agency, WHO reports: Palestinians continue to encounter major obstacles to realizing the right to health. 9 May 2023. <https://english.wafa.ps/Pages/Details/135702>

However, the issue with Gaza's healthcare system was not just with resource and supply shortages, but with the barriers to accessing healthcare and the lack of structure and organization within. The health system in Gaza consisted of fragmented systems including hospitals, clinics, and primary healthcare centers, all of which, when combined, could not meet the needs of the large population. Additionally, this infrastructure was often strained and faced frequent power outages and water shortages due to Israel's control over the two. Hospitals operated beyond capacity, with limited resources to address emergencies and chronic health diseases. All hospitals – and facilities in general – having suffered from years of blockade and destruction, served similar quality of care and the same variety of services, focusing more on serving basic healthcare rather than specialized one.

As a result, thousands resorted to seeking the medical care and attention they needed outside of Gaza. In 2022, there were more than 20,000 patient permit applications to leave Gaza, of which nearly 35% were denied.⁴ From 2018 to 2021, 43% of children patients who were approved to leave Gaza did not have approval for a companion. Israel enforced constraints and restrictions on Palestinians' access to healthcare, including their movement, which contributed to the poor health status among the general population.⁵

Unfortunately, Gaza's health system has also long been a target of warfare. From 2018 to 2022, there were around 650 attacks on healthcare in the Gaza Strip. Recent news of attacks on hospitals and health centers brings back images from 2008, when Gaza's second largest hospital, Al-Quds Hospital, was bombed during Israel's 2008–2009 military campaign on Gaza. According to the World Health Organization (WHO), almost half of the 122 health facilities in Gaza at that time were found to be damaged or destroyed during that period. These scenes were repeated in 2014 up until 2020, and now in the most recent hostilities.⁶

In short, Gaza's health system faced a vicious cycle wherein the challenging circumstances in the region contributed to substandard infrastructure and poor health among the population. This, in turn, pushed patients to overwhelm the system and placed a strain on healthcare resources, which exacerbated healthcare challenges, resulting in an overall worsening of the healthcare situation and a further decline in patients' conditions.

With that being said, it is no surprise that health indicators in Gaza have been poor in the last 15 years or so. There was a high prevalence of chronic diseases in the Gaza Strip and risks of child mortality due to poverty, malnutrition, lack of access to basic services, and stress and exposure to violence. Before the war, it was estimated that around 35% of children under 5 years were at risk of not developing fully, and women were extremely vulnerable to maternal

⁴ WHO EMRO, Gaza Health Access 2022. <https://www.emro.who.int/opt/news/gaza-health-access-2022.html>

⁵ WHO Health Cluster, 15 years of blockade and health in Gaza. July 2022. <https://reliefweb.int/report/occupied-palestinian-territory/15-years-blockade-and-health-gaza-july-2022>

⁶ Nournews, Bombing of Gaza hospital not first time Israel has targeted hospitals. 19 October 2023. <https://nournews.ir/En/News/153359/Bombing-of-Gaza-hospital-not-first-time-Israel-has-targeted-hospitals>

mortality.^{7,8} Additionally, there were reports that the chemicals and explosives used in attacks over the years have increased the prevalence of cancers and birth defects in the region.^{9,10} Over the last 16 years, the region also developed a mental health crisis due to the constant violence and trauma. Before October 7, more than 70% of Gaza's population suffered from mental health problems,¹¹ and a study in 2022 found that 80% of children in Gaza experienced symptoms of emotional distress including fear, worry, sadness, and grief.¹²

Health Indicators in the Gaza Strip (2022)¹³

Life Expectancy at Birth (Females)	75.0
Maternal Mortality Rate (per 100,000)	17.4
Infant Mortality Rate (per 1,000 live births)	10.8
Under 5 Mortality Rate (per 1,000 live births)	13.9
Total Fertility Rate	3.9
Incidence Rates of All Cancer Types (per 100,000 persons)	94.5

Current Context

The healthcare crisis in Gaza was dire even before October 7 due to the 16-year blockade and recurring bombardments and hostilities that limited the movement of people and essential supplies, including medical equipment. The recent war has exacerbated the crisis in Gaza, severely compromising its already failing health system. The assault on infrastructure, combined with shortages of vital medical supplies and healthcare professionals, has pushed the system to the brink of total collapse. Health facilities and personnel have not been spared from the damage; hospitals have been pushed out of service or razed to the ground, and medical supplies are almost completely depleted, resulting in a catastrophic health situation for the entire population, especially for the thousands of critically-injured patients who are at risk of imminent death. The

⁷ UNICEF, Health and nutrition. <https://www.unicef.org/sop/what-we-do/health-and-nutrition>

⁸ PCBS, Press Release On the Occasion of the World Health Day. 7 April 2023.

https://www.pcbs.gov.ps/portals/pcbs/PressRelease/Press_En_WorldHealthDay2023e.pdf

⁹ Al Mezan, On World Cancer Day, Al Mezan calls for an end to Israel's restrictions on Gaza patients' freedom of movement and for the localization of cancer-related health services. 4 February 2023. <https://reliefweb.int/report/occupied-palestinian-territory/world-cancer-day-al-mezan-calls-end-israels-restrictions-gaza-patients-freedom-movement-and-localization-cancer-related-health-services#:~:text=Health%20authority%20statistics%20show%20that,there%20were%20610%20cancer%20deaths.>

¹⁰ Manduca et al. Long Term Risks to Neonatal Health from Exposure to War—9 Years Long Survey of Reproductive Health and Contamination by Weapon-Delivered Heavy Metals in Gaza, Palestine. 8 April 2020.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7177220/>

¹¹ Wafa Agency, More than 70% in Gaza Strip and 50% in West Bank suffer from depression - World Bank and PCBS. 22 February 2023. <https://english.wafa.ps/Pages/Details/133509>

¹² Save the Children, Trapped: The impact of 15 years of blockade on the mental health of Gaza's children. 2022.

<https://resourcecentre.savethechildren.net/document/trapped-the-impact-of-15-years-of-blockade-on-the-mental-health-of-gazas-children/>

¹³ Palestinian Ministry of Health 2022 Annual Report.

https://site.moh.ps/Content/Books/7B3a7X1pBCW0EINRCY7q9EWTDQUqfaw9pPoeWDZ6OsSLnxZqVGBuyY_rDZGco6Zb5437Fq_i2OJDNvtmezzUdHQ79UmhKgrDixmrzxFxol5Zeu.pdf

challenges Gaza's healthcare has been facing and continues to face are multifaceted, with primary and secondary consequences of war straining the system to a breaking point.

As Gaza's health care system crumbles, the toll of civilian casualties, injuries, and displacements continues to escalate. As of 5 March 2024 (day 153 of the war), more than 30,717 Palestinians have been killed, over 73,000 have been wounded and over 10,000 are still buried under the rubble (presumed dead) in the Gaza Strip. Most fatalities are reportedly women and children, including an estimated 9,000 women and over 14,000 children. According to the United Nations (UN), around 1.9 million people, or 85% percent of Gaza's 2.2 million residents have been displaced across the besieged enclave, including one million women and children.¹⁴ Families have had to relocate numerous times seeking safety, now finding themselves clustered into a shrinking geographical area.

The hostilities which began on October 7 have not only resulted in the mass displacement of nearly the entire population, but also the damage and destruction of at least one-third of all buildings, collapsing basic services including healthcare, unavailability of food and drinking water, along with economic collapse and the loss of agricultural, livestock, and fishing production. Displacement has been driven by bombardment by air, land, and sea, including the destruction of 60% of all housing stocks as of November 2023, ground operations and clashes, and evacuation orders by the Israeli military.¹⁵ As of December 2023, the level of building damage and destruction ranges from about 10% to 15% of buildings in Rafah governorate to about 56% to 69% in North Gaza governorate.

As of 31 January 2024, the 1.9 million displaced people are now sheltering in emergency shelters (both UN Relief and Works Agency (UNRWA) and public shelters), informal sites, or close to UNRWA shelters. Across the southern governorates, the average number of internally displaced persons (IDP) per UNRWA shelter is about 12,400 people, over four times the capacity of these shelters. By 13 December, an estimated half of the Gazan population was reportedly crowded into only Rafah governorate, leading to a population density of over 12,000 people per square kilometer, a four-fold increase from pre-escalation.^{16,17} According to UNRWA, there is one toilet for every 160 Internally Displaced Persons (IDPs) and one shower unit for every 700 people who are sheltering in their schools across Gaza. The lack of privacy and limited possibility of maintaining personal hygiene, combined with high rates of hunger, thirst, and lack of sleep has made their lives a nightmare. The imposed restrictions on movement, forced displacement, and personal tragedies have severely hindered the capacity of Palestinian healthcare workers to provide essential medical aid to the overwhelming number of people in need.

¹⁴ OCHA. Hostilities in the Gaza Strip and Israel - reported impact, 23 February 2024. <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-reported-impact-day-140>

¹⁵ Shelter Cluster Palestine, Shelter in Crisis: Joint Advocacy Statement, 24 November 2023, <https://reliefweb.int/report/occupied-palestinian-territory/shelter-crisis-joint-advocacy-statement-24th-november-2023>.

¹⁶ OCHA, Hostilities in the Gaza Strip and Israel | Flash Update #68, 13 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-68>.

¹⁷ OCHA, Hostilities in the Gaza Strip and Israel | Flash Update #71, 16 December 2023, <https://www.ochaopt.org/content/hostilities-gaza-strip-and-israel-flash-update-71>.

In addition to the continuous bombardments in the northern and central governorates of Gaza, declining access to food, humanitarian assistance, and basic services in the northern governorates also likely contributed to massive displacement to the South. The displacement itself has led to immense challenges for the population and the humanitarian response in terms of shelter, food, sanitation, and health.

Gazans now make up 80 percent of all people facing famine or catastrophic hunger worldwide, marking an unparalleled humanitarian crisis in the besieged enclave. The Integrated Food Security Phase Classification (IPC) report indicates that the entire population is experiencing food insecurity at crisis levels or worse. This is the highest percentage of acute food insecurity ever recorded by the IPC. Half of Gaza's population is in Emergency Phase (IPC Phase 4), with over half a million people facing catastrophic conditions (IPC Phase 5), characterized by severe food shortages and exhaustion of coping mechanisms. The situation is dire, with every person in Gaza suffering from hunger, and women and children most vulnerable to malnutrition and dehydration. Pregnant and nursing women, along with their babies, are at increased risk due to a lack of food and clean water. As the risk of famine continues to increase, around 335,000 children under five are at high risk of severe malnutrition, leaving a whole generation in danger of suffering from stunting, undermining the learning capacity of an entire generation.¹⁸

Collapse of Healthcare System

Before the war in Gaza began on October 7, the healthcare system in Gaza was already on the edge of collapsing with only 1.21 hospital beds per 1,000 people across the Strip.¹³ The recent war has exacerbated this already critical condition, leading to the closure of hospitals, lack of medical supplies, equipment, and medicines, physical damage to hospital infrastructures, and evacuation of numerous medical facilities. According to the WHO, as of mid-February, among the 36 hospitals in the enclave, there are currently a total of 14 of 36 hospitals partially functioning: 11 hospitals (5 in the north and 6 in the south) partially functioning and able to provide any medical services, three hospitals functioning at minimal capacity, while the rest are not functioning at all.¹⁹ These facilities lack basic medicine, anesthetics, and equipment as well as sufficient water and electricity supply. Doctors and other hospital staff are exhausted, and they and their families are themselves displaced, traumatized, and facing tremendous losses. In addition, the WHO has reported, the bed capacity at hospitals across the Strip has now been reduced to 1,400, only 15

¹⁸ IPC. GAZA STRIP : IPC Acute Food Insecurity | November 2023 - February 2024.

<https://reliefweb.int/report/occupied-palestinian-territory/gaza-strip-ipc-acute-food-insecurity-november-2023-february-2024-december-21-2023>

¹⁹ WHO, OCHA. Hostilities in the Gaza Strip and Israel | Flash Update #122. 20 February 2024. [Hostilities in the Gaza Strip and Israel | Flash Update #122 | United Nations Office for the Coordination of Humanitarian Affairs - occupied Palestinian territory \(ochaopt.org\)](https://www.ochaopt.org/en/news-events/hostilities-in-the-gaza-strip-and-israel)

of 77 primary healthcare centers are currently functional and only 12 emergency medical teams and three field hospitals are currently operational.²⁰

At this point in the war, the few partially functioning hospitals are only able to deliver desperately needed trauma care and there is no treatment for other critical primary care needs, such as chronic illnesses. Hospitals in the North are currently providing maternity, trauma, and emergency care services but face severe challenges including a shortage of medical staff such as specialized surgeons, neurosurgeons, and intensive care personnel. A lack of essential medical supplies is another pressing issue faced by northern hospitals, along with the urgent need for fuel, food, and drinking water. The hospitals operating in the south are functioning at three times their capacity, with occupancy rates reaching 206% in inpatient departments and 250% in intensive care units. With the continuous bombardment in the south, the largest remaining hospital in southern Gaza is now barely functional. Only 30% of staff remain at Nasser Medical Complex in Khan Younis as of January 30, all of whom are overwhelmed by patient numbers. Recent reports state even the burn unit at Nasser Medical Complex has been operating with only one doctor caring for 100 patients. In addition, Gaza's largest hospital, Al-Shifa, with more than 700 beds has become an emergency room that's full of severely injured patients and five or six doctors and nurses. Tens of thousands of displaced persons are living in operating theaters, corridors, and stairs.²¹

Before October 7, UNRWA managed 22 primary healthcare centers in Gaza, serving 1.3 million Palestine refugees with 1000 staff. Following the continuous bombardments, the number decreased to six by early January 2024 and as of February 2024, only four are operational due to ongoing bombardment and access restrictions.²² Only 150 out of 325 known shelters currently have medical points with minimal capacity. These health centers offer essential primary healthcare services, including treatment for non-communicable diseases and the provision of critical outpatient care, however are facing major challenges such as staff relocation, facility damage, and supply shortages. Despite difficulties, approximately 650 UNRWA healthcare workers remain in these centers, with some adopting double shifts to cope with patient influx. Before the war, UNRWA's health centers managed approximately 15,000 consultations per day. This number has increased by approximately 50% to over 23,000 daily consultations across those health centers and health points in shelters that remain operational, with 7% of these consultations catering to Gazans who are not registered Palestine refugees. In addition, referrals to UNRWA-contracted hospitals are complicated due to operational issues including the facilities' compromised functioning, shortage of electricity, and depletion of supplies.²³

²⁰ OCHA, HOSTILITIES IN THE GAZA STRIP AND ISRAEL - REPORTED IMPACT, DAY 131, 15 February, 2024.

<https://www.unocha.org/publications/report/occupied-palestinian-territory/hostilities-gaza-strip-and-israel-reported-impact-15-february-2024-1500>

²¹ United Nations. Gaza health system collapsing, as UN agencies renew ceasefire call. 17 January 2024. [Gaza health system collapsing, as UN agencies renew ceasefire call | UN News](#)

²² State of Palestine Ministry of Health. Daily report on the effects of the Israeli Aggression in Palestine. 20 February 2024.

[Attachment 1 Palestinian Ministry of Health Daily Report on the Effects of the Israeli aggression in Palestine 19 February 2024.pdf](#)

²³ Al-Jadba et al. UNRWA at the frontlines: managing health care in Gaza during catastrophe. 13 February, 2024. [UNRWA at the frontlines: managing health care in Gaza during catastrophe - The Lancet](#)

Attacks on Healthcare

Israeli attacks on healthcare started in the immediate aftermath of the war, which began on 7 October 2023.²⁴ Israeli forces have been blocking the entry of essential medical supplies and medicines to the Strip, bombing medical facilities including hospitals, killing, and arresting healthcare staff, and targeting ambulances. Within the first 36 hours, Israeli forces attacked the Indonesian Hospital in Beit Lahia, Nasser Hospital in Khan Yunis, and Al-Quds Hospital in Gaza City, among several others, killing six healthcare workers in the process. Attacks on healthcare facilities and healthcare workers in Gaza, including those managed by the Ministry of Health, non-governmental organizations (NGOs), the private health sector, and UNRWA, are unprecedented in both their scale and immediacy. In addition to hospitals, Israeli forces have targeted ambulances, medical aid convoys, and access roads. As of mid-February, the World Health Organization (WHO) reported more than 400 healthcare-related attacks in Gaza since hostilities erupted, including on every single one of its hospitals,²⁵ many repeatedly, 98 healthcare facilities, and 90 ambulances, resulting in the deaths of over 640 individuals and over 800 injuries.²⁶

The increased attacks on Gaza's healthcare infrastructure have claimed the lives of over 620 healthcare professionals, according to the WHO. This equates to an average daily fatality rate of five healthcare workers from the beginning of the war until the beginning of January 2024. The war has also taken an unprecedented toll on UNRWA staff, with 158 staff members killed as of February 19. By late December, the number of health workers killed in Gaza had already exceeded the total number of all health worker deaths recorded across all other conflicts globally last year, and in any single year since 2016. Many health workers have also been kidnapped, including the director of Gaza's largest hospital, Al-Shifa, who remains missing. In addition, Gaza's sole pediatric cancer ward has been attacked and destroyed by the Israeli military.

As of early February, Nasser and Al Amal hospital have been under heavy shelling and gunfire which have been under siege for weeks. On February 8, the Ministry of Health (MoH) in Gaza reported that 300 medical staff, 450 wounded, and 10,000 displaced people at Nasser Hospital were exposed to a health and humanitarian catastrophe amid a severe shortage of fuel, anesthesia, as well as intensive care and surgical supplies. A WHO spokesperson stated in a recent report, that a nurse was shot and critically injured while inside an operating theater in Nasser Hospital.²⁷ According to the MoH, the Israeli military has prevented the movement of ambulances, the disposal of medical and non-medical waste, and the arrival of the wounded and

²⁴ WHO. oPt emergency situation update issue 22. World Health Organization, 2024. <https://reliefweb.int/report/occupied-palestinian-territory/opt-emergency-situation-update-22-30-january-2024-1300>

²⁵ Annie Sarrow and Kenneth Roth. Destroying Gaza's Health Care System Is a War Crime, Foreign Policy Magazine, [Israel-Hamas War: Destroying Gaza's Health Care System Is a War Crime \(foreignpolicy.com\)](https://foreignpolicy.com/article/destroying-gaza-health-care-system-is-a-war-crime/)

²⁶ United Nations. Gaza: UN health agency warns over continuing attacks on healthcare, 9 February, 2024. [Gaza: UN health agency warns over continuing attacks on healthcare | UN News](https://www.un.org/press/en/2024/20240209.gaza-health-agency-warns-over-continuing-attacks-on-healthcare/)

²⁷ United Nations. Gaza: UN health agency warns over continuing attacks on healthcare, 9 February, 2024. [Gaza: UN health agency warns over continuing attacks on healthcare | UN News](https://www.un.org/press/en/2024/20240209.gaza-health-agency-warns-over-continuing-attacks-on-healthcare/)

sick to Nasser Hospital, as well as other hospitals in the south of the Strip. Moreover, allegations of sniper shootings in the vicinity of several hospitals in the south continue.²⁸

Ambulances have also faced attacks in Gaza, with about 120 of them completely destroyed, including Palestine Red Crescent Society (PRCS) ambulances. There have been many incidents in which ambulances have been prevented from reaching critically injured patients. In one case, an Al-Jazeera journalist injured from Israeli bombardment bled to death after the ambulance trying to reach him came under fire. Since October 7, 12 PRCS staff and volunteers have been killed while carrying out their humanitarian work, according to PRCS.

Communicable Diseases

Apart from the tragic loss of life, the destruction of infrastructure and the displacement of millions of refugees have created conditions conducive to the spread of infectious diseases. The forceful displacement of nearly 2 million people has led people to seek refuge anywhere they can with over a million people seeking shelter in 156 UNRWA facilities. With healthcare capacity severely reduced and infectious disease cases on the rise, Gaza lacks the resources to handle widespread outbreaks without immediate assistance. In the months leading up to the current humanitarian and health crisis, Gaza has experienced a significant increase in acute respiratory infections, totaling over 200,000 cases,²⁹ including COVID-19, influenza, respiratory syncytial virus (RSV), as well as outbreaks of scabies, lice, chickenpox, and various skin rashes. This surge in infections must be viewed in light of the existing health challenges facing the population.

Crowded living conditions, poor water and sanitation access, and inadequate healthcare infrastructure are contributing to the health crisis, exacerbating the spread of diseases. The United Nations has noted worrying signals of outbreaks of at least 14 diseases with “epidemic potential”, many of which are water-borne diseases including Hepatitis A. As of 30 January 2024, Gaza is currently facing an enormous infectious disease caseload, with over 700,000 cases officially reported. It is expected that the actual number is far greater than that. The ongoing war in Gaza has led to a severe health crisis, notably affecting children younger than 5 years with a substantial increase in infectious diseases. The situation is dire, with a UN report indicating over 179,000 acute respiratory infections, over 136,400 instances of diarrhea, over 55,400 instances of scabies and lice, and over 4,600 cases of jaundice in this vulnerable age group.³⁰ Since 16 October 2023, UNRWA has been monitoring 14 diseases with epidemic potential within its shelters. Acute hepatitis alerts have been issued, and there has been a large increase in the number of hepatitis cases and other infectious disease cases compared with the previous year. Before the war, a study in Gaza revealed a high prevalence of diarrheal diseases among children younger than 5

²⁸ OCHA. Hostilities in the Gaza Strip and Israel: Flash update #114. 8 February 2024. [Hostilities in the Gaza Strip and Israel | Flash Update #114 | United Nations Office for the Coordination of Humanitarian Affairs - occupied Palestinian territory \(ochaopt.org\)](https://www.ochaopt.org/documents/ocha-20240208-hostilities-in-the-gaza-strip-and-israel-flash-update-114)

²⁹ OCHA, HOSTILITIES IN THE GAZA STRIP AND ISRAEL - REPORTED IMPACT, DAY 137, 20 February, 2024. [Hostilities in the Gaza Strip and Israel - reported impact | Day 137 | United Nations Office for the Coordination of Humanitarian Affairs - occupied Palestinian territory \(ochaopt.org\)](https://www.ochaopt.org/documents/ocha-20240220-hostilities-in-the-gaza-strip-and-israel-reported-impact-day-137)

³⁰ UN Updated: everyone is hungry in Gaza, warn UN humanitarians. <https://news.un.org/en/story/2024/01/1145227>

years, with more than 46% experiencing diarrhea periodically and around 18% experiencing it in a single day.³¹ Current data show a 25-fold increase in diarrhea among children younger than 5 years compared to before the war.³² Specifically, in the period between epidemiological weeks 43 and 52 (23 October and 31 December 2023), the incidence of non-bloody diarrhea increased by 33 times among children younger than 5 years and by 99 times among individuals aged five years and older compared with the same period in 2022. Bloody diarrhea and impetigo have seen dangerous increases over the same period (22 times and four times, respectively), underscoring the gravity of the health emergency within shelters.³²

The consequences of infectious diseases during times of war can extend beyond the immediate conflict period, with long-term health implications for both adults and children. Chronic health conditions and disabilities may result from untreated or poorly managed infections, further exacerbating the health burden on the Gazan population. Similarly, infectious diseases can hinder children's physical and cognitive development, leading to malnutrition, impaired growth, and reduced cognitive function. The psychological and economic tolls on affected families are substantial, and weakened immunity can diminish the quality of life into adulthood, perpetuating poverty and hindering socioeconomic growth. The chaotic conditions including the lack of access to healthcare also hinder vaccination efforts, further exposing children to preventable diseases.

The compounded impact of new infectious diseases on an already overburdened system, beset by chronic diseases and now further coupled by direct attacks on healthcare facilities – poses a critical challenge to the region's capacity to provide essential medical care. With a substantial portion of the healthcare infrastructure damaged, the road to recovery and the ability to manage both acute and chronic diseases is hindered, threatening to spiral into a full-blown public health catastrophe.

Non-communicable Diseases

The chronically ill are the hidden casualties of the war, as access to water, food, and medicine is severely restricted. Before October 2023, Gaza's healthcare system was already stretched thin, dealing with nearly 1,100 patients requiring regular kidney dialysis, 450 requiring kidney transplants, 71,000 diabetes patients, 225,000 individuals with high blood pressure, over 2,000 cancer diagnoses annually – including 122 children – and significant instances of cardiovascular disease and mental health disorders affecting 45,000 and 485,000 people respectively. As of the latest data, 350,000 people in Gaza have chronic diseases including cancer, diabetes, chronic renal failure, heart failure, thalassemia, and others – of whom are denied essential healthcare and do not have access to medications, warning of serious health complications.

³¹ Kanoa et al. Epidemiology of acute diarrheal diseases among children under five in Gaza Strip: post war community based study. https://saspublishers.com/media/articles/SJAMS_52B442-452.pdf

³² WHO. Lethal combination of hunger and disease to lead to more deaths in Gaza. <https://www.who.int/news/item/21-12-2023-lethal-combination-of-hunger-and-disease-to-lead-to-more-deaths-in-gaza>

The inability to continue renal dialysis, the lack of insulin, and other life-saving cardiac medications, fuel shortages, scarcity of clean water, and lack of electricity means thousands of people with cardiovascular diseases (CVD), asthma, kidney disease, or diabetes are unable to treat or control their conditions, which will result in the rapid increase in deaths.³³ There is currently no data to identify how many people are dying because they cannot access healthcare for their chronic conditions. Worsening the already catastrophic situation, hospitals that are still functioning are overwhelmed with patients with war-related injuries and trauma patients and are not able to treat any chronic illnesses.

Cancer patients, in particular, have been left to their fate, as Gaza's most important facility for cancer patients halted operations and shut down after it was bombed in October 2023. There are currently at least 10,000 Palestinians with cancer in Gaza, who are living in catastrophic health conditions as a result of the ongoing Israeli aggression on the Strip and the mass displacement. The patients are now left without treatment, causing their condition to deteriorate rapidly. With minimal resources available to aid these cancer patients in Gaza, approximately 2000 individuals now require treatment abroad, marking a twofold increase compared to the number initially scheduled for referral before 7 October 2023.³⁴

According to the Ministry of Health in Gaza, only 60% of the essential list of basic primary healthcare medicines are available. Many people are only able to buy one of many other medications they need. According to Médecins Sans Frontières (MSF), even when there is limited availability of medications in aid trucks, there are no safe ways of distributing them or people accessing them because of airstrikes and the continuous bombing. An expert in nephrology at the Royal Liverpool University Hospital which has practiced in Gaza since 2013 stated in a recent report that some kidney transplant patients have been unable to take their medication in six weeks, "all risking transplant rejection", he said.³⁵

Additionally, the situation has resulted in a critical shortage of blood filters, leading to the use of whole blood for transfusions. This particularly endangers patients with thalassemia and other chronic diseases.³⁶

With the scarcity of healthcare services, chronic disease patients in Gaza are unable to access specialized medical care, including access to specialists, diagnostic tests, and advanced treatments, all of which they often need. The war has hindered their ability to access such care due to damage to healthcare facilities, restrictions on movement, and shortages of medical personnel and resources. This lack of access can impede disease management and lead to poorer health outcomes for these patients.

³³ Fahdah, Alokaily, War and Health Crisis in Gaza, <https://smj.org.sa/content/smj/45/1/9.full.pdf>

³⁴ Walaa Sabah, Middle East Eye. War on Gaza: With hospitals destroyed, there is little help for Palestinian cancer patients. 25 February 2024. <https://www.middleeasteye.net/news/war-gaza-hospitals-destroyed-there-little-help-palestinian-cancer-patients>.

³⁵ Weronika Strzyżyńska and Kaamil Ahmed, The Guardian, Patients with chronic illnesses in Gaza failing to get treatment, doctors warn. 8 February 2024. <https://www.theguardian.com/global-development/2024/feb/17/patients-with-chronic-illnesses-in-gaza-failing-to-get-treatment-doctors-warn>

³⁶ Thalassemia Palestinian Friends Society

As a result of these catastrophic conditions, chronic disease patients in Gaza are also particularly vulnerable to the psychological toll of living in the besieged enclave. The stress, fear, upheaval, and uncertainty caused by the ongoing war can exacerbate mental health issues such as anxiety, depression, and post-traumatic stress disorder (PTSD), which can in turn negatively impact their ability to manage their chronic conditions effectively. Similarly, factors like poor nutrition, limited access to medication, and psychological distress can contribute to worsening symptoms, increased disease progression, and higher rates of complications among patients.

The cumulative effects of untreated or poorly managed chronic diseases as a result of the humanitarian crisis in Gaza can lead to long-term complications and disability among patients. For example, uncontrolled diabetes can result in nerve damage, kidney disease, and vision loss, while untreated hypertension can lead to heart attacks, strokes, and organ damage. These complications can significantly impair patients' quality of life and increase their dependence on healthcare services and support systems.

The broader humanitarian crisis in Gaza, characterized by widespread poverty, food insecurity, and inadequate access to clean water and sanitation facilities, exacerbates the challenges faced by chronic disease patients. Limited access to nutritious food, clean water, and basic healthcare services further compromises patients' ability to manage their conditions.

Maternal, Newborn, and Child Health

Amid the ongoing war, pregnant women, children, and newborns are among the most vulnerable and are disproportionately bearing the burden of the war, not only in terms of casualties but also in reduced access to health care. At the beginning of the war, there were over 50,000 pregnant women trapped in the besieged enclave, with around 180 births occurring every day. Amid this catastrophe, some 5,500 women are due to give birth in the next month with barely any access to medical assistance.³⁷ Additionally, more than 155,000 pregnant and breastfeeding women are at high risk of malnutrition. With the catastrophic living conditions, continuous bombardment, and lack of access to healthcare services, it is extremely difficult for women who have been pregnant since the beginning of the war to carry healthy pregnancies to term in this environment. As the healthcare system unravels, these women are forced to face unimaginable health and safety challenges. Displacement, inadequate shelter, and lack of resources exacerbate the already-existing risks of pregnancies, not to mention malnutrition, inadequate hygiene, and lack of access to basic maternal health services for these women and their babies. The rate of infections will increase among pregnant women as they are immunocompromised and particularly vulnerable to infection. In addition, women in shelters will also face a heightened risk of contracting waterborne diseases due to contaminated water. Pregnant women are prone to endometritis and mastitis, both easily treatable with appropriate antibiotics. However, with a lack of access to basic and life-saving medications, these women will die of very preventable deaths, which will ultimately

³⁷ UNFPA. Impossible choices in Gaza: "Women are giving birth prematurely because of terror". 23 February 2024. [Impossible choices in Gaza: "Women are giving birth prematurely because of terror"](https://www.unfpa.org/stories/impossible-choices-in-gaza-women-are-giving-birth-prematurely-because-of-terror) (unfpa.org)

significantly increase both maternal and infant mortality. With an overwhelmed hospital system that is quickly running out of medical supplies, women with either their newborns or unborn children are becoming the overlooked victims of this war.

As the majority of Gaza's hospitals are not operational and the remaining ones are only partially functioning, women are increasingly forced to deliver babies in overcrowded and unclean shelters without medical support. In the first 100 days of the war, approximately 17,000 women have given birth in horrific circumstances – with increased reports of births in which women and their children could have potentially died or suffered serious damage. Maternity, trauma, and emergency care services are highly limited.³⁸

As a result of a lack of vital resources, miscarriages, and stillbirths have increased, babies are being born prematurely and underweight, and women and children are dying from preventable complications. Figures for maternal and infant deaths have not been updated since the start of the war last October, however, UN agencies anticipate high maternal mortality rates due to limited and inadequate prenatal and obstetric care.³⁹ According to the humanitarian aid group CARE, healthcare workers have reported that miscarriages in Gaza have increased around 300 percent. Additionally, as of mid-January, an estimated 40% of current pregnancies were considered high-risk. Health workers on the ground have reported an increased risk of complications during childbirth, with cases where women do not survive and if they do have limited access to postnatal care.⁴⁰

The deprivation can be seen at every stage of pregnancy and birth. There are currently no neonatal intensive care units (NICU) functioning in the North of the Gaza Strip, and only a few functional maternity departments and NICUs in the South. Pregnant women also have very limited access to pre and antenatal care for normal and high-risk pregnancies, due to the prioritization of treating war-related injuries, leading many health facilities to suspend non-urgent appointments. This in turn is limiting screening for all complications like pre-eclampsia, anemia, hypertension, and gestational diabetes, which can be deadly for the mother and the child if left untreated.

Doctors have been reporting increased rates of women with severe anemia, which will increase premature births and their chances of dying. Since the beginning of the war, premature babies have been dying or will have to live with lifelong disabilities, as they do not receive the necessary medical support. Furthermore, the blockade imposed on the Gaza Strip has limited the entrance of critical supplies, with fuel shortages leading to power outages and the inability to operate life-saving medical equipment like ventilators and incubators. In some cases, doctors have to put four

³⁸ Relief Web. 100 days of darkness in Gaza: Urgent Focus on Maternal and Reproductive Health Needed. 14 January 2024. [100 days of darkness in Gaza: Urgent Focus on Maternal and Reproductive Health Needed - occupied Palestinian territory | ReliefWeb](https://www.reliefweb.int/report/palestine/100-days-of-darkness-in-gaza-urgent-focus-on-maternal-and-reproductive-health-needed-occupied-palestinian-territory)

³⁹ Regina Munch, Commonweal. New mothers in Gaza. 24 February 2024. <https://www.commonwealmagazine.org/new-mothers>

⁴⁰ Andrea Gonzalez-Ramirez, The Cut. The War in Gaza Is Decimating Maternal and Infant Health. 8 February 2024. <https://www.thecut.com/article/gaza-maternal-infant-health.html>

to five babies in one incubator, yet not all of them survive.⁴¹ In addition, healthcare facilities and pharmacies are running out of medications including painkillers, and there are no life-saving drugs such as surfactants to treat newborns or premature babies.

Women going through delivery have also faced the unthinkable as they are forced to give birth without a doctor or nurse, some in makeshift shelters or the street, using whatever tools they can find. Those who do make it to a hospital often find that there's no pain medication, antibiotics, or sterilized equipment. There have been reports of postmortem cesarean sections to save a baby after the mother has died, sometimes from a medical condition, but sometimes after a bombing. As hospitals have also run out of anesthetics, pregnant women are being forced to undergo emergency c-sections without anesthesia, further raising the risks of maternal and neonatal death.

In the weeks after birth, newborns are at great risk of dehydration, malnutrition, and infectious disease. Breastfeeding is often impossible due to the mother's malnutrition. Even when formula is available, a lack of clean water means that bottle feeding could be deadly. The psychological and physiological stress thousands of pregnant women and new mothers are under is unbearable and will continue to impact an entire generation of young mothers and their children.

The long-term impact of the current Gaza war on maternal and child health in the Gaza Strip is concerning. Disruptions to healthcare services and infrastructure can have lasting effects on the health system's capacity to provide adequate maternal and child health services currently and in the future. Children born during the war may experience developmental delays, trauma-related mental health issues, and long-term health consequences, and pregnant women and new mothers will experience some kind of trauma and suffer psychological repercussions if they survive. The ongoing cycle of violence and instability in Gaza threatens to perpetuate poor maternal and child health outcomes, hindering efforts to improve healthcare infrastructure and services in Gaza and the region. Immediate humanitarian assistance and long-term investments in healthcare infrastructure and services are essential to mitigate the impact of the war on maternal and child health and promote sustainable recovery and development in the region.

Malnutrition and Food Insecurity

In the war-ravaged streets of Gaza, hunger is a harsh reality for almost the entire besieged population of over 2.2 million, while the smell of death is ever-present. An unprecedented 93% of the population in Gaza is facing crisis levels of hunger, with one in four people facing catastrophic conditions of starvation.⁴² Estimates show nine out of 10 people do not have food daily.⁴³ Before the current war, more than 75% of the population relied on assistance in the Gaza Strip. The risk

⁴¹ UNFPA. Impossible choices in Gaza: "Women are giving birth prematurely because of terror". 23 February 2024. <https://www.unfpa.org/news/impossible-choices-gaza-%E2%80%9Cwomen-are-giving-birth-prematurely-because-terror%E2%80%9D>

⁴² WHO. Lethal combination of hunger and disease to lead to more deaths in Gaza. 21 December 2023. <https://www.who.int/news/item/21-12-2023-lethal-combination-of-hunger-and-disease-to-lead-to-more-deaths-in-gaza>

⁴³ Global Nutrition Cluster, UNICEF. Nutrition Vulnerability and Situation Analysis / Gaza. February 2024. <https://www.nutritioncluster.net/sites/nutritioncluster.com/files/2024-02/GAZA-Nutrition-vulnerability-and-SitAn-v5.pdf>

of famine in Gaza is increasing by the day, particularly for over 300,000 people in northern Gaza who have been predominantly cut off from assistance and where food security assessments show the greatest needs, with many reportedly grinding animal feed to make flour.⁴⁴

The Global Nutrition Cluster (GNC), an aid partnership led by UNICEF, has recently reported a steep rise in malnutrition among children, and pregnant and breastfeeding women in the Gaza Strip, as food and safe water become increasingly scarce and disease proliferates. Recent estimates found that in 95% of Gaza's households, adults have been restricting their food to ensure children can eat, while 65% of families eat only one meal a day. In addition, more than 90% of children younger than five and 95% of pregnant and breastfeeding women in Gaza eat two or fewer food groups a day, and the food they do have access to is of the lowest nutritional value, known as severe food poverty, the report said. Compounding the already dire circumstances, recent reports indicate that 20 infants have tragically died from starvation and hunger since the beginning of March.

The GNC report "Nutrition Vulnerability and Situation Analysis" outlines the findings of the nutrition screenings conducted in shelters and health centers in the north which found that 15.6 percent – or 1 in 6 children under the age of two - are acutely malnourished. Of these, almost 3 percent suffer from severe wasting, the most life-threatening form of malnutrition, which puts young children at the highest risk of medical complications and death unless they receive urgent treatment. As the data were collected in January, the situation is likely to be even worse today. Similar screenings in Rafah in southern Gaza, where aid has been more available than in the north, found that 5% of children under the age of two are acutely malnourished, evidence that access to humanitarian aid can help prevent the worst outcomes. With Gaza's 335,000 children under 5 years of age especially vulnerable, UNICEF projects that, in the next few weeks, child wasting could increase from pre-crisis conditions by nearly 30 percent, affecting up to 10,000 children.⁴⁵ Before the war, the burden of both acute and chronic malnutrition in the Gaza Strip was low, with the prevalence of acute malnutrition by weight-for-height at 0.8% (including 0.4% severe acute malnutrition); stunting at 9.0%; and underweight at 2.1% among children under 5.⁴⁶

If humanitarian aid remains scarce and the war does not end, children's nutrition will continue to plummet and Gaza will experience a surge in preventable child deaths caused by severe malnutrition and starvation.⁴⁷ This will affect the children of Gaza for the rest of their lives and have potential intergenerational consequences. This decline in a population's nutritional status in four months is unprecedented globally, according to UNICEF.

⁴⁴ WFP. United Nations. Gazans 'stalked by hunger, disease and death', warns UN's top aid official. 8 February 2024.

<https://news.un.org/en/story/2024/02/1146347>

⁴⁵ WHO. Preventing famine and deadly disease outbreak in Gaza requires faster, safer aid access and more supply routes. 15 January 2024. <https://www.who.int/news/item/15-01-2024-preventing-famine-and-deadly-disease-outbreak-in-gaza-requires-faster--safer-aid-access-and-more-supply-routes>.

⁴⁶ The Palestinian Multiple Indicator Cluster Survey, 2019–2020.

⁴⁷ UNICEF. Children's lives threatened by rising malnutrition in the Gaza Strip. 19 February 2024. <https://www.unicef.org/press-releases/childrens-lives-threatened-rising-malnutrition-gaza-strip>

Further findings from the GNC report show that 81% of households in Gaza lack access to safe and clean water, with the average household having less than one liter per person per day. This falls significantly below the minimum standard of 15 liters per person per day and raises particular concerns regarding infants reliant on formula milk. Even before October 7, infant feeding practices were suboptimal, but they have since worsened, leading to an increased dependency on formula milk for the survival of infants, necessitating access to safe and clean water.⁴³ The scarcity of clean drinking water in Gaza will further expose young children to infections and will heighten the risk of malnutrition. Moreover, the reality in Gaza now is that if people are not dying from starvation, they are dying from dehydration.

Since the onset of the humanitarian crisis in Gaza, the WFP has delivered 19% of all aid carrying over 32,413 metric tons of life-saving food supplies. Since the beginning of the year, planned humanitarian aid missions to deliver food to the north of Wadi Gaza, facilitated by the Israeli authorities, have either been partially facilitated, impeded completely, denied, or postponed due to internal operational constraints. The last time UNRWA was able to carry out a food distribution in the north of Wadi Gaza was on January 23. As of February 21, WFP has halted all deliveries of food aid to Northern Gaza, following several incidents where convoys were unable to deliver aid due to the breakdown in civil order, looting of trucks, and the beating of a WFP truck driver.⁴⁸

Without the ability to produce or import food, the entire population of Gaza relies on aid to survive. However, humanitarian aid alone cannot meet the essential needs of the Gaza people and aid will not be enough to reverse the worsening hunger among the population. “Famine will make an already terrible situation catastrophic because sick people are more likely to succumb to starvation and starving people are more vulnerable to disease”, said the WHO director general. There is an urgent need to lift the barriers and restrictions on aid delivery to and within Gaza, and for commercial traffic to resume, which cannot be done without a permanent ceasefire. In addition, commercial supplies are a must to allow the markets and private sector to re-open and provide an alternative to food accessibility.

In summary, the long-term implications of food insecurity resulting from the war in Gaza are far-reaching, affecting physical and mental health, inter-generational well-being, social and economic stability, and the overall humanitarian situation in the region. Prolonged starvation and famine can lead to severe malnutrition, weakened immune systems, and increased susceptibility to infectious diseases. In addition, chronic malnutrition can result in stunted growth, developmental delays, and long-term health complications, particularly among children, impacting the overall well-being and productivity of individuals. Children, in particular, will be extremely vulnerable to the long-term psychological consequences of food insecurity, which can also affect their cognitive development, and increase the risk of chronic diseases later in life. Malnutrition during pregnancy can lead to adverse birth outcomes, such as low birth weight and developmental disabilities, which may have lifelong implications for affected children.

⁴⁸ BBC. Israel-Gaza war: World Food Programme stops deliveries to northern Gaza. 21 February 2024. <https://www.bbc.com/news/world-middle-east-68349031>

Furthermore, the impact of the current war will also extend beyond the current generation, impacting the health and well-being of the entire population, even of future generations. The catastrophic situation can exacerbate existing social and economic disparities, leading to increased poverty, unemployment, and social unrest. Families may be forced to prioritize food expenditure over other essential needs, such as healthcare and education, further perpetuating cycles of poverty and inequality. Additionally, the breakdown of social support networks and community cohesion can undermine resilience and hinder efforts to address food insecurity in the long term. Addressing food insecurity requires not only short-term interventions to provide emergency food aid but also sustainable strategies to address the underlying causes of food insecurity, such as war, poverty, and inequality.

Mental Health and Psychosocial Well-being

An escalating mental health crisis in the enclave is vastly overshadowed by the scale of death and destruction caused by more than four months of bombardment. Experts believe psychological damage may prove one of the war's most lasting legacies. Palestinians have long reported trauma from living in the occupied Palestinian territories. However, the ongoing war which has killed over 30,000, has been called a "grim milestone", as experts warn that the war-related trauma endured by Palestinians presents new and acute challenges that traditional mental health frameworks are not equipped to handle.⁴⁹

Palestinians have long undergone an acute mental health crisis due to the 76 years of occupation and the continuous violence. The Gazan population has been facing decades of exposure to conflict and war, restrictions in movement, poor living conditions, food insecurity, and lack of access to adequate healthcare services. A study conducted by the World Bank in November 2022 found that more than half of the adult Palestinian population screened positive for depression, including 71% of Palestinians in the Gaza Strip. A smaller number showed signs of post-traumatic stress disorder (PTSD).⁴⁹

However, the impact of worsening mental health during the current war is more apparent among Palestinian children. Experts on the ground have seen a range of mental and behavioral health symptoms among children in Gaza, like "fear of darkness, general tension, flashback, nightmares, avoidance, difficulty sleeping and a recollection of their trauma." Every Palestinian child in Gaza has a story of exposure to unimaginable Israeli military violence, including killings, traumatic injuries, mass displacement, hunger, destruction of whole neighborhoods, and separation from family members which leaves lasting scars and trauma. The current mental health situation is so dire that children are reporting they would rather die than live through this war. For many children, the loss of family members has exacerbated the trauma by stripping away the support mechanism that would help them cope with the war. Over 17,000 children in Gaza are now unaccompanied meaning their parents have been killed or they have been separated. In 2022, medical NGOs

⁴⁹ Astha Rajvanshi, TIME. The Mental Health Toll of the War in Gaza. 27 February 2024.
<https://time.com/6835665/palestinian-mental-health-war-israel-hamas/>

shared that the number of child patients in Gaza without any surviving family members was so high that a new acronym, “WCNSF” (Wounded Child No Surviving Family), was coined to identify them. For years, experts have warned that the toll of the war and the blockade on children’s mental health is far too great. According to UNICEF, every child in Gaza (approximately one million) will require mental health and psychosocial support.

Before the war, more than 500,000 children required mental health and psychosocial support in the Gaza Strip, according to UNICEF. It is estimated that the number has risen to more than a million. According to UNICEF, one in three children in Gaza needed treatment and support for conflict-related trauma in 2021. According to Save the Children, a study conducted in 2022, found that among 500 children, 80% showed signs of emotional distress. About half of them reported having contemplated suicide, and three out of five kids were self-harming. Four in five children reported they were living with depression, grief, and fear.⁵⁰

The ongoing war in Gaza is exacting a devastating toll on the mental and psychosocial health of children in Gaza. Constant exposure to violence, loss of loved ones, and the destruction of homes and infrastructure creates an environment of profound fear, anxiety, and trauma. Children are experiencing heightened levels of stress, depression, and PTSD, which can have long-lasting effects on their development and well-being. The lack of access to essential mental health services exacerbates these challenges, leaving many children without the support they desperately need. Additionally, the disruption of education and social networks further isolates children, depriving them of vital sources of stability and resilience. Without immediate intervention and sustained support, the impact of this war on the mental and psychosocial health of Gaza’s children will continue to deepen, with far-reaching consequences for their future.

For the elderly, the trauma of witnessing repeated cycles of violence, coupled with the loss of family members and friends, exacerbates feelings of helplessness and despair. Many elderly individuals also face increased challenges in accessing essential healthcare services and support networks due to the destruction of infrastructure and limited mobility. Similarly, people with disabilities confront additional barriers to physical safety and access to necessary resources, compounding their feelings of vulnerability and isolation. The ongoing stress and uncertainty of war further exacerbate existing mental health conditions, leading to heightened levels of anxiety, depression, and PTSD among these vulnerable populations.

Pregnant women and mothers living in Gaza in these indescribable conditions are currently experiencing multiple losses, and deteriorating living conditions, including increasing poverty, displacement, in most cases several times, terror, harassment, high stress on managing everyday life with insufficient resources, and a sense of hopelessness. The ongoing exposure to the horrors of this war has exacerbated the mental health needs of women, as they navigate anxiety, severe depression, and other forms of mental illness.⁵¹ For pregnant women, the situation is doubled as

⁵⁰ Save the Children. AFTER 15 YEARS OF BLOCKADE, FOUR OUT OF FIVE CHILDREN IN GAZA SAY THEY ARE LIVING WITH DEPRESSION, GRIEF AND FEAR. 15 June 2022. <https://www.savethechildren.net/news/after-15-years-blockade-four-out-five-children-gaza-say-they-are-living-depression-grief-and>

⁵¹ OCHA, Gaza: “Profoundly Alarming” Mental Health and Medical Needs, January 2024.

war trauma is also associated with increased obstetric complications in pregnancy, including miscarriage.⁵²

Vaccines and Immunization

Before October 7, immunizations stood as one of the relatively strong points of the health sector in Palestine. Over recent years, significant efforts had been made to improve immunization rates of children in Palestine, with coverage rates reaching nearly 100% in the Gaza Strip. There were disparities in these rates, specifically against tuberculosis and measles, in the West Bank and Gaza Strip, with the latter having substantially higher rates. A factor contributing to the success of immunizations in Gaza was the accessibility of vaccines through UN agencies. Children who went to UNRWA schools or were registered refugees were granted greater access to vaccines, compared to children in the West Bank.

However, the immunization program in the Gaza Strip, while relatively advanced despite the failing health system, was still limited in access and coverage due to the region's instability, ongoing escalations, blockade on resources, socioeconomic decline, and disruptions in the supply chain. The program faced challenges in reaching remote and densely populated areas, not to mention the constant challenges and interruptions in the healthcare system and Israel's control over vaccines going into Gaza, which limited adequate vaccination coverage in the region.⁵³ In late 2019, for example, a measles outbreak was reported in Gaza, in which almost half of cases were of unvaccinated people. This underscored the consequences of disruptions in the vaccine program and highlighted the cumulative effects of the conflict since 2006.⁵⁴

The vaccination situation in Gaza is more dire now than ever. The ongoing war resulted in the suspension of vaccine administration in certain areas in the Gaza Strip, affecting tens of thousands of vulnerable children with compromised immunities. According to UNICEF, nearly 17,000 children missed their routine vaccinations in the first three months of the war, increasing the risk of disease outbreaks and preventable deaths.⁵⁵

While efforts to secure vaccines began following the third month of the war, with support from international partners and the Palestinian Ministry of Health, the risk of disease outbreaks remains extremely high given the dire health situation. Even if sufficient vaccines are obtained in the short run, challenges persist in maintaining the supply chain and reaching displaced children. The damage to cold chains and transportation infrastructure, the destruction of health facilities, and the displacement and evacuation of medical personnel all pose logistical challenges for the

⁵² Punamäki et al, Maternal pre- and postnatal mental health and infant development in war conditions: The Gaza Infant Study, Psychology Trauma, 2018.

⁵³ PCBS, Palestinian Children—Issues and Statistics Annual Report, 2006. <https://www.pcbs.gov.ps/Downloads/book1256.pdf>

⁵⁴ Yara Asi, Gaza's next tragedy: Disease risk spreads amid overcrowded shelters, dirty water and breakdown of basic sanitation. 21 November 2023. <https://theconversation.com/gazas-next-tragedy-disease-risk-spreads-amid-overcrowded-shelters-dirty-water-and-breakdown-of-basic-sanitation-217516>

⁵⁵ UNICEF, Delivering life-saving vaccines to every child in the Gaza Strip. 31 December 2023. <https://www.unicef.org/sop/stories/delivering-life-saving-vaccines-every-child-gaza-strip>

delivery and storage of vaccines. Given the extent of the infrastructure damage, these challenges are likely to persist for a long period, further exacerbating the difficulties in providing essential vaccination services.

Vaccination timeliness is essential for the immunity of children and the overall health and well-being of society. In conflict and war-torn areas, when vaccination timelines are disrupted and dropout rates surge, the effects can be detrimental in the long run. Nearly two decades after the end of the Bosnia-Herzegovina war, an outbreak of measles was detected in the region in which almost all cases were unvaccinated, and nearly half were connected to the failure of vaccinations during the war.⁵⁶ If vaccinations are reestablished for Gaza's children in the near future, the current period in which they are not vaccinated leaves them vulnerable and susceptible to contracting common and lethal, but otherwise preventable, diseases. This absence of herd immunity is more than likely going to result in a surge of outbreaks and epidemics which neither the overburdened healthcare system nor the starving and deprived population will be able to handle, especially considering the current situation in Gaza, where more than a million people are now densely populated in the South. Additionally, vaccine-preventable diseases may also cause serious health complications and neurological and intellectual disabilities, resulting in long-term health consequences due to missed vaccinations, which would further add strain on the healthcare system.

Water, Sanitation, and Hygiene

The Gaza Strip has long suffered a water and sanitation crisis. For years now, the Gazan population has faced chronic scarcity of water and limitations in accessing clean water and sanitation services. Israel has had strict control over Gaza's water supply and sewage systems, limiting the population's ability to access some of the basic necessities of human life. That, coupled with years of conflict, blockade, climate change, and pollution has resulted in poor water infrastructure, frequent shortages, contamination, and inadequate sanitation facilities.

In 2022, UNICEF estimated that less than 10% of Gaza's two million population had direct access to clean and safe drinking water. Leading up to the war, more than one million people in Gaza lacked adequate water and sanitation services, and nearly 97% of the water from Gaza's main aquifer and only natural water source was unfit for human consumption as a result of contamination and is on track to becoming irreversibly damaged. This has been shown to particularly affect the health of children and pregnant women and has been a cause of disease and death among the population – around 26% of Gaza's illnesses were due to dirty water before

⁵⁶ Obradovic et al. The Impact of War on Vaccine Preventable Diseases. 14 December 2014.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314173/>

the war. With tons of raw sewage discharging from Gaza directly into the sea every year, the region has also faced a sewage crisis that brings about risks of waterborne diseases.^{57,58}

Israel's aerial attacks and ground military operations continue to destroy the sewage and water infrastructure in Gaza, including wells, desalination plants, and pipelines, exacerbating the water crisis in the region, and the water networks left standing lack the fuel needed to operate. This has resulted in the accumulation of more than 50,000 tons of solid waste, and so much more in wastewater, on the streets and in shelters, posing a serious public health risk.

A few hundred cubic meters of clean water are currently accessible to the entire population of Gaza daily, but it is not enough to allow civilians to hydrate and keep clean. The war has impeded efforts to restore the water and sanitation networks and has forced challenges upon humanitarian operations. Some aid trucks carrying water bottles have been allowed into Gaza, but they have only met the needs of less than 3% of the population and were restricted from reaching the North. People have resorted to consuming contaminated water extracted from agricultural wells and even the sea to combat their thirst, increasing the risk of disease outbreaks such as cholera. It is expected that many people will die in the next few months due to communicable and infectious diseases due to water scarcity.⁵⁴

Besides the obvious problem of thirst and malnutrition, lacking clean water – or any water for that matter – has created an even bigger hygiene and sanitation crisis during the war. The displacement of more than a million people and the disruption of virtually every service in Gaza, particularly water, have worsened sanitation conditions and raised risks of waterborne diseases and environmental pollution. People have had to walk and queue in line for bathrooms for hours and resort to showering or getting cleaned in the polluted sea.⁵⁹ Shelters hosting thousands of displaced people only have a few functioning bathrooms, which people can only access for a few minutes a day.⁶⁰ This has particularly caused suffering for pregnant women, the sick, and the elderly. Thousands of people, particularly children, have been contracting diarrhea and other illnesses from either drinking or washing in contaminated water, including urinary tract and vaginal infections among the female population.^{61,62} Unfortunately, the lack of medicines means these cases are left untreated, which may become seriously life-threatening, especially for vulnerable children.

For a crisis that was already deteriorating before the war, the water and sanitation situation in Gaza has little hope for a better future. At the rate of the rising water and sanitation challenges and the growth of socioeconomic inequalities, Gaza's water crisis was already on track to

⁵⁷ Anera, Before the Taps Run Dry: Responding to Gaza's Existential Water Crisis. 2022. <https://www.anera.org/wp-content/uploads/2022/07/Anera-Report-Water-Gaza-Palestine-spreads.pdf>

⁵⁸ Anera, Gaza's Water Crisis Puts Thousands at Risk of Preventable Death. 8 November 2023. <https://www.anera.org/blog/gazas-water-crisis-puts-thousands-at-risk-of-preventable-death/>

⁵⁹ Linah Alsaafin and Ashraf Amra, With no fresh water left, displaced Gaza families wash in polluted sea. 8 November 2023. <https://www.aljazeera.com/news/2023/11/8/no-running-water-war-displaced-gaza-families-bathe-wash-in-polluted-sea>

⁶⁰ Nidal Al-Mughrabi, Living conditions in Gaza turning grim under Israeli siege. 2 November 2023. <https://www.reuters.com/world/middle-east/living-conditions-gaza-turning-grim-under-israeli-siege-2023-11-02/>

⁶¹ Thaer Abu Aoun, The basics of Occupation: Bathroom access in Gaza. 28 January 2024. <https://www.madamasr.com/en/2024/01/28/feature/politics/the-basics-of-occupation-bathroom-access-in-gaza/>

⁶² Miriam Berger and Hajar Harb, Gaza, smashed by Israeli strikes, sees new threat: Disease. 17 December 2023. <https://www.washingtonpost.com/world/2023/12/17/gaza-disease/>

becoming irreversible even before the war. When and if water infrastructure is restored in the future, which is no easy feat, the accumulation of waste and environmental pollution would have already resulted in astronomical damage in the region, starting with agriculture and ending with the population's health. Significant changes need to be made not only to rebuild the infrastructure but to restructure it as a whole, putting an end to the 16 years of damage and blockade on the resources and allowing more sustainable and independent water management. In the meantime, the Gaza Strip is likely going to face a worsening water and sanitation crisis, which will inevitably have implications for the region's health.

Women's Health

Women's health and livelihoods are specifically more at risk in times of conflict. Besides suffering from gender-based violence, abuse, and psychological trauma, women in the Gaza Strip had developed illnesses and substandard health due to limited access to reproductive, maternal, and general health services, and longstanding gender disparities and social and cultural norms that predisposed them to poverty and hindered their ability to seek resources. Most women in Gaza were poor, unemployed, and in constant worry over their families before October 7. The fertility rate among Palestinian – including Gazan – women had been decreasing,⁶³ and there was an increase in the incidence of breast cancer cases, the most common cancer among Palestinian women.⁶⁴

Unfortunately, Gaza's healthcare system originally struggled to meet the needs of its women. Before the war, there were only two women's centers in Gaza⁶⁵ to serve a population of 1.1 million females.⁶⁶ Breast cancer outcomes and survival rates were hindered by the low availability of breast cancer diagnostic and screening services (mammography), long waiting times, and lack of specialized surgeons and radiotherapy.

Micronutrient deficiencies and malnutrition were particularly prevalent among Gazan women due to poor diets and food insecurity. Over half of pregnant women in Gaza suffered from anemia, which contributed to increased morbidity and mortality among this population.⁶⁷ Women in Gaza were also denied their sexual and reproductive health rights. The region's many periods of conflict led to cumulative limitations in essential services such as family planning and sexual and

⁶³ Statista Research Department, Gaza: fertility rate 2050. 21 November 2023. <https://www.statista.com/statistics/1423019/gaza-fertility-rate/#:~:text=According%20to%20estimates%20for%202023,has%20decreased%20by%20almost%20half>

⁶⁴ Shaymaa AlWaheidi, Breast cancer in Gaza—a public health priority in search of reliable data. 1 October 2019. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6834385/>

⁶⁵ United Nations, 'Scared, exhausted, and expecting the worst' – Women in Gaza describe humanitarian crisis – UN Women – Feature Article. 19 January 2024. <https://www.un.org/unispal/document/scared-exhausted-and-expecting-the-worst-women-in-gaza-describe-humanitarian-crisis-un-women-feature-article/>

⁶⁶ PCBS, Palestinian Central Bureau of Statistics (PCBS) Presents the Conditions of the Palestinian Population on the Occasion of the World Population Day, 11/07/2023. 11 July 2023. <https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4544>

⁶⁷ Care, Gaza Strip Rapid Gender Analysis: Brief. 22 October 2023. https://www.careevaluations.org/wp-content/uploads/Gaza_RGA_22.10.2023_Final.pdf

reproductive health. In 2020, about 1 in 8 women had an unmet need for family planning methods.⁶⁸

While the war has had detrimental effects on the health of the general population, its impact on reproductive health and women's health in general has been disproportionately significant. Besides making up a big portion of casualties, with two mothers being killed every hour,⁶⁹ women in Gaza now have to face displacement, hunger, injury, lack of safety and privacy, and psychological trauma, all while dealing with the struggles of being a woman and a caregiver. A newly released report by the Palestinian Medical Relief Society shows that around 60% of women and girls have experienced irregularities and disruptions in their menstrual cycles since the beginning of the war, most likely due to stress and anxiety, which can have various health implications⁷⁰. Menstruating women are particularly suffering from humiliating conditions due to a lack of sanitary products and clean water. Many women – as high as 85%⁷⁰ – cannot shower during or after their menstrual cycles and have resorted to using unsafe alternatives to pads/period products including tent cloths and other materials, which they have to continuously wash with unclean water.⁷¹ Other women have started using contraceptives and period-delaying pills as a last resort, which may have harmful side effects.⁷² Around 60% of the women in the report mentioned above stated that safe access to facilities providing menstruation services is 'impossible'.⁷⁰ This has led to higher risks of urinary tract and vaginal infections as mentioned before, with the scarcity of medications in Gaza further compounding risks associated with these infections, and has added more pain and suffering on the women of Gaza.

Women in Gaza are also suffering from compromised reproductive health, including access to family planning and reproductive health services. For example, many women in Gaza relied on in-vitro fertilization. Unfortunately, Gaza's infertility clinics were destroyed, including approximately 2,000 frozen embryos stored in liquid nitrogen tanks,⁷³ and IVF services were halted as a result, depriving many Gazan women of the opportunity to fulfill their aspirations of motherhood.

The situation has also limited any support services, including those for survivors of abuse, and has likely resulted in a higher incidence of gender-based violence. Women in Gaza are now more susceptible to any and all forms of violence including forced marriage and sexual harassment. Additionally, UN Women estimates that there are about 900 new female-led households in Gaza, amounting to at least 3,000 women and widows. These women face security risks in searching for and acquiring food and other resources to support their families. Amidst constant worry for

⁶⁸ PCBS, Press Release On the Occasion of the World Health Day, 07/04/2023.

<https://pcbs.gov.ps/post.aspx?lang=en&ItemID=4487#:~:text=Despite%20the%20increase%20in%20the,compared%20to%2012%25%2C%20respectively>

⁶⁹ United Nations, Two mothers killed each hour in Gaza conflict: UN Women. 19 January 2024.

<https://news.un.org/en/story/2024/01/1145707>

⁷⁰ PMRS, Assessment and analysis of the prevailing circumstances and healthcare requirements of menstrual hygiene amid the aggression on Gaza. November - December 2023.

⁷¹ ActionAid, Women in Gaza resort to using scraps of tent in place of period products and go weeks without showering amid dire humanitarian conditions. 18 January 2024. <https://actionaid.org/news/2024/women-gaza-resort-using-scraps-tent-place-period-products-and-go-weeks-without-showering>

⁷² Linah Alsaafin and Ashraf Amra, No privacy, no water: Gaza women use period-delaying pills amid Israel war. 31 October 2023.

<https://www.aljazeera.com/news/2023/10/31/no-privacy-no-water-gaza-women-use-period-delaying-pills-amid-war>

⁷³ Ruba Tabari, 18 February 2024. <https://www.instagram.com/reel/C3e1d5EgBtu/?igsh=N202MjAxZWwzanlz>

their health and safety and the loss of social connections, women in Gaza are now experiencing heightened levels of stress and mental health issues.

In light of the destruction of primary health clinics, women's centers, and education facilities, the war on Gaza will likely set back women's rights and advocacy for gender equality. Over the years, efforts have gone into combating gender-based violence and empowering women through awareness and education. The women of Gaza will likely live through the socioeconomic and health effects of the war for the years to come, especially considering the efforts it will take to rebuild the health system.

In Gaza, being a woman is a matter of life or death. Gaza's women and girls cannot go unnoticed; their multifaceted struggles highlight the urgent need for their support against illnesses, mental health issues, gender-based violence, and sexual abuse. Without efforts to prioritize their health, the deteriorating living conditions and psychological trauma from the war will take a great toll on their physical and mental well-being, affecting their quality of life in the long run, which can have significant implications on communities in terms of development and reproductive well-being.

Vulnerable Populations - The Elderly and Disabled

In any case of conflict and war, it is the most vulnerable populations that are affected and harmed the most. Older persons and people with disabilities are often overlooked in conflicts/wars, and this disparity has presented itself in the Gaza Strip for more than a decade. For these individuals in Gaza, their quality of life and health conditions had been substandard due to an inadequate healthcare system, limited resources, disparities in healthcare access and outcomes, economic instability, and psychological turmoil.

In mid-2023, the number of older individuals in the Gaza Strip aged 60 and above was more than 107,000 persons, which constituted 5% of the region's population. According to various studies, about 97% of these individuals had at least one health condition, 69% suffered from chronic diseases, 86% had at least one disability, and 80% reported that they used or required medicine or medical items.^{74,75} In a large study conducted by Juzoor in early 2023, it was found that over 20% of the studied population - older persons from the West Bank and Gaza - could not access healthcare services due to physical restrictions. Half of the participants stated it was a little or very difficult for them to pay for healthcare in the last 6 months, while around 15% stated they had no access to the medication they needed. In short, this population faced challenges with access and affordability of healthcare services.

⁷⁴ PCBS, The International Day Of Older Persons 01/10/2022. 1 October 2022.

<https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4597>

⁷⁵ HelpAge, Older people: the hidden casualties of the Israel-Gaza conflict. 25 October 2023. <https://www.helpage.org/news/older-people-the-hidden-casualties-of-the-israel-gaza-conflict/>

Before October 7, there were somewhere between fifty to a hundred thousand people with disabilities in the Gaza Strip.⁷⁶ These individuals faced barriers in accessibility, including specialized medical equipment and care, assistive devices, and rehabilitation and psychological services necessary for addressing their specific needs. For those who had been displaced and had lost their homes and belongings in previous wars, their disabilities became an additional burden, exacerbating the already challenging circumstances in Gaza. These individuals and their families struggled to cope with the physical, emotional, and financial strains imposed by their disabilities. According to Euro-Med Monitor, these people also lacked adequate support and resources and were subjected to numerous grave violations that affected different aspects of their rights, which marginalized them and hindered their ability to lead independent and fulfilling lives.⁷⁷

Since October 7, there have been disproportionate impacts on vulnerable groups in the Gaza Strip, especially the elderly and people with disabilities who have been directly targeted by Israeli forces. Thousands of older persons have been killed and thousands more are missing, wounded, or displaced as a result of Israel's attacks. It has become increasingly challenging for older persons to access necessary treatments and essential medications for their chronic conditions or even seek shelter somewhere safe, and many had to abandon their belongings, including their assistive devices when fleeing their homes. The worsening living conditions in Gaza are expected to have severe repercussions on the overall health and well-being of older individuals, exacerbating their vulnerabilities and increasing the risk of death due to a lack of basic needs.

The war has intensified the suffering of people with disabilities, preventing access to medical care and essential services. Additionally, more than 5,000 people have become disabled since the start of the war.⁷⁷ The UN estimates that the current number of people with disabilities among Gaza's displaced population is as high as 200,000 now, with every single one of these individuals particularly prone to injury.⁷⁸ Schools and other places designated as shelters are now overcrowded beyond their capacities and cannot accommodate the needs of the disabled population, both physically and psychologically. Many of these individuals have lost their support systems and livelihoods, and most have had to navigate life with a disability while also trying to survive bombings, displacement, and lack of resources.

The disruption of healthcare services, shortages of medical supplies, and damage to healthcare facilities have hindered access to essential care for both the elderly and disabled and the effects of war have created a form of collective trauma among these populations. Usually, great efforts go into disseminating these populations in society, ensuring their safety and inclusion while also providing them with necessary care and support throughout their journey. For people with disabilities, their journey is constantly shifting and requires a solid support system. While attention goes towards providing immediate health services and managing critical conditions in Gaza, these

⁷⁶ PCBS, Press release on the occasion of the International Day of Persons with Disabilities, 03/12/2023. 3 December 2023. <https://www.pcbs.gov.ps/post.aspx?lang=en&ItemID=4648#:~:text=The%20number%20of%20persons%20with,Strip%2C%20constituting%202.6%25%20of%20Gaza>

⁷⁷ Euro-Med Monitor, New catastrophic plight in Gaza: Israel's attacks leave more than 5,000 Palestinians disabled. 7 December 2023. <https://euromedmonitor.org/en/article/6013/New-catastrophic-plight-in-Gaza:-Israel%E2%80%99s-attacks-leave-more-than-5,000-Palestinians-disabled>

⁷⁸ Handicap International, Gaza Crisis | Catastrophic impacts on persons with disabilities. 3 November 2023. <https://www.hi-us.org/en/gaza-crisis-catastrophic-impacts-on-persons-with-disabilities>

populations will likely be neglected and overlooked, which will hinder the healing and recovery journey for some and will potentially set back their health outcomes.

As Gaza's population tips towards aging and rising rates of disability, especially in the aftermath of the war, the healthcare and rehabilitation systems will face greater demands and the demographic shift will likely result in significant changes in societal dynamics, including family structures, economic conditions, and notably, the job market. Addressing these changes and the evolving healthcare needs will require a restructuring of the health system to include more community-based care and a strengthened health infrastructure for the future.

Adolescent Well-being

Almost half of the people living in Gaza are under 18, making it one of the youngest populations in the world. Being a child or teenager in the Gaza Strip has always been extremely difficult, even before the current war. In Gaza, memories of violence are vivid even if you are a child or teenager. The aggression and hostilities in Gaza are common enough that a 13-year-old has lived through four major wars in the besieged enclave. The humanitarian crisis in Gaza has unleashed a devastating array of challenges for adolescents, profoundly impacting their lives in myriad ways. The continuous bombardment and forced displacement have subjected them to constant fear and instability, disrupting their sense of security and well-being. The current crisis has heightened risks and exacerbated the vulnerabilities of adolescents in Palestine, resulting in high rates of anxiety, depression, and PTSD. These often result in negative coping mechanisms including risky behaviors including violence and suicide. Tragically, many adolescents have been injured or lost family members in the violence, compounding their trauma and grief. Furthermore, disruptions to education due to school closures and the destruction of infrastructure impede adolescents' access to learning opportunities, jeopardizing their prospects. Additionally, challenges in accessing clean water and sanitation facilities exacerbate menstrual hygiene issues for adolescent girls, increasing the risk of infection and discomfort. The cumulative toll of these hardships on the physical, emotional, and mental health of adolescents in Gaza is staggering, underscoring the urgent need for humanitarian assistance and protection to safeguard their well-being and future prospects.

Amputees

Amputations have become one of the most prominent faces of the Gaza Strip. With every escalation in the region, it has become inevitable for a big portion of Gaza's population to lose limbs, serving as both a reminder of the many struggles the region has endured, and as a symbol of the people's strength and resilience.

Back in 2021, there were at least 1,765 amputees in Gaza.⁷⁹ Many had sustained their injuries during the 2012, 2014, and 2018 wars, and others were shot in the limbs during the Great March of Return that took place between 2018 and 2019, which contributed to a high demand for specialized and amputation-related care in Gaza. Unfortunately, besides their direct injury, these amputees faced further risks due to the lack of specialized care. Gaza's hospitals and health facilities were not equipped to meet the needs of a large number of cases requiring amputations, and the lack of medical supplies, equipment, and personnel, including vascular and plastic surgeons, limited the system's capacity to provide rehabilitative services, prosthetics, and long-term physical and psychological support for this population.⁸⁰ The Artificial Limbs and Polio Centre was the only center in Gaza that offered prosthetic, orthotic, and physiotherapy services to amputees, which worked along with the Hamid Rehabilitation Hospital and the Palestine Children's Relief Fund's Gaza Amputee Project that provided care for child amputees.⁸¹

This current war on Gaza has been what many would call a war on children. More than 1,000 children as young as toddlers have had at least one limb amputated in the first two months of the war alone - an unprecedented rate of 10 children losing limbs every day - and with many of these cases being unnecessary if it weren't for the collapse of the health system.^{82,83} Many people have had to wait days to be taken to a hospital following an injury, had to undergo their amputations without anesthesia or appropriate surgical equipment, often in homes or shelters, and did not receive follow-up care with antiseptics, painkillers, or even clean water, leaving them at risk of decomposition, blood or bone infections, sepsis, or even infestation by maggots.⁸⁰ With no hope of a reconstructed healthcare system in near sight, amputees will not receive the health services they need, including the multiple surgeries required for children as their bones continue to grow.

The biggest challenge these amputees, particularly children, will face, apart from the immediate health risks, will be to cope with the physical and psychological traumas of their injury. Any type of injury is taxing on both a person's mental and physical health, and the recovery process requires a support system and a strong mindset. However, losing a limb imposes a specific kind of trauma. Emotionally and psychologically, it can lead to decreased self-esteem, especially due to social stigma, increased dependency, and social isolation. Child amputees who are still in the process of growing may encounter challenges in mobility and motor skills development. These factors can all influence a person, particularly a child's, development and general quality of life. That, with long-term pain and discomfort, can also lead to more serious psychological disorders such as depression. The cost of care for amputees can also impose financial burdens on families and the healthcare system. For an adult male in Gaza, an amputation could lead to lost

⁷⁹ Rosie Scammell and Nagham Mohanna, How Gaza amputees adjust after suffering wounds of war. 10 November 2021. <https://www.thenationalnews.com/mena/2021/11/10/how-gaza-amputees-adjust-after-suffering-wounds-of-war/>

⁸⁰ Arafat Barbakh, Maggie Fick and Emma Farge, Gaza's child amputees face further risks without expert care. 4 January 2024. <https://www.reuters.com/world/middle-east/gazas-child-amputees-face-further-risks-without-expert-care-2024-01-04/>

⁸¹ PCRF, The Amputee Crisis in Gaza. <https://www.pcrf.net/information-you-should-know/the-amputee-crisis-in-gaza.html>

⁸² Jessie Yeung, Radina Gigova and Mohammed Tawfeeq, More than 10 children losing legs in Gaza every day as dire health crisis grows, aid groups say. January 2024. <https://edition.cnn.com/2024/01/08/middleeast/gaza-children-losing-legs-disease-intl-hnk/index.html>

⁸³ Maram Humaid, The toddler amputees of Israel's war on Gaza – Hoor Nusseir. 14 February 2024. <https://www.aljazeera.com/features/2024/2/14/the-toddler-amputees-of-israels-war-on-gaza-hoor-nusseir>

productivity and loss of income and financial status for the household, driving poverty and child labor in the region.

In short, amputations can have wide-ranging, serious consequences for victims and their families and communities as a whole.⁸⁴ Long-term amputee care requires a comprehensive approach that involves adequate healthcare and economic and social support, which would require substantial investments in Gaza's healthcare infrastructure. Unfortunately for child amputees who have lost family members or have even become orphans during this war, no amount of investment in health and social care can fill the void left by the loss of their families or support them adequately in their healing journeys, even in the long term. These children will forever bear lasting psychological injuries while navigating the challenges of their condition all on their own.

Emergency Response and Information Surveillance

A robust emergency response and information surveillance system are vital components of a strong and successful healthcare infrastructure, particularly in times of crisis. Proper information gathering and surveillance can influence decision-making processes and form efficient response and risk-mitigation strategies, particularly for the containment of diseases.

Unfortunately, Gaza's health sector has never managed to establish such systems adequately. The strained infrastructure, insufficient resources, and the region's electricity and telecommunications crises provided little means for data collection and coordinated health responses and restricted the availability of accurate health information over time. Because the system was in a constant state of emergency, there were constant disruptions in efforts to establish emergency preparedness and response mechanisms,⁸⁵ so there was never a proper response strategy put in place.⁸⁶

But what could have been an ineffective health system in Gaza is now practically nonexistent as a result of the war. With the system on the brink of collapse, an electricity and telecommunications blackout, and overwhelmed health personnel, the system's emergency response, including its ability to detect disease outbreaks, respond to mass casualty incidents and public health threats, and record health outcomes has been disrupted and hindered to a minimum.

The Ministry of Health in Gaza is struggling to account for even the total number of casualties due to logistical challenges, loss of communication, and shortages of healthcare personnel.⁸⁷ Since the start of the war, every single hospital in Gaza has faced waves of injuries and casualties, with

⁸⁴ Heszlein-Lossius et al., Life after conflict-related amputation trauma: a clinical study from the Gaza Strip. 31 August 2018.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6119320/>

⁸⁵ United Nations, Health situation in the Gaza Strip – WHO report. 20 January 2009. <https://www.un.org/unispal/document/auto-insert-202381/>

⁸⁶ Awad et al., Assessment of the surveillance system for adverse events following immunisation in the Gaza Strip: a cross-sectional study. July 2021. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01513-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01513-0/fulltext)

⁸⁷ Isabel Debre, Gaza health officials say they lost the ability to count dead as Israeli offensive intensifies. 21 November 2023. <https://apnews.com/article/palestinians-israel-health-ministry-gaza-hamas-fe30cbc76479fa437d5f5a0e96c36e52>

limited ability and capacity to manage and respond to the situation. The segregation of Gaza into military zones has further fragmented and disintegrated the healthcare system, with little to no communication, cooperation, or exchange of resources between different regions, especially the North and the South. Health facilities and systems are operating in isolation, making it impossible to deliver comprehensive healthcare to the population. First-response teams can only operate within limited regions and often face safety risks due to bombings and blocked roads.⁸⁸ Most of these teams and Gaza's medical personnel have been displaced to the South, further reducing the capacity of the system and creating a dire health situation in the North. Some attempts at health surveillance and monitoring are conducted by outside organizations like UNRWA but are extremely limited and insufficient.⁸⁹

The current emergency response in Gaza is not based on strategy but merely on survival. With such destruction to its facilities and the lack of resources, the system is being drained and will inevitably bleed out. Despite efforts by the international community to implement emergency response mechanisms, a comprehensive strategy can only be developed through the complete reconstruction of the health system and substantial investments in its health and surveillance systems, including infrastructure, technology, and capacity-building, to enable effective data collection and management. However, this can only occur once calm is restored in the region. Without a functioning healthcare system, an effective emergency response plan cannot be developed during an ongoing crisis. Thus, efforts should be directed towards stabilizing and rebuilding the healthcare system and restoring its functionality as a top priority, laying the foundation for future emergency preparedness and response efforts.

⁸⁸ Maram Humaid and Farah Najjar, Led by 'plumes of smoke': How Gaza's first responders navigate a blackout. 21 December 2023. <https://www.aljazeera.com/features/2023/12/21/led-by-plumes-of-smoke-how-gazas-first-responders-navigate-a-blackout>

⁸⁹ UNRWA, resilience amidst chaos: 100 days of unrwa's health response to the humanitarian crisis in the gaza strip. January 2024. https://www.unrwa.org/sites/default/files/content/resources/100dayshealthreport_eng_final.pdf